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Earth–Mars Trajectories, 1973

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CONTENTS

I. Introduction vii
A. Heliocentric Conic Computation vii
B. Planetocentric Conic Computation vii
C. Differential Corrections vii
D. Mid-Course Guidance vii
E. Orbit Determination viii
F. Accuracy of Computations viii

II. Analytical Model for Interplanetary Trajectories ix
A. Heliocentric Motion ix
B. Launch Planet Escape Hyperbola xi
C. Differential Corrections xiii
D. Mid-Course Execution Accuracy xv
E. Orbit Determination Accuracy xviii

III. Explanation of Trajectory Tables xxi
A. Heliocentric Conic Group xxi
B. Planetocentric Conic Group xxiii
C. Differential Corrections Group xxv
D. Mid-Course Execution Accuracy Group xxvi
E. Orbit Determination Accuracy Group xxvii

IV. Constants xxviii

References xxix

Earth–Mars Trajectories, 1973 xxx

TABLES

1. Trajectory parameters influencing tracking accuracy xix
2. Tracking station parameters influencing tracking accuracy xix

FIGURES

1. Heliocentric transfer geometry x
2. In-plane transfer geometry x
3. Determination of the hyperbolic-excess velocity vector V_{hL} xi
4. Vehicle flight plane xii
5. Impact parameter B xiii
6. The R, S, T target coordinate system xiii
7. The mapping of mid-course execution error xvi
8. Projection of three-dimensional error ellipsoid on the T-R plane . . xviii
9. Orientation of the X_i Cartesian coordinate system to describe uncertainties in the hyperbolic-excess velocity vector V_{hL} xviii
10. Generalized geometry for aiming point angles xxiii
11. Vertical impact point geometry xxiii
12. Ascent trajectory profile xxiv

FOREWORD

This volume is one of a set of seven giving key characteristics of Earth-to-Mars ballistic trajectories during the period 1964–1977, which period is divided into seven launch intervals (one interval per volume), spaced about 25 months apart. Within each interval, trajectories are calculated for each launch date and further subdivided into flight time ranges graduated in 2-day increments. Launch dates and approximate flight times for this volume are as follows (only trajectories requiring *vis viva* geocentric energies of less than 40 km/sec are included).

Launch date (1973)	Flight time range (days)
May 7–September 20	90–320

The applicability of these books may be extended by noting the 15-year cyclic recurrence of Earth–Mars trajectories. Thus trajectories in 1979 approximate 1964 trajectories; 1982 trajectories approximate 1967 trajectories, etc. Simply by updating the trajectories by 15 years, the results may be reapplied.

It is intended that these books provide trajectory and guidance analysts with data, in volume, so that preliminary design studies, investigations of the properties of ballistic interplanetary trajectories, and interplanetary guidance and orbit determination analyses may be performed. While not exact, these trajectories are sufficiently accurate to be quite useful for the above purposes.

In generating such a large amount of data, it is impossible to check the correctness of each number. Should the reader detect any errors, the authors would appreciate being advised.

Companion volumes (Ref. 1) give the characteristics of Earth–Venus trajectories during the period 1964–1970.

This volume would be incomplete without an expression of gratitude to V. C. Clarke, Jr., W. E. Bollman, T. W. Hamilton, and C. G. Pfeiffer, who laid the foundation upon which this document is based.

I. INTRODUCTION

This report presents the results of extensive machine computations of three-dimensional ballistic interplanetary trajectories. The analytic model used to represent these trajectories is based upon two-body, inverse-square, force field mechanics. A brief explanation of the model is presented in Section II.

Basically, the trajectories are calculated in two distinct parts: (1) the heliocentric transfer ellipse and (2) the launch-planet-centered escape trajectories. Following these trajectories, differential corrections or error coefficients and guidance and tracking parameters are given.

A. Heliocentric Conic Computation

The heliocentric trajectory is obtained by specifying the launch date and flight time only. Given these, the positions of the launch planet on the launch date and the target planet on the arrival date may be obtained by interrogating the ephemerides. By assuming the planets to be massless, a unique heliocentric trajectory may then be computed which passes through the centers of the launch and target planets. Though this assumption may at first seem gross, experience has proved it to be perfectly reasonable for this purpose. After the solution has been obtained by an iterative procedure, the orbital elements, heliocentric position, and velocity vectors at launch and arrival are computed. Other heliocentric quantities of engineering interest are also computed.

B. Planetocentric Conic Computation

After the heliocentric orbit is obtained, the launch and arrival hyperbolic-excess velocity vectors are computed by subtracting the velocity vectors of the launch and target planets from the heliocentric launch and arrival velocity vectors of the probe. The launch hyperbolic-excess vector is, in fact, the most important result of these computations because it yields the energy and direction of fire required to achieve interplanetary transfer.

Further computations are done to exhibit properties of the near-Earth portion of the trajectories. Given the launch hyperbolic-excess vector, a launch site (Cape Kennedy), a launch azimuth, and certain properties of a typical interplanetary boost vehicle, and assuming a 100-nm parking orbit, quantities such as launch time, injection position and velocity vectors, parking orbit coast time, and injection time are computed. In essence, then, approximate trajectories are obtained from the launch pad to the target. The terminal portions of the trajectories are assumed to impact vertically on the target planet.

C. Differential Corrections

To augment the trajectory parameters, differential corrections or error coefficients relating variations in the launch hyperbolic-excess velocity vector to variations in target miss and flight time are computed. Actually, the variables at launch in these coefficients are the square of the hyperbolic-excess speed, or *vis viva* energy C_3, and the declination and right ascension of a unit vector **S**, collinear with the outgoing asymptote of the escape hyperbola. The target variables are the components of the impact parameter **B**, defined below, and the flight time. These coefficients are obtained by a numerical differencing technique developed by William Kizner of JPL.

Based upon these error coefficients, guidance and tracking parameters are calculated as described below.

D. Mid-Course Guidance

Interplanetary guidance is currently being accomplished by determining the orbit of the probe from radio tracking data and then applying one or more impulsive velocity corrections to null the predicted target error. The guidance task closely parallels the trajectory problem, for it is convenient to define the following guidance "phases":

1. Planetocentric phase, in which, after the launch vehicle has placed the probe on its escape hyperbola, the orbital elements of this trajectory are determined and the hyperbolic-excess velocity is corrected to the desired value.
2. Heliocentric phase, in which additional velocity corrections may be made to correct any error in orbit determination and/or maneuver execution in phase 1.
3. Approach phase, in which the probe is in the sphere of influence of the planet and the final vernier corrections may be made to trim the results of phase 2.

The preflight analysis of phase-1 guidance is primarily concerned with the statistical problem of determining how much propellant to carry aboard the spacecraft in

order to correct a "three-sigma" injection guidance error. These studies are well-documented elsewhere (Ref. 2–4) and will not be discussed here. Suffice it to say that correcting the hyperbolic-excess velocity is a reasonably good approximation to nulling the miss components at the planet. Such an analysis need only be concerned with the planetocentric phase of flight.

The analysis of the heliocentric phase is more complicated, since maneuvers there depend upon errors in applying the first midcourse maneuver (phase 1). In order to understand the effect of phase 1 errors, or to specify a tolerance on them, it is convenient to ask how a unit error in hyperbolic-excess velocity maps to miss at the target. This unit velocity error can be thought of as due to uncertainties in phase-1 maneuver execution and orbit determination. Conceptually, this analysis can be accomplished by letting a unit velocity error trace out a sphere at the tip of the hyperbolic-excess velocity vector and observing the semimajor and semiminor axes of the miss ellipse at the target (only two miss components are normally of interest). Mathematically, this is done by simply forming a matrix of the differential corrections, multiplying this matrix by its own transpose, diagonalizing the resulting symmetric matrix, and observing that the two diagonal terms are the desired semimajor and semiminor axes of the unit error ellipse.[1] It is easy to show that if the coordinate system chosen to describe the target error is collinear with these axes, the rows of the resulting differential correction matrix (which are gradient vectors) are orthogonal, and their norms are the magnitudes of the error-ellipse axes.

The approach guidance phase is not conveniently treated with this kind of analysis, and is not discussed further.

E. Orbit Determination

A spacecraft boosted toward Mars or Venus by the current generation of launch vehicles requires the accuracy obtainable using Earth-based radio guidance in order to accomplish most planet-oriented experiments. The steps in radio guidance are:

1. Track the transponder signal from the spacecraft from several stations located at a spread of latitudes to determine the orbit of the spacecraft.
2. Calculate the velocity changes required to alter the orbit to pass through the desired region at the target. The maneuver is then applied with a small rocket motor; the pointing direction and burning time (of the velocity increment) are calculated to perfectly correct the orbit if both the estimate of the orbit and the application of the maneuver are without error.
3. Track the spacecraft after the first maneuver for a sufficient interval to form a new estimate of the perturbed orbit.

This process of tracking and maneuvering may be repeated several times to achieve high accuracies at the target. There is, however, a limit to the process imposed by our uncertainties in the actual location of the target planet as well as the unpredictable forces acting on the spacecraft.

For extremely high accuracy at the target planet, on-board measurements must be used in conjunction with the Earth-based tracking in order to further reduce the above-mentioned uncertainties. It is not the function of this report to discuss on-board measurement systems but rather to describe the capabilities of current Earth-based radio guidance techniques when applied to interplanetary trajectories.

An adequate description of the accuracy to which orbits may be determined and maneuvers executed for the case of several corrective maneuvers is beyond the scope of this report. The results presented here may be strictly interpreted as corresponding to the accuracy capabilities for a single mid-course maneuver occurring anywhere between 1 and 14 days after injection. The relative contribution to the target uncertainty caused by orbit determination errors and mid-course execution errors depends directly upon the size of the correction required on a particular flight. For this reason, then, the two error sources are considered separately. While our results do correspond to the single maneuver case, they are very valuable in providing a general description of the way in which these errors vary over the selected set of trajectories. Such utilization of the results is discussed later herein.

F. Accuracy of Computations

Extensive accuracy studies were performed to verify the adequacy of these trajectories for preliminary design use. Both Mars and Venus trajectories were computed on the JPL precision-integrating trajectory program using

[1] It should be apparent to readers familiar with statistical concepts that this is equivalent to mapping a three-dimensional gaussian distribution of velocity errors, with unit standard deviation along each axis, to a two-dimensional gaussian distribution of position errors at the target.

initial conditions obtained from the approximate trajectories contained herein. Of 56 Mars cases run, 29 missed the target by less than 500,000 km; 16 missed by between 500,000 and 1,000,000 km; and 5 missed by between 1,000,000 and 1,500,000 km. The worst case missed by 3,500,000 km. For the flight time errors, 16 varied between 1 and 2 days; 14 varied between 2 and 3 days; and 9 were greater than 3 days. The worst case was 7.2 days. No systematic properties of these errors were noted except that they appear to get worse for the higher-energy trajectories.

For Venus, the accuracy was considerably better, averaging 322,000-km miss error and 0.67-day flight time errors. Based on these comparisons, the model used to generate the trajectories contained herein is considered to be adequate and the results suitable for preliminary mission design studies. These results are very useful for initializing a precision trajectory search program.

When used for the stated purposes, these trajectories provide an excellent source of data obtained at considerably less time and expense than precision cases.

II. ANALYTICAL MODEL FOR INTERPLANETARY TRAJECTORIES

The analytical model consists of three distinct phases of two-body motion: (1) an escape hyperbola near the launch planet, (2) elliptical[2] motion under the attraction of the Sun, and (3) terminal hyperbolic motion near the target planet.

A. Heliocentric Motion

Solution of the heliocentric elliptic motion is obtained first under the following assumptions:

1. The launch and target planets move in orbits about the Sun as given in the national ephemerides. Their velocity components are obtained by using two-body conic formulas, mean orbital elements, and their tabular positions as listed in the ephemerides.
2. The launch and target planets are massless. Thus the only force acting on the probe is that of the Sun.
3. The position of the probe at launch into the heliocentric orbit is the center of the massless launch planet. Its position at arrival on the heliocentric orbit is the center of the massless target planet.

Thus for solution to the heliocentric phase of motion, the attractions of the launch and target planets are temporarily disregarded. The primary result to be obtained from the solution of the heliocentric transfer problem is the hyperbolic-excess velocity vector relative to the launch planet.

1. Determination of Planar Orientation

Since the launch and arrival positions of the probe are assumed to be the centers of the launch and target planets, they can immediately be determined, given the launch and arrival[3] times, by consulting the ephemeris. Further, the orientation of the heliocentric transfer plane can immediately be found. Let $\mathbf{R}_L$ be the Sun–launch planet position vector at launch time T_L, and let $\mathbf{R}_p$ be the Sun–target planet position vector at arrival time T_p (Fig. 1). Then, planar orientation is found from the unit normal W to the plane as follows:

$$\mathbf{W} = \frac{\mathbf{R}_L \times \mathbf{R}_p}{R_L R_p \sin \Psi} \tag{1}$$

[2] Hyperbolic heliocentric motion is not considered herein.

[3] Or, for convenience, the launch date and flight time can be specified.

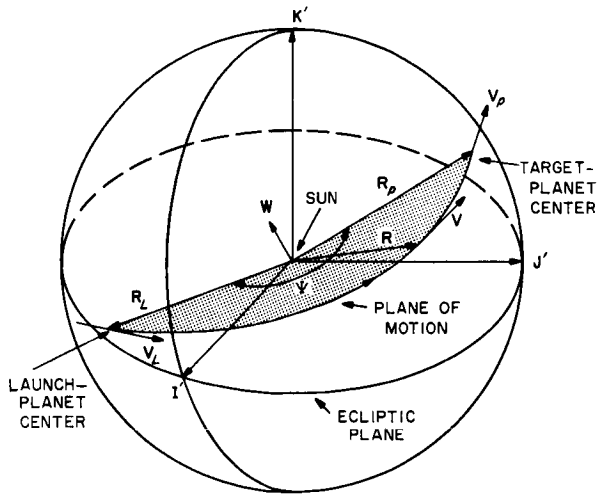


Fig. 1. Heliocentric transfer geometry

where the angle Ψ is defined below. The inclination[4] i to the ecliptic plane can be found by

$$\cos i = \mathbf{W} \cdot \mathbf{K}' \tag{2}$$

where $\mathbf{K}'$ is a unit vector pointing in the direction of the ecliptic north pole.

2. In-Plane Relations

The heliocentric central angle Ψ (Fig. 1) is also readily determined by utilizing the positions of the launch and target planets. This angle may be obtained from

$$\cos \Psi = \frac{\mathbf{R}_L \cdot \mathbf{R}_p}{|\mathbf{R}_L||\mathbf{R}_p|} \tag{3}$$

$$\sin \Psi = \text{sgn}\,[(\mathbf{R}_L \times \mathbf{R}_p) \cdot \mathbf{K}'](1 - \cos^2 \Psi)^{1/2} \tag{4}$$

The velocity vector $\mathbf{V}$ of the spacecraft anywhere along its path may be obtained from

$$\mathbf{V} = \frac{V}{R}[(\mathbf{W} \times \mathbf{R}) \cos \Gamma + \mathbf{R} \sin \Gamma] \tag{5}$$

Here, $\mathbf{R}$ is the heliocentric position vector, $R = |\mathbf{R}|$, and V is the heliocentric speed obtained from

$$V = \sqrt{(GM_S)\left(\frac{2}{R} - \frac{1}{a}\right)} \tag{6}$$

[4] In this report, we are interested only in transfers which have the same rotational motion about the Sun as the planets; thus, $0 \leq i \leq \pi/2$.

and the path angle Γ is found from

$$\sin \Gamma = \left[\sqrt{\frac{R}{(1 - e^2)(2a - R)}}\right] e \sin \upsilon \tag{7}$$

In Eq. (6) and (7), GM_S is the universal gravitational constant times the mass of the Sun ($= 2.959122083 \times 10^{-4}$ au^3/day^2), a and e are the semimajor axis and eccentricity of the transfer ellipse, respectively, and υ is the true anomaly of the probe given by

$$\cos \upsilon = \frac{a(1 - e^2) - R}{eR} \tag{8}$$

3. Lambert's Theorem

Now there are two unknowns in Eq. (5)–(8) which prevent their immediate evaluation. These two unknowns are the semimajor axis a and the eccentricity e. The determination of these quantities is the main problem. Battin (Ref. 5) has shown that the eccentricity is actually a function of the semimajor axis. Thus it is first necessary to determine a. The semimajor axis is related to the time of flight T_F by Lambert's Theorem, which states: *The transfer time between any two points on an ellipse is a function of the sum of the distances of each point from the focus, the distance between the points, and the semimajor axis of the ellipse.* Functionally, the theorem is stated as

$$T_F = T_F(R_L + R_p, C, a) \tag{9}$$

where the distance C between the launch planet at launch time and the target planet at arrival time is shown in Fig. 2 and is obtained from

$$C = |\mathbf{R}_p - \mathbf{R}_L| \tag{10}$$

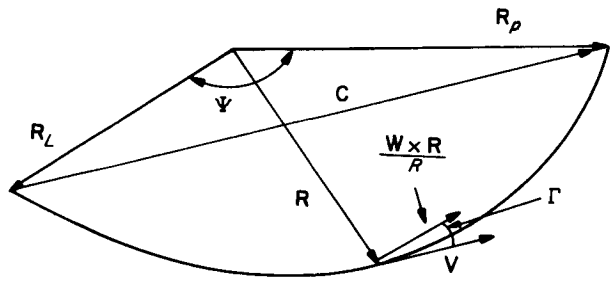


Fig. 2. In-plane transfer geometry

Since the time of flight T_F and the launch and arrival positions R_L and R_p are knowns, only the semimajor axis

remains to be found by iterative solution of Eq. (9). After the semimajor axis a is obtained, the heliocentric velocities of the probe at launch and arrival time $\mathbf{V}_L$ and $\mathbf{V}_p$ may be evaluated from Eq. (5) under the conditions $R = R_L$ and $R = R_p$. The path angles Γ_L, Γ_p and true anomalies[5] v_L, v_p at launch and arrival times may also be evaluated from Eq. (8) and (7) under the same conditions.

Finally, the desired end result, the hyperbolic-excess velocity $\mathbf{V}_{hL}$ relative to the launch planet may be found (Fig. 3) by

$$\mathbf{V}_{hL} = \mathbf{V}_L - \mathbf{V}_1 \tag{11}$$

where $\mathbf{V}_1$ is the velocity of the launch planet at launch time.

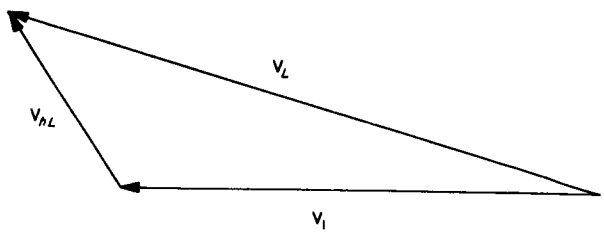


Fig. 3. Determination of the hyperbolic-excess velocity vector $\mathbf{V}_{hL}$

B. Launch Planet Escape Hyperbola

The key result from the solution of heliocentric transfer is the hyperbolic-excess velocity vector $\mathbf{V}_{hL}$ at launch. The reason for the importance of this vector is that it tells the direction in which the probe must be traveling relative to the launch planet when just leaving its gravitational influence. There are an infinite number of escape trajectories (all hyperbolas) which can have the same hyperbolic-excess velocity vector. However, only a portion of these are practical for use when related to existing launch sites and boost vehicle constraints. For example, it would be ridiculously costly in payload—and impractical—to shoot a vehicle straight up. Criteria for selection of a family of feasible escape trajectories are given below.

1. Assumptions

The solution of the escape phase of motion is obtained under the following assumptions: (1) The probe is acted on only by the gravitational force of the launch planet, and (2) the oblateness effects of the launch planet are neglected.

[5] The details of quadrant choice for these angles are found in Ref. 5.

The direction of the asymptote of the escape hyperbola is found by normalizing the hyperbolic-excess vector $\mathbf{V}_{hL}$. The injection energy[6] C_3 of the escape hyperbola is found by squaring the hyperbolic-excess speed, or

$$C_3 = V_{hL}^2 \tag{12}$$

Thus, in contrast to the heliocentric problem, the launch planet is now "massy," while the influence of the Sun is neglected. However, the hyperbolic-excess velocity vectors found by solving the heliocentric problem are used as a starting point to solve the escape problem.

2. Size and Shape of the Escape Hyperbola

As previously stated, only some of the infinite number of escape trajectories are practical. Two of the practical aspects of a set of trajectories are the sizes and shapes of the hyperbolas.

Size is basically determined by the energy C_3, which in turn is a function of boost vehicle capability. For boost vehicles in use (or shortly to be available) at this writing, values of energy less than or equal to 25 km²/sec² are considered reasonable. The larger the value of energy that the booster is required to deliver, the smaller the payload and launch period over which the vehicle may be fired.

The shape of the hyperbola is determined by its eccentricity, which is a function of both the energy and perifocal distance according to

$$e = 1 + \frac{R_p C_3}{GM} \tag{13}$$

where R_p is the perifocal distance and GM is the universal gravitational constant times the mass of the launch planet. From Eq. (13) it can be seen that for a fixed perifocal distance the eccentricity increases linearly with the energy. The value of perifocal distance is not arbitrary, but depends strongly on the boost vehicle trajectory. It has been shown (Ref. 6) that in the great majority of cases it is necessary and desirable to use a circular parking orbit as part of the preinjection phase of the escape trajectory. It is further an interesting fact that the altitude of the parking orbit determines the perifocal distance. If h is the parking orbit altitude and R_0 is the launch planet's radius, then, to an extremely close degree of approximation,

$$R_p = R_0 + h \tag{14}$$

[6] C_3 is actually twice the total energy per unit mass, i.e., the *vis viva* integral.

or the perifocal distance is equal to the launch-planet-centered radius of the parking orbit. In Ref. 6 it also has been shown that the lowest possible parking orbit (80–100 nm) allows greatest payload capability. Thus, using 100 nm for the parking orbit altitude, a practical value of perifocal distance is 6560 km. The perifocal distance will vary only slightly about this value for other parking orbit altitudes, or even for direct-ascent-type preinjection trajectories. Therefore, *both* the size and shape are essentially determined by the energy alone, which is found from Eq. (12).

Given the size and shape of the escape hyperbola, its planar orientation must be determined, and this can be done by considering two vectors: (1) the direction of the hyperbolic-excess vector, denoted by a unit vector **S**, and (2) a unit vector $\mathbf{R}_L^1$ directed from the center of the launch planet to the launch site. The vehicle's flight plane will essentially be determined by these two vectors, as shown in Fig. 4. A unit normal **W** to the launch-planet-centered flight plane is determined by

$$\mathbf{W} = \frac{\mathbf{R}_L^1 \times \mathbf{S}}{|\mathbf{R}_L^1 \times \mathbf{S}|} \tag{15}$$

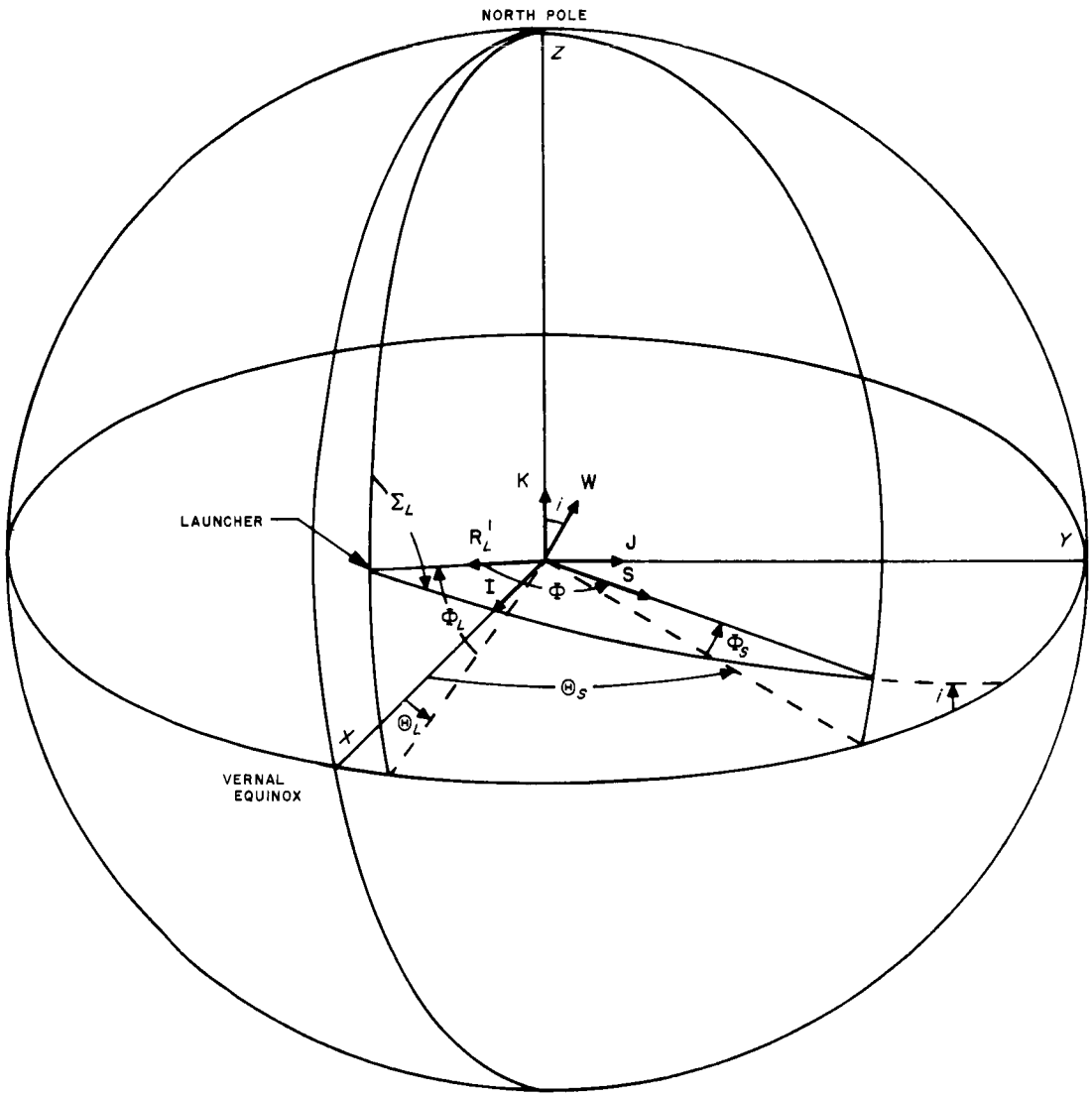


Fig. 4. Vehicle flight plane

with the constraint that the Z component of W is always positive.

Since $\mathbf{R}_L^1$ is a function of time, according to the rotation rate of the launch planet, the planar orientation must continually change. In effect, this says that the launch azimuth is a continuous function of launch time.

A detailed description of the geometrical aspects of the launch planet ascent trajectory is not given here but may be found in Ref. 6.

C. Differential Corrections

The calculation of differential corrections for interplanetary trajectories may be accomplished in several ways and depends on choice of independent and dependent variables. In this report, a numerical differencing scheme is used. Basically, the independent variables—the injection energy C_3, declination Φ_S, and right ascension Θ_S of the outgoing asymptote S of the escape hyperbola—are varied, one at a time, to produce variations in the dependent variables—the components of the impact parameter **B** and the time-of-flight T_F.

The impact parameter **B** is defined as a vector originating at the center of the target planet and directed perpendicular to the incoming asymptote of the target-centered approach hyperbola (Fig. 5). The impact parameter **B** is resolved into two components which lie in a plane normal to the incoming asymptote S. The orientations of the reference axes in this plane are arbitrary, but one is usually selected to lie in a fixed plane. Thus, define a unit vector **T**, lying in the *ecliptic* plane according to

$$\mathbf{T} = \frac{\mathbf{S} \times \mathbf{K}'}{|\mathbf{S} \times \mathbf{K}'|} \tag{16}$$

where **K′** is a unit normal vector to the ecliptic plane. The remaining axis is then given by a unit vector **R**, defined by

$$\mathbf{R} = \mathbf{S} \times \mathbf{T} \tag{17}$$

Figure 6 illustrates the orientation of the **R**, **S**, **T** target coordinates.

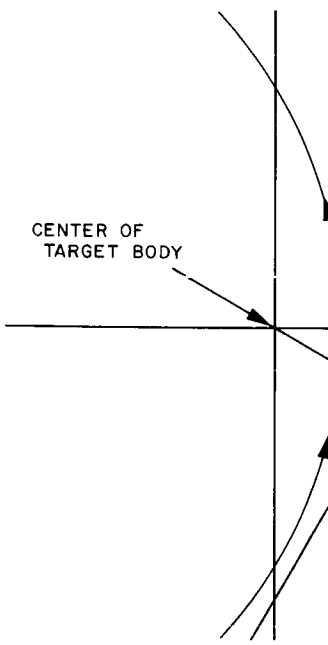


Fig. 5. Impact parameter B

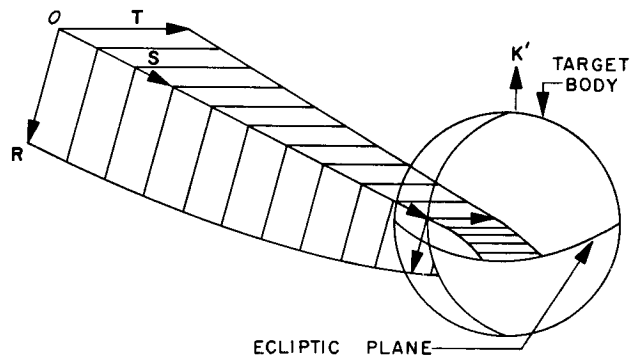


Fig. 6. The R, S, T target coordinate system

The impact parameter **B** lies in the **R**–**T** plane and has miss components $\mathbf{B}\cdot\mathbf{T}$ and $\mathbf{B}\cdot\mathbf{R}$. $\mathbf{B}\cdot\mathbf{T} = \mathbf{B}\cdot\mathbf{R} = 0$ denotes vertical impact on the target. Thus, $\mathbf{B}\cdot\mathbf{T}$, $\mathbf{B}\cdot\mathbf{R}$, and T_F are the three target-dependent variables. If Q_i represents a set of generalized independent variables, such as injection position and velocity or other convenient variables, then the partial derivatives $\partial\mathbf{B}\cdot\mathbf{T}/\partial Q_i$, $\partial\mathbf{B}\cdot\mathbf{R}/\partial Q_i$, $\partial T_F/\partial Q_i$ are first-order differential corrections or error coefficients relating miss at the target and flight time errors to the independent variables.

A convenient set of independent variables for interplanetary trajectories is the *vis viva* injection energy C_3, the declination Φ_S, and the right ascension Θ_S of the asymptote of the escape hyperbola. These variables essentially describe the launch hyperbolic-excess velocity vector since

$$\mathbf{V}_{hL} = (C_3)^{1/2}(\cos\Phi_S \cos\Theta_S,\ \cos\Phi_S \sin\Theta_S,\ \sin\Phi_S) \tag{18}$$

As stated above, the differential corrections are calculated by a numerical differencing method which uses

quantities obtained from the conic trajectory. The basic idea is to compute a varied or perturbed trajectory and then difference it with the reference case. Let primed quantities denote variables on the perturbed trajectory. A small variation $\Delta \mathbf{V}_{hL}$ in the hyperbolic-excess velocity vector is equivalent to a small variation $\Delta \mathbf{V}_L$ in the launch heliocentric velocity vector. The launch heliocentric velocity on the perturbed trajectory is, then,

$$\mathbf{V}'_L = \mathbf{V}_L + \Delta \mathbf{V}_{hL} \tag{19}$$

where

$$\Delta \mathbf{V}_{hL} = (C_3)^{1/2} \Delta\Phi_S \left[-\sin \Phi_S \cos \Theta_S, -\sin \Phi_S \sin \Theta_S, \cos \Phi_S \right] +$$
$$(C_3)^{1/2} \Delta\Theta_S \left[-\cos \Phi_S \sin \Theta_S, \cos \Phi_S \cos \Theta_S, 0 \right] +$$
$$\frac{\Delta C_3}{2 (C_3)^{1/2}} \left[\cos \Phi_S \cos \Theta_S, \cos \Phi_S \sin \Theta_S, \sin \Phi_S \right]$$

where $\Delta\Phi_S, \Delta\Theta_S$ are small angular variations (0.2 deg), and the energy variation is $\Delta C_3 = 0.005\, C_3$.

The semimajor axis a' is obtained from

$$a' = \frac{R_L}{2 - \dfrac{V'^2_L R_L}{GM_S}} \tag{20}$$

The radial rate $\dot{R}_L'$ is

$$\dot{R}'_L = \frac{\mathbf{V}'_L \cdot \mathbf{R}_L}{R_L} \tag{21}$$

The semilatus rectum p' and eccentricity e' are

$$p' = \frac{R^2_L (V'^2_L - \dot{R}'^2_L)}{GM_S} \tag{22}$$

$$e' = \left(1 - \frac{p'}{a'}\right)^{1/2} \tag{23}$$

The eccentric anomaly at launch E'_L is

$$\sin E'_L = \frac{R_L \dot{R}'_L}{e' (a' GM_S)^{1/2}}$$
$$\cos E'_L = \frac{1}{e'}\left(1 - \frac{R_L}{a'}\right) \tag{24}$$

The mean anomaly at launch M'_L is obtained from

$$M'_L = E'_L - e' \sin E'_L \tag{25}$$

The mean orbital rate n' is

$$n' = \frac{(GM_S)^{1/2}}{a'^{3/2}} \tag{26}$$

The mean anomaly at the target M'_p is

$$M'_p = n' T_F + M'_L \tag{27}$$

The eccentric anomaly at the target E'_p is obtained from the expansion

$$E'_p = E_p + \left(\frac{1}{1 - e' \cos E_p}\right) \Delta M - \frac{1}{2}\left[\frac{e' \sin E_p}{(1 - e' \cos E_p)^3}\right] \Delta M^2$$
$$+ \frac{1}{6}\left[\frac{3(e' \sin E_p)^2 - (1 - e' \cos E_p)(e' \cos E_p)}{(1 - e' \cos E_p)^5}\right] \Delta M^3 \tag{28}$$

if

$$\cos E_p \geqq 0$$

or

$$E'_p = E_p + \frac{e' \cos E_p - 1 + \sqrt{(e' \cos E_p - 1)^2 + (2e' \sin E_p)\, \Delta M}}{e' \sin E_p} \tag{29}$$

if

$$\cos E_p < 0$$

where

$$\Delta M = M'_p - (E_p - e' \sin E_p)$$

The true anomalies at launch and the target v'_L and v'_p are found from

$$\cos v'_L = \frac{p' - R_L}{e' R_L} \tag{30}$$

$$0 < v'_L < \pi \quad \text{if } \dot{R}'_L \text{ is positive}$$

$$\pi < v'_L < 2\pi \quad \text{if } \dot{R}'_L \text{ is negative}$$

$$\cos v'_p = \frac{\cos E'_p - e'}{1 - e' \cos E'_p}$$
$$\sin v'_p = \frac{(1 - e'^2)^{1/2} \sin E'_p}{1 - e' \cos E'_p} \tag{31}$$

The heliocentric central angle Ψ' is

$$\Psi' = v'_p - v'_L \tag{32}$$

The angular momentum $\mathbf{h}'$ is

$$\mathbf{h}' = \mathbf{R}_L \times \mathbf{V}'_L \tag{33}$$

The heliocentric position vector at the target is

$$\mathbf{R}'_p = R'_p\left(\frac{\mathbf{R}_L}{R_L}\cos\Psi' + \frac{\mathbf{h}'\times\mathbf{R}_L}{h'R_L}\sin\Psi'\right) \tag{34}$$

where

$$R'_p = a'(1 - e'\cos E'_p) \tag{35}$$

A vector in the direction of perihelion with magnitude e' is

$$\boldsymbol{\varepsilon}' = \frac{\mathbf{V}'_L\times\mathbf{h}'}{GM_S} - \frac{\mathbf{R}_L}{R_L} \tag{36}$$

The heliocentric velocity at the target is

$$\mathbf{V}'_p = \frac{\mathbf{h}'}{p'}\times\left(\frac{\mathbf{R}'_p}{R_{p'}} + \boldsymbol{\varepsilon}'\right) \tag{37}$$

The hyperbolic-excess velocity at the target is

$$\mathbf{V}'_{hp} = \mathbf{V}'_p - \mathbf{V}_\oplus \tag{38}$$

The difference between the heliocentric position vectors on the perturbed and reference trajectories is

$$\Delta\mathbf{R}'_p = \mathbf{R}'_p - \mathbf{R}_p \tag{39}$$

The impact parameter **B** is

$$\mathbf{B} = -\frac{(\Delta\mathbf{R}'_p\cdot\mathbf{V}'_{hp})\,\mathbf{V}'_{hp}}{V'^2_{hp}} + \Delta\mathbf{R}'_p$$

The flight time error is

$$\Delta T_F = -\frac{\Delta\mathbf{R}'_p\cdot\mathbf{V}'_{hp}}{V'^2_{hp}} \tag{40}$$

The partial derivatives are formed by dividing $\Delta\Theta_S$, $\Delta\Phi_S$, and ΔC_3 into the miss components $\mathbf{B}\cdot\mathbf{T}$, $\mathbf{B}\cdot\mathbf{R}$, and flight time error ΔT_F. In addition to the component partials, the quantity $\partial B/\partial Q_i$ is defined by

$$\frac{\partial B}{\partial Q_i} = \left[\left(\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial Q_i}\right)^2 + \left(\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial Q_i}\right)^2\right]^{1/2} \tag{41}$$

The three partials, $\partial B/\partial\Theta_S$, $\partial B/\partial\Phi_S$, $\partial B/\partial C_3$, are important measures of the error sensitivity of a trajectory.

The effect of uncertainty in the knowledge of the astronomical unit-to-kilometer conversion factor on target miss and flight time may be determined by the following formulae,

$$\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial au} = \frac{-2C_3}{au}\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial C_3}$$
$$\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial au} = \frac{-2C_3}{au}\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial C_3} \tag{42}$$

from whence

$$\frac{\partial B}{\partial au} = \frac{2C_3}{au}\frac{\partial B}{\partial C_3} \tag{43}$$

and

$$\frac{\partial T_F}{\partial au} = \frac{-2C_3}{au}\frac{\partial T_F}{\partial C_3} \tag{44}$$

where *au* is the astronomical unit-to-kilometer conversion factor.

The effect of solar radiation pressure acting on the probe may also be evaluated as follows: In Eq. (19) let $\Delta\mathbf{V}_{hL} = 0$, but in Eq. (20), (22), (24), (26), (36), vary GM_S by adding an increment ΔGM_S. This procedure gives rise to a varied trajectory from which the impact parameter **B** and flight time error ΔT_F may be obtained. The partials $\partial B/\partial GM_S$ and $\partial T_F/\partial GM_S$ may then be calculated. Since the acceleration caused by solar radiation pressure acts opposite to the gravitational attraction of the Sun, radiation pressure has the effect of decreasing the Sun's gravitational attraction, or decreasing GM_S. A decrease, $\Delta GM_S = -1.25\times10^6$ km^3/sec^2 corresponds to the solar radiation pressure acting on a 3500-kg spacecraft having a perfectly reflecting area of 22 square meters. Thus the miss, always being a positive number, is obtained by $\Delta B_{sp} = 1.25\times10^6\,\partial B/\partial GM_S$, and the corresponding flight time error is $\Delta T_{F_{sp}} = -1.25\times10^6\,\partial T_F/\partial GM_S$, which is sign sensitive.

D. Mid-Course Execution Accuracy

The effect of mid-course execution errors on target accuracy can be rather simply described if it is assumed that the guidance maneuver is made on the asymptote of the escape hyperbola and that the velocity errors are spherically distributed (that is, the three-dimensional statistical distribution of velocity errors is composed of three orthogonal, independent velocity errors, each with the same variance). The mapping of these errors to the target (Fig. 7) results in a three-dimensional ellipsoid of position errors, which is the "one-sigma ellipsoid." The semiaxes are the respective standard deviations of the position errors. As pointed out above, this ellipsoid can be thought of as the locus of target errors that results from a unit velocity error at the mid-course point tracing out a sphere.

Let the differential corrections discussed above be expressed in matrix form as

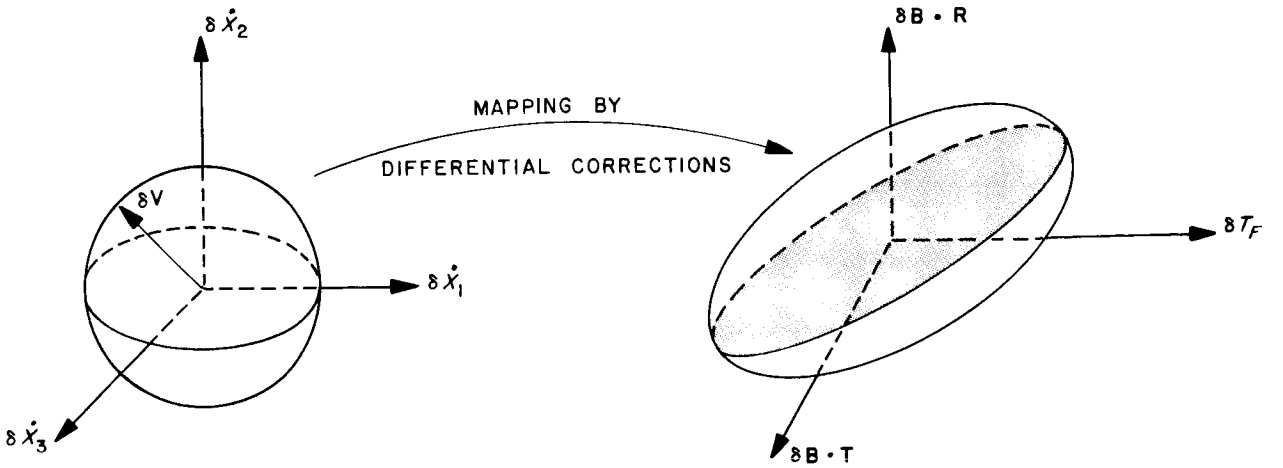


Fig. 7. The mapping of mid-course execution error

$$K = \begin{bmatrix} \dfrac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \Phi_S} & \dfrac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \Theta_S} & \dfrac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial C_3} \\ \dfrac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \Phi_S} & \dfrac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \Theta_S} & \dfrac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial C_3} \\ \dfrac{\partial T_F}{\partial \Phi_S} & \dfrac{\partial T_F}{\partial \Theta_S} & \dfrac{\partial T_F}{\partial C_3} \end{bmatrix} \tag{45}$$

Now define a Cartesian coordinate system X_1, X_2, X_3 such that

$$\left.\begin{aligned} \delta\dot{X}_1 &= V_{hL}\delta\Phi_S \\ \delta\dot{X}_2 &= -\,(V_{hL}\cos\Phi_S)\,\delta\Theta_S \\ \delta\dot{X}_3 &= \delta V_{hL} = \frac{\delta C_3}{2V_{hL}} \end{aligned}\right\} \tag{46}$$

Then a new matrix F can be formed,

$$F = \begin{bmatrix} \dfrac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \dot{X}_1} & \dfrac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \dot{X}_2} & \dfrac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \dot{X}_3} \\ \dfrac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \dot{X}_1} & \dfrac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \dot{X}_2} & \dfrac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \dot{X}_3} \\ \dfrac{\partial T_F}{\partial \dot{X}_1} & \dfrac{\partial T_F}{\partial \dot{X}_2} & \dfrac{\partial T_F}{\partial \dot{X}_3} \end{bmatrix} \tag{47}$$

where

$$\left.\begin{aligned} \frac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \dot{X}_1} &= \frac{1}{V_{hL}}\frac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \Phi_S} \\ \frac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \dot{X}_2} &= \frac{-1}{V_{hL}\cos\Phi_S}\frac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \Theta_S} \\ \frac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \dot{X}_3} &= 2V_{hL}\frac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial C_3} \\ \frac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \dot{X}_1} &= \frac{1}{V_{hL}}\frac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \Phi_S} \\ \frac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \dot{X}_2} &= \frac{-1}{V_{hL}\cos\Phi_S}\frac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \Theta_S} \\ \frac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \dot{X}_3} &= 2V_{hL}\frac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial C_3} \\ \frac{\partial T_F}{\partial \dot{X}_1} &= \frac{1}{V_{hL}}\frac{\partial T_F}{\partial \Phi_S} \\ \frac{\partial T_F}{\partial \dot{X}_2} &= \frac{-1}{V_{hL}\cos\Phi_S}\frac{\partial T_F}{\partial \Theta_S} \\ \frac{\partial T_F}{\partial \dot{X}_3} &= 2V_{hL}\frac{\partial T_F}{\partial C_3} \end{aligned}\right\} \tag{48}$$

Let the spherical distribution of midcourse velocity errors be described in the X_1, X_2, X_3 system as

$$\text{statistical expectation}\left[\delta\dot{X}_1^2+\delta\dot{X}_2^2+\delta\dot{X}_3^2\right]=3\sigma_v^2 \tag{49}$$

where σ_v will be taken equal to 0.1 meters/sec. The resultant one-sigma ellipsoid of target errors is described by the quadratic form,

$$\delta\mathbf{M}\,\Lambda^{-1}\,\delta\mathbf{M}^T=1 \tag{50}$$

where

$$\Lambda=\sigma_v^2 FF^T=\begin{bmatrix}\lambda_{11}&\lambda_{12}&\lambda_{13}\\ &\lambda_{22}&\lambda_{23}\\ \text{symmetric}&&\lambda_{33}\end{bmatrix} \tag{51}$$

and

$$\delta\mathbf{M}=(\delta\mathbf{B}\cdot\mathbf{T},\,\delta\mathbf{B}\cdot\mathbf{R},\,\delta T_F)$$

The elements of the Λ matrix are:

$$\begin{aligned}
\lambda_{11}&=\sigma_v^2\left[\frac{1}{C_3}\left(\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial\Phi_S}\right)^2+\frac{1}{C_3\cos^2\Phi_S}\left(\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial\Theta_S}\right)^2+4C_3\left(\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial C_3}\right)^2\right]\\
\lambda_{12}&=\sigma_v^2\left[\frac{1}{C_3}\left(\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial\Phi_S}\right)\left(\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial\Phi_S}\right)+\frac{1}{C_3\cos^2\Phi_S}\left(\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial\Theta_S}\right)\times\left(\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial\Theta_S}\right)+4C_3\left(\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial C_3}\right)\left(\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial C_3}\right)\right]\\
\lambda_{13}&=\sigma_v^2\left[\frac{1}{C_3}\left(\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial\Phi_S}\right)\left(\frac{\partial T_F}{\partial\Phi_S}\right)+\frac{1}{C_3\cos^2\Phi_S}\left(\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial\Theta_S}\right)\left(\frac{\partial T_F}{\partial\Theta_S}\right)+4C_3\left(\frac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial C_3}\right)\left(\frac{\partial T_F}{\partial C_3}\right)\right]\\
\lambda_{22}&=\sigma_v^2\left[\frac{1}{C_3}\left(\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial\Phi_S}\right)^2+\frac{1}{C_3\cos^2\Phi_S}\left(\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial\Theta_S}\right)^2+4C_3\left(\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial C_3}\right)^2\right]\\
\lambda_{23}&=\sigma_v^2\left[\frac{1}{C_3}\left(\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial\Phi_S}\right)\left(\frac{\partial T_F}{\partial\Phi_S}\right)+\frac{1}{C_3\cos^2\Phi_S}\left(\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial\Theta_S}\right)\left(\frac{\partial T_F}{\partial\Theta_S}\right)+4C_3\left(\frac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial C_3}\right)\left(\frac{\partial T_F}{\partial C_3}\right)\right]\\
\lambda_{33}&=\sigma_v^2\left[\frac{1}{C_3}\left(\frac{\partial T_F}{\partial\Phi_S}\right)^2+\frac{1}{C_3\cos^2\Phi_S}\left(\frac{\partial T_F}{\partial\Theta_S}\right)^2+4C_3\left(\frac{\partial T_F}{\partial C_3}\right)^2\right]
\end{aligned} \tag{52}$$

The quantities in the Λ matrix can be interpreted as standard deviations (sigmas) and correlation coefficients (rhos) according to

$$\left.\begin{aligned}
\sigma_T&=(\lambda_{11})^{1/2}\\
\sigma_R&=(\lambda_{22})^{1/2}\\
\sigma_F&=(\lambda_{33})^{1/2}\\
\rho_{RT}&=\frac{\lambda_{12}}{(\lambda_{11}\lambda_{22})^{1/2}}\\
\rho_{TF}&=\frac{\lambda_{13}}{(\lambda_{11}\lambda_{33})^{1/2}}\\
\rho_{RF}&=\frac{\lambda_{23}}{(\lambda_{22}\lambda_{33})^{1/2}}
\end{aligned}\right\} \tag{53}$$

Then the Λ matrix becomes

$$\Lambda=\begin{bmatrix}\sigma_T^2&\rho_{RT}\,\sigma_R\,\sigma_T&\rho_{TF}\,\sigma_F\,\sigma_T\\ &\sigma_R^2&\rho_{RF}\,\sigma_R\,\sigma_F\\ \text{symmetric}&&\sigma_F^2\end{bmatrix} \tag{54}$$

It is often of interest when describing only miss components to consider

$$\sigma_B=(\sigma_R^2+\sigma_T^2)^{1/2} \tag{55}$$

and to diagonalize the upper 2×2 portion of the Λ (the miss component elements) to get

$$\Lambda^*=L\Lambda L^T=\begin{bmatrix}\sigma_1^2&0&\rho_{13}\,\sigma_1\,\sigma_3\\ &\sigma_2^2&\rho_{23}\,\sigma_2\,\sigma_3\\ \text{symmetric}&&\sigma_3^2\end{bmatrix} \tag{56}$$

where the matrix L is given by

$$L = \begin{bmatrix} \cos\theta & \sin\theta & 0 \\ -\sin\theta & \cos\theta & 0 \\ 0 & 0 & 1 \end{bmatrix} \tag{57}$$

The angle θ is positive when turned counterclockwise from the **T** axis, and has been chosen such that $\sigma_1 \geqq \sigma_2$. This is accomplished by

$$\theta = \frac{1}{2}\tan^{-1}\left[\frac{2\rho_{RT}}{\left(\frac{\sigma_T}{\sigma_R}\right) - \left(\frac{\sigma_R}{\sigma_T}\right)}\right] \tag{58}$$

where θ is in first quadrant if ρ_{RT} is positive and θ is in second quadrant if ρ_{RT} is negative. Notice that $\sigma_3 = \sigma_F$. The two-dimensional error ellipse described by σ_1, σ_2, and θ is the projection of all points of the three-dimensional ellipsoid of position errors (discussed in Section IIE) onto the **T–R** plane, as shown in Fig. 8.

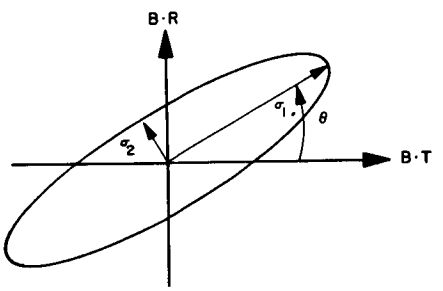


Fig. 8. Projection of three-dimensional error ellipsoid on the T-R plane

E. Orbit Determination Accuracy

In this section the analytic model used for describing orbit determination accuracy (tracking error) for interplanetary trajectories is discussed, and the factors upon which the tracking error depends are reviewed. The dominant error sources are defined for the easterly launchings from Cape Kennedy using tracking coverage supplied by NASA's Deep Space Instrumentation Facility (DSIF). Probable generalization to other situations is suggested. Finally, the method of describing target errors is presented along with all formulae relating the tracking errors to the target error parameters chosen.

1. Method of Describing Orbit Determination Accuracy

As discussed in Section IID, the uncertainties in our knowledge of an interplanetary trajectory are well described in terms of the direction and magnitude of the geocentric hyperbolic-excess velocity vector, $\mathbf{V}_{hL}$. Figure 9 defines the right-handed Cartesian coordinate system we have adopted for describing uncertainties in $\mathbf{V}_{hL}$. The X_3 axis is along $\mathbf{V}_{hL}$; the X_1 axis is in the direction of a positive differential change in asymptote declination Φ_S; and the X_2 axis completes the system.

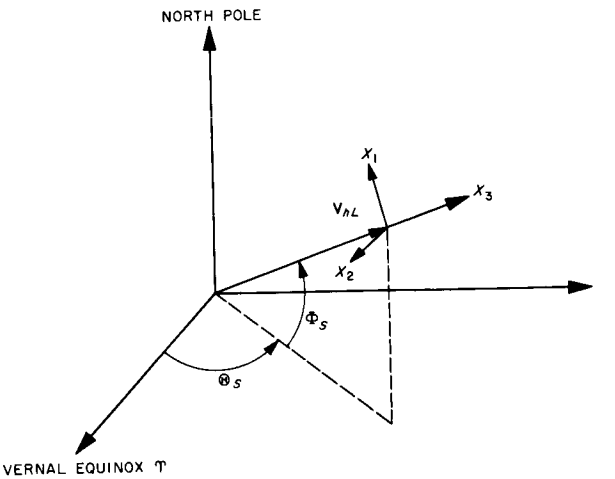


Fig. 9. Orientation of the X_i Cartesian coordinate system to describe uncertainties in the hyperbolic-excess velocity vector $\mathbf{V}_{hL}$

Let $\dot{\mathbf{X}}$ represent the vector of velocity *errors* in the X_i system just described; $\dot{\mathbf{X}} = (\delta\dot{X}_1, \delta\dot{X}_2, \delta\dot{X}_3)^T$, where T indicates the transpose. The average of any function of $\dot{\mathbf{X}}$, $f(\dot{\mathbf{X}})$, over an *ensemble* of randomly generated tracking runs may assist in describing our statistical knowledge of $\dot{\mathbf{X}}$ based on tracking noise, station location, and physical constant uncertainties. The ensemble average is usually written $Ef(\dot{\mathbf{X}})$ or as $\tilde{f}(\dot{\mathbf{X}})$. When $\dot{\mathbf{X}}$ has a Gaussian (normal) probability density function, the distribution can be described completely by specifying $E\dot{\mathbf{X}}$ and $E[(\dot{\mathbf{X}} - \tilde{\dot{\mathbf{X}}})(\dot{\mathbf{X}} - \tilde{\dot{\mathbf{X}}})^T]$, the mean and covariance of $\dot{\mathbf{X}}$, respectively.

When all parameters influencing our knowledge of $\dot{\mathbf{X}}$ have been considered, $E\dot{\mathbf{X}}$ should be zero and then the description of our uncertainties in $\dot{\mathbf{X}}$ can be adequately given by Covar $\dot{\mathbf{X}}$, defined above. For convenience, the symbol $\Lambda_{\dot{\mathbf{X}}}$, for Covar $\dot{\mathbf{X}}$, is introduced.

$$\Lambda_{\dot{\mathbf{X}}} = \text{Covar}\,\dot{\mathbf{X}} = E\left[(\dot{\mathbf{X}} - \tilde{\dot{\mathbf{X}}})(\dot{\mathbf{X}} - \tilde{\dot{\mathbf{X}}})^T\right] \tag{59}$$

Note that

$$\Lambda_{\dot{X}} = \begin{pmatrix} \overbrace{\delta\dot{X}_1\delta\dot{X}_1} & \overbrace{\delta\dot{X}_1\delta\dot{X}_2} & \overbrace{\delta\dot{X}_1\delta\dot{X}_3} \\ \overbrace{\delta\dot{X}_2\delta\dot{X}_1} & \overbrace{\delta\dot{X}_2\delta\dot{X}_2} & \overbrace{\delta\dot{X}_2\delta\dot{X}_3} \\ \overbrace{\delta\dot{X}_3\delta\dot{X}_1} & \overbrace{\delta\dot{X}_3\delta\dot{X}_2} & \overbrace{\delta\dot{X}_3\delta\dot{X}_3} \end{pmatrix} \quad (60)$$

is a 3×3 real symmetric matrix. The diagonal terms are the variances of the three components, and the off-diagonal terms measure the correlation between the three components.

Before describing how $\Lambda_{\dot{X}}$ has been "mapped" into target error uncertainties, a discussion is given of the dependence of $\Lambda_{\dot{X}}$ upon the relevant factors describing near-Earth tracking as well as the typical errors assumed in preparing the estimates given in this report.

2. Accuracy of Near-Earth Tracking

By expressing the accuracy of near-Earth tracking in terms of $\dot{\mathbf{X}}$ and its associated covariance $\Lambda_{\dot{X}}$, the dependence upon almost all trajectory parameters has been eliminated. The remaining relevant trajectory parameters are listed in Table 1.

Table 1. Trajectory parameters influencing tracking accuracy

1. Launch site	
2. Launch azimuth Σ_L	Depends on launch time.
3. Injection region	Depends on time in parking orbit; short or long coast less than 1 revolution is current practice.
4. Declination of V_{hL}, Φ_S	Depends on target position at arrival date and injection energy, C_3.
5. Magnitude of $V_{hL} = V_{hL} = (C_3)^{1/2}$	

Note the limited number of trajectory parameters on which $\Lambda_{\dot{X}}$ depends. Table 2 summarizes the key tracking station parameters which influence accuracy in the geocentric tracking phase.

The first three factors listed in Table 2 define the tracking configuration, whereas the last three are station performance factors. Usually, tracking accuracy studies are carried out with the tracking configuration relatively fixed, and the influence of the station performance factors are determined.

The final source of tracking error is uncertainty in physical constants. The influence of GM–Earth errors is somewhat smaller than the above-mentioned errors and should be reduced to negligible contribution in the next two years. Sections IIC and IIIC describe how the uncertainty in the astronomical unit affects the target error; this error can be important for very long flights, but should also be reduced to a negligible contribution in the next two years. Errors in the target's mass cause minor variations in flight time T_F and negligible effect on **B**. The last important target error source currently recognized is the uncertainty in the effect of the standard solar radiation pressure on spacecraft trajectory. The source of uncertainty is that effective reflecting area (largely solar panels) is not perfectly known. Techniques for the accurate measurement of this quantity are currently under development. Our studies show that unless this error is held below 5% it will be the dominant error source on many of our flights. Sections IIC and IIIC describe the calculation of the standard solar radiation pressure on a typical spacecraft deriving electrical power from the Sun.

Table 2. Tracking station parameters influencing tracking accuracy

1. Station locations	A spread of latitudes is very desirable.
2. Total tracking time	
3. Tracking data types	Range R, range rate $\dot{R}$, and angles are most commonly taken.
4. Delay in acquiring first data	Delay is measured from the injection region as well as station acquisition delays.
5. Tracking data accuracies	Expressed in terms of equivalent uncorrelated noise at a given sampling rate.
6. Uncertainty in tracking station locations	Important when high data accuracies are available. Longitude errors usually are most important.

The tracking accuracies reported here are representative of those foreseen for the 1971 time period. Range rate data were taken from the DSIF stations in South Africa, Australia, and the United States. The measurements were assigned standard deviations at 0.001 meters/sec, corresponding to a 60-sec sample rate. Station location uncertainties were assumed to be uncorrelated, with standard deviations of 0.001 deg in latitude, 0.0005 deg in longitude, and 30 meters in geocentric radius. Simultaneous tracking by more than one station was not allowed. The uncertainties quoted are those to be expected in the absence of other error sources, notably solar pressure and astronomical unit uncertainties.

The $\Lambda_{\dot{X}}$ matrix used in these calculations was assumed to be independent of the trajectory parameters listed in Table 1. This approximation is good for the range of energies and asymptotic declinations considered to be

most feasible. In the future these approximations will be refined as necessary. The $\Lambda_{\dot{X}}$ used for orbit determination accuracy in this report is given in Section IIIE. The target accuracies calculated here are typical for any reasonable multistation tracking configuration, with the data types and accuracies corresponding to this conservative representation of DSIF capabilities.

3. Calculation of Target Errors

The representation of tracking accuracy in the geocentric phase in terms of $\Lambda_{\dot{X}}$, the covariance of the $\mathbf{V}_{hL}$ in a particular rectangular coordinate system, was developed earlier in this section. In order to express the effect of these uncertainties in $\mathbf{V}_{hL}$ in terms of target error, two steps must be performed. First, a set of coordinates $\mathbf{M}_1$ at the target planet for expressing the errors ($\mathbf{M}_1$ cannot exceed 3 dimensions) must be chosen. (A convenient set with desirable linearity properties is the **T–R–S** system defined previously.) The matrix U_1, which maps $\dot{\mathbf{X}}$ to the desired $\mathbf{M}_1$, is then determined.

$$\mathbf{M}_1 = U_1\dot{\mathbf{X}} = \begin{pmatrix} \delta\mathbf{B}\cdot\mathbf{T} \\ \delta\mathbf{B}\cdot\mathbf{R} \\ \delta S \end{pmatrix} \tag{61}$$

The covariance of $\mathbf{M}_1$ is given by

$$\text{Covar}\,[\mathbf{M}_1] = \overbrace{\mathbf{M}_1\mathbf{M}_1^T} = U_1\Lambda_{\dot{X}}U_1^T = \Lambda_{\mathbf{M}_1} \tag{62}$$

The determination of U_1 for the coordinates chosen follows the lines of Section IID. It is presumed that the K-matrix is given, where

$$K = \begin{bmatrix} \dfrac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial\Phi_S} & \dfrac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial\Theta_S} & \dfrac{\partial\mathbf{B}\cdot\mathbf{T}}{\partial C_3} \\ \dfrac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial\Phi_S} & \dfrac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial\Theta_S} & \dfrac{\partial\mathbf{B}\cdot\mathbf{R}}{\partial C_3} \\ \dfrac{\partial T_F}{\partial\Phi_S} & \dfrac{\partial T_F}{\partial\Theta_S} & \dfrac{\partial T_F}{\partial C_3} \end{bmatrix} \tag{45}$$

By postmultiplying K by

$$A = \begin{bmatrix} \dfrac{1}{V_{hL}} & 0 & 0 \\ 0 & \dfrac{-1}{V_{hL}\cos\Phi_S} & 0 \\ 0 & 0 & 2V_{hL} \end{bmatrix} \tag{63}$$

the F matrix is obtained.

$$F = KA \tag{47}$$

The F matrix must now be adjusted to transform into the **T–R–S** coordinates used for $\mathbf{M}_1$. This transformation B is simply

$$B = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & -V_{hp} \end{bmatrix} \tag{64}$$

since $\delta S = -V_{hp}\delta T_L$. Thus our U_1 matrix is given by

$$U_1 = B\,(KA) = BF \tag{65}$$

Now the mapping given in Eq. (62) to obtain $\Lambda_{\mathbf{M}_1}$ is applied. Since all of the coordinates of $\mathbf{M}_1$ have the same dimensions (length squared), the one-sigma ellipsoid described by the quadratic form

$$\delta\mathbf{M}_1\,\Lambda_{\mathbf{M}_1}^{-1}\,\delta\mathbf{M}_1^T = 1 \tag{66}$$

has physical significance. The three principal axes of this ellipsoid are the square roots of the 3-eigenvalues of the $\Lambda_{\mathbf{M}_1}$ matrix. The formulas used are standard and are not reproduced here. The projection of the three-dimensional ellipsoid on to the **T–R** plane is an ellipse. Its major and minor semiaxes and orientation of the major axis are calculated by the same procedure used in Section IID. It is often convenient to write $\Lambda_{\mathbf{M}_1}$ in an alternate form:

$$\Lambda_{\mathbf{M}_1} = \begin{bmatrix} \sigma_T^2 & \rho_{RT}\sigma_T\sigma_R & \rho_{TS}\sigma_T\sigma_S \\ \rho_{RT}\sigma_R\sigma_T & \sigma_R^2 & \rho_{RS}\sigma_R\sigma_S \\ \rho_{TS}\sigma_S\sigma_T & \rho_{RS}\sigma_S\sigma_R & \sigma_S^2 \end{bmatrix} \tag{67}$$

It can be seen that $\Lambda_{\mathbf{M}_1}$ is completely described by σ_T, σ_R, σ_S, ρ_{TS}, ρ_{RS}, ρ_{TR}, because of its symmetry.

III. EXPLANATION OF TRAJECTORY TABLES

Tabular listings of pertinent quantities of the heliocentric and planetocentric trajectories, differential corrections, guidance, and orbit determination parameters are given at 1-day launch date intervals and 2-day flight time intervals over the selected launch period. The launch period is selected to encompass the minimum energy transfer dates obtained from Ref. 7 and 8. A summary of the characteristics of these trajectories is given in Ref. 7.

Each trajectory begins with a header giving launch date, flight time (in days), and arrival date. All the heliocentric transfer trajectories are calculated assuming launch into the heliocentric orbit at 0 hours of the launch date and arrival at 0 hours of the arrival date. Later, however, when the launch-planet ascent trajectories are computed, the actual launch times during the launch day for each launch azimuth are given.

Each page lists four trajectories, each of which is divided into five basic print groups: HELIOCENTRIC CONIC, PLANETOCENTRIC CONIC, DIFFERENTIAL CORRECTIONS, MID-COURSE EXECUTION ACCURACY, and ORBIT DETERMINATION ACCURACY. Each quantity is assigned an identifying alphabetic symbol of no more than three letters. The definitions of the symbols and quantities they represent are given below. All pertinent quantities are referenced to the mean equinox and equator, or ecliptic, of *launch* date.

A. Heliocentric Conic Group

The HELIOCENTRIC CONIC group gives the characteristics of the heliocentric transfer ellipse, such as the position and velocity vectors at launch and arrival, some orbital elements, and other quantities of engineering interest. The printout array is as follows:

HELIOCENTRIC CONIC DISTANCE

RL LAL LOL VL GAL AZL HCA SMA ECC INC V1

RP LAP LOP VP GAP AZP TAL TAP RCA APO V2

RC GL GP ZAL ZAP ETS ZAE ETE ZAC ETC LVI

After the words HELIOCENTRIC CONIC, the heliocentric arc DISTANCE traveled by the spacecraft from launch to arrival is printed. The quantities are defined as follows (all angles are in deg; distances are in millions of km; speeds are in km/sec):

Line 1

RL, $R_L = |\mathbf{R}_L|$ — the heliocentric radius of the launch planet at 0 hours of the launch date.

LAL, β_L — the celestial latitude of the launch planet at 0 hours of the launch date.

LOL, λ_L — the celestial longitude of the launch planet at 0 hours of the launch date.

VL, $V_L = |\mathbf{V}_L|$ — the heliocentric speed of the probe at 0 hours of the launch date.

GAL, Γ_L — the path angle of the probe at 0 hours of the launch date, i.e., the complement of the angle between the position and velocity vectors, $\mathbf{R}_L$ and $\mathbf{V}_L$, defined by

$$\sin\Gamma_L = \frac{\mathbf{R}_L \cdot \mathbf{V}_L}{R_L V_L} \qquad -\frac{\pi}{2} \leq \Gamma_L \leq \frac{\pi}{2}$$

AZL, Σ_L — the azimuth angle of the probe at 0 hours of the launch date, i.e., the angle, measured in a plane perpendicular to the radius vector $\mathbf{R}_L$, between the projection of the ecliptic north and the projection of the velocity vector $\mathbf{V}_L$ on the plane perpendicular to $\mathbf{R}_L$, defined by

$$\cos\Sigma_L = \frac{\mathbf{V}_L \cdot \boldsymbol{\Psi}^1}{V_L \cos\Gamma_L} \qquad 0 \leq \Sigma_L \leq 2\pi$$

$$\sin\Sigma_L = \frac{(\mathbf{R}_L \times \mathbf{V}_L) \cdot \boldsymbol{\Psi}^1}{|\mathbf{R}_L \times \mathbf{V}_L|}$$

where $\boldsymbol{\Psi}^1 = (\mathbf{K}' - \mathbf{R}_L^1 \sin\beta_L) \sec\beta_L$, where the superscript 1 denotes a unit vector.

HCA, Ψ — the heliocentric central angle, or angle between the position vector $\mathbf{R}_L$, of the launch planet at 0 hours of the launch date and the position vector $\mathbf{R}_p$, of the target planet at 0 hours of the arrival date. This angle is defined by Eq. (3) and (4) and illustrated in Fig. 1.

SMA, a — the semimajor axis of the heliocentric transfer ellipse.

ECC, e — the eccentricity of the heliocentric transfer ellipse.

INC, i — the inclination of the heliocentric transfer ellipse.

V1, $V_1 = |\mathbf{V}_1|$ — the heliocentric speed of the launch planet at 0 hours of the launch date.

Line 2

RP, $R_p = |\mathbf{R}_p|$ — the heliocentric radius of the target planet at 0 hours of the arrival date.

LAP, β_p — the celestial latitude of the target planet at 0 hours of the arrival date.

LOP, λ_p — the celestial longitude of the target planet at 0 hours of the arrival date.

VP, $V_p = |\mathbf{V}_p|$ — the heliocentric speed of the probe at 0 hours of the arrival date.

GAP, Γ_p — the path angle of the probe at 0 hours of the arrival date, defined the same as Γ_L except that $\mathbf{R}_p$ and $\mathbf{V}_p$ are substituted for $\mathbf{R}_L$ and $\mathbf{V}_L$.

AZP, Σ_p — the azimuth angle of the probe at 0 hours of the arrival date, defined the same as Σ_L except that $\mathbf{R}_p$ and $\mathbf{V}_p$ are substituted for $\mathbf{R}_L$ and $\mathbf{V}_L$.

TAL, υ_L — the true anomaly of the probe in the heliocentric transfer ellipse at 0 hours of the launch date.

TAP, υ_p — the true anomaly of the probe in the heliocentric transfer ellipse at 0 hours of the arrival date.

RCA, R_{CA} — the perihelion distance of the heliocentric transfer ellipse. This distance is printed even though the probe may not transit perihelion.

APO, R_A — the aphelion distance of the heliocentric transfer ellipse. This distance is printed even though the probe may not transit aphelion.

V2, $V_2 = |\mathbf{V}_2|$ — the heliocentric speed of the target planet at 0 hours of the arrival date.

Line 3

RC, R_C — the communication distance, or distance between the launch and target planets at 0 hours of *the arrival date*.

GL, γ_L — the angle between the launch hyperbolic-excess velocity vector $\mathbf{V}_{hL}$ and its projection on the orbital plane of the launch planet, defined by

$$\sin\gamma_L = \frac{\mathbf{W}_1 \cdot \mathbf{V}_{hL}}{V_{hL}} \qquad -\frac{\pi}{2} \leqq \gamma_L \leqq \frac{\pi}{2}$$

where $\mathbf{W}_1$ is a unit normal to the launch planet's orbital plane. This angle is useful in describing the direction in which the probe leaves the launch planet.

GP, γ_p — the angle between the incoming arrival hyperbolic-excess velocity vector $\mathbf{V}_{hp}$, and its projection on the target planet's orbital plane, defined by

$$\sin\gamma_p = \frac{\mathbf{W}_2 \cdot \mathbf{V}_{hp}}{V_{hp}} \qquad -\frac{\pi}{2} \leqq \gamma_p \leqq \frac{\pi}{2}$$

where $\mathbf{W}_2$ is a unit normal to the target planet's orbital plane. This angle is useful in determining whether the probe is approaching from above or below the target planet. If γ_p is positive, the probe approaches from below —if negative, from above.

ZAL, ζ_L — the angle between the outgoing launch asymptote (or hyperbolic-excess velocity vector) and the launch *heliocentric* radius vector $\mathbf{R}_L$ at launch time. This parameter is a good approximation to the launch-planet–probe–Sun angle as the probe leaves the launch planet. It is an important quantity in the design of attitude control systems which use the Sun and launch planet as optical references. The quantity ζ_L is defined as

$$\cos\zeta_L = \frac{\mathbf{V}_{hL} \cdot \mathbf{R}_L^1}{V_{hL}} \qquad 0 \leqq \zeta_L \leqq \pi$$

The next six quantities, all angles, have the same general definition. They are important in the design of the near-target trajectory and are used in determining the aiming point for interplanetary flyby trajectories. Consider the target-centered geometry of Fig. 10.

In this diagram, the reference coordinate system is the same target **R**, **S**, **T** system defined in Section IIC. A unit

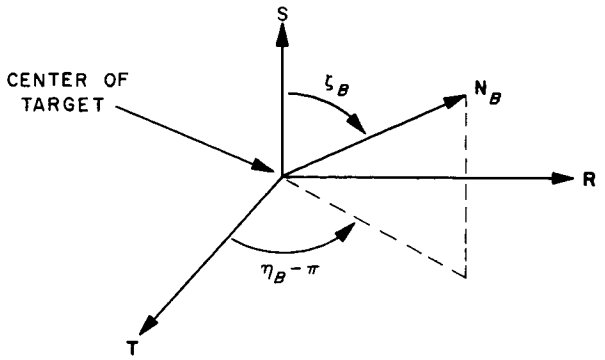


Fig. 10. Generalized geometry for aiming point angles

vector $\mathbf{N}_B$ (subscript B for body) is directed from the target center to another celestial body. The angular quantity ζ_B is the angle subtended at the target center between the incoming asymptote **S** and the target–celestial body line $\mathbf{N}_B$. Thus

$$\cos \zeta_B = \mathbf{S} \cdot \mathbf{N}_B = \frac{\mathbf{V}_{hp} \cdot \mathbf{N}_B}{V_{hp}} \qquad 0 \leq \zeta_B \leq \pi$$

since

$$\mathbf{S} = \frac{\mathbf{V}_{hp}}{V_{hp}}$$

The angle η_B is the supplement of the angle between the **T** direction and the projection of $\mathbf{N}_B$ on the **R** − **T** plane, defined by

$$\sin \eta_B = \frac{-\mathbf{R} \cdot \mathbf{N}_B}{\sin \zeta_B} \qquad 0 \leq \eta_B \leq 2\pi$$

$$\cos \eta_B = \frac{-\mathbf{T} \cdot \mathbf{N}_B}{\sin \zeta_B}$$

These quantities are computed for three celestial bodies: the Sun (ζ_S and η_S), the Earth (ζ_E and η_E), and the star Canopus (ζ_C and η_C). Thus,

ZAP, ζ_s (or ζ_p) — This angle is useful in that it indicates the direction of the probe's approach to the target. If $\zeta_s < \pi/2$, the probe approaches from the target planet's dark side. If $\zeta_s > \pi/2$, it approaches from the light side. Thus the parameter is equivalent to the Sun–probe-target angle a few days before encounter.

ETS, η_s — defined as above.

ZAE, ζ_E — This angle is useful in locating the Earth as the probe approaches the target. The parameter is equivalent to the Earth–probe-target angle a few days before encounter.

ETE, η_E — defined as above.

ZAC, ζ_C — the Canopus–probe-target angle a few days before encounter.

ETC, η_C — defined as above.

LVI, Φ_I[†] — the declination (latitude) of the vertical impact point referenced to the target planet's equator. The vertical impact point is that point on the surface of the target planet that the incoming asymptote would intersect if it were to pass through the center of the planet. This quantity is defined by

$$\begin{aligned}\sin \Phi_I = &-(\cos \Theta_{sp} \cos \Phi_{sp} \cos \Theta_p \cos \Phi_p \\ &+ \sin \Theta_{sp} \cos \Phi_{sp} \sin \Theta_p \cos \Phi_p \\ &+ \sin \Phi_{sp} \sin \Phi_p)\end{aligned}$$

where Θ_p and Φ_p are the Earth equatorial right ascension and declination of the Mars north pole, and Θ_{sp} and Φ_{sp} are the right ascension and declination of the incoming asymptote with respect to the Earth's equator (Fig. 11).

[†]Because of its importance in trajectory studies, the parameter LVI has been substituted in place of CLP, which was given in previous volumes.

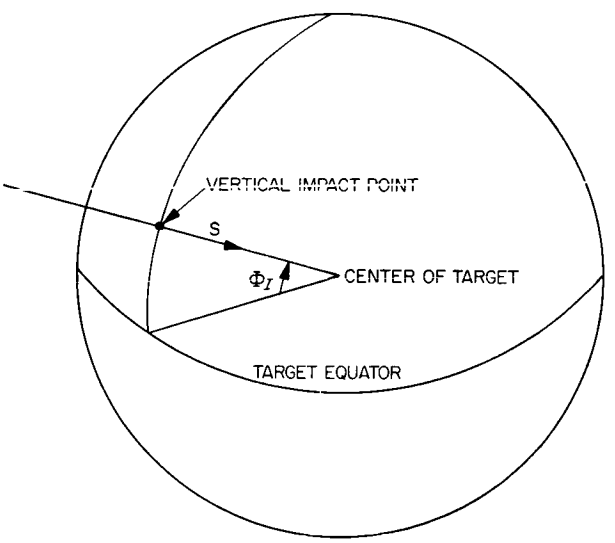


Fig. 11. Vertical impact point geometry

B. Planetocentric Conic Group

The second group, PLANETOCENTRIC CONIC, gives the characteristics of primarily the launch-planet ascent trajectories, but also includes the hyperbolic-excess vector at the target. Injection conditions are given for seven launch azimuths, assuming only short coast time parking orbits. As explained in Ref. 6, there may be two launch times per day for each launch azimuth, resulting in a short and long parking orbit. The injection conditions for each set are given in geocentric space-fixed spherical coordinates and, by assuming a 100-nm parking orbit altitude and typical boost vehicle trajectory characteristics, the longitude of injection is calculated, along with the latitude and longitude of ignition of final burn out of the parking orbit.

A special case may arise when the declination of the outgoing asymptote of the escape hyperbola is greater than the launch site latitude (Cape Kennedy). In this case, owing to geometrical restrictions, it may not be possible to fire in a symmetrical band of azimuths about due east, as explained in Ref. 6. This band of restricted azimuths may eliminate part or all of the selected launch azimuth band 50 to 110 deg. When this happens, only those trajectories with permissible azimuths are printed, in addition to the limiting azimuths, or the most northerly and southerly azimuths, that are possible.

The ascent trajectory profile is as shown in Fig. 12. Its characteristics are defined as follows:

Φ_1 the arc subtended at Earth's center during ascent from launch into parking orbit.

t_1 the time from launch to parking-orbit injection.

Φ_2 the arc subtended at Earth's center during final burn out of the parking orbit, to injection.

t_2 the time of final burn.

$k_\Phi^\cdot$ the inverse parking orbital rate, equal to $1/\dot{\Phi}_c$.

v_1 the true anomaly in the hyperbolic orbit at injection.

R_p the perifocal distance of the escape hyperbola, taken equal to the Earth-centered radius of the parking orbit.

ϕ_L the longitude of the launch site.

θ_L the latitude of the launch site.

The values of these quantities for all trajectories contained herein are:

$\Phi_1 = 23$ deg

$t_1 = 700$ sec

$\Phi_2 = 25$ deg

$t_2 = 300$ sec

$k_\Phi^\cdot = 14.689$ sec/deg

$v_1 = 12$ deg

$R_p = 6560$ km

$\phi_L = 28.28$ deg

$\theta_L = 279.5$ deg

An inherent assumption here is that these quantities are relatively invariant with injection energy. This is a reasonable assumption and will affect the injection coordinates only slightly.

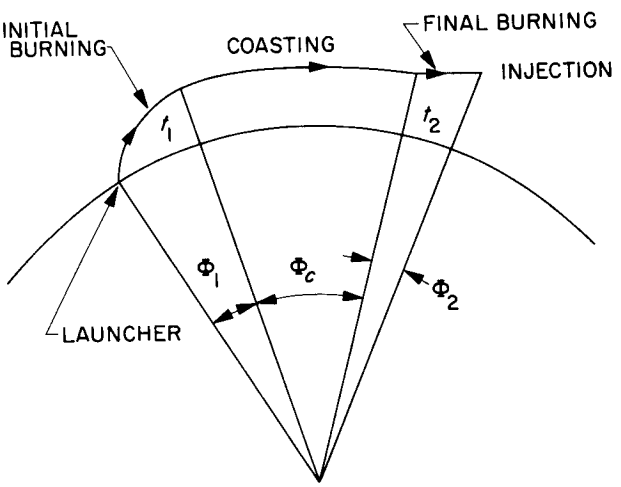


Fig. 12. Ascent trajectory profile

The print array for the PLANETOCENTRIC CONIC group is:

C3	VHL	DLA	RAL	RAD	VEL	PTH	VHP	DPA	RAP	ECC
LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG

The quantities are defined as follows (all angles are in deg; distances are in km; speeds are in km/sec, launch-injection (L-I)time and parking orbit coast time (PO CST TIM) are in sec; launch time and injection time are in hr, min, and sec, GMT):

Line 1

C3, C_3 — the *vis viva* integral (Moulton), or twice the total energy per unit mass, expressed in km²/sec² and defined by $C_3 = V^2_{hL}$.

VHL, V_{hL} — the launch hyperbolic-excess speed.

DLA, Φ_S — the declination of the outgoing asymptote of the escape hyperbola defined in Eq. (18).

RAL, Θ_S — the right ascension of the outgoing asymptote of the escape hyperbola defined in Eq. (18).

RAD, $R = |\mathbf{R}|$ — the launch-planet-centered injection radius.

VEL, $V = |\mathbf{V}|$ — the inertial injection speed.

PTH, Γ — the injection path angle defined by

$$\sin\Gamma = \frac{\mathbf{V}\cdot\mathbf{R}}{VR} \qquad -\frac{\pi}{2} \leq \Gamma \leq \frac{\pi}{2}$$

VHP, V_{hp} — the hyperbolic-excess speed at the target.

DPA, Φ_{Sp} — the declination of the incoming asymptote at the target. The reference coordinate system here is vernal equinox, Earth equatorial, mean of *launch* date

RAP, Θ_{Sp} — the right ascension of the incoming asymptote at the target. Same reference coordinates as for Φ_{Sp}.

ECC, e — the eccentricity of the escape hyperbola.

Line 2

LNCH AZMTH, Σ_L — the launch azimuth measured in a plane tangent to the surface of the launch planet at the launch site, positive east of true north.

LNCH TIME, T_L — the launch time. For the range of launch azimuths given herein, launch time may cross 0 hours, or midnight. In this case, the launch date may be advanced to the following day for times after midnight, or it may be retarded to the previous day for times before midnight, whichever the reader wishes.

L-I TIME, t_{LI} — the launch-to-injection time.

INJ LAT, ϕ — the injection latitude (or declination Φ).

INJ LONG, θ — the injection longitude, measured positive east of Greenwich, $0 \leq \theta \leq 2\pi$.

INJ RT ASC, Θ — the injection right ascension.

INJ AZMTH, Σ — the injection azimuth, or angle between the projection of the velocity vector V, on the local horizontal plane and the projection of true north on this plane, measured positive east of true north.

INJ TIME, T_I — the injection time. The same comment applies to this quantity regarding launch date as applied to the launch time. However, both times must be consistent. For example, if launch time is on the previous day, injection time may fall on the launch date shown, or it may be on the following day.

PO CST TIM, t_c — the coast time in the parking orbit, in sec.

INJ 2 LAT, ϕ_2 — the latitude of the start of final burn out of the parking orbit.

INJ 2 LONG, θ_2 — the longitude of the start of final burn out of the parking orbit, $0 \leq \theta_2 \leq 2\pi$.

The quantities T_I, R, Φ, Θ, V, Γ, Σ form a consistent set of injection conditions; i.e., they are the time and the space-fixed spherical coordinates which can be used to initialize an integrating trajectory program.

C. Differential Corrections Group

The DIFFERENTIAL CORRECTIONS group is comprised of sixteen error coefficients relating variations in

injection energy C_3, declination Φ_S, and right ascension Θ_S, of the outgoing asymptote of the escape hyperbola, the astronomical unit, and solar radiation pressure to variations in the miss components $\mathbf{B}\cdot\mathbf{T}$, $\mathbf{B}\cdot\mathbf{R}$, and the flight time. These coefficients are very useful in gaging the error sensitivity of an interplanetary trajectory. The printout array for this group is as follows:

DIFFERENTIAL CORRECTIONS

TDE	TRA	TC3	BAU
RDE	RRA	RC3	FAU
FDE	FRA	FC3	BSP
BDE	BRA	BC3	FSP

The symbols are defined as follows:

Line 1

TDE, $\frac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \Phi_S}$ the partial derivative of the **T** component of the impact parameter **B**, with respect to the declination of the launch escape asymptote Φ_S, in megakilometers/deg.

TRA, $\frac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial \Theta_S}$ the partial derivative of the **T** component of the impact parameter **B**, with respect to the right ascension of the launch escape asymptote Θ_S, in megakilometers/deg.

TC3, $\frac{\partial \mathbf{B}\cdot\mathbf{T}}{\partial C_3}$ the partial derivative of the **T** component of the impact parameter **B**, with respect to the injection energy C_3, in megakilometers/km²/sec².

BAU, $\frac{\partial B}{\partial au}$ the partial derivative of the magnitude of the impact parameter **B**, with respect to the astronomical unit-to-kilometer conversion factor. This derivative is dimensionless and indicates the target miss caused by an uncertainty in the value of the astronomical unit.

Line 2

RDE, $\frac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \Phi_S}$ the partial derivative of the **R** component of the impact parameter **B**, with respect to the declination of the launch escape asymptote Φ_S, in megakilometers/deg.

RRA, $\frac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial \Theta_S}$ the partial derivative of the **R** component of the impact parameter **B**, with respect to the right ascension of the launch escape asymptote Θ_S, in megakilometers/deg.

RC3, $\frac{\partial \mathbf{B}\cdot\mathbf{R}}{\partial C_3}$ the partial derivative of the **R** component of the impact parameter **B**, with respect to the injection energy C_3, in megakilometers/km²/sec².

FAU, $\frac{\partial T_F}{\partial au}$ the partial derivative of the flight time T_F, with respect to the astronomical unit-to-kilometer conversion factor. This derivative has dimensions of sec/km and indicates the error in flight time caused by an uncertainty in the value of the astronomical unit.

Line 3

FDE, $\frac{\partial T_F}{\partial \Phi_S}$ the partial derivative of flight time T_F, with respect to the declination of the launch escape asymptote Φ_S, in days/deg.

FRA, $\frac{\partial T_F}{\partial \Theta_S}$ the partial derivative of flight time T_F, with respect to the right ascension of the launch escape asymptote Θ_S, in days/deg.

FC3, $\frac{\partial T_F}{\partial C_3}$ the partial derivative of flight time T_F, with respect to the injection energy C_3, in days/km²/sec².

BSP, ΔB_{sp} the target miss (in km) caused by solar radiation pressure acting on a 3500-kg spacecraft having an effective perfectly reflecting area of 22 square meters.

Line 4

BDE, $\frac{\partial B}{\partial \Phi_S}$ the partial derivative of the magnitude of the impact parameter **B**, with respect to the declination of the launch escape asymptote Φ_S, in megakilometers/deg.

BRA, $\frac{\partial B}{\partial \Theta_S}$ the partial derivative of the magnitude of the impact parameter **B**, with respect to the right ascension of the launch escape asymptote Θ_S, in megakilometers/deg.

BC3, $\frac{\partial B}{\partial C_3}$ the partial derivative of the magnitude of the impact parameter **B**, with respect to the injection energy C_3, in megakilometers/km²/sec².

FSP, $\Delta T_{F_{sp}}$ the flight time error (in sec) caused by solar radiation pressure acting on a 3500-kg spacecraft having an effective perfectly reflecting area of 22 square meters.

D. Mid-Course Execution Accuracy Group

The MID-COURSE EXECUTION ACCURACY group gives the parameters of the "one-sigma" three-dimensional ellipsoid of target errors, resulting from a spherically distributed mid-course guidance execution error with σ_v equal to 0.1 m/sec (see Eq. 49). It is assumed here that a single mid-course guidance maneuver is applied during the time the spacecraft is essentially traveling radially outward from the launch planet. This time is approximately from several hours to several days after launch and is a practical period in which to perform a mid-course maneuver. These quantities are quoted in the useful **R**, **S**, **T** coordinate system discussed above.

The print array for this group is:

MID-COURSE EXECUTION ACCURACY

SGT	SGR	SG3
RRT	RRF	RTF
SGB	R23	R13
SG1	SG2	THA

The quantities are defined as follows:

Line 1

SGT, σ_T the standard deviation of position errors along the **T** axis, in km.

SGR, σ_R the standard deviation of position errors along the **R** axis, in km.

SG3, σ_3 the standard deviation of flight time errors, in sec.

Line 2

RRT, ρ_{RT} the linear correlation coefficient relating position errors in the $\bar{\mathbf{R}}$ and $\bar{\mathbf{T}}$ directions (dimensionless).

RRF, ρ_{RF} the linear correlation coefficient relating position errors in the **R** direction and flight-time errors (dimensionless).

RTF, ρ_{TF} the linear correlation coefficient relating position errors in the **T** direction and flight-time errors (dimensionless).

Line 3

SGB, σ_B the square root of the sum of the squares of σ_R and σ_T.

R23, ρ_{23} the linear correlation coefficient of σ_2 and σ_3 ($= \sigma_F$). The same remarks apply to this number as to ρ_{13}, except that the σ_2 direction replaces the σ_1 direction.

R13, ρ_{13} the linear correlation coefficient relating σ_1 and σ_3 ($= \sigma_F$). This number statistically relates position errors in the σ_1 direction to flight time errors. If $\rho_{13} = 1$, then a position error in the σ_1 direction will always be accompanied by a flight-time error which is linearly related to that position error; ρ_{13} is dimensionless.

Line 4

SG1, σ_1 the semimajor axis of the error ellipse formed by projecting the three-dimensional error ellipsoid onto the **T-R** plane (Fig. 8), in km.

SG2, σ_2 the semiminor axis of this error ellipse (Fig. 8), in km.

THA, θ the angle between the **T** axis and the direction of the σ_1 axis, measured in the **T-R** plane as shown in Fig. 8, in deg.

E. Orbit Determination Accuracy Group

The ORBIT DETERMINATION ACCURACY group is comprised of 12 numbers which describe the uncertainty in target coordinates due to tracking errors described in Section IIE. The printout array for this group is as follows:

ORBIT DETERMINATION ACCURACY

ST	SR	SS
CRT	CRS	CST
LSA	MSA	SSA
EL1	EL2	ALF

The first two lines describe the covariance of $\mathbf{M}_1$ by the method described in Section IIE (Eq. 67):

Line 1

ST, σ_T the standard deviation of errors in the coordinate $\mathbf{B} \cdot \mathbf{T}$, in km.

SR, σ_R the standard deviation of errors in the coordinate $\mathbf{B} \cdot \mathbf{R}$, in km.

SS, σ_S the standard deviation of errors in S, in km.

Line 2

CRT, ρ_{RT} the linear correlation coefficient relating errors in **B · R** to errors in **B · T**, dimensionless.

CRS, ρ_{RS} the linear correlation coefficient relating errors in **B · R** to errors in S, dimensionless.

CST, ρ_{TS} the linear correlation coefficient relating errors in **B · T** to errors in S, dimensionless.

The third line contains the three semiaxes of the one-sigma position ellipsoid described by $\mathbf{M}_1 \Lambda^{-1} \mathbf{M}^T = 1$.

Line 3

LSA, $\sqrt{\epsilon_{max}}$ the largest semiaxis of the position ellipsoid, in km. (ϵ_{max} is the largest eigenvalue of $\Lambda_{\mathbf{M}_1}$, in km².)

MSA, $\sqrt{\epsilon_{mid}}$ the middle semiaxis of the position ellipsoid, in km. (ϵ_{mid} is the second-largest, or middle, eigenvalue of $\Lambda_{\mathbf{M}_1}$, in km².)

SSA, $\sqrt{\epsilon_{min}}$ the smallest semiaxis of the position ellipsoid, in km. (ϵ_{min} is the smallest eigenvalue of $\Lambda_{\mathbf{M}_1}$, in km².)

The fourth line describes the projection of the above position ellipsoid on the **T-R** plane. This projection is an ellipse with major and minor semiaxes and orientation as described below:

Line 4

EL1 the major semiaxis of the target error ellipsoid projected onto the **T-R** plane, in km.

EL2 the minor semiaxis of the target error ellipsoid projected onto the **T-R** plane, in km.

ALF, α the angle measured counterclockwise from the **T**-axis to the major semiaxis direction, in deg ($0 \geqq \alpha \geqq 180$ deg).

The $\Lambda_{\dot{\mathbf{X}}}$ matrix used in generating the results for this report is

$$\Lambda_{\dot{\mathbf{X}}} = \begin{pmatrix} 25 \times 10^{-12} & 0 & 0 \\ 0 & 2.25 \times 10^{-12} & 0 \\ 0 & 0 & .0225 \times 10^{-12} \end{pmatrix} \left(\frac{\text{km}}{\text{sec}}\right)^2$$

In all cases LSA >> SSA, so that the information contained in lines 3 and 4 of the printout is very useful in visualizing the error ellipsoid. The general shape of the ellipsoid is a thin elliptical "pancake." When MSA << LSA, the "pancake" degenerates to approach a pencil shape. By inspecting the "shadow" of the pancake or pencil shape on the **T-R** plane, its orientation may be visualized.

If it is desired to estimate the flight time T_F, this can easily be done by the relation

$$\sigma_F = \frac{1}{V_{hp}} \sigma_S$$

The correlation coefficients between T_F and **B · T** are those given by CST; those between T_F and **B · R** are given by CRS.

IV. CONSTANTS

Constants used in trajectory calculations at the Jet Propulsion Laboratory are given in Ref. 9. For purposes of ready reference those constants used in the calculations contained herein are given below.

Gravitational Constants

1. Sun

$$GM_S = 2.959122083 \times 10^{-4} \text{ au}^3/\text{day}^2$$

2. Earth

$$GM_E = 3.986032 \times 10^5 \text{ km}^3/\text{sec}^2$$

Astronomical Unit-to-Kilometer Conversion Factor

$$1 \text{ au} = 149.599 \times 10^6 \text{ km}$$

Earth's Rotation Rate

$$\omega_E = 4.1780742 \times 10^{-3} \text{ deg/sec}$$

REFERENCES

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Earth-Mars Trajectories, 1973

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LAUNCH DATE JUL 2 1973 FLIGHT TIME 150.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 400.197 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	33.838	GAL	-5.52	AZL	89.91	HCA	131.51	SMA	221.18	ECC	.32540	INC	.0907
RP	220.95	LAP	.07	LOP	51.49	VP	24.522	GAP	18.99	AZP	90.06	TAL	337.30	TAP	108.81	RCA	149.21	APO	293.16
RC	87.440	GL	.57	GP	-7.33	ZAL	126.71	ZAP	162.84	ETS	206.44	ZAE	166.61	ETE	324.14	ZAC	77.41	ETC	283.54

V1	29.290																		
V2	24.882																		
LVI	-11.65																		

PLANETOCENTRIC CONIC

C3	30.013	VHL	5.478	DLA	17.37	RAL	44.06	RAD	6647.0	VEL	12.245	PTH	7.19	VHP	6.054	DPA	6.25	RAP	36.42

ECC	1.4939																		
INJ 2 LONG																			
104.46																			
102.28																			
96.85																			
86.64																			
69.93																			
48.01																			
25.77																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT
50.00	14 27 39	3583.95	-47.22	135.98	288.35	96.70	15 27 22	2584.0	-39.17
60.00	14 47 9	3532.03	-40.25	132.06	289.10	92.14	15 46 1	2532.0	-35.00
70.00	15 16 11	3446.52	-34.13	125.18	289.14	88.57	16 13 38	2446.5	-31.14
80.00	16 2 17	3302.05	-29.62	113.98	288.90	86.09	16 57 19	2302.0	-28.23
90.00	17 13 37	3071.80	-27.90	96.91	288.75	85.17	18 4 49	2071.8	-27.10
100.00	18 45 9	2776.52	-29.62	75.35	288.90	86.09	19 31 26	1776.5	-28.23
110.00	20 15 38	2493.34	-34.13	54.10	289.14	88.57	20 57 11	1493.3	-31.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5701	TRA	-1.8251	TC3	.2607	BAU	.1288	SGT	2106.4	SGR	583.4	SG3	386.1	ST	42.3	SR	20.4	SS	39.5
RDE	-.3750	RRA	.3467	RC3	-.1874	FAU	.08824	RRT	-.4757	RRF	.5300	RTF	-.8581	CRT	.4788	CRS	.5386	CST	.9964
FDE	1.0858	FRA	3.0129	FC3	-2.5452	BSP	3634	SGB	2185.7	R23	-.1097	R13	.8622	LSA	58.8	MSA	17.4	SSA	1.4
BDE	.6824	BRA	1.8577	BC3	.3211	FSP	563	SG1	2125.7	SG2	508.5	THA	172.04	EL1	43.6	EL2	17.4	ALF	15.54

LAUNCH DATE JUL 2 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 403.531 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	33.774	GAL	-5.43	AZL	89.86	HCA	132.62	SMA	219.59	ECC	.32023	INC	.1418
RP	221.33	LAP	.10	LOP	52.60	VP	24.390	GAP	18.67	AZP	90.10	TAL	337.39	TAP	110.01	RCA	149.27	APO	289.91
RC	89.407	GL	.89	GP	-7.64	ZAL	126.59	ZAP	161.95	ETS	206.14	ZAE	166.24	ETE	323.30	ZAC	77.05	ETC	283.53

V1	29.290																		
V2	24.840																		
LVI	-11.29																		

PLANETOCENTRIC CONIC

C3	29.120	VHL	5.396	DLA	17.64	RAL	43.84	RAD	6646.7	VEL	12.209	PTH	7.16	VHP	5.893	DPA	6.05	RAP	36.79

ECC	1.4792																		
INJ 2 LONG																			
104.32																			
102.21																			
96.89																			
86.79																			
70.14																			
48.16																			
25.81																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT
50.00	14 25 38	3582.04	-47.20	135.80	287.66	96.84	15 25 20	2582.0	-39.11
60.00	14 44 45	3531.12	-40.25	131.98	288.42	92.19	15 43 36	2531.1	-34.98
70.00	15 13 20	3446.99	-34.13	125.22	288.47	88.55	16 10 47	2447.0	-31.15
80.00	15 58 55	3304.09	-29.62	114.13	288.21	86.02	16 54 0	2304.1	-28.26
90.00	17 10 0	3074.65	-27.88	97.12	288.06	85.06	18 1 15	2074.6	-27.13
100.00	18 41 47	2778.56	-29.62	75.50	288.21	86.02	19 28 6	1778.6	-28.26
110.00	20 12 46	2493.81	-34.13	54.14	288.47	88.55	20 54 20	1493.8	-31.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5711	TRA	-1.8158	TC3	.2838	BAU	.1367	SGT	2134.0	SGR	591.8	SG3	408.5	ST	42.9	SR	19.8	SS	40.9
RDE	-.3562	RRA	.3561	RC3	-.2066	FAU	.09193	RRT	-.5080	RRF	.5652	RTF	-.8622	CRT	.4615	CRS	.5259	CST	.9961
FDE	1.1466	FRA	3.1307	FC3	-2.7330	BSP	3696	SGB	2214.6	R23	-.1175	R13	.8668	LSA	60.1	MSA	17.1	SSA	1.4
BDE	.6731	BRA	1.8503	BC3	.3510	FSP	600	SG1	2156.4	SG2	504.4	THA	171.51	EL1	44.0	EL2	17.1	ALF	14.24

LAUNCH DATE JUL 2 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 406.904 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	33.713	GAL	-5.34	AZL	89.81	HCA	133.73	SMA	218.10	ECC	.31533	INC	.1932
RP	221.71	LAP	.14	LOP	53.70	VP	24.263	GAP	18.36	AZP	90.13	TAL	337.49	TAP	111.21	RCA	149.33	APO	286.87
RC	91.436	GL	1.23	GP	-7.97	ZAL	126.46	ZAP	161.05	ETS	205.88	ZAE	165.92	ETE	322.29	ZAC	76.69	ETC	283.53

V1	29.290																		
V2	24.799																		
LVI	-10.91																		

PLANETOCENTRIC CONIC

C3	28.283	VHL	5.318	DLA	17.93	RAL	43.61	RAD	6646.3	VEL	12.175	PTH	7.14	VHP	5.738	DPA	5.84	RAP	37.14

ECC	1.4655																		
INJ 2 LONG																			
104.23																			
102.19																			
96.98																			
87.00																			
70.41																			
48.37																			
25.90																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT
50.00	14 23 30	3580.75	-47.19	135.68	287.00	96.93	15 23 11	2580.8	-39.07
60.00	14 42 13	3530.90	-40.25	131.96	287.76	92.21	15 41 4	2530.9	-34.97
70.00	15 10 18	3448.26	-34.12	125.32	287.81	88.49	16 7 46	2448.3	-31.18
80.00	15 55 21	3307.06	-29.60	114.35	287.55	85.90	16 50 28	2307.1	-28.29
90.00	17 6 9	3078.49	-27.86	97.40	287.39	84.93	17 57 28	2078.5	-27.16
100.00	18 38 13	2781.53	-29.60	75.72	287.55	85.90	19 24 34	1781.5	-28.29
110.00	20 9 44	2495.08	-34.12	54.23	287.81	88.49	20 51 19	1495.1	-31.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5718	TRA	-1.8046	TC3	.3071	BAU	.1445	SGT	2159.2	SGR	602.2	SG3	431.9	ST	43.5	SR	19.2	SS	42.4
RDE	-.3373	RRA	.3664	RC3	-.2275	FAU	.09583	RRT	-.5406	RRF	.6007	RTF	-.8659	CRT	.4417	CRS	.5106	CST	.9958
FDE	1.2104	FRA	3.2512	FC3	-2.9333	BSP	3749	SGB	2241.6	R23	-.1260	R13	.8710	LSA	61.4	MSA	16.9	SSA	1.4
BDE	.6639	BRA	1.8414	BC3	.3822	FSP	638	SG1	2185.0	SG2	500.7	THA	170.95	EL1	44.4	EL2	16.9	ALF	12.94

LAUNCH DATE JUL 2 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 410.313 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	33.655	GAL	-5.26	AZL	89.75	HCA	134.83	SMA	218.70	ECC	.31067	INC	.2473
RP	222.09	LAP	.18	LOP	54.80	VP	24.139	GAP	18.05	AZP	90.17	TAL	337.58	TAP	112.41	RCA	149.38	APO	284.02
RC	93.523	GL	1.58	GP	-8.31	ZAL	126.32	ZAP	160.13	ETS	205.66	ZAE	165.63	ETE	321.11	ZAC	76.30	ETC	283.53

V1	29.290																		
V2	24.757																		
LVI	-10.92																		

PLANETOCENTRIC CONIC

C3	27.497	VHL	5.244	DLA	18.24	RAL	43.37	RAD	6646.0	VEL	12.143	PTH	7.11	VHP	5.587	DPA	5.59	RAP	37.47

ECC	1.4525																		
INJ 2 LONG																			
104.18																			
102.23																			
97.14																			
87.29																			
70.76																			
48.66																			
26.05																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT
50.00	14 21 16	3580.11	-47.18	135.62	286.37	96.98	15 20 56	2580.1	-39.04
60.00	14 39 33	3531.41	-40.25	132.00	287.14	92.18	15 38 25	2531.4	-34.98
70.00	15 7 5	3450.38	-34.12	125.48	287.18	88.39	16 4 35	2450.4	-31.21
80.00	15 51 32	3311.02	-29.58	114.64	286.90	85.75	16 46 43	2311.0	-28.34
90.00	17 2 3	3083.41	-27.83	97.75	286.74	84.75	17 53 26	2083.4	-27.21
100.00	18 34 24	2785.49	-29.58	76.01	286.90	85.75	19 20 50	1785.5	-28.34
110.00	20 6 31	2497.20	-34.12	54.40	287.18	88.39	20 48 8	1497.2	-31.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5734	TRA	-1.7936	TC3	.3296	BAU	.1521	SGT	2184.0	SGR	615.0	SG3	456.6	ST	44.0	SR	18.6	SS	44.0
RDE	-.3178	RRA	.3777	RC3	-.2502	FAU	.09989	RRT	-.5731	RRF	.6362	RTF	-.8693	CRT	.4186	CRS	.4923	CST	.9955
FDE	1.2803	FRA	3.3771	FC3	-3.1448	BSP	3812	SGB	2268.9	R23	-.1351	R13	.8751	LSA	62.8	MSA	16.6	SSA	1.4
BDE	.6556	BRA	1.8329	BC3	.4138	FSP	679	SG1	2213.7	SG2	497.3	THA	170.34	EL1	44.8	EL2	16.6	ALF	11.60

LAUNCH DATE JUL 2 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 413.755 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.599 GAL -5.18 AZL 89.70 HCA 135.92 SMA 215.39 ECC .30624 INC .3029 V1 29.290
RP 222.48 LAP .21 LOP 55.90 VP 24.019 GAP 17.74 AZP 90.22 TAL 337.68 TAP 113.61 RCA 149.43 APO 281.36 V2 24.715
RC 95.665 GL 1.96 GP -8.67 ZAL 126.18 ZAP 159.18 ETS 205.48 ZAE 165.38 ETE 319.75 ZAC 75.90 ETC 283.53 LVI -10.11

PLANETOCENTRIC CONIC

C3 26.759 VHL 5.173 DLA 18.56 RAL 43.12 RAD 6645.7 VEL 12.113 PTH 7.09 VHP 5.441 DPA 5.33 RAP 37.80 ECC 1.4404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 18 54	3580.13	-47.18	135.62	285.78	96.98	15 18 34	2580.1	-39.04	104.18
60.00	14 36 43	3532.66	-40.26	132.11	286.54	92.11	15 35 36	2532.7	-35.02	102.32
70.00	15 3 40	3453.36	-34.11	125.71	286.56	88.25	16 1 13	2453.4	-31.26	97.35
80.00	15 47 29	3316.00	-29.56	115.01	286.27	85.56	16 42 45	2316.0	-28.39	87.65
90.00	16 57 40	3089.45	-27.79	98.19	286.10	84.53	17 49 9	2089.5	-27.27	71.20
100.00	18 30 21	2790.47	-29.56	76.38	286.27	85.56	19 16 51	1790.5	-28.39	49.02
110.00	20 3 6	2500.18	-34.11	54.63	286.56	88.25	20 44 46	1500.2	-31.26	26.27

DIFFERENTIAL CORRECTIONS

TDE -.5646 TRA-1.7710 TC3 .3673 BAU .1642
RDE -.2981 RRA .3900 RC3 -.2750 FAU .10416
FDE 1.3537 FRA 3.5061 FC3-3.3697 BSP 3746
BDE .6384 BRA 1.8134 BC3 .4588 FSP 722

MID-COURSE EXECUTION ACCURACY

SGT 2194.8 SGR 630.6 SG3 482.5
RRT -.6102 RRF .6712 RTF -.8762
SGB 2283.5 R23 -.1366 R13 .8825
SG1 2230.0 SG2 491.6 THA 169.54

ORBIT DETERMINATION ACCURACY

ST 44.1 SR 17.9 SS 45.6
CRT .3857 CRS .4700 CST .9946
LSA 63.8 MSA 16.3 SSA 1.4
EL1 44.7 EL2 16.3 ALF 10.27

LAUNCH DATE JUL 2 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 417.226 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.547 GAL -5.10 AZL 89.64 HCA 137.02 SMA 214.17 ECC .30203 INC .3606 V1 29.290
RP 222.86 LAP .25 LOP 56.99 VP 23.903 GAP 17.43 AZP 90.26 TAL 337.78 TAP 114.80 RCA 149.48 APO 278.86 V2 24.673
RC 97.860 GL 2.36 GP -9.06 ZAL 126.04 ZAP 158.21 ETS 205.34 ZAE 165.15 ETE 318.22 ZAC 75.49 ETC 283.53 LVI -9.69

PLANETOCENTRIC CONIC

C3 26.070 VHL 5.106 DLA 18.91 RAL 42.87 RAD 6645.4 VEL 12.084 PTH 7.06 VHP 5.301 DPA 5.03 RAP 38.12 ECC 1.4290

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 16 25	3580.88	-47.19	135.69	285.23	96.92	15 16 6	2580.9	-39.07	104.24
60.00	14 33 44	3534.73	-40.26	132.29	285.98	91.99	15 32 39	2534.7	-35.07	102.47
70.00	15 0 2	3457.30	-34.11	126.02	285.98	88.07	15 57 40	2457.3	-31.33	97.64
80.00	15 43 10	3322.14	-29.52	115.47	285.67	85.32	16 38 32	2322.1	-28.46	88.09
90.00	16 52 59	3096.75	-27.74	98.72	285.49	84.27	17 44 36	2096.8	-27.33	71.72
100.00	18 26 1	2796.61	-29.52	76.83	285.67	85.32	19 12 38	1796.6	-28.46	49.46
110.00	19 59 29	2504.12	-34.11	54.94	285.98	88.07	20 41 13	1504.1	-31.33	26.56

DIFFERENTIAL CORRECTIONS

TDE -.5700 TRA-1.7619 TC3 .3839 BAU .1702
RDE -.2778 RRA .4034 RC3 -.3019 FAU .10864
FDE 1.4327 FRA 3.6391 FC3-3.6079 BSP 3850
BDE .6341 BRA 1.8075 BC3 .4884 FSP 767

MID-COURSE EXECUTION ACCURACY

SGT 2220.4 SGR 649.0 SG3 509.6
RRT -.6395 RRF .7054 RTF -.8776
SGB 2313.3 R23 -.1501 R13 .8848
SG1 2260.8 SG2 490.1 THA 168.88

ORBIT DETERMINATION ACCURACY

ST 44.8 SR 17.2 SS 47.3
CRT .3554 CRS .4427 CST .9945
LSA 65.5 MSA 15.9 SSA 1.4
EL1 45.3 EL2 15.9 ALF 8.86

LAUNCH DATE JUL 2 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 420.725 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.497 GAL -5.03 AZL 89.58 HCA 138.10 SMA 213.02 ECC .29804 INC .4203 V1 29.290
RP 223.25 LAP .28 LOP 58.08 VP 23.789 GAP 17.13 AZP 90.31 TAL 337.88 TAP 115.98 RCA 149.53 APO 276.51 V2 24.631
RC 100.104 GL 2.79 GP -9.47 ZAL 125.90 ZAP 157.22 ETS 205.23 ZAE 164.95 ETE 316.51 ZAC 75.05 ETC 283.54 LVI -9.25

PLANETOCENTRIC CONIC

C3 25.425 VHL 5.042 DLA 19.27 RAL 42.61 RAD 6645.2 VEL 12.058 PTH 7.04 VHP 5.165 DPA 4.71 RAP 38.42 ECC 1.4184

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 13 48	3582.35	-47.20	135.83	284.72	96.81	15 13 30	2582.4	-39.12	104.34
60.00	14 30 35	3537.64	-40.27	132.53	285.45	91.82	15 29 33	2537.6	-35.14	102.69
70.00	14 56 12	3462.24	-34.09	126.41	285.42	87.85	15 53 54	2462.2	-31.41	98.00
80.00	15 38 33	3329.47	-29.48	116.01	285.09	85.04	16 34 2	2329.5	-28.54	88.62
90.00	16 47 58	3105.37	-27.68	99.34	284.89	83.97	17 39 43	2105.4	-27.41	72.34
100.00	18 21 25	2803.94	-29.48	77.37	285.09	85.04	19 8 9	1803.9	-28.54	49.99
110.00	19 55 38	2509.06	-34.09	55.32	285.42	87.85	20 37 27	1509.1	-31.41	26.92

DIFFERENTIAL CORRECTIONS

TDE -.5741 TRA-1.7498 TC3 .4012 BAU .1768
RDE -.2569 RRA .4181 RC3 -.3310 FAU .11329
FDE 1.5176 FRA 3.7760 FC3-3.8576 BSP 3936
BDE .6290 BRA 1.7991 BC3 .5202 FSP 814

MID-COURSE EXECUTION ACCURACY

SGT 2241.9 SGR 670.8 SG3 538.0
RRT -.6681 RRF .7381 RTF -.[illegible]92
SGB 2340.1 R23 -.1630 R13 .8874
SG1 2288.5 SG2 489.0 THA 168.15

ORBIT DETERMINATION ACCURACY

ST 45.4 SR 16.4 SS 49.1
CRT .3178 CRS .4094 CST .9942
LSA 67.1 MSA 15.6 SSA 1.4
EL1 45.8 EL2 15.5 ALF 7.41

LAUNCH DATE JUL 2 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 424.280 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.450 GAL -4.96 AZL 89.52 HCA 139.19 SMA 211.95 ECC .29425 INC .4825 V1 29.290
RP 223.64 LAP .32 LOP 59.17 VP 23.679 GAP 16.83 AZP 90.37 TAL 337.97 TAP 117.16 RCA 149.58 APO 274.31 V2 24.590
RC 102.397 GL 3.23 GP -9.90 ZAL 125.76 ZAP 156.20 ETS 205.15 ZAE 164.76 ETE 314.62 ZAC 74.60 ETC 283.56 LVI -8.79

PLANETOCENTRIC CONIC

C3 24.821 VHL 4.982 DLA 19.66 RAL 42.34 RAD 6644.9 VEL 12.033 PTH 7.02 VHP 5.034 DPA 4.35 RAP 38.71 ECC 1.4085

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 11 2	3584.59	-47.22	136.05	284.25	96.65	15 10 47	2584.6	-39.19	104.50
60.00	14 27 15	3541.42	-40.27	132.85	284.95	91.60	15 26 16	2541.4	-35.23	102.96
70.00	14 52 7	3468.22	-34.08	126.87	284.89	87.57	15 49 55	2468.2	-31.51	98.44
80.00	15 33 37	3338.09	-29.43	116.64	284.52	84.71	16 29 15	2338.1	-28.64	89.24
90.00	16 42 36	3115.42	-27.61	100.07	284.31	83.61	17 34 31	2115.4	-27.49	73.06
100.00	18 16 29	2812.56	-29.43	78.01	284.52	84.71	19 3 22	1812.6	-28.64	50.61
110.00	19 51 33	2515.03	-34.08	55.79	284.89	87.57	20 33 28	1515.0	-31.51	27.36

DIFFERENTIAL CORRECTIONS

TDE -.5766 TRA-1.7356 TC3 .4199 BAU .1841
RDE -.2353 RRA .4340 RC3 -.3626 FAU .11813
FDE 1.6084 FRA 3.9173 FC3-4.1203 BSP 4003
BDE .6228 BRA 1.7890 BC3 .5548 FSP 865

MID-COURSE EXECUTION ACCURACY

SGT 2260.0 SGR 696.2 SG3 567.6
RRT -.6961 RRF .7692 RTF -.8812
SGB 2364.8 R23 -.1751 R13 .8905
SG1 2313.8 SG2 488.2 THA 167.32

ORBIT DETERMINATION ACCURACY

ST 45.9 SR 15.7 SS 51.0
CRT .2710 CRS .3681 CST .9938
LSA 68.7 MSA 15.2 SSA 1.5
EL1 46.2 EL2 15.0 ALF 5.92

LAUNCH DATE JUL 2 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 427.799 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	33.405	GAL	-4.89	AZL	89.45	HCA	140.27	SMA	210.93	ECC	.29066	INC	.5472	V1	29.290
RP	224.03	LAP	.35	LOP	60.25	VP	23.572	GAP	16.53	AZP	90.42	TAL	338.07	TAP	118.34	RCA	149.63	APO	272.24	V2	24.548
RC	104.735	GL	3.70	GP	-10.36	ZAL	125.61	ZAP	155.16	ETS	205.10	ZAE	164.57	ETE	312.54	ZAC	74.12	ETC	283.57	LVI	-8.32

PLANETOCENTRIC CONIC

C3 24.257 VHL 4.925 DLA 20.07 RAL 42.06 RAD 6644.7 VEL 12.010 PTH 7.00 VHP 4.907 DPA 3.97 RAP 38.99 ECC 1.3992

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 8 8	3587.63	-47.24	136.34	283.83	96.43	15 7 55	2587.6	-39.30	104.72
60.00	14 23 43	3546.11	-40.28	133.25	284.48	91.33	15 22 49	2546.1	-35.34	103.31
70.00	14 47 46	3475.31	-34.06	127.43	284.38	87.24	15 45 41	2475.3	-31.63	98.96
80.00	15 28 21	3348.09	-29.36	117.38	283.98	84.33	16 24 9	2348.1	-28.74	89.97
90.00	16 36 50	3127.02	-27.52	100.90	283.75	83.20	17 28 57	2127.0	-27.59	73.90
100.00	18 11 12	2822.56	-29.36	78.75	283.98	84.33	18 58 15	1822.6	-28.74	51.34
110.00	19 47 12	2522.13	-34.06	56.34	284.38	87.24	20 29 14	1522.1	-31.63	27.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5786	TRA	-1.7193	TC3	.4384	BAU	.1918	SGT	2274.7	SGR	725.6	SG3	598.5	ST	46.4	SR	15.0	SS	52.9
RDE	-.2128	RRA	.4512	RC3	-.3968	FAU	.12315	RRT	-.7224	RRF	.7983	RTF	-.8833	CRT	.2138	CRS	.3170	CST	.9933
FDE	1.7060	FRA	4.0616	FC3	-4.3952	BSP	4058	SGB	2387.6	R23	-.1869	R13	.8938	LSA	70.4	MSA	14.9	SSA	1.5
BDE	.6165	BRA	1.7775	BC3	.5913	FSP	917	SG1	2337.1	SG2	488.3	THA	166.42	EL1	46.5	EL2	14.6	ALF	4.37

LAUNCH DATE JUL 2 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 431.369 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	33.362	GAL	-4.82	AZL	89.39	HCA	141.35	SMA	209.99	ECC	.28724	INC	.6148	V1	29.290
RP	224.42	LAP	.36	LOP	61.33	VP	23.468	GAP	16.23	AZP	90.48	TAL	338.16	TAP	119.51	RCA	149.67	APO	270.30	V2	24.506
RC	107.119	GL	4.20	GP	-10.84	ZAL	125.46	ZAP	154.09	ETS	205.07	ZAE	164.39	ETE	310.29	ZAC	73.63	ETC	283.60	LVI	-7.82

PLANETOCENTRIC CONIC

C3 23.731 VHL 4.871 DLA 20.51 RAL 41.77 RAD 6644.5 VEL 11.988 PTH 6.98 VHP 4.785 DPA 3.55 RAP 39.25 ECC 1.3906

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 5 4	3591.52	-47.27	136.71	283.44	96.14	15 4 55	2591.5	-39.43	105.01
60.00	14 19 59	3551.79	-40.29	133.74	284.05	91.00	15 19 10	2551.8	-35.48	103.73
70.00	14 43 8	3483.60	-34.03	128.07	283.90	86.86	15 41 12	2483.6	-31.76	99.57
80.00	15 22 41	3359.60	-29.28	118.22	283.45	83.89	16 18 41	2359.6	-28.85	90.81
90.00	16 30 36	3140.33	-27.41	101.86	283.20	82.73	17 22 57	2140.3	-27.69	74.86
100.00	18 5 33	2834.07	-29.28	79.59	283.45	83.89	18 52 47	1834.1	-28.85	52.18
110.00	19 42 34	2530.42	-34.03	56.99	283.90	86.86	20 24 45	1530.4	-31.76	28.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5807	TRA	-1.7016	TC3	.4559	BAU	.1997	SGT	2286.9	SGR	759.3	SG3	630.8	ST	46.8	SR	14.2	SS	55.0
RDE	-.1893	RRA	.4700	RC3	-.4338	FAU	.12837	RRT	-.7468	RRF	.8251	RTF	-.8851	CRT	.1440	CRS	.2534	CST	.9928
FDE	1.8114	FRA	4.2098	FC3	-4.6832	BSP	4111	SGB	2409.6	R23	-.1988	R13	.8971	LSA	72.2	MSA	14.5	SSA	1.5
BDE	.6108	BRA	1.7653	BC3	.6293	FSP	972	SG1	2359.4	SG2	489.5	THA	165.43	EL1	46.9	EL2	14.1	ALF	2.75

LAUNCH DATE JUL 2 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 434.959 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	33.322	GAL	-4.76	AZL	89.31	HCA	142.42	SMA	209.09	ECC	.28400	INC	.6849	V1	29.290
RP	224.81	LAP	.42	LOP	62.40	VP	23.367	GAP	15.94	AZP	90.54	TAL	338.26	TAP	120.68	RCA	149.71	APO	268.48	V2	24.464
RC	109.544	GL	4.73	GP	-11.36	ZAL	125.30	ZAP	152.99	ETS	205.06	ZAE	164.20	ETE	307.85	ZAC	73.11	ETC	283.62	LVI	-7.30

PLANETOCENTRIC CONIC

C3 23.242 VHL 4.821 DLA 20.98 RAL 41.48 RAD 6644.3 VEL 11.968 PTH 6.97 VHP 4.667 DPA 3.09 RAP 39.50 ECC 1.3825

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 1 49	3596.28	-47.31	137.16	283.11	95.79	15 1 46	2596.3	-39.58	105.35
60.00	14 16 1	3558.49	-40.30	134.31	283.65	90.82	15 15 10	2558.5	-35.64	104.23
70.00	14 38 12	3493.16	-33.99	128.82	283.45	86.42	15 36 25	2493.2	-31.90	100.28
80.00	15 16 36	3372.76	-29.18	119.19	282.95	83.39	16 12 48	2372.8	-28.97	91.77
90.00	16 23 53	3155.53	-27.27	102.95	282.67	82.20	17 16 28	2155.5	-27.79	75.96
100.00	17 59 28	2847.23	-29.18	80.56	282.95	83.39	18 46 55	1847.2	-28.97	53.13
110.00	19 37 38	2539.98	-33.99	57.73	283.45	86.42	20 19 58	1540.0	-31.90	29.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5812	TRA	-1.6817	TC3	.4733	BAU	.2082	SGT	2295.0	SGR	797.7	SG3	664.2	ST	47.2	SR	13.6	SS	57.0
RDE	-.1649	RRA	.4899	RC3	-.4742	FAU	.13386	RRT	-.7691	RRF	.8495	RTF	-.8868	CRT	.0589	CRS	.1750	CST	.9923
FDE	1.9216	FRA	4.3582	FC3	-4.9863	BSP	4151	SGB	2429.7	R23	-.2104	R13	.9004	LSA	73.9	MSA	14.1	SSA	1.5
BDE	.6042	BRA	1.7516	BC3	.6700	FSP	1028	SG1	2379.4	SG2	491.7	THA	164.35	EL1	47.2	EL2	13.5	ALF	1.06

LAUNCH DATE JUL 2 1973 FLIGHT TIME 172.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 438.567 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	33.283	GAL	-4.70	AZL	89.24	HCA	143.49	SMA	208.26	ECC	.28093	INC	.7587	V1	29.290
RP	225.20	LAP	.45	LOP	63.47	VP	23.268	GAP	15.65	AZP	90.61	TAL	338.35	TAP	121.84	RCA	149.75	APO	266.76	V2	24.422
RC	112.011	GL	5.28	GP	-11.91	ZAL	125.15	ZAP	151.86	ETS	205.07	ZAE	163.99	ETE	305.23	ZAC	72.56	ETC	283.66	LVI	-6.76

PLANETOCENTRIC CONIC

C3 22.788 VHL 4.774 DLA 21.47 RAL 41.18 RAD 6644.1 VEL 11.949 PTH 6.95 VHP 4.554 DPA 2.59 RAP 39.74 ECC 1.3750

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 58 24	3601.99	-47.34	137.71	282.82	95.38	14 58 26	2602.0	-39.77	105.77
60.00	14 11 48	3566.30	-40.30	134.97	283.29	90.17	15 11 14	2566.3	-35.82	104.81
70.00	14 32 55	3504.11	-33.94	129.67	283.02	85.92	15 31 19	2504.1	-32.07	101.09
80.00	15 10 2	3387.73	-29.06	120.28	282.46	82.83	16 6 29	2387.7	-29.10	92.86
90.00	16 16 35	3172.84	-27.10	104.19	282.15	81.60	17 9 28	2172.8	-27.89	77.21
100.00	17 52 53	2862.21	-29.06	81.65	282.46	82.83	18 40 36	1862.2	-29.10	54.23
110.00	19 32 21	2550.93	-33.94	58.58	283.02	85.92	20 14 52	1550.9	-32.07	30.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5821	TRA	-1.6605	TC3	.4889	BAU	.2169	SGT	2300.6	SGR	841.2	SG3	698.9	ST	47.5	SR	13.0	SS	59.2
RDE	-.1391	RRA	.5117	RC3	-.5177	FAU	.13949	RRT	-.7892	RRF	.8715	RTF	-.8883	CRT	-.0436	CRS	.0785	CST	.9916
FDE	2.0410	FRA	4.5102	FC3	-5.2995	BSP	4191	SGB	2449.5	R23	-.2216	R13	.9039	LSA	75.8	MSA	13.7	SSA	1.5
BDE	.5985	BRA	1.7375	BC3	.7121	FSP	1087	SG1	2398.9	SG2	495.4	THA	163.16	EL1	47.5	EL2	13.0	ALF	179.26

LAUNCH DATE JUL 2 1973 FLIGHT TIME 174.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 442.193 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.247 GAL -4.64 AZL 89.16 HCA 144.56 SMA 207.47 ECC .27801 INC .8359 V1 29.290
RP 225.59 LAP .48 LOP 64.54 VP 23.172 GAP 15.36 AZP 90.68 TAL 338.44 TAP 123.00 RCA 149.79 APO 265.15 V2 24.380
RC 114.516 GL 5.87 GP -12.49 ZAL 124.99 ZAP 150.70 ETS 205.11 ZAE 163.75 ETE 302.45 ZAC 71.98 ETC 283.70 LVI -6.19

PLANETOCENTRIC CONIC

C3 22.367 VHL 4.729 DLA 21.99 RAL 40.87 RAD 6643.9 VEL 11.931 PTH 6.94 VHP 4.446 DPA 2.06 RAP 39.97 ECC 1.3681

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 54 47	3608.68	-47.38	138.35	282.58	94.88	14 54 55	2608.7	-39.99	106.27
60.00	14 7 19	3575.28	-40.30	135.74	282.97	89.65	15 6 54	2575.3	-36.03	105.49
70.00	14 27 15	3516.55	-33.87	130.63	282.62	85.36	15 25 52	2516.6	-32.25	102.01
80.00	15 2 55	3404.73	-28.91	121.53	281.98	82.19	15 59 39	2404.7	-29.24	94.11
90.00	16 8 38	3192.54	-26.90	105.60	281.65	80.93	17 1 50	2192.5	-28.00	78.65
100.00	17 45 46	2879.20	-28.91	82.89	281.98	82.19	18 33 46	1879.2	-29.24	55.47
110.00	19 26 41	2563.37	-33.87	59.55	282.62	85.36	20 9 25	1563.4	-32.25	30.93

DIFFERENTIAL CORRECTIONS

TDE -.5831 TRA-1.6379 TC3 .5015 BAU .2258
RDE -.1118 RRA .5350 RC3 -.5646 FAU .14528
FDE 2.1690 FRA 4.6632 FC3-5.6231 BSP 4230
BDE .5937 BRA 1.7231 BC3 .7552 FSP 1148

MID-COURSE EXECUTION ACCURACY

SGT 2303.0 SGR 890.0 SG3 734.7
RRT -.8067 RRF .8910 RTF -.8894
SGB 2469.0 R23 -.2327 R13 .9072
SG1 2417.7 SG2 501.0 THA 161.88

ORBIT DETERMINATION ACCURACY

ST 47.7 SR 12.5 SS 61.5
CRT -.1641 CRS -.0373 CST .9910
LSA 77.7 MSA 13.4 SSA 1.5
EL1 47.8 EL2 12.3 ALF 177.36

LAUNCH DATE JUL 2 1973 FLIGHT TIME 176.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 445.835 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.213 GAL -4.59 AZL 89.08 HCA 145.62 SMA 206.73 ECC .27525 INC .9169 V1 29.290
RP 225.98 LAP .52 LOP 65.60 VP 23.078 GAP 15.08 AZP 90.76 TAL 338.53 TAP 124.15 RCA 149.82 APO 263.63 V2 24.336
RC 117.057 GL 6.49 GP -13.11 ZAL 124.83 ZAP 149.50 ETS 205.16 ZAE 163.47 ETE 299.51 ZAC 71.37 ETC 283.74 LVI -5.59

PLANETOCENTRIC CONIC

C3 21.979 VHL 4.688 DLA 22.55 RAL 40.54 RAD 6643.7 VEL 11.915 PTH 6.92 VHP 4.341 DPA 1.48 RAP 40.19 ECC 1.3617

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 50 56	3616.40	-47.43	139.09	282.39	94.31	14 51 12	2616.4	-40.23	106.64
60.00	14 2 32	3585.49	-40.29	136.60	282.68	89.06	15 2 17	2585.5	-36.26	106.26
70.00	14 21 10	3530.61	-33.79	131.72	282.24	84.72	15 20 0	2530.6	-32.44	103.06
80.00	14 55 10	3423.96	-28.72	122.92	281.52	81.48	15 52 14	2424.0	-29.37	95.52
90.00	15 59 54	3214.96	-26.65	107.19	281.14	80.17	16 53 29	2215.0	-28.10	80.28
100.00	17 38 2	2898.43	-28.72	84.29	281.52	81.48	18 26 20	1898.4	-29.37	56.89
110.00	19 20 36	2577.43	-33.79	60.64	282.24	84.72	20 3 33	1577.4	-32.44	31.98

DIFFERENTIAL CORRECTIONS

TDE -.5718 TRA-1.6019 TC3 .5341 BAU .2397
RDE -.0835 RRA .5594 RC3 -.6166 FAU .15154
FDE 2.2994 FRA 4.8098 FC3-5.9693 BSP 4125
BDE .5779 BRA 1.6967 BC3 .8158 FSP 1205

MID-COURSE EXECUTION ACCURACY

SGT 2287.5 SGR 944.8 SG3 771.5
RRT -.8270 RRF .9080 RTF -.8939
SGB 2474.9 R23 -.2332 R13 .9137
SG1 2423.6 SG2 501.3 THA 160.26

ORBIT DETERMINATION ACCURACY

ST 47.3 SR 12.3 SS 63.8
CRT -.3030 CRS -.1682 CST .9895
LSA 79.2 MSA 13.1 SSA 1.5
EL1 47.4 EL2 11.6 ALF 175.22

LAUNCH DATE JUL 2 1973 FLIGHT TIME 178.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 449.491 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.180 GAL -4.53 AZL 89.00 HCA 146.68 SMA 206.03 ECC .27263 INC 1.0022 V1 29.290
RP 226.37 LAP .55 LOP 66.66 VP 22.987 GAP 14.80 AZP 90.84 TAL 338.61 TAP 125.29 RCA 149.86 APO 262.20 V2 24.297
RC 119.633 GL 7.15 GP -13.77 ZAL 124.67 ZAP 148.27 ETS 205.22 ZAE 163.14 ETE 296.45 ZAC 70.73 ETC 283.80 LVI -4.96

PLANETOCENTRIC CONIC

C3 21.625 VHL 4.650 DLA 23.14 RAL 40.21 RAD 6643.6 VEL 11.900 PTH 6.91 VHP 4.242 DPA .85 RAP 40.39 ECC 1.3559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 46 51	3625.27	-47.47	139.95	282.26	93.66	14 47 17	2625.3	-40.52	107.51
60.00	13 57 26	3597.10	-40.27	137.59	282.44	88.39	14 57 23	2597.1	-36.51	107.14
70.00	14 14 36	3546.50	-33.69	132.95	281.89	84.00	15 13 43	2546.5	-32.65	104.26
80.00	14 46 42	3445.83	-28.49	124.51	281.08	80.68	15 44 8	2445.8	-29.51	97.13
90.00	15 50 15	3240.65	-26.34	109.01	280.65	79.31	16 44 15	2240.6	-28.19	82.15
100.00	17 29 34	2920.31	-28.49	85.88	281.08	80.68	18 18 14	1920.3	-29.51	58.50
110.00	19 14 3	2593.32	-33.69	61.87	281.89	84.00	19 57 16	1593.3	-32.65	33.18

DIFFERENTIAL CORRECTIONS

TDE -.5814 TRA-1.5854 TC3 .5255 BAU .2462
RDE -.0521 RRA .5868 RC3 -.6704 FAU .15746
FDE 2.4498 FRA 4.9674 FC3-6.3037 BSP 4273
BDE .5838 BRA 1.6905 BC3 .8518 FSP 1275

MID-COURSE EXECUTION ACCURACY

SGT 2294.5 SGR 1005.5 SG3 809.5
RRT -.8361 RRF .9229 RTF -.9016
SGB 2505.2 R23 -.2503 R13 .9148
SG1 2451.4 SG2 516.3 THA 158.90

ORBIT DETERMINATION ACCURACY

ST 47.9 SR 12.3 SS 66.4
CRT -.4451 CRS -.3160 CST .9893
LSA 81.8 MSA 12.7 SSA 1.5
EL1 48.3 EL2 10.9 ALF 173.16

LAUNCH DATE JUL 2 1973 FLIGHT TIME 180.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 453.160 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.149 GAL -4.49 AZL 88.91 HCA 147.74 SMA 205.37 ECC .27016 INC 1.0922 V1 29.290
RP 226.76 LAP .58 LOP 67.72 VP 22.898 GAP 14.52 AZP 90.92 TAL 338.69 TAP 126.42 RCA 149.89 APO 260.66 V2 24.255
RC 122.240 GL 7.85 GP -14.47 ZAL 124.50 ZAP 147.01 ETS 205.30 ZAE 162.74 ETE 293.28 ZAC 70.06 ETC 283.86 LVI -4.30

PLANETOCENTRIC CONIC

C3 21.302 VHL 4.615 DLA 23.78 RAL 39.87 RAD 6643.4 VEL 11.887 PTH 6.90 VHP 4.147 DPA .17 RAP 40.58 ECC 1.3506

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 42 31	3635.34	-47.51	140.92	282.19	92.91	14 43 6	2635.3	-40.83	108.27
60.00	13 51 58	3610.17	-40.24	138.70	282.23	87.63	14 52 8	2610.2	-36.79	108.14
70.00	14 7 30	3564.38	-33.55	134.33	281.56	83.19	15 6 55	2564.4	-32.86	105.61
80.00	14 37 22	3470.68	-28.21	126.30	280.63	79.78	15 35 13	2470.7	-29.63	98.97
90.00	15 39 28	3270.17	-25.95	111.08	280.14	78.34	16 33 58	2270.2	-28.25	84.31
100.00	17 20 14	2945.15	-28.21	87.67	280.63	79.78	18 9 19	1945.2	-29.63	60.33
110.00	19 6 56	2611.19	-33.55	63.24	281.56	83.19	19 50 28	1611.2	-32.86	34.53

DIFFERENTIAL CORRECTIONS

TDE -.5839 TRA-1.5605 TC3 .5260 BAU .2560
RDE -.0185 RRA .6160 RC3 -.7288 FAU .16359
FDE 2.6089 FRA 5.1215 FC3-6.6485 BSP 4341
BDE .5842 BRA 1.6777 BC3 .8988 FSP 1344

MID-COURSE EXECUTION ACCURACY

SGT 2289.7 SGR 1073.0 SG3 848.4
RRT -.8462 RRF .9358 RTF -.8911
SGB 2528.6 R23 -.2600 R13 .9180
SG1 2472.6 SG2 529.5 THA 157.27

ORBIT DETERMINATION ACCURACY

ST 48.2 SR 12.6 SS 69.1
CRT -.5868 CRS -.4639 CST .9886
LSA 84.3 MSA 12.3 SSA 1.5
EL1 48.8 EL2 10.1 ALF 170.86

LAUNCH DATE JUL 2 1973 FLIGHT TIME 182.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 456.842 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.120 GAL -4.44 AZL 88.81 HCA 148.79 SMA 204.76 ECC .26781 INC 1.1871 V1 29.290
RP 227.15 LAP .62 LOP 68.77 VP 22.812 GAP 14.24 AZP 91.02 TAL 338.76 TAP 127.55 RCA 149.92 APO 259.59 V2 24.214
RC 124.878 GL 8.58 GP -15.22 ZAL 124.33 ZAP 145.70 ETS 205.39 ZAE 162.28 ETE 290.03 ZAC 69.34 ETC 283.93 LVI -3.59

PLANETOCENTRIC CONIC

C3 21.009 VHL 4.584 DLA 24.45 RAL 39.52 RAD 6643.3 VEL 11.875 PTH 6.89 VHP 4.056 DPA -.56 RAP 40.77 ECC 1.3458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 37 53	3646.67	-47.54	142.01	282.17	92.07	14 38 39	2646.7	-41.17	109.13
60.00	13 46 5	3624.83	-40.19	139.95	282.07	86.79	14 46 30	2624.8	-37.08	109.27
70.00	13 59 47	3584.46	-33.38	135.87	281.25	82.30	14 59 31	2584.5	-33.09	107.13
80.00	14 27 0	3499.05	-27.85	128.33	280.18	78.77	15 25 19	2499.1	-29.74	101.07
90.00	15 27 16	3304.44	-25.46	113.47	279.61	77.25	16 22 20	2304.4	-28.28	86.81
100.00	17 9 52	2973.52	-27.85	89.70	280.18	78.77	17 59 25	1973.5	-29.74	62.43
110.00	18 59 13	2631.28	-33.38	64.79	281.25	82.30	19 43 4	1631.3	-33.09	36.05

DIFFERENTIAL CORRECTIONS
TDE -.5783 TRA-1.5262 TC3 .5382 BAU .2692
RDE .0168 RRA .6465 RC3 -.7929 FAU .17009
FDE 2.7713 FRA 5.2660 FC3-7.0087 BSP 4320
BDE .5786 BRA 1.6574 BC3 .9583 FSP 1409

MID-COURSE EXECUTION ACCURACY
SGT 2271.1 SGR 1147.5 SG3 887.7
RRT -.8573 RRF .9467 RTF -.8926
SGB 2544.5 R23 -.2623 R13 .9231
SG1 2486.6 SG2 539.6 THA 155.34

ORBIT DETERMINATION ACCURACY
ST 47.9 SR 13.4 SS 71.7
CRT -.7124 CRS -.5970 CST .9873
LSA 86.4 MSA 12.0 SSA 1.5
EL1 48.9 EL2 9.2 ALF 168.31

LAUNCH DATE JUL 2 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 460.534 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.092 GAL -4.39 AZL 88.71 HCA 149.83 SMA 204.18 ECC .26559 INC 1.2875 V1 29.290
RP 227.54 LAP .65 LOP 69.82 VP 22.727 GAP 13.96 AZP 91.11 TAL 338.84 TAP 128.67 RCA 149.95 APO 258.41 V2 24.172
RC 127.544 GL 9.37 GP -16.01 ZAL 124.15 ZAP 144.36 ETS 205.48 ZAE 161.73 ETE 286.74 ZAC 68.59 ETC 284.01 LVI -2.95

PLANETOCENTRIC CONIC

C3 20.750 VHL 4.555 DLA 25.17 RAL 39.15 RAD 6643.2 VEL 11.864 PTH 6.88 VHP 3.970 DPA -1.34 RAP 40.94 ECC 1.3415

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 32 56	3659.42	-47.57	143.24	282.21	91.12	14 33 55	2659.4	-41.55	110.12
60.00	13 39 45	3641.25	-40.12	141.34	281.94	85.85	14 40 26	2641.3	-37.40	110.84
70.00	13 51 20	3607.10	-33.16	137.60	280.96	81.30	14 51 27	2607.1	-33.31	108.66
80.00	14 15 21	3531.75	-27.39	130.65	279.72	77.63	15 14 12	2531.7	-29.83	103.49
90.00	15 13 11	3344.93	-24.82	116.26	279.05	75.99	16 8 56	2344.9	-28.25	89.77
100.00	16 58 13	3006.22	-27.39	92.02	279.72	77.63	17 48 19	2006.2	-29.83	64.86
110.00	18 50 46	2653.92	-33.16	66.52	280.96	81.30	19 35 0	1653.9	-33.31	37.78

DIFFERENTIAL CORRECTIONS
TDE -.5823 TRA-1.4999 TC3 .5272 BAU .2798
RDE .0560 RRA .6799 RC3 -.8600 FAU .17632
FDE 2.9519 FRA 5.4124 FC3-7.3566 BSP 4417
BDE .5850 BRA 1.6468 BC3 1.0088 FSP 1482

MID-COURSE EXECUTION ACCURACY
SGT 2261.0 SGR 1229.5 SG3 927.7
RRT -.8624 RRF .9560 RTF -.8905
SGB 2573.7 R23 -.2705 R13 .9261
SG1 2512.0 SG2 560.2 THA 153.45

ORBIT DETERMINATION ACCURACY
ST 48.2 SR 14.7 SS 74.6
CRT -.8120 CRS -.7108 CST .9867
LSA 89.2 MSA 11.7 SSA 1.5
EL1 49.7 EL2 8.3 ALF 165.72

LAUNCH DATE JUL 2 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 464.238 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.065 GAL -4.35 AZL 88.61 HCA 150.88 SMA 203.63 ECC .26349 INC 1.3943 V1 29.290
RP 227.93 LAP .68 LOP 70.86 VP 22.645 GAP 13.69 AZP 91.22 TAL 338.91 TAP 129.79 RCA 149.98 APO 257.29 V2 24.131
RC 130.237 GL 10.20 GP -16.86 ZAL 123.97 ZAP 142.97 ETS 205.59 ZAE 161.09 ETE 283.45 ZAC 67.79 ETC 284.11 LVI -2.07

PLANETOCENTRIC CONIC

C3 20.520 VHL 4.530 DLA 25.93 RAL 38.77 RAD 6643.1 VEL 11.854 PTH 6.87 VHP 3.889 DPA -2.19 RAP 41.10 ECC .3377

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 27 36	3673.67	-47.58	144.62	282.31	90.06	14 28 50	2673.7	-41.97	111.24
60.00	13 32 53	3659.61	-40.02	142.89	281.84	84.80	14 33 53	2659.6	-37.74	111.98
70.00	13 42 2	3632.62	-32.88	139.54	280.67	80.18	14 42 35	2632.6	-33.54	110.82
80.00	14 2 2	3569.84	-26.81	133.33	279.22	76.33	15 1 32	2569.8	-29.86	106.32
90.00	14 56 28	3394.02	-23.97	119.60	278.40	74.52	15 53 2	2394.0	-28.11	93.36
100.00	16 44 54	3044.31	-26.81	94.70	279.22	76.33	17 35 38	2044.3	-29.86	67.69
110.00	18 41 28	2679.44	-32.88	68.45	280.67	80.18	19 26 8	1679.4	-33.54	39.73

DIFFERENTIAL CORRECTIONS
TDE -.5769 TRA-1.4628 TC3 .5304 BAU .2946
RDE .0978 RRA .7146 RC3 -.9337 FAU .18287
FDE 3.1376 FRA 5.5451 FC3-7.7153 BSP 4413
BDE .5851 BRA 1.6280 BC3 1.0738 FSP 1548

MID-COURSE EXECUTION ACCURACY
SGT 2235.1 SGR 1319.4 SG3 967.6
RRT -.8695 RRF .9638 RTF -.[illegible]08
SGB 2595.5 R23 -.2696 R13 .9314
SG1 2530.9 SG2 575.5 THA 151.20

ORBIT DETERMINATION ACCURACY
ST 47.8 SR 16.3 SS 77.5
CRT -.8857 CRS -.7972 CST .9852
LSA 91.8 MSA 11.4 SSA 1.4
EL1 50.0 EL2 7.3 ALF 162.77

LAUNCH DATE JUL 2 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 467.950 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 33.041 GAL -4.31 AZL 88.49 HCA 151.92 SMA 203.12 ECC .26151 INC 1.5078 V1 29.290
RP 228.32 LAP .71 LOP 71.90 VP 22.565 GAP 13.42 AZP 91.33 TAL 338.97 TAP 130.89 RCA 150.00 APO 256.24 V2 24.090
RC 132.954 GL 11.09 GP -17.77 ZAL 123.78 ZAP 141.55 ETS 205.70 ZAE 160.34 ETE 280.20 ZAC 66.94 ETC 284.21 LVI -1.24

PLANETOCENTRIC CONIC

C3 20.325 VHL 4.508 DLA 26.75 RAL 38.38 RAD 6643.0 VEL 11.846 PTH 6.86 VHP 3.813 DPA -3.09 RAP 41.26 ECC 1.3345

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 21 53	3689.59	-47.57	146.16	282.48	88.87	14 23 22	2689.6	-42.42	112.50
60.00	13 25 25	3680.14	-39.88	144.62	281.79	83.64	14 26 45	2680.1	-38.10	113.61
70.00	13 31 43	3661.56	-32.52	141.72	280.39	78.94	14 32 45	2661.6	-33.75	113.05
80.00	13 46 29	3615.18	-26.04	136.48	278.66	74.85	14 46 45	2615.2	-29.81	109.69
90.00	14 35 32	3456.69	-22.76	123.80	277.62	72.75	15 33 9	2456.7	-27.79	97.91
100.00	16 29 21	3089.65	-26.04	97.85	278.66	74.85	17 20 51	2089.6	-29.81	71.06
110.00	18 31 10	2708.38	-32.52	70.64	280.39	78.94	19 16 18	1708.4	-33.75	41.97

DIFFERENTIAL CORRECTIONS
TDE -.5793 TRA-1.4330 TC3 .5118 BAU .3077
RDE .1446 RRA .7527 RC3-1.0102 FAU .18900
FDE 3.3427 FRA 5.6784 FC3-8.0504 BSP 4513
BDE .5971 BRA 1.6186 BC3 1.1324 FSP 1623

MID-COURSE EXECUTION ACCURACY
SGT 2216.8 SGR 1418.0 SG3 1007.7
RRT -.8717 RRF .9703 RTF -.8879
SGB 2631.5 R23 -.2724 R13 .9352
SG1 2561.9 SG2 601.3 THA 148.96

ORBIT DETERMINATION ACCURACY
ST 47.9 SR 18.6 SS 80.7
CRT -.9350 CRS -.8614 CST .9843
LSA 94.9 MSA 11.2 SSA 1.4
EL1 51.0 EL2 6.2 ALF 159.76

LAUNCH DATE JUL 2 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 8 1974

DISTANCE 471.672

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL -.00 LOL 279.98 VL 33.017 GAL -4.28 AZL 88.37 HCA 152.96 SMA 202.64 ECC .25963 INC 1.6289 V1 29.290
RP 228.70 LAP .74 LOP 72.94 VP 22.487 GAP 13.15 AZP 91.45 TAL 339.03 TAP 131.99 RCA 150.03 APO 255.25 V2 24.049
RC 135.694 GL 12.03 GP -16.73 ZAL 123.58 ZAP 140.07 ETS 205.82 ZAE 159.49 ETE 277.01 ZAC 66.04 ETC 284.33 LVI -.35

PLANETOCENTRIC CONIC

C3 20.162 VHL 4.490 DLA 27.62 RAL 37.97 RAD 6642.9 VEL 11.839 PTH 6.86 VHP 3.742 DPA -4.07 RAP 41.41 ECC 1.3318

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 15 41	3707.31	-47.53	147.87	282.72	87.55	14 17 28	2707.3	-42.90	113.93
60.00	13 17 16	3703.10	-39.69	146.54	281.76	82.35	14 18 59	2703.1	-38.47	115.45
70.00	13 20 9	3694.56	-32.06	144.18	280.09	77.55	14 21 44	2694.6	-33.94	115.61
80.00	13 27 39	3670.99	-24.99	140.29	277.99	73.10	14 28 50	2671.0	-29.62	113.83
90.00	14 5 55	3547.29	-20.81	129.73	276.49	70.41	15 5 2	2547.3	-27.03	104.43
100.00	16 10 31	3145.46	-24.99	101.66	277.99	73.10	17 2 57	2145.5	-29.62	75.20
110.00	18 19 36	2741.38	-32.06	73.10	280.09	77.55	19 5 17	1741.4	-33.94	44.52

DIFFERENTIAL CORRECTIONS

TDE -.5766 TRA-1.3961 TC3 .4980 BAU .3237
RDE .1953 RRA .7924 RC3-1.0928 FAU .19521
FDE 3.5550 FRA 5.7942 FC3-8.3824 BSP 4569
BDE .6087 BRA 1.6053 BC3 1.2009 FSP 1693

MID-COURSE EXECUTION ACCURACY

SGT 2187.2 SGR 1525.6 SG3 1047.1
RRT -.8741 RRF .9757 RTF -.8859
SGB 2666.6 R23 -.2693 R13 .9403
SG1 2592.3 SG2 625.3 THA 146.42

ORBIT DETERMINATION ACCURACY

ST 47.6 SR 21.2 SS 83.8
CRT -.9663 CRS -.9059 CST .9830
LSA 98.1 MSA 11.0 SSA 1.4
EL1 51.9 EL2 5.0 ALF 156.45

LAUNCH DATE JUL 2 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 10 1974

DISTANCE 475.401

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL -.00 LOL 279.98 VL 32.995 GAL -4.24 AZL 88.24 HCA 153.99 SMA 202.19 ECC .25787 INC 1.7583 V1 29.290
RP 229.09 LAP .77 LOP 73.98 VP 22.410 GAP 12.88 AZP 91.58 TAL 339.09 TAP 133.08 RCA 150.05 APO 254.33 V2 24.008
RC 138.457 GL 13.04 GP -19.76 ZAL 123.38 ZAP 138.55 ETS 205.93 ZAE 158.52 ETE 273.92 ZAC 65.08 ETC 284.46 LVI .59

PLANETOCENTRIC CONIC

C3 20.034 VHL 4.476 DLA 28.55 RAL 37.53 RAD 6642.9 VEL 11.834 PTH 6.85 VHP 3.676 DPA -5.11 RAP 41.55 ECC 1.3297

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 8 57	3727.05	-47.45	149.78	283.01	86.09	14 11 4	2727.0	-43.41	115.55
60.00	13 8 17	3728.83	-39.43	148.68	281.76	80.91	14 10 25	2728.8	-38.85	117.53
70.00	13 7 1	3732.57	-31.47	146.99	279.76	75.99	14 9 13	2732.6	-34.08	118.56
80.00	13 3 9	3744.72	-23.44	145.22	277.08	70.96	14 5 34	2744.7	-29.15	119.25
85.91	12 36 16	3831.50	-16.63	148.77	274.26	66.46	13 40 7	2831.5	-24.91	124.74
100.00	15 46 1	3219.19	-23.44	106.59	277.08	70.96	16 39 40	2219.2	-29.15	80.62
110.00	18 6 27	2779.39	-31.47	75.90	279.76	75.99	18 52 46	1779.4	-34.08	47.48

DIFFERENTIAL CORRECTIONS

TDE -.5729 TRA-1.3572 TC3 .4799 BAU .3414
RDE .2513 RRA .8342 RC3-1.1809 FAU .20129
FDE 3.7795 FRA 5.8946 FC3-8.6986 BSP 4636
BDE .6256 BRA 1.5931 BC3 1.2746 FSP 1762

MID-COURSE EXECUTION ACCURACY

SGT 2152.8 SGR 1642.7 SG3 1085.5
RRT -.8750 RRF .9802 RTF -.8831
SGB 2708.0 R23 -.2635 R13 .9456
SG1 2628.5 SG2 651.4 THA 143.69

ORBIT DETERMINATION ACCURACY

ST 47.2 SR 24.4 SS 87.1
CRT -.9847 CRS -.9363 CST .9815
LSA 101.5 MSA 10.8 SSA 1.3
EL1 53.0 EL2 3.8 ALF 152.89

LAUNCH DATE JUL 2 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 12 1974

DISTANCE 479.138

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL -.00 LOL 279.98 VL 32.974 GAL -4.21 AZL 88.10 HCA 155.02 SMA 201.76 ECC .25620 INC 1.8973 V1 29.290
RP 229.48 LAP .80 LOP 75.01 VP 22.336 GAP 12.61 AZP 91.72 TAL 339.14 TAP 134.16 RCA 150.07 APO 253.45 V2 23.967
RC 141.241 GL 14.11 GP -20.86 ZAL 123.15 ZAP 136.98 ETS 206.05 ZAE 157.43 ETE 270.95 ZAC 64.07 ETC 284.61 LVI 1.59

PLANETOCENTRIC CONIC

C3 19.943 VHL 4.466 DLA 29.55 RAL 37.07 RAD 6642.8 VEL 11.830 PTH 6.85 VHP 3.616 DPA -6.23 RAP 41.69 ECC 1.3282

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 1 35	3749.03	-47.33	151.89	283.37	84.47	14 4 4	2749.0	-43.95	117.39
60.00	12 58 19	3757.76	-39.10	151.07	281.77	79.33	14 0 57	2757.8	-39.22	119.90
70.00	12 51 47	3777.05	-30.69	150.22	279.36	74.22	13 54 44	2777.0	-34.15	122.03
80.00	12 23 16	3866.96	-20.50	153.11	275.48	67.81	13 27 43	2867.0	-27.84	128.10
81.06	11 55 22	3956.26	-17.21	158.23	273.98	65.60	13 1 19	2956.3	-25.78	134.18
100.00	15 6 8	3341.43	-20.50	114.48	275.48	67.81	16 1 50	2341.4	-27.84	89.47
110.00	17 51 13	2823.86	-30.69	79.14	279.36	74.22	18 38 17	1823.9	-34.15	50.95

DIFFERENTIAL CORRECTIONS

TDE -.5677 TRA-1.3160 TC3 .4575 BAU .3608
RDE .3133 RRA .8782 RC3-1.2737 FAU .20705
FDE 4.0153 FRA 5.9777 FC3-8.9881 BSP 4709
BDE .6484 BRA 1.5821 BC3 1.3534 FSP 1828

MID-COURSE EXECUTION ACCURACY

SGT 2112.9 SGR 1770.1 SG3 1122.2
RRT -.8747 RRF .9839 RTF -.8897
SGB 2756.4 R23 -.2544 R13 .9513
SG1 2671.6 SG2 678.5 THA 140.75

ORBIT DETERMINATION ACCURACY

ST 46.6 SR 28.0 SS 90.5
CRT -.9944 CRS -.9570 CST .9797
LSA 105.1 MSA 10.7 SSA 1.3
EL1 54.3 EL2 2.5 ALF 149.08

LAUNCH DATE JUL 2 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 14 1974

DISTANCE 482.881

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL -.00 LOL 279.98 VL 32.954 GAL -4.18 AZL 87.95 HCA 156.04 SMA 201.38 ECC .25463 INC 2.0469 V1 29.290
RP 229.86 LAP .83 LOP 76.03 VP 22.263 GAP 12.35 AZP 91.87 TAL 339.19 TAP 135.23 RCA 150.09 APO 252.64 V2 23.927
RC 144.046 GL 15.26 GP -22.04 ZAL 122.91 ZAP 135.37 ETS 206.15 ZAE 156.22 ETE 268.13 ZAC 62.99 ETC 284.78 LVI 2.65

PLANETOCENTRIC CONIC

C3 19.891 VHL 4.460 DLA 30.62 RAL 36.59 RAD 6642.8 VEL 11.828 PTH 6.85 VHP 3.582 DPA -7.43 RAP 41.84 ECC 1.3274

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 53 31	3773.54	-47.14	154.23	283.79	82.68	13 56 24	2773.5	-44.51	119.48
60.00	12 47 10	3790.46	-38.65	153.73	281.77	77.57	13 50 21	2790.5	-39.58	122.61
70.00	12 33 39	3830.38	-29.64	154.02	278.84	72.20	13 37 30	2830.4	-34.09	126.20
77.74	11 28 28	4035.24	-17.81	164.41	273.74	64.67	12 35 43	3035.2	-26.70	140.34
77.74	11 28 28	4035.24	-17.81	164.41	273.74	64.67	12 35 43	3035.2	-26.70	140.34
77.74	11 28 28	4035.24	-17.81	164.41	273.74	64.67	12 35 43	3035.2	-26.70	140.34
110.00	17 33 6	2877.20	-29.64	82.93	278.84	72.20	18 21 3	1877.2	-34.09	55.12

DIFFERENTIAL CORRECTIONS

TDE -.5601 TRA-1.2719 TC3 .4311 BAU .3823
RDE .3819 RRA .9240 RC3-1.3716 FAU .21244
FDE 4.2590 FRA 6.0367 FC3-9.2460 BSP 4784
BDE .6779 BRA 1.5721 BC3 1.4378 FSP 1888

MID-COURSE EXECUTION ACCURACY

SGT 2066.5 SGR 1907.9 SG3 1156.5
RRT -.8731 RRF .9870 RTF -.8755
SGB 2812.6 R23 -.2425 R13 .9571
SG1 2722.5 SG2 706.1 THA 137.61

ORBIT DETERMINATION ACCURACY

ST 45.9 SR 32.1 SS 94.0
CRT -.9985 CRS -.9708 CST .9775
LSA 108.9 MSA 10.6 SSA 1.2
EL1 56.0 EL2 1.4 ALF 145.00

LAUNCH DATE JUL 2 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 486.631 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.935 GAL -4.15 AZL 87.79 HCA 157.07 SMA 200.99 ECC .25315 INC 2.2083 V1 29.290
RP 230.25 LAP .86 LOP 77.06 VP 22.192 GAP 12.08 AZP 92.03 TAL 339.23 TAP 136.30 RCA 150.11 APO 251.87 V2 23.887
RC 146.870 GL 16.49 GP -23.29 ZAL 122.66 ZAP 133.69 ETS 206.25 ZAE 154.87 ETE 265.47 ZAC 61.83 ETC 284.97 LVI 3.79

PLANETOCENTRIC CONIC

C3 19.884 VHL 4.459 DLA 31.77 RAL 36.07 RAD 6642.8 VEL 11.828 PTH 6.85 VHP 3.515 DPA -8.72 RAP 41.98 ECC 1.3272

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 44 34	3800.92	-46.87	156.82	284.25	80.70	13 47 55	2800.9	-45.09	121.87
60.00	12 34 33	3827.68	-38.06	156.72	281.75	75.62	13 38 21	2827.7	-39.90	125.72
70.00	12 11 1	3897.28	-28.16	158.66	278.08	69.82	13 15 58	2897.3	-33.80	131.40
74.88	11 6 14	4098.73	-18.43	169.51	273.54	63.65	12 14 32	3098.7	-27.67	145.44
74.88	11 6 14	4098.73	-18.43	169.51	273.54	63.65	12 14 32	3098.7	-27.67	145.44
74.88	11 6 14	4098.73	-18.43	169.51	273.54	63.65	12 14 32	3098.7	-27.67	145.44
110.00	17 10 27	2944.10	-28.16	87.57	278.08	69.82	17 59 31	1944.1	-33.80	60.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5489 TRA-1.2231 TC3 .4048 BAU .4068 SGT 2011.1 SGR 2056.9 SG3 1187.6 ST 44.9 SR 36.8 SS 97.4
RDE .4579 RRA .9707 RC3-1.4758 FAU .21760 RRT -.8707 RRF .9894 RTF -.8709 CRT -.9988 CRS -.9802 CST .9748
FDE 4.5087 FRA 6.0634 FC3-9.4742 BSP 4851 SGB 2876.7 R23 -.2269 R13 .9632 LSA 112.9 MSA 10.6 SSA 1.1
BDE .7148 BRA 1.5615 BC3 1.5304 FSP 1939 SG1 2782.2 SG2 731.1 THA 134.26 EL1 58.0 EL2 1.4 ALF 140.65

LAUNCH DATE JUL 2 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 490.387 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.918 GAL -4.13 AZL 87.62 HCA 158.09 SMA 200.64 ECC .25176 INC 2.3835 V1 29.290
RP 230.63 LAP .89 LOP 78.08 VP 22.123 GAP 11.82 AZP 92.21 TAL 339.27 TAP 137.36 RCA 150.12 APO 251.15 V2 23.847
RC 149.713 GL 17.81 GP -24.63 ZAL 122.37 ZAP 131.97 ETS 206.34 ZAE 153.39 ETE 262.96 ZAC 60.61 ETC 285.19 LVI 5.00

PLANETOCENTRIC CONIC

C3 19.924 VHL 4.464 DLA 33.01 RAL 35.52 RAD 6642.8 VEL 11.829 PTH 6.85 VHP 3.474 DPA -10.10 RAP 42.13 ECC 1.3279

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 34 36	3831.60	-46.50	159.69	284.75	78.52	13 38 28	2831.6	-45.67	124.59
60.00	12 20 2	3870.48	-37.29	160.09	281.66	73.45	13 24 33	2870.5	-40.15	129.34
70.00	11 39 35	3990.38	-25.82	164.88	276.81	66.82	12 46 6	2990.4	-32.99	136.54
72.23	10 46 31	4153.66	-19.08	174.05	273.37	62.54	11 55 44	3153.7	-28.71	149.99
72.23	10 46 31	4153.66	-19.08	174.05	273.37	62.54	11 55 44	3153.7	-28.71	149.99
72.23	10 46 31	4153.66	-19.08	174.05	273.37	62.54	11 55 44	3153.7	-28.71	149.99
110.00	16 39 2	3037.20	-25.82	93.79	276.81	66.82	17 29 39	2037.2	-32.99	67.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5299 TRA-1.1662 TC3 .3863 BAU .4352 SGT 1941.0 SGR 2217.1 SG3 1214.4 ST 43.3 SR 41.9 SS 100.7
RDE .5415 RRA 1.0171 RC3-1.5877 FAU .22259 RRT -.8691 RRF .9914 RTF -.8671 CRT -.9964 CRS -.9864 CST .9710
FDE 4.7571 FRA 6.0491 FC3-9.6717 BSP 4872 SGB 2946.7 R23 -.2067 R13 .9697 LSA 116.9 MSA 10.7 SSA 1.0
BDE .7576 BRA 1.5474 BC3 1.6340 FSP 1973 SG1 2850.5 SG2 746.7 THA 130.64 EL1 60.2 EL2 2.5 ALF 135.92

LAUNCH DATE JUL 2 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 494.145 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.901 GAL -4.10 AZL 87.43 HCA 159.10 SMA 200.31 ECC .25046 INC 2.5742 V1 29.290
RP 231.01 LAP .92 LOP 79.10 VP 22.055 GAP 11.56 AZP 92.41 TAL 339.30 TAP 138.40 RCA 150.14 APO 250.48 V2 23.807
RC 152.572 GL 19.23 GP -26.06 ZAL 122.07 ZAP 130.20 ETS 206.41 ZAE 151.78 ETE 260.63 ZAC 59.31 ETC 285.43 LVI 6.29

PLANETOCENTRIC CONIC

C3 20.022 VHL 4.475 DLA 34.34 RAL 34.93 RAD 6642.8 VEL 11.833 PTH 6.85 VHP 3.441 DPA -11.57 RAP 42.29 ECC 1.3295

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 23 24	3866.17	-45.98	162.86	285.26	76.12	13 27 50	2866.2	-46.23	127.73
60.00	12 3 2	3920.66	-36.24	163.93	281.46	71.09	13 8 23	2920.6	-40.29	133.59
69.66	10 28 20	4203.26	-19.74	178.28	273.25	61.32	11 38 24	3203.3	-29.81	154.24
69.66	10 28 20	4203.26	-19.74	178.28	273.25	61.32	11 38 24	3203.3	-29.81	154.24
69.66	10 28 20	4203.26	-19.74	178.28	273.25	61.32	11 38 24	3203.3	-29.81	154.24
69.66	10 28 20	4203.26	-19.74	178.28	273.25	61.32	11 38 24	3203.3	-29.81	154.24
69.66	10 28 20	4203.26	-19.74	178.28	273.25	61.32	11 38 24	3203.3	-29.81	154.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5319 TRA-1.1303 TC3 .3146 BAU .4599 SGT 1901.4 SGR 2392.3 SG3 1238.1 ST 43.0 SR 48.2 SS 104.9
RDE .6429 RRA 1.0714 RC3-1.6892 FAU .22495 RRT -.8570 RRF .9931 RTF -.8442 CRT -.9929 CRS -.9909 CST .9691
FDE 5.0519 FRA 6.0398 FC3-9.7267 BSP 5175 SGB 3055.9 R23 -.1946 R13 .9739 LSA 122.7 MSA 10.8 SSA 1.0
BDE .8344 BRA 1.5574 BC3 1.7182 FSP 2041 SG1 2950.8 SG2 794.3 THA 127.44 EL1 64.5 EL2 3.8 ALF 131.75

LAUNCH DATE JUL 2 1973 FLIGHT TIME 204.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 497.910 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.886 GAL -4.08 AZL 87.22 HCA 160.11 SMA 200.00 ECC .24924 INC 2.7828 V1 29.290
RP 231.39 LAP .95 LOP 80.11 VP 21.989 GAP 11.31 AZP 92.62 TAL 339.33 TAP 139.44 RCA 150.15 APO 249.84 V2 23.787
RC 155.447 GL 20.76 GP -27.58 ZAL 121.72 ZAP 128.36 ETS 206.45 ZAE 150.04 ETE 258.45 ZAC 57.92 ETC 285.71 LVI 7.67

PLANETOCENTRIC CONIC

C3 20.161 VHL 4.492 DLA 35.77 RAL 34.28 RAD 6642.9 VEL 11.840 PTH 6.86 VHP 3.416 DPA -13.14 RAP 42.46 ECC 1.3321

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 38	3905.30	-45.28	166.37	285.74	73.49	13 15 43	2905.3	-46.76	131.36
60.00	11 42 28	3980.62	-34.82	168.39	281.01	68.28	12 48 49	2980.6	-40.23	138.70
67.12	10 11 11	4249.08	-20.43	182.31	273.17	59.97	11 22 0	3249.1	-30.97	158.30
67.12	10 11 11	4249.08	-20.43	182.31	273.17	59.97	11 22 0	3249.1	-30.97	158.30
67.12	10 11 11	4249.08	-20.43	182.31	273.17	59.97	11 22 0	3249.1	-30.97	158.30
67.12	10 11 11	4249.08	-20.43	182.31	273.17	59.97	11 22 0	3249.1	-30.97	158.30
67.12	10 11 11	4249.08	-20.43	182.31	273.17	59.97	11 22 0	3249.1	-30.97	158.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5169 TRA-1.0779 TC3 .2665 BAU .4910 SGT 1833.9 SGR 2578.5 SG3 1254.5 ST 41.6 SR 54.9 SS 108.6
RDE .7530 RRA 1.1218 RC3-1.8004 FAU .22739 RRT -.8477 RRF .9944 RTF -.8435 CRT -.9876 CRS -.9938 CST .9649
FDE 5.3257 FRA 5.9635 FC3-9.7549 BSP 5339 SGB 3164.2 R23 -.1754 R13 .9788 LSA 128.1 MSA 10.9 SSA .9
BDE .9134 BRA 1.5557 BC3 1.8200 FSP 2072 SG1 3055.8 SG2 820.9 THA 123.86 EL1 68.7 EL2 5.2 ALF 127.09

LAUNCH DATE JUL 2 1973 FLIGHT TIME 206.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 501.678 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	32.871	GAL	-4.06	AZL	86.99	HCA	161.12	SMA	199.71	ECC	.24809	INC	3.0121	V1	29.290
RP	231.77	LAP	.97	LOP	81.12	VP	21.925	GAP	11.05	AZP	92.85	TAL	339.35	TAP	140.47	RCA	150.16	APO	249.25	V2	25.728
RC	158.336	GL	22.42	GP	-29.21	ZAL	121.34	ZAP	126.48	ETS	206.47	ZAE	148.16	ETE	256.43	ZAC	56.45	ETC	286.03	LVI	9.14

PLANETOCENTRIC CONIC

C3	20.414	VHL	4.518	DLA	37.32	RAL	33.57	RAD	6643.0	VEL	11.850	PTH	6.87	VHP	3.401	DPA	-14.82	RAP	42.65	ECC	1.3360

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 55 53	3950.02	-44.34	170.27	286.12	70.61	13 1 43	2950.0	-47.21	135.59
60.00	11 16 14	4056.22	-32.78	173.77	280.12	65.12	12 23 51	3056.2	-39.81	145.08
64.56	9 54 41	4292.30	-21.13	186.23	273.13	58.49	11 6 13	3292.3	-32.19	162.29
64.56	9 54 41	4292.30	-21.13	186.23	273.13	58.49	11 6 13	3292.3	-32.19	162.29
64.56	9 54 41	4292.30	-21.13	186.23	273.13	58.49	11 6 13	3292.3	-32.19	162.29
64.56	9 54 41	4292.30	-21.13	186.23	273.13	58.49	11 6 13	3292.3	-32.19	162.29
64.56	9 54 41	4292.30	-21.13	186.23	273.13	58.49	11 6 13	3292.3	-32.19	162.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.4996	TRA	-1.0240	TC3	.2133	BAU	.5248	SGT	1762.1	SGR	2778.7	SG3	1264.2	ST	40.0	SR	62.5	SS	112.3
RDE	.8792	RRA	1.1725	RC3	-1.9111	FAU	.22857	RRT	-.8358	RRF	.9955	RTF	-.8304	CRT	-.9810	CRS	-.9958	CST	.9598
FDE	5.6042	FRA	5.8450	FC3	-9.6934	BSP	5546	SGB	3290.4	R23	-.1557	R13	.9833	LSA	134.1	MSA	11.1	SSA	.8
BDE	1.0112	BRA	1.5567	BC3	1.9229	FSP	2096	SG1	3179.9	SG2	845.4	THA	120.29	EL1	73.9	EL2	6.6	ALF	122.46

LAUNCH DATE JUL 2 1973 FLIGHT TIME 208.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 505.449 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	32.857	GAL	-4.04	AZL	86.73	HCA	162.13	SMA	199.44	ECC	.24702	INC	3.2652	V1	29.290
RP	232.14	LAP	1.00	LOP	82.13	VP	21.862	GAP	10.79	AZP	93.11	TAL	339.37	TAP	141.49	RCA	150.17	APO	248.70	V2	23.689
RC	161.238	GL	24.20	GP	-30.94	ZAL	120.91	ZAP	124.54	ETS	206.46	ZAE	146.14	ETE	254.55	ZAC	54.88	ETC	286.39	LVI	10.71

PLANETOCENTRIC CONIC

C3	20.735	VHL	4.554	DLA	39.00	RAL	32.78	RAD	6643.2	VEL	11.863	PTH	6.88	VHP	3.395	DPA	-16.60	RAP	42.87	ECC	1.3412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 38 31	4001.77	-43.08	174.61	286.32	67.47	12 45 13	3001.8	-47.51	140.56
60.00	10 38 26	4163.30	-29.49	180.92	278.24	61.18	11 47 49	3163.3	-38.57	153.90
61.94	9 38 36	4333.56	-21.83	190.11	273.15	56.84	10 50 49	3333.6	-33.48	166.27
61.94	9 38 36	4333.56	-21.83	190.11	273.15	56.84	10 50 49	3333.6	-33.48	166.27
61.94	9 38 36	4333.56	-21.83	190.11	273.15	56.84	10 50 49	3333.6	-33.48	166.27
61.94	9 38 36	4333.56	-21.83	190.11	273.15	56.84	10 50 49	3333.6	-33.48	166.27
61.94	9 38 36	4333.56	-21.83	190.11	273.15	56.84	10 50 49	3333.6	-33.48	166.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4777	TRA	-.9672	TC3	.1573	BAU	.5620	SGT	1683.4	SGR	2991.5	SG3	1265.1	ST	38.1	SR	70.9	SS	115.7
RDE	1.0223	RRA	1.2207	RC3	-2.0212	FAU	.22854	RRT	-.8204	RRF	.9964	RTF	-.8139	CRT	-.9728	CRS	-.9972	CST	.9530
FDE	5.8727	FRA	5.6699	FC3	-9.5419	BSP	5765	SGB	3432.7	R23	-.1362	R13	.9871	LSA	140.5	MSA	11.4	SSA	.7
BDE	1.1284	BRA	1.5574	BC3	2.0273	FSP	2100	SG1	3321.4	SG2	866.9	THA	116.75	EL1	80.1	EL2	7.8	ALF	117.92

LAUNCH DATE JUL 2 1973 FLIGHT TIME 210.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 509.224 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	32.845	GAL	-4.03	AZL	86.45	HCA	163.13	SMA	199.18	ECC	.24602	INC	3.5466	V1	29.290
RP	232.51	LAP	1.03	LOP	83.13	VP	21.801	GAP	10.54	AZP	93.39	TAL	339.38	TAP	142.51	RCA	150.18	APO	248.19	V2	23.650
RC	164.150	GL	26.14	GP	-32.79	ZAL	120.42	ZAP	122.54	ETS	206.40	ZAE	143.99	ETE	252.80	ZAC	53.22	ETC	286.60	LVI	12.38

PLANETOCENTRIC CONIC

C3	21.163	VHL	4.600	DLA	40.82	RAL	31.91	RAD	6643.4	VEL	11.881	PTH	6.89	VHP	3.402	DPA	-18.50	RAP	43.12	ECC	1.3483

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 17 31	4062.84	-41.37	179.47	286.18	64.02	12 25 14	3062.8	-47.56	146.46
59.24	9 22 42	4373.47	-22.53	194.00	273.22	55.02	10 35 36	3373.5	-34.83	170.30
59.24	9 22 42	4373.47	-22.53	194.00	273.22	55.02	10 35 36	3373.5	-34.83	170.30
59.24	9 22 42	4373.47	-22.53	194.00	273.22	55.02	10 35 36	3373.5	-34.83	170.30
59.24	9 22 42	4373.47	-22.53	194.00	273.22	55.02	10 35 36	3373.5	-34.83	170.30
59.24	9 22 42	4373.47	-22.53	194.00	273.22	55.02	10 35 36	3373.5	-34.83	170.30
59.24	9 22 42	4373.47	-22.53	194.00	273.22	55.02	10 35 36	3373.5	-34.83	170.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4474	TRA	-.9043	TC3	.1054	BAU	.6034	SGT	1592.2	SGR	3216.9	SG3	1255.8	ST	35.7	SR	80.2	SS	118.9
RDE	1.1853	RRA	1.2641	RC3	-2.1301	FAU	.22726	RRT	-.8022	RRF	.9971	RTF	-.[illegible]44	CRT	-.9617	CRS	-.9981	CST	.9432
FDE	6.1250	FRA	5.4315	FC3	-9.2969	BSP	5980	SGB	3589.3	R23	-.1166	R13	.9903	LSA	147.3	MSA	11.6	SSA	.6
BDE	1.2670	BRA	1.5542	BC3	2.1327	FSP	2082	SG1	3480.1	SG2	878.7	THA	113.22	EL1	87.3	EL2	9.0	ALF	113.44

LAUNCH DATE JUL 2 1973 FLIGHT TIME 212.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 513.000 EARTH TO MARS

RL	152.10	LAL	-.00	LOL	279.98	VL	32.832	GAL	-4.01	AZL	86.14	HCA	164.12	SMA	198.95	ECC	.24509	INC	3.8612	V1	29.290
RP	232.89	LAP	1.06	LOP	84.13	VP	21.741	GAP	10.29	AZP	93.71	TAL	339.39	TAP	143.51	RCA	150.19	APO	247.71	V2	23.612
RC	167.073	GL	28.24	GP	-34.75	ZAL	119.86	ZAP	120.50	ETS	206.28	ZAE	141.70	ETE	251.18	ZAC	51.46	ETC	287.27	LVI	14.16

PLANETOCENTRIC CONIC

C3	21.723	VHL	4.661	DLA	42.79	RAL	30.92	RAD	6643.6	VEL	11.905	PTH	6.91	VHP	3.423	DPA	-20.51	RAP	43.40	ECC	1.3575

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 51 2	4137.42	-39.00	185.03	285.42	60.23	12 0 0	3137.4	-47.17	153.63
56.44	9 6 50	4412.53	-23.21	197.94	273.34	52.98	10 20 23	3412.5	-36.23	174.46
56.44	9 6 50	4412.53	-23.21	197.94	273.34	52.98	10 20 23	3412.5	-36.23	174.46
56.44	9 6 50	4412.53	-23.21	197.94	273.34	52.98	10 20 23	3412.5	-36.23	174.46
56.44	9 6 50	4412.53	-23.21	197.94	273.34	52.98	10 20 23	3412.5	-36.23	174.46
56.44	9 6 50	4412.53	-23.21	197.94	273.34	52.98	10 20 23	3412.5	-36.23	174.46
56.44	9 6 50	4412.53	-23.21	197.94	273.34	52.98	10 20 23	3412.5	-36.23	174.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4219	TRA	-.8502	TC3	.0307	BAU	.6454	SGT	1516.0	SGR	3458.5	SG3	1236.7	ST	33.6	SR	91.0	SS	122.2
RDE	1.3792	RRA	1.3073	RC3	-2.2220	FAU	.22327	RRT	-.7739	RRF	.9977	RTF	-.7651	CRT	-.9489	CRS	-.9987	CST	.9319
FDE	6.3807	FRA	5.1542	FC3	-8.8981	BSP	6337	SGB	3776.2	R23	-.1004	R13	.9927	LSA	155.6	MSA	12.0	SSA	.6
BDE	1.4423	BRA	1.5595	BC3	2.2222	FSP	2066	SG1	3665.9	SG2	905.7	THA	110.01	EL1	96.5	EL2	10.0	ALF	109.53

LAUNCH DATE JUL 2 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 516.779 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.821 GAL -4.00 AZL 85.78 HCA 165.12 SMA 198.73 ECC .24422 INC 4.2157 V1 29.290
RP 233.25 LAP 1.08 LOP 85.13 VP 21.682 GAP 10.04 AZP 94.07 TAL 339.39 TAP 144.51 RCA 150.19 APO 247.26 V2 23.573
RC 170.003 GL 30.53 GP -36.83 ZAL 119.22 ZAP 118.41 ETS 206.11 ZAE 139.29 ETE 249.65 ZAC 49.60 ETC 287.82 LVI 16.06

PLANETOCENTRIC CONIC

C3 22.447 VHL 4.738 DLA 44.93 RAL 29.79 RAD 6643.9 VEL 11.935 PTH 6.94 VHP 3.460 DPA -22.64 RAP 43.74 ECC 1.3694

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 14 47	4235.32	-35.47	191.73	283.43	55.92	11 25 22	3235.3	-45.95	162.76
53.51	8 50 46	4451.21	-23.84	201.97	273.51	50.72	10 4 57	3451.2	-37.67	178.81
53.51	8 50 46	4451.21	-23.84	201.97	273.51	50.72	10 4 57	3451.2	-37.67	178.81
53.51	8 50 46	4451.21	-23.84	201.97	273.51	50.72	10 4 57	3451.2	-37.67	178.81
53.51	8 50 46	4451.21	-23.84	201.97	273.51	50.72	10 4 57	3451.2	-37.67	178.81
53.51	8 50 46	4451.21	-23.84	201.97	273.51	50.72	10 4 57	3451.2	-37.67	178.81
53.51	8 50 46	4451.21	-23.84	201.97	273.51	50.72	10 4 57	3451.2	-37.67	178.81

DIFFERENTIAL CORRECTIONS

TDE -.3838 TRA -.7867 TC3 -.0340 BAU .6925
RDE 1.6013 RRA 1.3400 RC3-2.3073 FAU .21785
FDE 6.5968 FRA 4.8018 FC3-8.4021 BSP 6660
BDE 1.6466 BRA 1.5549 BC3 2.3076 FSP 2016

MID-COURSE EXECUTION ACCURACY

SGT 1425.3 SGR 3710.8 SG3 1204.4
RRT -.7397 RRF .9982 RTF -.7296
SGB 3975.1 R23 -.0846 R13 .9947
SG1 3867.1 SG2 920.4 THA 106.84

ORBIT DETERMINATION ACCURACY

ST 30.8 SR 102.8 SS 124.9
CRT -.9297 CRS -.9991 CST .9138
LSA 164.2 MSA 12.3 SSA .5
EL1 106.7 EL2 10.9 ALF 105.72

LAUNCH DATE JUL 2 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 520.559 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.811 GAL -3.99 AZL 85.38 HCA 166.11 SMA 198.52 ECC .24342 INC 4.6184 V1 29.290
RP 233.62 LAP 1.11 LOP 86.13 VP 21.625 GAP 9.79 AZP 94.48 TAL 339.39 TAP 145.49 RCA 150.20 APO 246.85 V2 23.536
RC 172.941 GL 33.03 GP -39.03 ZAL 118.48 ZAP 116.27 ETS 205.87 ZAE 136.75 ETE 248.21 ZAC 47.65 ETC 288.45 LVI 18.07

PLANETOCENTRIC CONIC

C3 23.383 VHL 4.836 DLA 47.26 RAL 28.49 RAD 6644.3 VEL 11.974 PTH 6.97 VHP 3.517 DPA -24.89 RAP 44.12 ECC 1.3848

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 6 53	4408.62	-28.34	202.10	277.50	50.04	10 20 22	3408.6	-42.00	177.51
50.42	8 34 17	4489.93	-24.41	206.13	273.71	48.19	9 49 7	3489.9	-39.13	183.43
50.42	8 34 17	4489.93	-24.41	206.13	273.71	48.19	9 49 7	3489.9	-39.13	183.43
50.42	8 34 17	4489.93	-24.41	206.13	273.71	48.19	9 49 7	3489.9	-39.13	183.43
50.42	8 34 17	4489.93	-24.41	206.13	273.71	48.19	9 49 7	3489.9	-39.13	183.43
50.42	8 34 17	4489.93	-24.41	206.13	273.71	48.19	9 49 7	3489.9	-39.13	183.43
50.42	8 34 17	4489.93	-24.41	206.13	273.71	48.19	9 49 7	3489.9	-39.13	183.43

DIFFERENTIAL CORRECTIONS

TDE -.3378 TRA -.7264 TC3 -.0998 BAU .7427
RDE 1.8632 RRA 1.3631 RC3-2.3738 FAU .21011
FDE 6.7814 FRA 4.3912 FC3-7.7790 BSP 7027
BDE 1.8936 BRA 1.5446 BC3 2.3759 FSP 1946

MID-COURSE EXECUTION ACCURACY

SGT 1333.4 SGR 3975.9 SG3 1159.0
RRT -.6942 RRF .9985 RTF -.6828
SGB 4193.5 R23 -.0705 R13 .9962
SG1 4088.3 SG2 933.4 THA 103.84

ORBIT DETERMINATION ACCURACY

ST 27.6 SR 116.1 SS 127.0
CRT -.9011 CRS -.9994 CST .8860
LSA 173.8 MSA 12.6 SSA .4
EL1 118.7 EL2 11.7 ALF 102.22

LAUNCH DATE JUL 2 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 524.340 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.801 GAL -3.98 AZL 84.92 HCA 167.09 SMA 198.33 ECC .24267 INC 5.0797 V1 29.290
RP 233.99 LAP 1.13 LOP 87.12 VP 21.569 GAP 9.54 AZP 94.95 TAL 339.38 TAP 146.47 RCA 150.20 APO 246.46 V2 23.498
RC 175.886 GL 35.75 GP -41.35 ZAL 117.64 ZAP 114.11 ETS 205.54 ZAE 134.09 ETE 246.84 ZAC 45.59 ETC 289.18 LVI 20.19

PLANETOCENTRIC CONIC

C3 24.596 VHL 4.959 DLA 49.79 RAL 26.95 RAD 6644.8 VEL 12.024 PTH 7.01 VHP 3.597 DPA -27.25 RAP 44.58 ECC 1.4048

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.15	8 17 9	4529.16	-24.85	210.46	273.90	45.36	9 32 38	3529.2	-40.57	188.40
47.15	8 17 9	4529.16	-24.85	210.46	273.90	45.36	9 32 38	3529.2	-40.57	188.40
47.15	8 17 9	4529.16	-24.85	210.46	273.90	45.36	9 32 38	3529.2	-40.57	188.40
47.15	8 17 9	4529.16	-24.85	210.46	273.90	45.36	9 32 38	3529.2	-40.57	188.40
47.15	8 17 9	4529.16	-24.85	210.46	273.90	45.36	9 32 38	3529.2	-40.57	188.40
47.15	8 17 9	4529.16	-24.85	210.46	273.90	45.36	9 32 38	3529.2	-40.57	188.40
47.15	8 17 9	4529.16	-24.85	210.46	273.90	45.36	9 32 38	3529.2	-40.57	188.40

DIFFERENTIAL CORRECTIONS

TDE -.2818 TRA -.6638 TC3 -.1644 BAU .7977
RDE 2.1711 RRA 1.3691 RC3-2.4204 FAU .20033
FDE 6.9108 FRA 3.9137 FC3-7.0514 BSP 7408
BDE 2.1893 BRA 1.5215 BC3 2.4260 FSP 1847

MID-COURSE EXECUTION ACCURACY

SGT 1242.3 SGR 4249.3 SG3 1098.7
RRT -.6317 RRF .9988 RTF -.[illegible]89
SGB 4427.2 R23 -.0581 R13 .9973
SG1 4324.9 SG2 946.2 THA 101.00

ORBIT DETERMINATION ACCURACY

ST 24.1 SR 130.7 SS 128.3
CRT -.8543 CRS -.9996 CST .8397
LSA 184.3 MSA 13.0 SSA .3
EL1 132.4 EL2 12.4 ALF 99.04

LAUNCH DATE JUL 2 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 528.122 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.792 GAL -3.98 AZL 84.39 HCA 168.08 SMA 198.15 ECC .24199 INC 5.6142 V1 29.290
RP 234.35 LAP 1.16 LOP 88.11 VP 21.514 GAP 9.29 AZP 95.49 TAL 339.37 TAP 147.44 RCA 150.20 APO 246.10 V2 23.461
RC 178.836 GL 38.72 GP -43.78 ZAL 116.66 ZAP 111.91 ETS 205.11 ZAE 131.32 ETE 245.50 ZAC 43.45 ETC 290.03 LVI 22.42

PLANETOCENTRIC CONIC

C3 26.178 VHL 5.116 DLA 52.53 RAL 25.10 RAD 6645.5 VEL 12.089 PTH 7.07 VHP 3.706 DPA -29.72 RAP 45.11 ECC 1.4308

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.69	7 59 1	4569.44	-25.13	214.98	274.05	42.22	9 15 10	3569.4	-41.93	193.80
43.69	7 59 1	4569.44	-25.13	214.98	274.05	42.22	9 15 10	3569.4	-41.93	193.80
43.69	7 59 1	4569.44	-25.13	214.98	274.05	42.22	9 15 10	3569.4	-41.93	193.80
43.69	7 59 1	4569.44	-25.13	214.98	274.05	42.22	9 15 10	3569.4	-41.93	193.80
43.69	7 59 1	4569.44	-25.13	214.98	274.05	42.22	9 15 10	3569.4	-41.93	193.80
43.69	7 59 1	4569.44	-25.13	214.98	274.05	42.22	9 15 10	3569.4	-41.93	193.80
43.69	7 59 1	4569.44	-25.13	214.98	274.05	42.22	9 15 10	3569.4	-41.93	193.80

DIFFERENTIAL CORRECTIONS

TDE -.2124 TRA -.6014 TC3 -.2254 BAU .8567
RDE 2.5398 RRA 1.3548 RC3-2.4376 FAU .18814
FDE 6.9789 FRA 3.3838 FC3-6.2221 BSP 7809
BDE 2.5486 BRA 1.4823 BC3 2.4480 FSP 1723

MID-COURSE EXECUTION ACCURACY

SGT 1155.5 SGR 4531.1 SG3 1023.8
RRT -.5467 RRF .9991 RTF -.5321
SGB 4676.1 R23 -.0473 R13 .9981
SG1 4577.0 SG2 957.9 THA 98.30

ORBIT DETERMINATION ACCURACY

ST 20.4 SR 147.1 SS 128.7
CRT -.7692 CRS -.9997 CST .7547
LSA 196.0 MSA 13.3 SSA .3
EL1 147.9 EL2 13.0 ALF 96.15

LAUNCH DATE JUL 2 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 531.903 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.783 GAL -3.97 AZL 83.76 HCA 169.05 SMA 197.99 ECC .24135 INC 6.2409 V1 29.290
RP 234.71 LAP 1.18 LOP 89.09 VP 21.461 GAP 9.04 AZP 96.13 TAL 339.35 TAP 148.41 RCA 150.20 APO 245.77 V2 23.424
RC 181.791 GL 41.97 GP -46.32 ZAL 115.54 ZAP 109.70 ETS 204.56 ZAE 128.45 ETE 244.18 ZAC 41.24 ETC 291.02 LVI 24.75

PLANETOCENTRIC CONIC

C3 28.267 VHL 5.317 DLA 55.51 RAL 22.84 RAD 6646.3 VEL 12.174 PTH 7.14 VHP 3.851 DPA -32.28 RAP 45.74 ECC 1.4652

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.02	7 39 22	4611.52	-25.16	219.72	274.03	38.73	8 56 13	3611.5	-43.13	199.73
40.02	7 39 22	4611.52	-25.16	219.72	274.03	38.73	8 56 13	3611.5	-43.13	199.73
40.02	7 39 22	4611.52	-25.16	219.72	274.03	38.73	8 56 13	3611.5	-43.13	199.73
40.02	7 39 22	4611.52	-25.16	219.72	274.03	38.73	8 56 13	3611.5	-43.13	199.73
40.02	7 39 22	4611.52	-25.16	219.72	274.03	38.73	8 56 13	3611.5	-43.13	199.73
40.02	7 39 22	4611.52	-25.16	219.72	274.03	38.73	8 56 13	3611.5	-43.13	199.73
40.02	7 39 22	4611.52	-25.16	219.72	274.03	38.73	8 56 13	3611.5	-43.13	199.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1259 TRA -.5404 TC3 -.2805 BAU .9217 SGT 1079.3 SGR 4816.0 SG3 934.0 ST 16.9 SR 165.1 SS 127.7
RDE 2.9836 RRA 1.3104 RC3-2.4228 FAU .17386 RRT -.4295 RRF .9993 RTF -.4131 CRT -.5985 CRS -.9998 CST .5838
FDE 6.9624 FRA 2.8055 FC3-5.3246 BSP .6217 SGB 4935.5 R23 -.0379 R13 .9987 LSA 208.9 MSA 13.7 SSA .2
BDE 2.9862 BRA 1.4175 BC3 2.4390 FSP 1571 SG1 4639.2 SG2 970.0 THA 95.73 EL1 165.4 EL2 13.5 ALF 93.52

LAUNCH DATE JUL 2 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 535.684 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.776 GAL -3.97 AZL 83.01 HCA 170.03 SMA 197.84 ECC .24077 INC 6.9868 V1 29.290
RP 235.06 LAP 1.21 LOP 90.07 VP 21.409 GAP 8.80 AZP 96.88 TAL 339.33 TAP 149.36 RCA 150.20 APO 245.47 V2 23.367
RC 184.750 GL 45.52 GP -48.96 ZAL 114.25 ZAP 107.50 ETS 203.87 ZAE 125.51 ETE 242.85 ZAC 38.97 ETC 292.17 LVI 27.17

PLANETOCENTRIC CONIC

C3 31.070 VHL 5.574 DLA 58.72 RAL 19.99 RAD 6647.4 VEL 12.288 PTH 7.23 VHP 4.042 DPA -34.93 RAP 46.46 ECC 1.5113

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.12	7 17 33	4656.10	-24.84	224.64	273.67	34.89	8 35 9	3656.1	-44.05	206.24
36.12	7 17 33	4656.10	-24.84	224.64	273.67	34.89	8 35 9	3656.1	-44.05	206.24
36.12	7 17 33	4656.10	-24.84	224.64	273.67	34.89	8 35 9	3656.1	-44.05	206.24
36.12	7 17 33	4656.10	-24.84	224.64	273.67	34.89	8 35 9	3656.1	-44.05	206.24
36.12	7 17 33	4656.10	-24.84	224.64	273.67	34.89	8 35 9	3656.1	-44.05	206.24
36.12	7 17 33	4656.10	-24.84	224.64	273.67	34.89	8 35 9	3656.1	-44.05	206.24
36.12	7 17 33	4656.10	-24.84	224.64	273.67	34.89	8 35 9	3656.1	-44.05	206.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0165 TRA -.4820 TC3 -.3280 BAU .9884 SGT 1022.1 SGR 5109.2 SG3 831.6 ST 14.3 SR 185.5 SS 125.3
RDE 3.5369 RRA 1.2354 RC3-2.3568 FAU .15660 RRT -.2749 RRF .9995 RTF -.2566 CRT -.2546 CRS -.9999 CST .2402
FDE 6.8630 FRA 2.2140 FC3-4.3635 BSP .8727 SGB 5210.4 R23 -.0298 R13 .9992 LSA 223.9 MSA 14.0 SSA .2
BDE 3.5369 BRA 1.3261 BC3 2.3795 FSP 1413 SG1 5117.2 SG2 981.1 THA 93.27 EL1 185.5 EL2 13.9 ALF 91.13

LAUNCH DATE JUL 2 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 539.462 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.768 GAL -3.96 AZL 82.11 HCA 171.00 SMA 197.70 ECC .24024 INC 7.8886 V1 29.290
RP 235.42 LAP 1.23 LOP 91.05 VP 21.358 GAP 8.55 AZP 97.79 TAL 339.31 TAP 150.31 RCA 150.20 APO 245.19 V2 23.351
RC 187.714 GL 49.41 GP -51.66 ZAL 112.77 ZAP 105.31 ETS 203.03 ZAE 122.52 ETE 241.47 ZAC 36.67 ETC 293.51 LVI 29.65

PLANETOCENTRIC CONIC

C3 34.910 VHL 5.908 DLA 62.18 RAL 16.27 RAD 6648.9 VEL 12.442 PTH 7.34 VHP 4.293 DPA -37.64 RAP 47.30 ECC 1.5745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.01	6 52 25	4704.19	-24.04	229.73	272.66	30.74	8 10 50	3704.2	-44.51	213.35
32.01	6 52 25	4704.19	-24.04	229.73	272.66	30.74	8 10 50	3704.2	-44.51	213.35
32.01	6 52 25	4704.19	-24.04	229.73	272.66	30.74	8 10 50	3704.2	-44.51	213.35
32.01	6 52 25	4704.19	-24.04	229.73	272.66	30.74	8 10 50	3704.2	-44.51	213.35
32.01	6 52 25	4704.19	-24.04	229.73	272.66	30.74	8 10 50	3704.2	-44.51	213.35
32.01	6 52 25	4704.19	-24.04	229.73	272.66	30.74	8 10 50	3704.2	-44.51	213.35
32.01	6 52 25	4704.19	-24.04	229.73	272.66	30.74	8 10 50	3704.2	-44.51	213.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1226 TRA -.4291 TC3 -.3651 BAU 1.0651 SGT 997.5 SGR 5393.1 SG3 716.3 ST 14.6 SR 207.5 SS 120.7
RDE 4.2201 RRA 1.1030 RC3-2.2527 FAU .13794 RRT -.0759 RRF .9996 RTF -.[illegible]56 CRT .2496 CRS -.9999 CST -.2615
FDE 6.6280 FRA 1.6024 FC3-3.4208 BSP 9176 SGB 5484.5 R23 -.0229 R13 .9995 LSA 240.1 MSA 14.2 SSA .1
BDE 4.2219 BRA 1.1835 BC3 2.2821 FSP 1222 SG1 5393.6 SG2 994.5 THA 90.83 EL1 207.6 EL2 14.2 ALF 88.99

LAUNCH DATE JUL 2 1973 FLIGHT TIME 268.00 ARRIVAL DATE MAR 27 1974

HELIOCENTRIC CONIC DISTANCE 619.446 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.718 GAL -4.39 AZL 98.44 HCA 191.16 SMA 196.73 ECC .23875 INC 8.4448 V1 29.290
RP 242.06 LAP 1.63 LOP 111.01 VP 20.541 GAP 3.68 AZP 81.71 TAL 336.92 TAP 168.08 RCA 149.76 APO 243.70 V2 22.679
RC 249.167 GL -50.82 GP 48.84 ZAL 114.12 ZAP 85.61 ETS 187.29 ZAE 109.01 ETE 160.37 ZAC 136.45 ETC 290.79 LVI -70.86

PLANETOCENTRIC CONIC

C3 38.195 VHL 6.180 DLA -31.19 RAL 61.84 RAD 6650.0 VEL 12.573 PTH 7.44 VHP 3.511 DPA 47.55 RAP 346.36 ECC 1.6286

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 58 51	2639.81	-14.31	72.50	288.91	135.88	19 42 51	1639.8	4.01	56.60
60.00	20 26 7	2407.57	-7.04	58.44	295.76	129.79	21 6 15	1407.6	9.05	40.49
70.00	22 28 40	2046.92	1.78	35.85	302.38	124.11	23 2 47	1046.9	15.37	15.83
76.26	1 0 22	1586.87	13.06	7.64	309.29	118.58	1 26 49	586.9	23.69	344.99
76.26	1 0 22	1586.87	13.06	7.64	309.29	118.58	1 26 49	586.9	23.69	344.99
76.26	1 0 22	1586.87	13.06	7.64	309.29	118.58	1 26 49	586.9	23.69	344.99
110.00	3 32 2	1093.73	1.78	324.77	302.38	124.11	3 50 16	93.7	15.37	304.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3714 TRA 3.3244 TC3-2.0447 BAU 1.5041 SGT 4580.8 SGR 5660.2 SG3 1079.2 ST 83.5 SR 79.2 SS 50.5
RDE .5490 RRA-4.6053 RC3 2.1202 FAU .22481 RRT -.9739 RRF -.9986 RTF .9735 CRT -.8588 CRS .9966 CST -.8140
FDE -.8726 FRA 9.9254 FC3-5.0955 BSP 12338 SGB 7281.6 R23 .0861 R13 -.9949 LSA 120.8 MSA 34.7 SSA .3
BDE 1.4772 BRA 5.6799 BC3 2.9455 FSP 1942 SG1 7236.1 SG2 812.9 THA 128.83 EL1 111.0 EL2 30.5 ALF 136.78

LAUNCH DATE JUL 2 1973 FLIGHT TIME 270.00 ARRIVAL DATE MAR 29 1974

HELIOCENTRIC CONIC DISTANCE 623.217 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.719 GAL -4.42 AZL 97.88 HCA 192.07 SMA 196.75 ECC .23899 INC 7.8748 V1 29.280
RP 242.33 LAP 1.64 LOP 111.94 VP 20.513 GAP 3.45 AZP 82.30 TAL 336.78 TAP 168.85 RCA 149.73 APO 243.77 V2 22.652
RC 251.989 GL -48.53 GP 46.83 ZAL 115.23 ZAP 84.42 ETS 188.13 ZAE 108.61 ETE 162.32 ZAC 134.66 ETC 290.10 LVI -69.08

PLANETOCENTRIC CONIC

C3 35.582 VHL 5.965 DLA -29.05 RAL 60.88 RAD 6649.1 VEL 12.469 PTH 7.36 VHP 3.349 DPA 45.71 RAP 347.66 ECC 1.5856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 42 45	2672.26	-15.89	73.97	286.47	135.46	19 27 15	1672.3	2.38	57.96
60.00	20 3 49	2436.52	-9.16	60.83	292.76	129.42	20 44 45	1456.5	6.93	42.88
70.00	21 52 3	2138.17	-1.71	40.61	298.35	124.12	22 27 41	1138.2	12.12	20.90
80.00	0 25 38	1669.34	7.07	10.46	303.74	119.08	0 53 27	669.3	18.39	348.80
83.08	1 48 7	1404.59	12.77	353.92	306.78	116.31	2 11 32	404.6	22.52	330.96
100.00	3 8 30	1143.81	7.07	331.82	303.74	119.08	3 27 34	143.8	18.39	310.17
110.00	2 55 25	1184.99	-1.71	329.53	298.35	124.12	3 15 10	185.0	12.12	309.82

DIFFERENTIAL CORRECTIONS

TDE-1.3137 TRA 3.3930 TC3-2.2597 BAU 1.4891
RDE .5096 RRA-4.3636 RC3 2.1664 FAU .24606
FDE -.8811 FRA10.8500 FC3-5.9867 BSP 12246
BDE 1.4091 BRA 5.5275 BC3 3.1304 FSP 2158

MID-COURSE EXECUTION ACCURACY

SGT 4770.5 SGR 5468.5 SG3 1202.9
RRT -.9759 RRF -.9986 RTF .9751
SGB 7256.9 R23 .0918 R13 -.9943
SG1 7213.8 SG2 789.6 THA 131.00

ORBIT DETERMINATION ACCURACY

ST 84.4 SR 76.1 SS 53.3
CRT -.8694 CRS .9954 CST -.8183
LSA 120.8 MSA 34.0 SSA .3
EL1 109.9 EL2 28.9 ALF 138.42

LAUNCH DATE JUL 2 1973 FLIGHT TIME 272.00 ARRIVAL DATE MAR 31 1974

HELIOCENTRIC CONIC DISTANCE 626.989 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.720 GAL -4.45 AZL 97.39 HCA 192.99 SMA 196.77 ECC .23924 INC 7.3856 V1 29.290
RP 242.60 LAP 1.66 LOP 112.86 VP 20.485 GAP 3.23 AZP 82.80 TAL 336.63 TAP 169.62 RCA 149.69 APO 243.85 V2 22.625
RC 254.795 GL -46.42 GP 44.90 ZAL 116.25 ZAP 83.18 ETS 188.91 ZAE 108.07 ETE 164.18 ZAC 132.95 ETC 289.50 LVI -67.34

PLANETOCENTRIC CONIC

C3 33.505 VHL 5.788 DLA -27.06 RAL 60.09 RAD 6648.3 VEL 12.386 PTH 7.30 VHP 3.217 DPA 43.91 RAP 348.78 ECC 1.5514

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 28 52	2702.37	-17.35	75.35	284.50	135.03	19 13 55	1702.4	.67	59.22
60.00	19 45 11	2499.39	-11.01	62.95	290.38	129.02	20 26 50	1499.4	5.05	44.95
70.00	21 24 32	2207.25	-4.34	44.23	295.35	123.91	22 1 19	1207.3	9.59	24.65
80.00	23 28 42	1818.56	2.07	18.70	299.33	119.79	23 59 1	818.6	14.04	357.74
90.00	1 29 24	1442.03	5.61	352.96	301.28	117.76	1 53 26	442.0	16.53	331.25
100.00	2 15 30	1293.04	2.07	340.07	299.33	119.79	2 37 3	293.0	14.04	319.11
110.00	2 27 54	1254.07	-4.34	333.15	295.35	123.91	2 48 48	254.1	9.59	313.56

DIFFERENTIAL CORRECTIONS

TDE-1.2558 TRA 3.4727 TC3-2.4690 BAU 1.4805
RDE .4726 RRA-4.1344 RC3 2.1976 FAU .26637
FDE -.8679 FRA11.6760 FC3-6.8827 BSP 12159
BDE 1.3418 BRA 5.3993 BC3 3.3053 FSP 2345

MID-COURSE EXECUTION ACCURACY

SGT 4961.2 SGR 5273.4 SG3 1317.9
RRT -.9782 RRF -.9985 RTF .9770
SGB 7240.3 R23 .0961 R13 -.9938
SG1 7200.8 SG2 755.3 THA 133.21

ORBIT DETERMINATION ACCURACY

ST 85.1 SR 72.9 SS 55.5
CRT -.8809 CRS .9939 CST -.8238
LSA 120.5 MSA 33.2 SSA .4
EL1 108.7 EL2 27.0 ALF 139.99

LAUNCH DATE JUL 2 1973 FLIGHT TIME 274.00 ARRIVAL DATE APR 2 1974

HELIOCENTRIC CONIC DISTANCE 630.757 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.721 GAL -4.48 AZL 96.96 HCA 193.90 SMA 196.80 ECC .23952 INC 6.9604 V1 29.290
RP 242.86 LAP 1.67 LOP 113.78 VP 20.459 GAP 3.00 AZP 83.24 TAL 336.47 TAP 170.38 RCA 149.66 APO 243.94 V2 22.599
RC 257.584 GL -44.48 GP 43.06 ZAL 117.20 ZAP 81.91 ETS 189.63 ZAE 107.41 ETE 165.94 ZAC 131.30 ETC 288.97 LVI -65.66

PLANETOCENTRIC CONIC

C3 31.832 VHL 5.642 DLA -25.21 RAL 59.42 RAD 6647.7 VEL 12.319 PTH 7.25 VHP 3.107 DPA 42.17 RAP 349.77 ECC 1.5239

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 16 51	2730.58	-18.70	76.66	282.92	134.58	19 2 22	1730.6	-.55	60.40
60.00	19 29 17	2537.93	-12.65	64.87	288.49	128.59	20 11 35	1537.9	3.36	46.00
70.00	21 2 19	2264.42	-6.50	47.24	293.03	123.60	21 40 4	1264.4	7.46	27.70
80.00	22 55 6	1911.41	-1.07	23.80	296.39	119.84	23 26 58	911.4	11.14	3.11
90.00	0 44 15	1572.12	1.45	.24	297.79	118.25	1 10 27	572.1	12.87	339.05
100.00	1 41 54	1385.88	-1.07	345.17	296.39	119.84	2 5 0	385.9	11.14	324.48
110.00	2 5 41	1311.24	-6.50	336.16	293.03	123.60	2 27 33	311.2	7.46	316.62

DIFFERENTIAL CORRECTIONS

TDE-1.2022 TRA 3.5588 TC3-2.6774 BAU 1.4731
RDE .4233 RRA-3.9339 RC3 2.1939 FAU .28310
FDE -.7859 FRA12.4565 FC3-7.6996 BSP 12223
BDE 1.2745 BRA 5.3048 BC3 3.4614 FSP 2561

MID-COURSE EXECUTION ACCURACY

SGT 5159.1 SGR 5080.5 SG3 1423.9
RRT -.9791 RRF -.9983 RTF .9778
SGB 7237.8 R23 .1018 R13 -.9931
SG1 7199.9 SG2 739.9 THA 135.43

ORBIT DETERMINATION ACCURACY

ST 85.7 SR 69.7 SS 57.4
CRT -.8869 CRS .9921 CST -.8221
LSA 120.0 MSA 33.0 SSA .4
EL1 107.4 EL2 25.7 ALF 141.57

LAUNCH DATE JUL 2 1973 FLIGHT TIME 276.00 ARRIVAL DATE APR 4 1974

HELIOCENTRIC CONIC DISTANCE 634.524 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.723 GAL -4.52 AZL 96.59 HCA 194.82 SMA 196.83 ECC .23983 INC 6.5875 V1 29.290
RP 243.12 LAP 1.68 LOP 114.70 VP 20.433 GAP 2.77 AZP 83.63 TAL 336.31 TAP 171.13 RCA 149.62 APO 244.04 V2 22.573
RC 260.356 GL -42.69 GP 41.30 ZAL 118.09 ZAP 80.62 ETS 190.27 ZAE 106.64 ETE 167.59 ZAC 129.72 ETC 288.51 LVI -64.04

PLANETOCENTRIC CONIC

C3 30.469 VHL 5.520 DLA -23.49 RAL 58.85 RAD 6647.2 VEL 12.264 PTH 7.21 VHP 3.017 DPA 40.49 RAP 350.63 ECC 1.5014

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 6 18	2757.16	-19.97	77.92	281.65	134.13	18 52 16	1757.2	-1.88	61.51
60.00	19 15 31	2573.10	-14.14	66.66	286.97	128.14	19 58 24	1573.1	1.82	48.49
70.00	20 43 42	2313.84	-8.35	49.87	291.20	123.24	21 22 16	1313.8	5.60	30.32
80.00	22 29 23	1983.09	-3.50	27.74	294.18	119.67	23 2 26	983.1	8.83	7.16
90.00	0 13 24	1660.26	-1.40	5.16	295.35	118.25	0 41 5	660.3	10.25	344.19
100.00	1 16 11	1457.56	-3.50	349.11	294.18	119.67	1 40 28	457.6	8.83	328.55
110.00	1 47 4	1360.66	-8.35	338.78	291.20	123.24	2 9 45	360.7	5.60	319.23

DIFFERENTIAL CORRECTIONS

TDE-1.1496 TRA 3.6515 TC3-2.8806 BAU 1.4688
RDE .3728 RRA-3.7506 RC3 2.1688 FAU .29722
FDE -.6607 FRA13.1700 FC3-8.4453 BSP 12338
BDE 1.2085 BRA 5.2346 BC3 3.6058 FSP 2777

MID-COURSE EXECUTION ACCURACY

SGT 5349.5 SGR 4889.0 SG3 1520.2
RRT -.9796 RRF -.9982 RTF .9782
SGB 7247.1 R23 .1080 R13 -.9923
SG1 7210.3 SG2 729.3 THA 137.63

ORBIT DETERMINATION ACCURACY

ST 86.2 SR 66.6 SS 59.1
CRT -.8913 CRS .9898 CST -.8179
LSA 119.4 MSA 33.2 SSA .4
EL1 106.1 EL2 24.5 ALF 143.12

LAUNCH DATE JUL 2 1973 FLIGHT TIME 278.00 ARRIVAL DATE APR 6 1974

DISTANCE 638.294

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL -.00 LOL 279.98 VL 32.725 GAL -4.55 AZL 96.26 HCA 195.73 SMA 196.87 ECC .24015 INC 6.2578 V1 29.290
RP 243.37 LAP 1.69 LOP 115.62 VP 20.408 GAP 2.55 AZP 83.97 TAL 336.15 TAP 171.88 RCA 149.59 APO 244.14 V2 22.548
RC 263.112 GL -41.03 GP 39.63 ZAL 118.92 ZAP 79.31 ETS 190.86 ZAE 105.78 ETE 169.15 ZAC 128.22 ETC 288.10 LVI -62.48

PLANETOCENTRIC CONIC

C3 29.346 VHL 5.417 DLA -21.89 RAL 58.37 RAD 6646.7 VEL 12.218 PTH 7.17 VHP 2.942 DPA 38.68 RAP 351.39 ECC 1.4830

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 56 58	2782.23	-21.15	79.13	280.62	133.67	18 43 21	1782.2	-3.14	62.56
60.00	19 3 26	2605.50	-15.49	68.32	285.74	127.68	19 46 51	1605.5 *	.39	50.03
70.00	20 27 44	2357.67	-9.98	52.22	289.73	122.83	21 7 2	1357.7	3.93	32.62
80.00	22 8 22	2042.74	-5.50	31.04	292.46	119.39	22 42 24	1042.7	6.87	10.52
90.00	23 45 20	1729.95	-3.64	9.06	293.48	118.06	24 14 10	729.9	8.10	348.18
100.00	0 55 9	1517.22	-5.50	352.40	292.46	119.39	1 20 27	517.2	6.87	331.89
110.00	1 31 6	1404.48	-9.98	341.13	289.73	122.83	1 54 31	404.5	3.93	321.54

DIFFERENTIAL CORRECTIONS

TDE-1.1022 TRA 3.7425 TC3-3.0825 BAU 1.4756
RDE .3449 RRA-3.5616 RC3 2.1550 FAU .31266
FDE -.5858 FRA13.7372 FC3-9.2236 BSP 12275
BDE 1.1550 BRA 5.1663 BC3 3.7611 FSP 2904

MID-COURSE EXECUTION ACCURACY

SGT 5541.7 SGR 4697.5 SG3 1605.8
RRT -.9812 RRF -.9980 RTF .9796
SGB 7264.7 R23 .1107 R13 -.9918
SG1 7231.4 SG2 695.5 THA 139.80

ORBIT DETERMINATION ACCURACY

ST 86.7 SR 63.7 SS 60.3
CRT -.9017 CRS .9873 CST -.3216
LSA 119.0 MSA 32.5 SSA .4
EL1 105.1 EL2 22.7 ALF 144.59

LAUNCH DATE JUL 2 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 8 1974

DISTANCE 642.059

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL -.00 LOL 279.98 VL 32.727 GAL -4.59 AZL 95.96 HCA 196.64 SMA 196.90 ECC .24050 INC 5.9640 V1 29.290
RP 243.62 LAP 1.71 LOP 116.53 VP 20.384 GAP 2.32 AZP 84.28 TAL 335.97 TAP 172.62 RCA 149.55 APO 244.26 V2 22.523
RC 265.850 GL -39.48 GP 38.04 ZAL 119.69 ZAP 78.00 ETS 191.39 ZAE 104.84 ETE 170.59 ZAC 126.79 ETC 287.73 LVI -60.99

PLANETOCENTRIC CONIC

C3 28.417 VHL 5.331 DLA -20.39 RAL 57.97 RAD 6646.4 VEL 12.180 PTH 7.14 VHP 2.880 DPA 37.34 RAP 352.07 ECC 1.4677

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 48 39	2806.07	-22.26	80.30	279.81	133.20	18 35 25	1806.1	-4.34	63.55
60.00	18 52 43	2635.70	-16.74	69.89	284.75	127.21	19 36 39	1635.7	-.94	51.48
70.00	20 13 48	2397.35	-11.44	54.37	288.55	122.40	20 53 45	1397.3	2.42	34.70
80.00	21 50 33	2094.57	-7.22	33.92	291.09	119.05	22 25 27	1094.6	5.14	13.40
90.00	23 25 20	1788.81	-5.51	12.36	292.02	117.78	23 55 9	788.8	6.26	351.52
100.00	0 37 20	1569.04	-7.22	355.28	291.09	119.05	1 3 29	569.0	5.14	334.76
110.00	1 17 10	1444.17	-11.44	343.28	288.55	122.40	1 41 14	444.2	2.42	323.61

DIFFERENTIAL CORRECTIONS

TDE-1.0493 TRA 3.8466 TC3-3.2706 BAU 1.4772
RDE .3009 RRA-3.4034 RC3 2.1028 FAU .32260
FDE -.4152 FRA14.3040 FC3-9.8281 BSP 12477
BDE 1.0916 BRA 5.1361 BC3 3.8882 FSP 3101

MID-COURSE EXECUTION ACCURACY

SGT 5734.7 SGR 4512.3 SG3 1682.1
RRT -.9814 RRF -.9977 RTF .9798
SGB 7297.1 R23 .1158 R13 -.9910
SG1 7265.0 SG2 683.4 THA 141.93

ORBIT DETERMINATION ACCURACY

ST 87.1 SR 60.8 SS 61.6
CRT -.9066 CRS .9840 CST -.8172
LSA 118.4 MSA 32.7 SSA .5
EL1 104.0 EL2 21.5 ALF 146.01

LAUNCH DATE JUL 2 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 10 1974

DISTANCE 645.828

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL -.00 LOL 279.98 VL 32.729 GAL -4.63 AZL 95.70 HCA 197.55 SMA 196.95 ECC .24086 INC 5.7002 V1 29.290
RP 243.86 LAP 1.72 LOP 117.44 VP 20.361 GAP 2.10 AZP 84.56 TAL 335.80 TAP 173.35 RCA 149.51 APO 244.38 V2 22.499
RC 268.570 GL -38.05 GP 36.52 ZAL 120.43 ZAP 76.69 ETS 191.87 ZAE 103.83 ETE 171.93 ZAC 125.43 ETC 287.41 LVI -59.57

PLANETOCENTRIC CONIC

C3 27.642 VHL 5.258 DLA -18.99 RAL 57.63 RAD 6646.1 VEL 12.149 PTH 7.12 VHP 2.829 DPA 35.87 RAP 352.67 ECC 1.4549

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 41 11	2828.69	-23.31	81.43	279.16	132.73	18 28 20	1828.7	-5.47	64.51
60.00	18 43 9	2663.92	-17.90	71.38	283.96	126.73	19 27 33	1663.9	-2.18	52.82
70.00	20 1 29	2433.64	-12.75	56.35	287.60	121.95	20 42 3	1433.6	1.04	36.59
80.00	21 35 7	2140.60	-8.74	36.50	289.99	118.66	22 10 47	1140.6	3.60	15.94
90.00	23 8 15	1840.16	-7.13	15.26	290.85	117.44	23 38 55	840.2	4.63	354.41
100.00	0 21 55	1615.07	-8.74	357.86	289.99	118.66	0 48 50	615.1	3.60	337.31
110.00	1 4 51	1480.46	-12.75	345.27	287.60	121.95	1 29 32	480.5	1.04	325.51

DIFFERENTIAL CORRECTIONS

TDE-1.0089 TRA 3.9384 TC3-3.4671 BAU 1.4940
RDE .2862 RRA-3.2308 RC3 2.0790 FAU .33620
FDE -.3469 FRA14.6886 FC-10.5294 BSP 12377
BDE 1.0487 BRA 5.0941 BC3 4.0426 FSP 3161

MID-COURSE EXECUTION ACCURACY

SGT 5924.8 SGR 4329.1 SG3 1748.0
RRT -.9830 RRF -.9974 RTF .9813
SGB 7337.9 R23 .1158 R13 -.9907
SG1 7309.6 SG2 643.4 THA 143.99

ORBIT DETERMINATION ACCURACY

ST 87.7 SR 58.1 SS 62.4
CRT -.9186 CRS .9805 CST -.8233
LSA 118.0 MSA 31.9 SSA .5
EL1 103.4 EL2 19.5 ALF 147.38

LAUNCH DATE JUL 2 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 12 1974

DISTANCE 649.592

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL -.00 LOL 279.98 VL 32.732 GAL -4.67 AZL 95.46 HCA 198.46 SMA 196.99 ECC .24125 INC 5.4622 V1 29.290
RP 244.10 LAP 1.73 LOP 118.36 VP 20.339 GAP 1.88 AZP 84.82 TAL 335.62 TAP 174.08 RCA 149.47 APO 244.52 V2 22.475
RC 271.273 GL -36.70 GP 35.09 ZAL 121.12 ZAP 75.38 ETS 192.29 ZAE 102.78 ETE 173.17 ZAC 124.14 ETC 287.12 LVI -58.21

PLANETOCENTRIC CONIC

C3 26.995 VHL 5.196 DLA -17.67 RAL 57.34 RAD 6645.8 VEL 12.122 PTH 7.09 VHP 2.787 DPA 34.47 RAP 353.22 ECC 1.4443

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 34 27	2850.30	-24.31	82.52	278.66	132.25	18 21 58	1850.3	-6.55	65.42
60.00	18 34 32	2690.53	-18.98	72.81	283.34	126.24	19 19 23	1690.5	-3.35	54.10
70.00	19 50 29	2467.25	-13.96	58.21	286.85	121.49	20 31 37	1467.2	-.25	38.34
80.00	21 21 32	2182.32	-10.09	38.85	289.12	118.25	21 57 54	1182.3	2.19	18.23
90.00	22 53 21	1886.13	-8.57	17.88	289.93	117.05	23 24 47	886.1	3.16	356.99
100.00	0 8 19	1656.79	-10.09	.22	289.12	118.25	0 35 56	656.8	2.19	339.60
110.00	0 53 52	1514.07	-13.96	347.13	286.85	121.49	1 19 6	514.1	-.25	327.26

DIFFERENTIAL CORRECTIONS

TDE -.9631 TRA 4.0403 TC3-3.6496 BAU 1.5067
RDE .2611 RRA-3.0814 RC3 2.0271 FAU .34518
FDE -.2094 FRA15.0614 FC-11.0700 BSP 12477
BDE .9979 BRA 5.0812 BC3 4.1748 FSP 3269

MID-COURSE EXECUTION ACCURACY

SGT 6113.7 SGR 4152.0 SG3 1804.6
RRT -.9837 RRF -.9971 RTF .9819
SGB 7390.3 R23 .1173 R13 -.9902
SG1 7364.3 SG2 619.0 THA 145.98

ORBIT DETERMINATION ACCURACY

ST 88.2 SR 55.5 SS 63.2
CRT -.9270 CRS .9762 CST -.8239
LSA 117.6 MSA 31.7 SSA .5
EL1 102.6 EL2 17.9 ALF 148.68

LAUNCH DATE JUL 2 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 14 1974

HELIOCENTRIC CONIC DISTANCE 653.355 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.734 GAL -4.71 AZL 95.25 HCA 199.36 SMA 197.04 ECC .24165 INC 5.2462 V1 29.290
RP 244.34 LAP 1.74 LOP 119.27 VP 20.317 GAP 1.65 AZP 85.05 TAL 335.44 TAP 174.80 RCA 149.42 APO 244.66 V2 22.452
RC 273.957 GL -35.45 GP 33.73 ZAL 121.78 ZAP 74.09 ETS 192.67 ZAE 101.67 ETE 174.31 ZAC 122.91 ETC 286.86 LVI -56.91

PLANETOCENTRIC CONIC

C3 26.453 VHL 5.143 DLA -16.44 RAL 57.11 RAD 6645.6 VEL 12.100 PTH 7.08 VHP 2.752 DPA 33.14 RAP 353.71 ECC 1.4354

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 28 21	2870.97	-25.25	83.59	278.28	131.77	18 16 12	1871.0	-7.58	66.30
60.00	18 26 45	2715.70	-19.98	74.17	282.85	125.75	19 12 0	1715.7	-4.46	55.31
70.00	19 40 36	2498.59	-15.06	59.97	286.25	121.02	20 22 14	1498.6	-1.45	39.98
80.00	21 9 25	2220.57	-11.31	41.03	288.42	117.82	21 46 26	1220.6	.89	20.33
90.00	22 40 9	1927.90	-9.85	20.28	289.19	116.64	23 12 17	927.9	1.81	359.32
100.00	23 52 17	1695.04	-11.31	2.40	288.42	117.82	24 20 32	695.0	.89	341.70
110.00	0 43 58	1545.41	-15.06	348.88	286.25	121.02	1 9 44	545.4	-1.45	328.90

DIFFERENTIAL CORRECTIONS
TDE -.9191 TRA 4.1430 TC3-3.8278 BAU 1.5226
RDE .2394 RRA-2.9409 RC3 1.9706 FAU .35280
FDE -.0670 FRA15.3695 FC-11.5463 BSP 12587
BDE .9498 BRA 5.0807 BC3 4.3053 FSP 3361

MID-COURSE EXECUTION ACCURACY
SGT 6301.4 SGR 3980.9 SG3 1852.5
RRT -.9843 RRF -.9967 RTF .9825
SGB 7453.5 R23 .1182 R13 -.9897
SG1 7429.6 SG2 596.0 THA 147.89

ORBIT DETERMINATION ACCURACY
ST 88.7 SR 53.0 SS 63.8
CRT -.9353 CRS .9712 CST -.8244
LSA 117.3 MSA 31.5 SSA .6
EL1 102.0 EL2 16.3 ALF 149.94

LAUNCH DATE JUL 2 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 16 1974

HELIOCENTRIC CONIC DISTANCE 657.117 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.737 GAL -4.75 AZL 95.05 HCA 200.27 SMA 197.09 ECC .24208 INC 5.0491 V1 29.290
RP 244.56 LAP 1.75 LOP 120.17 VP 20.297 GAP 1.43 AZP 85.26 TAL 335.25 TAP 175.52 RCA 149.38 APO 244.80 V2 22.430
RC 276.623 GL -34.27 GP 32.44 ZAL 122.41 ZAP 72.81 ETS 193.00 ZAE 100.54 ETE 175.36 ZAC 121.74 ETC 286.62 LVI -55.67

PLANETOCENTRIC CONIC

C3 25.999 VHL 5.099 DLA -15.27 RAL 56.91 RAD 6645.4 VEL 12.081 PTH 7.06 VHP 2.724 DPA 31.87 RAP 354.17 ECC 1.4279

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 22 48	2890.78	-26.14	84.62	278.01	131.28	18 10 59	1890.8	-8.57	67.14
60.00	18 19 39	2739.59	-20.93	75.49	282.49	125.26	19 5 19	1739.6	-5.50	56.46
70.00	19 31 38	2527.99	-16.09	61.63	285.79	120.54	20 13 46	1528.0	-2.57	41.51
80.00	20 58 32	2255.99	-12.43	43.07	287.88	117.37	21 36 8	1256.0	-.31	22.28
90.00	22 28 20	1966.31	-11.02	22.50	288.61	116.21	23 1 6	966.3	.58	1.47
100.00	23 41 24	1730.46	-12.43	4.44	287.88	117.37	24 10 15	730.5	-.31	343.64
110.00	0 35 0	1574.81	-16.09	350.55	285.79	120.54	1 1 15	574.8	-2.57	330.43

DIFFERENTIAL CORRECTIONS
TDE -.8757 TRA 4.2474 TC3-3.9992 BAU 1.5405
RDE .2219 RRA-2.8083 RC3 1.9103 FAU .35904
FDE .0726 FRA15.6151 FC-11.9556 BSP 12719
BDE .9034 BRA 5.0919 BC3 4.4320 FSP 3436

MID-COURSE EXECUTION ACCURACY
SGT 6486.7 SGR 3815.4 SG3 1891.9
RRT -.9848 RRF -.9962 RTF .9830
SGB 7525.5 R23 .1179 R13 -.9893
SG1 7503.7 SG2 572.6 THA 149.72

ORBIT DETERMINATION ACCURACY
ST 89.2 SR 50.7 SS 64.4
CRT -.9440 CRS .9655 CST -.8259
LSA 117.0 MSA 31.3 SSA .6
EL1 101.6 EL2 14.7 ALF 151.13

LAUNCH DATE JUL 2 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 18 1974

HELIOCENTRIC CONIC DISTANCE 660.877 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.740 GAL -4.79 AZL 94.87 HCA 201.17 SMA 197.15 ECC .24252 INC 4.8684 V1 29.290
RP 244.79 LAP 1.76 LOP 121.08 VP 20.277 GAP 1.21 AZP 85.46 TAL 335.05 TAP 176.23 RCA 149.33 APO 244.96 V2 22.407
RC 279.268 GL -33.16 GP 31.22 ZAL 123.01 ZAP 71.56 ETS 193.30 ZAE 99.38 ETE 176.33 ZAC 120.62 ETC 286.41 LVI -54.50

PLANETOCENTRIC CONIC

C3 25.619 VHL 5.062 DLA -14.16 RAL 56.75 RAD 6645.2 VEL 12.066 PTH 7.05 VHP 2.702 DPA 30.67 RAP 354.59 ECC 1.4216

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 17 44	2909.80	-26.99	85.64	277.83	130.79	18 6 14	1909.8	-9.52	67.96
60.00	18 13 11	2762.36	-21.82	76.75	282.23	124.76	18 59 13	1762.4	-6.50	57.36
70.00	19 23 28	2555.72	-17.04	63.21	285.44	120.06	20 6 4	1555.7	-3.62	42.97
80.00	20 48 40	2289.03	-13.46	44.98	287.46	116.91	21 26 49	1289.0	-1.43	24.09
90.00	22 17 39	2001.95	-12.08	24.57	288.16	115.77	22 51 1	1001.9	-.57	3.46
100.00	23 31 32	1763.51	-13.46	6.35	287.46	116.91	24 0 55	763.5	-1.43	345.46
110.00	0 26 50	1602.54	-17.04	352.13	285.44	120.06	0 53 33	602.5	-3.62	331.88

DIFFERENTIAL CORRECTIONS
TDE -.8352 TRA 4.3508 TC3-4.1674 BAU 1.5614
RDE .2082 RRA-2.6832 RC3 1.8482 FAU .36420
FDE .2069 FRA15.8039 FC-12.3071 BSP 12838
BDE .8607 BRA 5.1117 BC3 4.5589 FSP 3491

MID-COURSE EXECUTION ACCURACY
SGT 6670.2 SGR 3656.3 SG3 1923.6
RRT -.9852 RRF -.9957 RTF .9835
SGB 7606.6 R23 .1169 R13 -.9889
SG1 7586.6 SG2 551.2 THA 151.47

ORBIT DETERMINATION ACCURACY
ST 89.9 SR 48.5 SS 64.8
CRT -.9526 CRS .9589 CST -.8275
LSA 116.9 MSA 31.1 SSA .6
EL1 101.3 EL2 13.1 ALF 152.28

LAUNCH DATE JUL 2 1973 FLIGHT TIME 292.00 ARRIVAL DATE APR 20 1974

HELIOCENTRIC CONIC DISTANCE 664.635 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.743 GAL -4.84 AZL 94.70 HCA 202.07 SMA 197.20 ECC .24298 INC 4.7023 V1 29.290
RP 245.01 LAP 1.77 LOP 121.98 VP 20.258 GAP .98 AZP 85.64 TAL 334.86 TAP 176.93 RCA 149.29 APO 245.12 V2 22.386
RC 281.893 GL -32.12 GP 30.05 ZAL 123.59 ZAP 70.32 ETS 193.56 ZAE 98.20 ETE 177.22 ZAC 119.56 ETC 286.23 LVI -53.38

PLANETOCENTRIC CONIC

C3 25.303 VHL 5.030 DLA -13.11 RAL 56.63 RAD 6645.1 VEL 12.053 PTH 7.04 VHP 2.685 DPA 29.54 RAP 354.99 ECC 1.4164

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 13 5	2928.11	-27.80	86.63	277.73	130.30	18 1 54	1928.1	-10.43	68.75
60.00	18 7 14	2784.12	-22.66	77.98	282.06	124.26	18 53 38	1784.1	-7.44	58.61
70.00	19 15 59	2582.00	-17.93	64.73	285.19	119.57	19 59 1	1582.0	-4.62	44.34
80.00	20 39 40	2320.07	-14.40	46.80	287.15	116.44	21 18 20	1320.1	-2.48	25.79
90.00	22 7 57	2035.27	-13.06	26.53	287.82	115.31	22 41 52	1035.3	-1.65	5.31
100.00	23 22 32	1794.55	-14.40	8.17	287.15	116.44	23 52 26	794.6	-2.48	347.16
110.00	0 19 21	1628.82	-17.93	353.65	285.19	119.57	0 46 30	628.8	-4.62	333.26

DIFFERENTIAL CORRECTIONS
TDE -.7923 TRA 4.4581 TC3-4.3253 BAU 1.5823
RDE .1951 RRA-2.5667 RC3 1.7805 FAU .36747
FDE .3526 FRA15.9514 FC-12.5725 BSP 13019
BDE .8159 BRA 5.1442 BC3 4.6774 FSP 3547

MID-COURSE EXECUTION ACCURACY
SGT 6850.8 SGR 3502.7 SG3 1947.7
RRT -.9854 RRF -.9950 RTF .9839
SGB 7694.3 R23 .1153 R13 -.9885
SG1 7675.9 SG2 532.2 THA 153.12

ORBIT DETERMINATION ACCURACY
ST 90.5 SR 46.5 SS 65.2
CRT -.9607 CRS .9514 CST -.8290
LSA 116.8 MSA 31.0 SSA .6
EL1 101.1 EL2 11.5 ALF 153.38

LAUNCH DATE JUL 2 1973 FLIGHT TIME 294.00 ARRIVAL DATE APR 22 1974

HELIOCENTRIC CONIC DISTANCE 668.391 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.746 GAL -4.88 AZL 94.55 HCA 202.98 SMA 197.26 ECC .24346 INC 4.5488 V1 29.290
RP 245.22 LAP 1.77 LOP 122.89 VP 20.239 GAP .76 AZP 85.81 TAL 334.65 TAP 177.63 RCA 149.24 APO 245.29 V2 22.365
RC 284.497 GL -31.14 GP 28.95 ZAL 124.15 ZAP 69.10 ETS 193.78 ZAE 97.00 ETE 178.04 ZAC 118.55 ETC 286.06 LVI -52.31

PLANETOCENTRIC CONIC

C3 25.042 VHL 5.004 DLA -12.12 RAL 56.53 RAD 6645.0 VEL 12.042 PTH 7.03 VHP 2.672 DPA 28.46 RAP 355.37 ECC 1.4121

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 8 49	2945.76	-28.58	87.60	277.70	129.81	17 57 55	1945.8	-11.30	69.52
60.00	18 1 46	2804.97	-23.45	79.17	281.96	123.76	18 48 31	1805.0	-8.35	59.63
70.00	19 9 6	2607.00	-18.76	66.19	285.03	119.08	19 52 33	1607.0	-5.57	45.66
80.00	20 31 24	2349.37	-15.29	48.53	286.93	115.96	21 10 34	1349.4	-3.47	27.41
90.00	21 59 3	2066.61	-13.96	28.39	287.58	114.84	22 33 30	1066.6	-2.66	7.07
100.00	23 14 16	1823.84	-15.29	9.90	286.93	115.96	23 44 40	823.8	-3.47	348.78
110.00	0 12 28	1653.82	-18.76	355.11	285.03	119.08	0 40 2	653.8	-5.57	334.58

DIFFERENTIAL CORRECTIONS

TDE -.7513 TRA 4.5652 TC3-4.4789 BAU 1.6055
RDE .1854 RRA-2.4569 RC3 1.7131 FAU .36988
FDE .4900 FRA16.0537 FC-12.7870 BSP 13189
BDE .7739 BRA 5.1844 BC3 4.7954 FSP 3584

MID-COURSE EXECUTION ACCURACY

SGT 7029.6 SGR 3356.0 SG3 1965.5
RRT -.9855 RRF -.9943 RTF .9842
SGB 7789.6 R23 .1129 R13 -.9882
SG1 7772.6 SG2 514.5 THA 154.68

ORBIT DETERMINATION ACCURACY

ST 91.2 SR 44.5 SS 65.6
CRT -.9686 CRS .9428 CST -.8310
LSA 116.8 MSA 30.9 SSA .7
EL1 101.0 EL2 10.0 ALF 154.44

LAUNCH DATE JUL 2 1973 FLIGHT TIME 296.00 ARRIVAL DATE APR 24 1974

HELIOCENTRIC CONIC DISTANCE 672.145 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.749 GAL -4.93 AZL 94.41 HCA 203.87 SMA 197.32 ECC .24395 INC 4.4065 V1 29.290
RP 245.43 LAP 1.78 LOP 123.79 VP 20.222 GAP .54 AZP 85.97 TAL 334.45 TAP 178.32 RCA 149.19 APO 245.46 V2 22.344
RC 287.079 GL -30.21 GP 27.91 ZAL 124.68 ZAP 67.91 ETS 193.98 ZAE 95.80 ETE 178.79 ZAC 117.59 ETC 285.90 LVI -51.30

PLANETOCENTRIC CONIC

C3 24.829 VHL 4.983 DLA -11.17 RAL 56.46 RAD 6644.9 VEL 12.033 PTH 7.02 VHP 2.663 DPA 27.45 RAP 355.73 ECC 1.4086

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 4 53	2962.81	-29.32	88.55	277.74	129.31	17 54 16	1962.8	-12.14	70.26
60.00	17 56 43	2825.00	-24.21	80.33	281.94	123.26	18 43 48	1825.0	-9.22	60.61
70.00	19 2 45	2630.86	-19.55	67.60	284.95	118.58	19 46 35	1630.9	-6.47	46.92
80.00	20 23 48	2377.15	-16.11	50.18	286.79	115.49	21 3 25	1377.2	-4.40	28.94
90.00	21 50 52	2096.24	-14.80	30.16	287.42	114.37	22 25 48	1096.2	-3.61	8.72
100.00	23 6 39	1851.62	-16.11	11.55	286.79	115.49	23 37 31	851.6	-4.40	350.31
110.00	0 6 7	1677.68	-19.55	356.51	284.95	118.58	0 34 4	677.7	-6.47	335.84

DIFFERENTIAL CORRECTIONS

TDE -.7121 TRA 4.6714 TC3-4.6285 BAU 1.6307
RDE .1785 RRA-2.3528 RC3 1.6465 FAU .37153
FDE .6194 FRA16.1113 FC-12.9543 BSP 13359
BDE .7341 BRA 5.2305 BC3 4.9126 FSP 3609

MID-COURSE EXECUTION ACCURACY

SGT 7205.9 SGR 3215.4 SG3 1977.3
RRT -.9856 RRF -.9935 RTF .9845
SGB 7890.8 R23 .1096 R13 -.9880
SG1 7875.0 SG2 498.3 THA 156.16

ORBIT DETERMINATION ACCURACY

ST 92.0 SR 42.7 SS 65.8
CRT -.9760 CRS .9332 CST -.8332
LSA 117.0 MSA 30.8 SSA .7
EL1 101.1 EL2 8.5 ALF 155.46

LAUNCH DATE JUL 2 1973 FLIGHT TIME 298.00 ARRIVAL DATE APR 26 1974

HELIOCENTRIC CONIC DISTANCE 675.898 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.752 GAL -4.98 AZL 94.27 HCA 204.77 SMA 197.39 ECC .24446 INC 4.2742 V1 29.290
RP 245.63 LAP 1.79 LOP 124.69 VP 20.205 GAP .32 AZP 86.12 TAL 334.24 TAP 179.01 RCA 149.13 APO 245.64 V2 22.324
RC 289.637 GL -29.32 GP 26.92 ZAL 125.21 ZAP 66.75 ETS 194.15 ZAE 94.59 ETE 179.47 ZAC 116.67 ETC 285.76 LVI -50.33

PLANETOCENTRIC CONIC

C3 24.658 VHL 4.966 DLA -10.27 RAL 56.42 RAD 6644.8 VEL 12.026 PTH 7.02 VHP 2.658 DPA 26.49 RAP 356.07 ECC 1.4058

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 1 15	2979.31	-30.02	89.48	277.83	128.82	17 50 55	1979.3	-12.95	70.99
60.00	17 52 2	2844.29	-24.92	81.46	281.98	122.76	18 39 26	1844.3	-10.05	61.56
70.00	18 56 51	2653.71	-20.29	68.96	284.92	118.08	19 41 5	1653.7	-7.33	48.13
80.00	20 16 45	2403.61	-16.87	51.77	286.72	115.00	20 56 48	1403.6	-5.29	30.40
90.00	21 43 18	2124.38	-15.58	31.85	287.33	113.90	22 18 42	1124.4	-4.51	10.30
100.00	22 59 37	1878.08	-16.87	13.14	286.72	115.00	23 30 55	878.1	-5.29	351.77
110.00	0 0 13	1700.52	-20.28	357.87	284.92	118.08	0 26 34	700.5	-7.33	337.05

DIFFERENTIAL CORRECTIONS

TDE -.6716 TRA 4.7804 TC3-4.7687 BAU 1.6559
RDE .1730 RRA-2.2553 RC3 1.5781 FAU .37185
FDE .7486 FRA16.1378 FC-13.0555 BSP 13562
BDE .6935 BRA 5.2857 BC3 5.0230 FSP 3627

MID-COURSE EXECUTION ACCURACY

SGT 7379.3 SGR 3060.6 SG3 1983.4
RRT -.9855 RRF -.9926 RTF .9848
SGB 7996.5 R23 .1056 R13 -.9877
SG1 7981.8 SG2 484.0 THA 157.55

ORBIT DETERMINATION ACCURACY

ST 92.9 SR 41.0 SS 66.1
CRT -.9828 CRS .9223 CST -.8358
LSA 117.2 MSA 30.7 SSA .7
EL1 101.3 EL2 6.9 ALF 156.44

LAUNCH DATE JUL 2 1973 FLIGHT TIME 300.00 ARRIVAL DATE APR 28 1974

HELIOCENTRIC CONIC DISTANCE 679.649 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.756 GAL -5.03 AZL 94.15 HCA 205.67 SMA 197.46 ECC .24499 INC 4.1507 V1 29.290
RP 245.83 LAP 1.80 LOP 125.59 VP 20.189 GAP .10 AZP 86.26 TAL 334.03 TAP 179.69 RCA 149.08 APO 245.83 V2 22.305
RC 292.172 GL -28.48 GP 25.97 ZAL 125.72 ZAP 65.61 ETS 194.30 ZAE 93.39 ETE 180.10 ZAC 115.79 ETC 285.64 LVI -49.41

PLANETOCENTRIC CONIC

C3 24.524 VHL 4.952 DLA -9.41 RAL 56.40 RAD 6644.8 VEL 12.021 PTH 7.01 VHP 2.655 DPA 25.58 RAP 356.41 ECC 1.4036

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 57 54	2995.30	-30.70	90.40	277.98	128.32	17 47 49	1995.3	-13.74	71.70
60.00	17 47 41	2862.90	-25.60	82.57	282.07	122.25	18 35 24	1862.9	-10.85	62.48
70.00	18 51 22	2675.64	-20.98	70.28	284.96	117.59	19 35 58	1675.6	-8.15	49.30
80.00	20 10 12	2428.89	-17.60	53.30	286.72	114.52	20 50 41	1428.9	-6.13	31.80
90.00	21 36 16	2151.20	-16.32	33.48	287.31	113.42	22 12 7	1151.2	-5.36	11.81
100.00	22 53 4	1903.36	-17.60	14.67	286.72	114.52	23 24 47	903.4	-6.13	353.17
110.00	23 50 49	1722.46	-20.98	359.19	284.96	117.59	24 19 31	722.5	-8.15	338.21

DIFFERENTIAL CORRECTIONS

TDE -.6333 TRA 4.8878 TC3-4.9064 BAU 1.6832
RDE .1702 RRA-2.1627 RC3 1.5118 FAU .37166
FDE .8664 FRA16.1271 FC-13.1205 BSP 13754
BDE .6557 BRA 5.3449 BC3 5.1340 FSP 3632

MID-COURSE EXECUTION ACCURACY

SGT 7550.5 SGR 2951.9 SG3 1984.6
RRT -.9852 RRF -.9916 RTF .9850
SGB 8107.1 R23 .1010 R13 -.9875
SG1 8093.3 SG2 471.4 THA 158.86

ORBIT DETERMINATION ACCURACY

ST 93.7 SR 39.4 SS 66.2
CRT -.9807 CRS .9101 CST -.8366
LSA 117.4 MSA 30.6 SSA .8
EL1 101.5 EL2 5.5 ALF 157.39

LAUNCH DATE JUL 2 1973 FLIGHT TIME 302.00 ARRIVAL DATE APR 30 1974

HELIOCENTRIC CONIC DISTANCE 683.397 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.759 GAL -5.07 AZL 94.04 HCA 206.56 SMA 197.52 ECC .24553 INC 4.0353 V1 29.290
RP 246.02 LAP 1.80 LOP 126.48 VP 20.174 GAP -.12 AZP 86.39 TAL 333.81 TAP 180.37 RCA 149.03 APO 246.02 V2 22.286
RC 294.682 GL -27.69 GP 25.08 ZAL 126.21 ZAP 64.50 ETS 194.42 ZAE 92.18 ETE 180.68 ZAC 114.96 ETC 285.52 LVI -48.54

PLANETOCENTRIC CONIC

C3 24.422 VHL 4.942 DLA -8.59 RAL 56.39 RAD 6644.8 VEL 12.017 PTH 7.01 VHP 2.655 DPA 24.73 RAP 356.74 ECC 1.4019

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 47	3010.82	-31.35	91.31	278.17	127.82	17 44 58	2010.8	-14.50	72.39
60.00	17 43 38	2880.89	-26.25	83.65	282.21	121.75	18 31 39	1880.9	-11.62	63.38
70.00	18 46 16	2696.75	-21.64	71.56	285.05	117.09	19 31 13	1696.7	-8.94	50.42
80.00	20 4 6	2453.11	-18.27	54.78	286.77	114.03	20 44 59	1453.1	-6.94	33.15
90.00	21 29 43	2176.87	-17.01	35.05	287.34	112.94	22 6 0	1176.9	-6.17	13.26
100.00	22 46 57	1927.58	-18.27	16.15	286.77	114.03	23 19 5	927.6	-6.94	354.52
110.00	23 45 42	1743.57	-21.64	.48	285.05	117.09	24 14 46	743.6	-8.94	339.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5939 TRA 4.9977 TC3-5.0353 BAU 1.7104 SGT 7719.0 SGR 2829.0 SG3 1981.2 ST 94.7 SR 37.9 SS 66.4
RDE .1683 RRA-2.0760 RC3 1.4449 FAU .37039 RRT -.9849 RRF -.9904 RTF .9852 CRT -.9935 CRS .8964 CST -.8415
FDE .9840 FRA16.0936 FC-13.1298 BSP 13972 SGB 8221.0 R23 .0958 R13 -.9874 LSA 117.8 NSA 30.5 SSA .8
BDE .6173 BRA 5.4118 BC3 5.2385 FSP 3633 SG1 8208.1 SG2 460.9 THA 160.09 EL1 101.9 EL2 4.0 ALF 158.30

LAUNCH DATE JUL 2 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 2 1974

HELIOCENTRIC CONIC DISTANCE 687.144 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.763 GAL -5.13 AZL 93.93 HCA 207.46 SMA 197.60 ECC .24609 INC 3.9269 V1 29.290
RP 246.21 LAP 1.81 LOP 127.38 VP 20.160 GAP -.34 AZP 86.51 TAL 333.59 TAP 181.04 RCA 148.97 APO 246.22 V2 22.267
RC 297.167 GL -26.93 GP 24.23 ZAL 126.70 ZAP 63.41 ETS 194.53 ZAE 90.98 ETE 181.21 ZAC 114.16 ETC 285.42 LVI -47.70

PLANETOCENTRIC CONIC

C3 24.350 VHL 4.935 DLA -7.80 RAL 56.41 RAD 6644.7 VEL 12.014 PTH 7.01 VHP 2.658 DPA 23.93 RAP 357.06 ECC 1.4007

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 51 53	3025.91	-31.98	92.20	278.40	127.31	17 42 19	2025.9	-15.23	73.07
60.00	17 39 52	2898.32	-26.87	84.71	282.40	121.24	18 28 10	1898.3	-12.36	64.25
70.00	18 41 30	2717.12	-22.27	72.81	285.19	116.59	19 26 47	1717.1	-9.69	51.52
80.00	19 58 23	2476.40	-18.91	56.21	286.87	113.54	20 39 40	1476.4	-7.70	34.45
90.00	21 23 36	2201.49	-17.65	36.57	287.43	112.46	22 0 17	1201.5	-6.95	14.65
100.00	22 41 15	1950.87	-18.91	17.58	286.87	113.54	23 13 46	950.9	-7.70	355.82
110.00	23 40 56	1763.93	-22.27	1.72	285.19	116.59	24 10 20	763.9	-9.69	340.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5555 TRA 5.1074 TC3-5.1606 BAU 1.7390 SGT 7885.7 SGR 2712.0 SG3 1974.1 ST 95.7 SR 36.4 SS 66.5
RDE .1682 RRA-1.9940 RC3 1.3803 FAU .36868 RRT -.9844 RRF -.9891 RTF .9854 CRT -.9971 CRS .8812 CST -.8446
FDE 1.0935 FRA16.0337 FC-13.1079 BSP 14185 SGB 8339.0 R23 .0901 R13 -.9872 LSA 118.2 NSA 30.5 SSA .8
BDE .5804 BRA 5.4829 BC3 5.3420 FSP 3624 SG1 8326.7 SG2 452.1 THA 161.24 EL1 102.4 EL2 2.6 ALF 159.20

LAUNCH DATE JUL 2 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 4 1974

HELIOCENTRIC CONIC DISTANCE 690.889 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.767 GAL -5.18 AZL 93.83 HCA 208.35 SMA 197.67 ECC .24667 INC 3.8251 V1 29.290
RP 246.39 LAP 1.82 LOP 128.27 VP 20.146 GAP -.56 AZP 86.63 TAL 333.36 TAP 181.71 RCA 148.91 APO 246.43 V2 22.249
RC 299.628 GL -26.20 GP 23.42 ZAL 127.17 ZAP 62.36 ETS 194.61 ZAE 89.79 ETE 181.70 ZAC 113.39 ETC 285.32 LVI -46.91

PLANETOCENTRIC CONIC

C3 24.305 VHL 4.930 DLA -7.05 RAL 56.44 RAD 6644.7 VEL 12.012 PTH 7.00 VHP 2.663 DPA 23.17 RAP 357.38 ECC 1.4000

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 49 12	3040.60	-32.58	93.08	278.67	126.81	17 39 53	2040.6	-15.95	73.73
60.00	17 36 20	2915.23	-27.46	85.74	282.62	120.74	18 24 56	1915.2	-13.08	65.10
70.00	18 37 1	2736.81	-22.86	74.03	285.37	116.09	19 22 38	1736.8	-10.42	52.58
80.00	19 53 2	2498.84	-19.52	57.61	287.01	113.05	20 34 41	1498.8	-8.44	35.71
90.00	21 17 51	2225.18	-18.26	38.04	287.56	111.97	21 54 56	1225.2	-7.69	15.99
100.00	22 35 54	1973.31	-19.52	18.97	287.01	113.05	23 8 47	973.3	-8.44	357.08
110.00	23 36 28	1783.63	-22.86	2.94	285.37	116.09	24 6 11	783.6	-10.42	341.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5171 TRA 5.2180 TC3-5.2786 BAU 1.7677 SGT 8049.1 SGR 2600.2 SG3 1963.2 ST 96.8 SR 35.1 SS 66.6
RDE .1691 RRA-1.9168 RC3 1.3162 FAU .36612 RRT -.9837 RRF -.9876 RTF .9855 CRT -.9991 CRS .8644 CST -.8477
FDE 1.1993 FRA15.9538 FC-13.0407 BSP 14408 SGB 8458.6 R23 .0841 R13 -.9871 LSA 118.8 NSA 30.4 SSA .8
BDE .5441 BRA 5.5589 BC3 5.4402 FSP 3611 SG1 8446.9 SG2 445.8 THA 162.32 EL1 102.9 EL2 1.4 ALF 160.06

LAUNCH DATE JUL 2 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 6 1974

HELIOCENTRIC CONIC DISTANCE 694.632 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.771 GAL -5.23 AZL 93.73 HCA 209.24 SMA 197.74 ECC .24726 INC 3.7291 V1 29.290
RP 246.57 LAP 1.82 LOP 129.17 VP 20.133 GAP -.78 AZP 86.74 TAL 333.13 TAP 182.38 RCA 148.85 APO 246.64 V2 22.232
RC 302.065 GL -25.51 GP 22.66 ZAL 127.64 ZAP 61.32 ETS 194.68 ZAE 88.61 ETE 182.14 ZAC 112.66 ETC 285.24 LVI -46.15

PLANETOCENTRIC CONIC

C3 24.285 VHL 4.928 DLA -6.32 RAL 56.49 RAD 6644.7 VEL 12.011 PTH 7.00 VHP 2.669 DPA 22.46 RAP 357.70 ECC 1.3997

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 46 42	3054.92	-33.16	93.98	278.97	126.30	17 37 37	2054.9	-16.64	74.39
60.00	17 33 2	2931.67	-28.03	86.76	282.88	120.23	18 21 54	1931.7	-13.77	66.93
70.00	18 32 50	2755.88	-23.43	75.22	285.59	115.59	19 18 45	1755.9	-11.12	53.61
80.00	19 48 1	2520.50	-20.09	58.96	287.20	112.56	20 30 1	1520.5	-9.15	36.93
90.00	21 12 27	2248.03	-18.84	39.47	287.73	111.49	21 49 56	1248.0	-8.40	17.30
100.00	22 30 52	1994.98	-20.09	20.33	287.20	112.56	23 4 7	995.0	-9.15	358.30
110.00	23 32 16	1802.70	-23.43	4.13	285.59	115.59	24 2 19	802.7	-11.12	342.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4786 TRA 5.3294 TC3-5.3908 BAU 1.7969 SGT 8210.0 SGR 2493.7 SG3 1949.2 ST 97.9 SR 33.9 SS 66.6
RDE .1714 RRA-1.8437 RC3 1.2539 FAU .36307 RRT -.9829 RRF -.9859 RTF .9856 CRT -.9996 CRS .8459 CST -.8512
FDE 1.2972 FRA15.8539 FC-12.9432 BSP 14642 SGB 8580.4 R23 .0777 R13 -.9869 LSA 119.4 NSA 30.4 SSA .9
BDE .5084 BRA 5.6393 BC3 5.5347 FSP 3591 SG1 8569.1 SG2 440.3 THA 163.33 EL1 103.6 EL2 .9 ALF 160.90

LAUNCH DATE JUL 2 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 698.373 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.775 GAL -5.28 AZL 93.64 HCA 210.13 SMA 197.82 ECC .24786 INC 3.6384 V1 29.290
RP 246.74 LAP 1.83 LOP 130.06 VP 20.121 GAP -1.00 AZP 86.85 TAL 332.90 TAP 183.03 RCA 148.79 APO 246.85 V2 22.215
RC 304.476 GL -24.85 GP 21.93 ZAL 128.09 ZAP 60.32 ETS 194.74 ZAE 87.44 ETE 182.55 ZAC 111.96 ETC 285.16 LVI -45.43

PLANETOCENTRIC CONIC

C3 24.286 VHL 4.928 DLA -5.62 RAL 56.56 RAD 6644.7 VEL 12.011 PTH 7.00 VHP 2.678 DPA 21.79 RAP 358.02 ECC 1.3997

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 44 22	3068.90	-33.72	94.82	279.31	125.80	17 35 31	2068.9	-17.31	75.03
60.00	17 29 57	2947.66	-28.58	87.77	283.18	119.72	18 19 5	1947.7	-14.45	66.75
70.00	18 28 53	2774.39	-23.97	76.38	285.84	115.09	19 15 7	1774.4	-11.79	54.62
80.00	19 43 16	2541.48	-20.63	60.28	287.42	112.07	20 25 38	1541.5	-9.83	38.11
90.00	21 7 23	2270.12	-19.38	40.86	287.94	111.00	21 45 13	1270.1	-9.08	18.56
100.00	22 26 8	2015.95	-20.63	21.65	287.42	112.07	22 59 44	1015.9	-9.83	359.48
110.00	23 28 19	1821.21	-23.97	5.30	285.84	115.09	23 58 40	821.2	-11.79	343.54

DIFFERENTIAL CORRECTIONS

TDE -.4419 TRA 5.4400 TC3-5.5000 BAU 1.8274
RDE .1751 RRA-1.7743 RC3 1.1941 FAU .35972
FDE 1.3861 FRA15.7349 FC-12.8232 BSP 14865
BDE .4754 BRA 5.7221 BC3 5.6282 FSP 3565

MID-COURSE EXECUTION ACCURACY

SGT 8369.0 SGR 2392.3 SG3 1932.4
RRT -.9819 RRF -.9840 RTF .9857
SGB 8704.3 R23 .0712 R13 -.9868
SG1 8693.3 SG2 436.8 THA 164.28

ORBIT DETERMINATION ACCURACY

ST 99.1 SR 32.8 SS 66.6
CRT -.9982 CRS .8255 CST -.8545
LSA 120.0 MSA 30.4 SSA .9
EL1 104.3 EL2 1.9 ALF 161.72

LAUNCH DATE JUL 2 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 702.111 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.779 GAL -5.34 AZL 93.55 HCA 211.02 SMA 197.90 ECC .24848 INC 3.5526 V1 29.290
RP 246.90 LAP 1.83 LOP 130.95 VP 20.110 GAP -1.22 AZP 86.95 TAL 332.67 TAP 183.69 RCA 148.72 APO 247.07 V2 22.199
RC 306.863 GL -24.22 GP 21.23 ZAL 128.54 ZAP 59.34 ETS 194.79 ZAE 86.28 ETE 182.93 ZAC 111.29 ETC 285.08 LVI -44.74

PLANETOCENTRIC CONIC

C3 24.308 VHL 4.930 DLA -4.95 RAL 56.63 RAD 6644.7 VEL 12.012 PTH 7.00 VHP 2.688 DPA 21.17 RAP 358.34 ECC 1.4001

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 42 12	3082.55	-34.26	95.68	279.68	125.29	17 33 34	2082.6	-17.97	75.67
60.00	17 27 3	2963.26	-29.10	88.76	283.51	119.21	18 16 26	1963.3	-15.10	67.55
70.00	18 25 10	2792.38	-24.48	77.53	286.13	114.59	19 11 42	1792.4	-12.45	55.61
80.00	19 38 48	2561.81	-21.15	61.57	287.67	111.58	20 21 30	1561.8	-10.48	39.27
90.00	21 2 35	2291.52	-19.90	42.21	288.18	110.52	21 40 46	1291.5	-9.74	19.79
100.00	22 21 40	2036.28	-21.15	22.94	287.67	111.58	22 55 36	1036.3	-10.48	.64
110.00	23 24 36	1839.20	-24.48	6.44	286.13	114.59	23 55 15	839.2	-12.45	344.52

DIFFERENTIAL CORRECTIONS

TDE -.4039 TRA 5.5533 TC3-5.6012 BAU 1.8573
RDE .1794 RRA-1.7092 RC3 1.1352 FAU .35572
FDE 1.4725 FRA15.6069 FC-12.6689 BSP 15107
BDE .4420 BRA 5.8104 BC3 5.7150 FSP 3536

MID-COURSE EXECUTION ACCURACY

SGT 8525.6 SGR 2296.0 SG3 1913.3
RRT -.9806 RRF -.9819 RTF .9858
SGB 8829.3 R23 .0646 R13 -.9867
SG1 8818.6 SG2 434.9 THA 165.17

ORBIT DETERMINATION ACCURACY

ST 100.3 SR 31.7 SS 66.6
CRT -.9947 CRS .8033 CST -.8580
LSA 120.7 MSA 30.4 SSA .9
EL1 105.2 EL2 3.1 ALF 162.52

LAUNCH DATE JUL 2 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 705.848 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.783 GAL -5.40 AZL 93.47 HCA 211.91 SMA 197.98 ECC .24912 INC 3.4712 V1 29.290
RP 247.06 LAP 1.83 LOP 131.84 VP 20.099 GAP -1.44 AZP 87.05 TAL 332.43 TAP 184.34 RCA 148.66 APO 247.30 V2 22.183
RC 309.224 GL -23.61 GP 20.57 ZAL 128.99 ZAP 58.39 ETS 194.82 ZAE 85.14 ETE 183.27 ZAC 110.64 ETC 285.02 LVI -44.08

PLANETOCENTRIC CONIC

C3 24.349 VHL 4.934 DLA -4.30 RAL 56.72 RAD 6644.7 VEL 12.014 PTH 7.01 VHP 2.699 DPA 20.58 RAP 358.66 ECC 1.4007

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 40 10	3095.92	-34.79	96.52	280.07	124.77	17 31 46	2095.9	-18.61	76.29
60.00	17 24 19	2978.48	-29.60	89.74	283.86	118.70	18 13 58	1978.5	-15.73	68.34
70.00	18 21 39	2809.90	-24.97	78.65	286.45	114.09	19 8 29	1809.9	-13.08	56.57
80.00	19 34 35	2581.57	-21.64	62.83	287.96	111.09	20 17 36	1581.6	-11.11	40.39
90.00	20 58 2	2312.28	-20.39	43.54	288.46	110.03	21 36 34	1312.3	-10.37	20.99
100.00	22 17 27	2056.04	-21.64	24.20	287.96	111.09	22 51 43	1056.0	-11.11	1.76
110.00	23 21 5	1856.71	-24.97	7.57	286.45	114.09	23 52 2	856.7	-13.08	345.49

DIFFERENTIAL CORRECTIONS

TDE -.3678 TRA 5.6653 TC3-5.6996 BAU 1.8883
RDE .1851 RRA-1.6471 RC3 1.0791 FAU .35157
FDE 1.5477 FRA15.4612 FC-12.5002 BSP 15335
BDE .4117 BRA 5.8999 BC3 5.8009 FSP 3501

MID-COURSE EXECUTION ACCURACY

SGT 8679.8 SGR 2204.2 SG3 1892.0
RRT -.9792 RRF -.9795 RTF .9859
SGB 8955.3 R23 .0579 R13 -.9866
SG1 8944.8 SG2 434.2 THA 166.00

ORBIT DETERMINATION ACCURACY

ST 101.6 SR 30.8 SS 66.5
CRT -.9891 CRS .7791 CST -.8615
LSA 121.5 MSA 30.4 SSA .9
EL1 106.0 EL2 4.3 ALF 163.30

LAUNCH DATE JUL 2 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 709.583 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.787 GAL -5.45 AZL 93.39 HCA 212.79 SMA 198.06 ECC .24977 INC 3.3938 V1 29.290
RP 247.22 LAP 1.84 LOP 132.72 VP 20.090 GAP -1.65 AZP 87.15 TAL 332.19 TAP 184.98 RCA 148.59 APO 247.53 V2 22.168
RC 311.559 GL -23.02 GP 19.94 ZAL 129.42 ZAP 57.46 ETS 194.85 ZAE 84.00 ETE 183.59 ZAC 110.03 ETC 284.96 LVI -43.45

PLANETOCENTRIC CONIC

C3 24.408 VHL 4.940 DLA -3.67 RAL 56.82 RAD 6644.7 VEL 12.016 PTH 7.01 VHP 2.712 DPA 20.03 RAP 358.99 ECC 1.4017

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 38 16	3109.01	-35.29	97.37	280.50	124.26	17 30 5	2109.0	-19.23	76.91
60.00	17 21 45	2993.35	-30.08	90.70	284.25	118.19	18 11 38	1993.4	-16.35	69.11
70.00	18 18 20	2826.97	-25.44	79.75	286.79	113.59	19 5 27	1827.0	-13.69	57.52
80.00	19 30 34	2600.79	-22.10	64.07	288.27	110.60	20 13 55	1600.8	-11.72	41.50
90.00	20 53 44	2332.47	-20.85	44.84	288.76	109.54	21 32 36	1332.5	-10.98	22.15
100.00	22 13 26	2075.26	-22.10	25.44	288.27	110.60	22 48 2	1075.3	-11.72	2.86
110.00	23 17 46	1873.79	-25.44	8.67	286.79	113.59	23 49 0	873.8	-13.69	346.43

DIFFERENTIAL CORRECTIONS

TDE -.3314 TRA 5.7788 TC3-5.7927 BAU 1.9195
RDE .1910 RRA-1.5886 RC3 1.0244 FAU .34694
FDE 1.6218 FRA15.3089 FC-12.3059 BSP 15569
BDE .3825 BRA 5.9932 BC3 5.8825 FSP 3464

MID-COURSE EXECUTION ACCURACY

SGT 8832.2 SGR 2117.0 SG3 1868.9
RRT -.9775 RRF -.9769 RTF .9859
SGB 9082.4 R23 .0516 R13 -.9865
SG1 9072.0 SG2 435.2 THA 166.78

ORBIT DETERMINATION ACCURACY

ST 102.9 SR 29.9 SS 66.4
CRT -.9812 CRS .7530 CST -.8647
LSA 122.4 MSA 30.4 SSA .9
EL1 107.0 EL2 5.5 ALF 164.06

LAUNCH DATE JUL 2 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC DISTANCE 713.315 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.791 GAL -5.51 AZL 93.32 HCA 213.68 SNA 198.14 ECC .25043 INC 3.3201 V1 29.290
RP 247.37 LAP 1.84 LOP 133.61 VP 20.081 GAP -1.87 AZP 87.24 TAL 331.94 TAP 185.62 RCA 148.52 APO 247.76 V2 22.154
RC 313.869 GL -22.46 GP 19.34 ZAL 129.86 ZAP 86.56 ETS 194.86 ZAE 82.88 ETE 183.88 ZAC 109.43 ETC 284.91 LVI -42.85

PLANETOCENTRIC CONIC

C3 24.483 VHL 4.949 DLA -3.07 RAL 86.94 RAD 6644.8 VEL 12.019 PTH 7.01 VHP 2.726 DPA 19.51 RAP 359.32 ECC 1.4029

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 30	3121.84	-35.78	98.20	280.94	123.74	17 28 32	2121.8	-19.84	77.52
60.00	17 19 20	3007.90	-30.85	91.65	284.65	117.68	18 9 28	2007.9	-16.95	69.67
70.00	18 15 12	2843.65	-25.89	80.84	287.16	113.09	19 2 35	1843.6	-14.26	58.44
80.00	19 26 47	2619.52	-22.54	65.29	288.61	110.11	20 10 26	1619.5	-12.31	42.57
90.00	20 49 39	2352.13	-21.30	46.11	289.09	109.06	21 28 51	1352.1	-11.57	23.30
100.00	22 9 38	2093.99	-22.54	26.65	288.61	110.11	22 44 32	1094.0	-12.31	3.94
110.00	23 14 38	1890.46	-25.89	9.76	287.16	113.09	23 46 8	890.5	-14.26	347.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2953 TRA 5.8924 TC3-5.8808 BAU 1.9510 SGT 8981.9 SGR 2034.1 SG3 1844.2 ST 104.3 SR 29.1 SS 66.3
RDE .1980 RRA-1.5328 RC3 .9721 FAU .34216 RRT -.9753 RRF -.9740 RTF .9859 CRT -.9707 CR8 .7249 CST -.8682
FDE 1.6868 FRA15.1447 FC-12.0990 BSP 15806 SGB 9209.3 R23 .0452 R13 -.9864 LSA 123.2 NSA 30.4 SSA 1.0
BDE .3556 BRA 6.0885 BC3 5.9606 FSP 3423 SG1 9198.9 SG2 436.9 THA 167.51 EL1 108.0 EL2 6.7 ALF 164.80

LAUNCH DATE JUL 2 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 717.046 EARTH TO MARS

RL 152.10 LAL -.00 LOL 279.98 VL 32.798 GAL -5.57 AZL 93.25 HCA 214.56 SNA 198.23 ECC .25110 INC 3.2499 V1 29.290
RP 247.81 LAP 1.84 LOP 134.50 VP 20.072 GAP -2.09 AZP 87.32 TAL 331.69 TAP 186.25 RCA 148.45 APO 248.00 V2 22.140
RC 316.151 GL -21.92 GP 18.77 ZAL 130.28 ZAP 86.68 ETS 194.87 ZAE 81.78 ETE 184.15 ZAC 108.86 ETC 284.86 LVI -42.27

PLANETOCENTRIC CONIC

C3 24.574 VHL 4.957 DLA -2.48 RAL 57.06 RAD 6644.8 VEL 12.023 PTH 7.01 VHP 2.741 DPA 19.03 RAP 359.65 ECC 1.4044

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 34 51	3134.43	-36.25	99.04	281.41	123.22	17 27 5	2134.4	-20.44	78.12
60.00	17 17 3	3022.16	-30.99	92.60	285.09	117.17	18 7 26	2022.2	-17.53	70.63
70.00	18 12 13	2859.94	-26.32	81.91	287.55	112.59	18 59 53	1859.9	-14.86	59.36
80.00	19 23 10	2637.80	-22.97	66.48	288.98	109.62	20 7 8	1637.8	-12.88	43.63
90.00	20 45 46	2371.30	-21.72	47.36	289.44	108.57	21 25 17	1371.3	-12.14	24.42
100.00	22 6 2	2112.27	-22.97	27.85	288.98	109.62	22 41 14	1112.3	-12.88	5.00
110.00	23 11 39	1906.76	-26.32	10.83	287.55	112.59	23 43 26	906.8	-14.86	348.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2601 TRA 6.0066 TC3-5.9645 BAU 1.9827 SGT 9129.5 SGR 1955.2 SG3 1818.0 ST 105.7 SR 28.3 SS 66.1
RDE .2056 RRA-1.4800 RC3 .9217 FAU .33712 RRT -.9732 RRF -.9707 RTF .9859 CRT -.9578 CR8 .6949 CST -.8715
FDE 1.7457 FRA14.9728 FC-11.8766 BSP 16034 SGB 9336.5 R23 .0391 R13 -.9863 LSA 124.2 NSA 30.4 SSA 1.0
BDE .3316 BRA 6.1863 BC3 6.0352 FSP 3377 SG1 9326.2 SG2 439.8 THA 168.20 EL1 109.1 EL2 7.9 ALF 165.52

LAUNCH DATE JUL 3 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 14 1973

DISTANCE 374.549

HELIOCENTRIC CONIC

RL	152.11	LAL	.00	LOL	280.93	VL	34.479	GAL	-6.17	AZL	90.24	HCA	122.13	SMA	238.58	ECC	.37606	INC	.2387
RP	218.16	LAP	-.20	LOP	43.06	VP	25.698	GAP	21.56	AZP	89.87	TAL	337.22	TAP	99.34	RCA	148.86	APO	328.31
RC	74.953	GL	-1.32	GP	-5.47	ZAL	126.70	ZAP	169.17	ETS	211.84	ZAE	170.70	ETE	324.96	ZAC	79.69	ETC	283.63

EARTH TO MARS

V1	29.290	V2	25.188	LVI	-14.01														

PLANETOCENTRIC CONIC

C3	38.746	VHL	6.225	DLA	15.83	RAL	45.56	RAD	6650.2	VEL	12.595	PTH	7.46	VHP	7.488	DPA	7.19	RAP	33.66

ECC 1.6377

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 36 5	3616.47	-47.43	139.10	294.70	94.31	15 36 21	2616.5	-40.24	106.85
60.00	14 57 40	3559.04	-40.30	134.35	295.13	90.58	15 56 59	2559.0	-35.65	104.27
70.00	15 29 16	3466.02	-34.08	126.70	295.01	87.67	16 27 2	2466.0	-31.47	98.28
80.00	16 18 1	3313.22	-29.57	114.81	294.70	85.66	17 13 15	2313.2	-28.36	87.45
90.00	17 30 39	3078.78	-27.86	97.42	294.54	84.92	18 21 58	2078.8	-27.17	70.43
100.00	19 0 53	2787.69	-29.57	76.18	294.70	85.66	19 47 21	1787.7	-28.36	48.82
110.00	20 28 42	2512.84	-34.08	55.62	295.01	87.67	21 10 35	1512.8	-31.47	27.20

DIFFERENTIAL CORRECTIONS

TDE	-.5521	TRA	-1.8377	TC3	.1103	BAU	.0724
RDE	-.5184	RRA	.2979	RC3	-.0857	FAU	.06495
FDE	.7178	FRA	2.1859	FC3	-1.4512	BSP	3039
BDE	.7573	BRA	1.8617	BC3	.1397	FSP	336

MID-COURSE EXECUTION ACCURACY

SGT	1835.3	SGR	566.0	SG3	245.5		
RRT	-.2631	RRF	.2945	RTF	-.8170		
SGB	1920.6	R23	-.0609	R13	.8189		
SG1	1841.9	SG2	544.1	THA	174.92		

ORBIT DETERMINATION ACCURACY

ST	36.6	SR	24.2	SS	29.5		
CRT	.5558	CRS	.5909	CST	.9976		
LSA	49.4	MSA	19.0	SSA	1.3		
EL1	39.8	EL2	18.5	ALF	26.32		

LAUNCH DATE JUL 3 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 16 1973

DISTANCE 377.429

HELIOCENTRIC CONIC

RL	152.11	LAL	.00	LOL	280.93	VL	34.383	GAL	-6.06	AZL	90.20	HCA	123.26	SMA	235.78	ECC	.36834	INC	.1982
RP	218.53	LAP	-.17	LOP	44.19	VP	25.529	GAP	21.22	AZP	89.89	TAL	337.29	TAP	100.55	RCA	148.93	APO	322.62
RC	76.362	GL	-1.11	GP	-5.67	ZAL	126.62	ZAP	168.42	ETS	210.80	ZAE	169.96	ETE	325.84	ZAC	79.41	ETC	283.61

EARTH TO MARS

V1	29.290	V2	25.148	LVI	-13.72														

PLANETOCENTRIC CONIC

C3	37.297	VHL	6.107	DLA	16.00	RAL	45.42	RAD	6649.7	VEL	12.537	PTH	7.41	VHP	7.282	DPA	7.14	RAP	34.10

ECC 1.6138

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 34 48	3610.42	-47.39	138.52	293.77	94.75	15 34 58	2610.4	-40.04	106.39
60.00	14 56 9	3553.58	-40.29	133.89	294.26	90.90	15 55 22	2553.6	-35.52	103.86
70.00	15 27 28	3461.39	-34.10	126.34	294.18	87.88	16 25 9	2461.4	-31.40	97.94
80.00	16 15 56	3309.48	-29.59	114.53	293.89	85.81	17 11 6	2309.5	-28.32	87.18
90.00	17 28 26	3075.48	-27.88	97.18	293.73	85.03	18 19 42	2075.5	-27.14	70.20
100.00	18 58 48	2783.95	-29.59	75.90	293.89	85.81	19 45 12	1784.0	-28.32	48.55
110.00	20 26 54	2508.20	-34.10	55.26	294.18	87.88	21 8 42	1508.2	-31.40	26.86

DIFFERENTIAL CORRECTIONS

TDE	-.5534	TRA	-1.8352	TC3	.1282	BAU	.0798
RDE	-.5002	RRA	.3014	RC3	-.0956	FAU	.06749
FDE	.7532	FRA	2.2716	FC3	-1.5665	BSP	3125
BDE	.7460	BRA	1.8597	BC3	.1600	FSP	359

MID-COURSE EXECUTION ACCURACY

SGT	1871.4	SGR	566.1	SG3	260.3		
RRT	-.2846	RRF	.3190	RTF	-.8226		
SGB	1955.2	R23	-.0663	R13	.8247		
SG1	1879.0	SG2	540.5	THA	174.63		

ORBIT DETERMINATION ACCURACY

ST	37.4	SR	23.9	SS	30.6		
CRT	.5499	CRS	.5875	CST	.9975		
LSA	50.4	MSA	18.9	SSA	1.3		
EL1	40.3	EL2	18.5	ALF	24.96		

LAUNCH DATE JUL 3 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 18 1973

DISTANCE 380.387

HELIOCENTRIC CONIC

RL	152.11	LAL	.00	LOL	280.93	VL	34.291	GAL	-5.95	AZL	90.16	HCA	124.40	SMA	233.18	ECC	.36102	INC	.1567
RP	218.89	LAP	-.13	LOP	45.33	VP	25.366	GAP	20.88	AZP	89.91	TAL	337.36	TAP	101.76	RCA	149.00	APO	317.36
RC	77.855	GL	-.89	GP	-5.89	ZAL	126.53	ZAP	167.66	ETS	209.91	ZAE	169.27	ETE	326.38	ZAC	79.13	ETC	283.59

EARTH TO MARS

V1	29.290	V2	25.107	LVI	-13.42														

PLANETOCENTRIC CONIC

C3	35.938	VHL	5.995	DLA	16.19	RAL	45.26	RAD	6649.2	VEL	12.483	PTH	7.37	VHP	7.082	DPA	7.07	RAP	34.53

ECC 1.5914

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 33 25	3604.82	-47.36	137.98	292.87	95.17	15 33 30	2604.8	-39.86	105.98
60.00	14 54 31	3548.63	-40.29	133.47	293.41	91.19	15 53 40	2548.6	-35.41	103.50
70.00	15 25 33	3457.31	-34.11	126.02	293.36	88.07	16 23 10	2457.3	-31.33	97.64
80.00	16 13 43	3306.36	-29.60	114.30	293.08	85.93	17 8 49	2306.4	-28.28	86.95
90.00	17 26 4	3072.84	-27.89	96.99	292.93	85.13	18 17 17	2072.8	-27.11	70.01
100.00	18 56 35	2780.83	-29.60	75.67	293.08	85.93	19 42 56	1780.8	-28.28	48.32
110.00	20 24 59	2504.12	-34.11	54.94	293.36	88.07	21 6 43	1504.1	-31.33	26.56

DIFFERENTIAL CORRECTIONS

TDE	-.5547	TRA	-1.8319	TC3	.1472	BAU	.0873
RDE	-.4821	RRA	.3056	RC3	-.1065	FAU	.07014
FDE	.7917	FRA	2.3611	FC3	-1.6897	BSP	3208
BDE	.7349	BRA	1.8572	BC3	.1817	FSP	384

MID-COURSE EXECUTION ACCURACY

SGT	1906.8	SGR	566.6	SG3	275.9		
RRT	-.3079	RRF	.3451	RTF	-.8581		
SGB	1989.2	R23	-.0717	R13	.8304		
SG1	1915.5	SG2	536.7	THA	174.33		

ORBIT DETERMINATION ACCURACY

ST	38.1	SR	23.5	SS	31.7		
CRT	.5432	CRS	.5838	CST	.9974		
LSA	51.5	MSA	18.7	SSA	1.3		
EL1	40.8	EL2	18.4	ALF	23.61		

LAUNCH DATE JUL 3 1973 FLIGHT TIME 140.00 ARRIVAL DATE NOV 20 1973

DISTANCE 383.416

HELIOCENTRIC CONIC

RL	152.11	LAL	.00	LOL	280.93	VL	34.204	GAL	-5.84	AZL	90.11	HCA	125.53	SMA	230.77	ECC	.35406	INC	.1141
RP	219.26	LAP	-.09	LOP	46.46	VP	25.208	GAP	20.55	AZP	89.93	TAL	337.44	TAP	102.97	RCA	149.06	APO	312.47
RC	79.428	GL	-.66	GP	-6.11	ZAL	126.43	ZAP	166.87	ETS	209.14	ZAE	168.63	ETE	326.63	ZAC	78.83	ETC	283.57

EARTH TO MARS

V1	29.290	V2	25.067	LVI	-13.11														

PLANETOCENTRIC CONIC

C3	34.663	VHL	5.887	DLA	16.38	RAL	45.09	RAD	6648.8	VEL	12.432	PTH	7.34	VHP	6.889	DPA	6.99	RAP	34.94

ECC 1.5705

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 31 57	3599.70	-47.33	137.49	291.99	95.54	15 31 56	2599.7	-39.70	105.60
60.00	14 52 48	3544.20	-40.28	133.09	292.58	91.44	15 51 52	2544.2	-35.30	103.17
70.00	15 23 30	3453.80	-34.11	125.75	292.56	88.23	16 21 4	2453.8	-31.27	97.38
80.00	16 11 21	3303.88	-29.62	114.12	292.30	86.02	17 6 24	2303.9	-28.25	86.77
90.00	17 23 32	3070.87	-27.90	96.84	292.15	85.20	18 14 43	2070.9	-27.09	69.87
100.00	18 54 12	2778.35	-29.62	75.49	292.30	86.02	19 40 31	1778.4	-28.25	48.14
110.00	20 22 56	2500.62	-34.11	54.67	292.56	88.23	21 4 37	1500.6	-31.27	26.30

DIFFERENTIAL CORRECTIONS

TDE	-.5552	TRA	-1.8268	TC3	.1678	BAU	.0952
RDE	-.4640	RRA	.3103	RC3	-.1184	FAU	.07296
FDE	.8323	FRA	2.4535	FC3	-1.8222	BSP	3279
BDE	.7236	BRA	1.8530	BC3	.2054	FSP	410

MID-COURSE EXECUTION ACCURACY

SGT	1940.3	SGR	567.8	SG3	292.4		
RRT	-.3329	RRF	.3729	RTF	-.8335		
SGB	2021.7	R23	-.0771	R13	.8361		
SG1	1950.2	SG2	532.7	THA	173.98		

ORBIT DETERMINATION ACCURACY

ST	38.8	SR	23.1	SS	32.8		
CRT	.5353	CRS	.5795	CST	.9972		
LSA	52.6	MSA	18.6	SSA	1.3		
EL1	41.2	EL2	18.3	ALF	22.31		

LAUNCH DATE JUL 3 1973 FLIGHT TIME 142.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 386.510 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 34.122 GAL -5.74 AZL 90.07 HCA 126.65 SMA 228.53 ECC .34744 INC .0689 V1 29.290
RP 219.63 LAP -.06 LOP 47.58 VP 25.056 GAP 20.21 AZP 89.96 TAL 337.53 TAP 104.18 RCA 149.13 APO 307.93 V2 25.026
RC 81.081 GL -.42 GP -6.35 ZAL 126.32 ZAP 166.08 ETS 208.48 ZAE 168.04 ETE 326.64 ZAC 78.53 ETC 283.55 LVI -12.80

PLANETOCENTRIC CONIC

C3 33.466 VHL 5.785 DLA 16.59 RAL 44.91 RAD 6648.3 VEL 12.385 PTH 7.30 VHP 6.702 DPA 6.89 RAP 35.35 ECC 1.5508

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 30 23	3595.08	-47.30	137.05	291.13	95.88	15 30 18	2595.1	-39.54	105.27
60.00	14 50 57	3540.31	-40.27	132.76	291.78	91.66	15 49 57	2540.3	-35.20	102.88
70.00	15 21 19	3450.91	-34.12	125.52	291.78	88.37	16 18 50	2450.9	-31.22	97.17
80.00	16 8 49	3302.09	-29.62	113.98	291.52	86.09	17 3 51	2302.1	-28.23	86.65
90.00	17 20 50	3069.63	-27.91	96.75	291.37	85.24	18 11 59	2069.6	-27.08	69.78
100.00	18 51 41	2776.56	-29.62	75.35	291.52	86.09	19 37 57	1776.6	-28.23	48.01
110.00	20 20 46	2497.73	-34.12	54.44	291.78	88.37	21 2 23	1497.7	-31.22	26.09

DIFFERENTIAL CORRECTIONS

TDE -.5565 TRA-1.8217 TC3 .1890 BAU .1030
RDE -.4460 RRA .3157 RC3 -.1313 FAU .07590
FDE .8760 FRA 2.5498 FC3-1.9635 BSP 3351
BDE .7131 BRA 1.8488 BC3 .2301 FSP 438

MID-COURSE EXECUTION ACCURACY

SGT 1973.7 SGR 569.8 SG3 309.8
RRT -.3593 RRF .4022 RTF -.8387
SGB 2054.3 R23 -.0831 R13 .8415
SG1 1985.1 SG2 528.7 THA 173.62

ORBIT DETERMINATION ACCURACY

ST 39.5 SR 22.6 SS 34.0
CRT .5269 CRS .5744 CST .9970
LSA 53.7 MSA 18.4 SSA 1.3
EL1 41.7 EL2 18.2 ALF 20.99

LAUNCH DATE JUL 3 1973 FLIGHT TIME 144.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 389.663 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 34.044 GAL -5.64 AZL 90.03 HCA 127.77 SMA 226.44 ECC .34117 INC .0185 V1 29.290
RP 220.00 LAP -.02 LOP 48.70 VP 24.908 GAP 19.88 AZP 89.98 TAL 337.61 TAP 105.39 RCA 149.19 APO 303.70 V2 24.965
RC 82.809 GL -.16 GP -6.60 ZAL 126.21 ZAP 165.26 ETS 207.90 ZAE 167.51 ETE 326.45 ZAC 78.22 ETC 283.54 LVI -12.47

PLANETOCENTRIC CONIC

C3 32.343 VHL 5.687 DLA 16.80 RAL 44.72 RAD 6647.9 VEL 12.339 PTH 7.27 VHP 6.520 DPA 6.78 RAP 35.75 ECC 1.5323

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 28 43	3590.98	-47.27	136.66	290.31	96.18	15 28 34	2591.0	-39.41	104.97
60.00	14 49 0	3536.99	-40.27	132.48	290.99	91.86	15 47 57	2537.0	-35.12	102.64
70.00	15 19 0	3448.66	-34.12	125.35	291.01	88.47	16 16 29	2448.7	-31.18	97.01
80.00	16 6 7	3301.01	-29.63	113.90	290.76	86.13	17 1 8	2301.0	-28.22	86.57
90.00	17 17 57	3069.16	-27.91	96.72	290.61	85.26	18 9 6	2069.2	-27.07	69.74
100.00	18 48 59	2775.49	-29.63	75.27	290.76	86.13	19 35 14	1775.5	-28.22	47.94
110.00	20 18 27	2495.47	-34.12	54.27	291.01	88.47	21 0 2	1495.5	-31.18	25.93

DIFFERENTIAL CORRECTIONS

TDE -.5572 TRA-1.8152 TC3 .2111 BAU .1108
RDE -.4279 RRA .3219 RC3 -.1454 FAU .07898
FDE .9225 FRA 2.6499 FC3-2.1141 BSP 3419
BDE .7026 BRA 1.8436 BC3 .2563 FSP 468

MID-COURSE EXECUTION ACCURACY

SGT 2005.6 SGR 572.7 SG3 328.1
RRT -.3873 RRF .4330 RTF -.8438
SGB 2085.7 R23 -.0892 R13 .8469
SG1 2018.7 SG2 524.5 THA 173.23

ORBIT DETERMINATION ACCURACY

ST 40.1 SR 22.1 SS 35.3
CRT .5170 CRS .5682 CST .9969
LSA 54.9 MSA 18.2 SSA 1.3
EL1 42.1 EL2 18.1 ALF 19.70

LAUNCH DATE JUL 3 1973 FLIGHT TIME 146.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 392.870 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.969 GAL -5.54 AZL 89.98 HCA 128.89 SMA 224.50 ECC .33520 INC .0140 V1 29.290
RP 220.38 LAP .02 LOP 49.82 VP 24.764 GAP 19.56 AZP 90.01 TAL 337.71 TAP 106.60 RCA 149.25 APO 299.76 V2 24.944
RC 84.610 GL .12 GP -6.86 ZAL 126.09 ZAP 164.43 ETS 207.40 ZAE 167.02 ETE 326.06 ZAC 77.89 ETC 283.53 LVI -12.14

PLANETOCENTRIC CONIC

C3 31.290 VHL 5.594 DLA 17.03 RAL 44.52 RAD 6647.5 VEL 12.297 PTH 7.23 VHP 6.345 DPA 6.64 RAP 36.14 ECC 1.5149

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 26 58	3587.42	-47.24	136.32	289.51	96.44	15 26 45	2587.4	-39.29	104.71
60.00	14 46 56	3534.27	-40.26	132.25	290.23	92.01	15 45 50	2534.3	-35.06	102.44
70.00	15 16 33	3447.07	-34.13	125.22	290.26	88.54	16 14 0	2447.1	-31.15	96.89
80.00	16 3 15	3300.70	-29.63	113.88	290.02	86.15	16 58 16	2300.7	-28.21	86.55
90.00	17 14 53	3069.49	-27.91	96.74	289.87	85.25	18 6 2	2069.5	-27.08	69.77
100.00	18 46 7	2775.17	-29.63	75.25	290.02	86.15	19 32 22	1775.2	-28.21	47.91
110.00	20 15 59	2493.89	-34.13	54.14	290.26	88.54	20 57 33	1493.9	-31.15	25.81

DIFFERENTIAL CORRECTIONS

TDE -.5585 TRA-1.8082 TC3 .2335 BAU .1186
RDE -.4097 RRA .3267 RC3 -.1609 FAU .08223
FDE .9726 FRA 2.7537 FC3-2.2751 BSP 3488
BDE .6927 BRA 1.8378 BC3 .2835 FSP 500

MID-COURSE EXECUTION ACCURACY

SGT 2036.6 SGR 576.7 SG3 347.5
RRT -.4164 RRF .4652 RTF -.8484
SGB 2116.7 R23 -.0958 R13 .8519
SG1 2051.7 SG2 520.4 THA 172.81

ORBIT DETERMINATION ACCURACY

ST 40.8 SR 21.6 SS 36.6
CRT .5062 CRS .5612 CST .9966
LSA 56.1 MSA 18.0 SSA 1.4
EL1 42.6 EL2 17.9 ALF 18.40

LAUNCH DATE JUL 3 1973 FLIGHT TIME 148.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 396.126 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.898 GAL -5.45 AZL 89.93 HCA 130.00 SMA 222.70 ECC .32953 INC .0656 V1 29.290
RP 220.76 LAP .05 LOP 50.93 VP 24.626 GAP 19.23 AZP 90.04 TAL 337.80 TAP 107.80 RCA 149.31 APO 296.08 V2 24.902
RC 86.480 GL .41 GP -7.14 ZAL 125.97 ZAP 163.58 ETS 206.98 ZAE 166.59 ETE 325.49 ZAC 77.56 ETC 283.52 LVI -11.79

PLANETOCENTRIC CONIC

C3 30.301 VHL 5.505 DLA 17.28 RAL 44.31 RAD 6647.1 VEL 12.257 PTH 7.20 VHP 6.175 DPA 6.49 RAP 36.52 ECC 1.4987

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 25 6	3584.42	-47.22	136.03	288.75	96.66	15 24 51	2584.4	-39.19	104.49
60.00	14 44 44	3532.16	-40.25	132.07	289.49	92.13	15 43 36	2532.2	-35.00	102.29
70.00	15 13 56	3446.18	-34.13	125.15	289.54	88.59	16 11 23	2446.2	-31.14	96.83
80.00	16 0 12	3301.18	-29.63	113.92	289.29	86.13	16 55 14	2301.2	-28.22	86.58
90.00	17 11 37	3070.67	-27.90	96.83	289.14	85.21	18 2 48	2070.7	-27.09	69.85
100.00	18 43 4	2775.65	-29.63	75.29	289.29	86.13	19 29 20	1775.7	-28.22	47.95
110.00	20 13 23	2493.00	-34.13	54.07	289.54	88.59	20 54 56	1493.0	-31.14	25.75

DIFFERENTIAL CORRECTIONS

TDE -.5593 TRA-1.8001 TC3 .2567 BAU .1265
RDE -.3915 RRA .3363 RC3 -.1777 FAU .08564
FDE 1.0253 FRA 2.8610 FC3-2.4467 BSP 3550
BDE .6827 BRA 1.8312 BC3 .3122 FSP 533

MID-COURSE EXECUTION ACCURACY

SGT 2066.2 SGR 582.0 SG3 367.8
RRT -.4469 RRF .4986 RTF -.8530
SGB 2146.6 R23 -.1028 R13 .8568
SG1 2083.6 SG2 516.3 THA 172.35

ORBIT DETERMINATION ACCURACY

ST 41.4 SR 21.1 SS 37.9
CRT .4934 CRS .5525 CST .9964
LSA 57.3 MSA 17.8 SSA 1.4
EL1 43.0 EL2 17.7 ALF 17.11

LAUNCH DATE JUL 3 1973 FLIGHT TIME 150.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 399.427 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.831 GAL -5.36 AZL 89.88 HCA 131.11 SMA 221.01 ECC .32415 INC .1147 V1 29.290
RP 221.14 LAP .09 LOP 52.04 VP 24.491 GAP 18.91 AZP 90.08 TAL 337.90 TAP 109.01 RCA 149.37 APO 292.65 V2 24.861
RC 88.416 GL .72 GP -7.44 ZAL 125.84 ZAP 162.71 ETS 206.61 ZAE 166.20 ETE 324.75 ZAC 77.22 ETC 283.51 LVI -11.44

PLANETOCENTRIC CONIC

C3 29.373 VHL 5.420 DLA 17.54 RAL 44.09 RAD 6646.8 VEL 12.219 PTH 7.17 VHP 6.010 DPA 6.31 RAP 36.89 ECC 1.4834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 23 9	3582.00	-47.20	135.80	288.02	96.84	15 22 51	2582.0	-39.11	104.32
60.00	14 42 25	3530.69	-40.25	131.94	288.78	92.22	15 41 16	2530.7	-34.97	102.18
70.00	15 11 11	3446.03	-34.13	125.14	288.83	88.59	16 8 37	2446.0	-31.14	96.82
80.00	15 56 58	3302.51	-29.62	114.02	288.58	86.08	16 52 1	2302.5	-28.24	86.68
90.00	17 8 9	3072.75	-27.89	96.98	288.43	85.13	17 59 21	2072.8	-27.11	70.00
100.00	18 39 50	2776.98	-29.62	75.38	288.58	86.08	19 26 7	1777.0	-28.24	48.04
110.00	20 10 37	2492.84	-34.13	54.06	288.83	88.59	20 52 10	1492.8	-31.14	25.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5603 TRA-1.7913 TC3 .2805 BAU .1344 SGT 2094.6 SGR 588.9 SG3 389.2 ST 42.0 SR 20.5 SS 39.3
RDE -.3731 RRA .3448 RC3 -.1960 FAU .08923 RRT -.4783 RRF .5330 RTF -.8572 CRT .4788 CRS .5422 CST .9961
FDE 1.0821 FRA 2.9724 FC3-2.6299 BSP 3613 SGB 2175.8 R23 -.1102 R13 .8616 LSA 58.5 MSA 17.5 SSA 1.4
BDE .6731 BRA 1.8241 BC3 .3422 FSP 568 SG1 2114.7 SG2 512.3 THA 171.86 EL1 43.4 EL2 17.5 ALF 15.80

LAUNCH DATE JUL 3 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 402.770 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.767 GAL -5.27 AZL 89.83 HCA 132.22 SMA 219.43 ECC .31904 INC .1651 V1 29.290
RP 221.52 LAP .12 LOP 53.15 VP 24.360 GAP 18.60 AZP 90.11 TAL 337.99 TAP 110.22 RCA 149.42 APO 289.44 V2 24.819
RC 90.414 GL 1.04 GP -7.75 ZAL 125.70 ZAP 161.82 ETS 206.30 ZAE 165.86 ETE 323.85 ZAC 76.86 ETC 283.50 LVI -11.07

PLANETOCENTRIC CONIC

C3 28.502 VHL 5.339 DLA 17.81 RAL 43.86 RAD 6646.4 VEL 12.184 PTH 7.14 VHP 5.851 DPA 6.11 RAP 37.25 ECC 1.4691

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 21 5	3580.19	-47.18	135.63	287.32	96.97	15 20 45	2580.2	-39.05	104.19
60.00	14 39 58	3529.90	-40.25	131.88	288.09	92.27	15 38 48	2529.9	-34.95	102.12
70.00	15 8 15	3446.64	-34.13	125.19	288.15	88.56	16 5 41	2446.6	-31.15	96.86
80.00	15 53 32	3304.72	-29.61	114.18	287.90	85.99	16 48 36	2304.7	-28.26	86.84
90.00	17 4 27	3075.79	-27.87	97.20	287.74	85.02	17 55 43	2075.8	-27.14	70.22
100.00	18 36 23	2779.19	-29.61	75.55	287.90	85.99	19 22 43	1779.2	-28.26	48.20
110.00	20 7 41	2493.46	-34.13	54.11	288.15	88.56	20 49 15	1493.5	-31.15	25.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5612 TRA-1.7811 TC3 .3046 BAU .1423 SGT 2121.2 SGR 597.6 SG3 411.7 ST 42.6 SR 19.9 SS 40.8
RDE -.3545 RRA .3540 RC3 -.2160 FAU .09301 RRT -.5103 RRF .5679 RTF -.8612 CRT .4620 CRS .5299 CST .9958
FDE 1.1426 FRA 3.0867 FC3-2.8250 BSP 3670 SGB 2203.7 R23 -.1181 R13 .8660 LSA 59.8 MSA 17.2 SSA 1.4
BDE .6638 BRA 1.8159 BC3 .3734 FSP 605 SG1 2144.3 SG2 508.4 THA 171.33 EL1 43.8 EL2 17.2 ALF 14.50

LAUNCH DATE JUL 3 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 406.150 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.707 GAL -5.19 AZL 89.78 HCA 133.32 SMA 217.96 ECC .31418 INC .2170 V1 29.290
RP 221.90 LAP .16 LOP 54.25 VP 24.234 GAP 18.28 AZP 90.15 TAL 338.09 TAP 111.42 RCA 149.48 APO 286.43 V2 24.778
RC 92.473 GL 1.39 GP -8.07 ZAL 125.56 ZAP 160.92 ETS 206.03 ZAE 165.56 ETE 322.78 ZAC 76.49 ETC 283.50 LVI -10.69

PLANETOCENTRIC CONIC

C3 27.686 VHL 5.262 DLA 18.10 RAL 43.62 RAD 6646.1 VEL 12.151 PTH 7.12 VHP 5.696 DPA 5.89 RAP 37.59 ECC 1.4556

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 18 54	3579.01	-47.17	135.51	286.65	97.06	15 18 33	2579.0	-39.01	104.10
60.00	14 37 23	3529.80	-40.25	131.87	287.43	92.27	15 36 12	2529.8	-34.94	102.11
70.00	15 5 9	3448.06	-34.12	125.30	287.49	88.50	16 2 37	2448.1	-31.17	96.97
80.00	15 49 52	3307.88	-29.60	114.41	287.22	85.87	16 45 0	2307.9	-28.30	87.06
90.00	17 0 30	3079.85	-27.85	97.50	287.06	84.88	17 51 50	2079.8	-27.18	70.51
100.00	18 32 44	2782.35	-29.60	75.78	287.22	85.87	19 19 6	1782.3	-28.30	48.43
110.00	20 4 35	2494.88	-34.12	54.22	287.49	88.50	20 46 10	1494.9	-31.17	25.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5627 TRA-1.7706 TC3 .3260 BAU .1499 SGT 2146.9 SGR 608.4 SG3 435.4 ST 43.2 SR 19.3 SS 42.3
RDE -.3356 RRA .3642 RC3 -.2376 FAU .09693 RRT -.5425 RRF .6032 RTF -.[illegible] CRT .4426 CRS .5151 CST .9955
FDE 1.2076 FRA 3.2061 FC3-3.0311 BSP 3731 SGB 2231.4 R23 -.1267 R13 .8703 LSA 61.1 MSA 16.9 SSA 1.4
BDE .6552 BRA 1.8077 BC3 .4050 FSP 644 SG1 2173.6 SG2 504.8 THA 170.76 EL1 44.2 EL2 16.9 ALF 13.17

LAUNCH DATE JUL 3 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 409.566 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.649 GAL -5.10 AZL 89.73 HCA 134.42 SMA 216.58 ECC .30956 INC .2705 V1 29.290
RP 222.28 LAP .19 LOP 55.35 VP 24.111 GAP 17.97 AZP 90.19 TAL 338.19 TAP 112.62 RCA 149.53 APO 283.62 V2 24.736
RC 94.587 GL 1.75 GP -8.42 ZAL 125.42 ZAP 159.99 ETS 205.81 ZAE 165.30 ETE 321.54 ZAC 76.11 ETC 283.49 LVI -10.30

PLANETOCENTRIC CONIC

C3 26.920 VHL 5.188 DLA 18.41 RAL 43.37 RAD 6645.8 VEL 12.119 PTH 7.09 VHP 5.547 DPA 5.65 RAP 37.93 ECC 1.4430

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 16 36	3578.47	-47.17	135.46	286.03	97.10	15 16 15	2578.5	-38.99	104.06
60.00	14 34 39	3530.43	-40.25	131.92	286.81	92.23	15 33 29	2530.4	-34.96	102.16
70.00	15 1 51	3450.32	-34.12	125.48	286.85	88.39	15 59 22	2450.3	-31.21	97.13
80.00	15 45 59	3312.03	-29.58	114.72	286.57	85.71	16 41 11	2312.0	-28.35	87.36
90.00	16 56 19	3084.99	-27.82	97.87	286.41	84.69	17 47 44	2085.0	-27.23	70.88
100.00	18 28 50	2786.50	-29.58	76.09	286.57	85.71	19 15 17	1786.5	-28.35	48.73
110.00	20 1 18	2497.14	-34.12	54.40	286.85	88.39	20 42 55	1497.1	-31.21	26.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5638 TRA-1.7588 TC3 .3521 BAU .1578 SGT 2170.5 SGR 621.5 SG3 460.3 ST 43.7 SR 18.7 SS 43.9
RDE -.3164 RRA .3753 RC3 -.2612 FAU .10109 RRT -.5748 RRF .6384 RTF -.8684 CRT .4197 CRS .4972 CST .9951
FDE 1.2770 FRA 3.3286 FC3-3.2511 BSP 3786 SGB 2257.8 R23 -.1357 R13 .8744 LSA 62.5 MSA 16.6 SSA 1.4
BDE .6465 BRA 1.7984 BC3 .4384 FSP 685 SG1 2201.4 SG2 501.5 THA 170.14 EL1 44.5 EL2 16.6 ALF 11.83

LAUNCH DATE JUL 3 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 413.014 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.594 GAL -5.02 AZL 89.67 HCA 135.52 SMA 215.28 ECC .30518 INC .3262 V1 29.290
RP 222.67 LAP .23 LOP 56.45 VP 23.991 GAP 17.66 AZP 90.23 TAL 338.30 TAP 113.81 RCA 149.58 APO 280.98 V2 24.694
RC 96.756 GL 2.13 GP -8.78 ZAL 125.27 ZAP 159.04 ETS 205.62 ZAE 165.07 ETE 320.13 ZAC 75.71 ETC 283.50 LVI -9.89

PLANETOCENTRIC CONIC

C3 26.201 VHL 5.119 DLA 18.74 RAL 43.12 RAD 6645.5 VEL 12.090 PTH 7.07 VHP 5.403 DPA 5.37 RAP 38.25 ECC 1.4312

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	IN. 2 LAT	INJ 2 LONG
50.00	14 14 11	3578.59	-47.17	135.47	285.43	97.09	15 13 50	2578.6	-38.99	104.07
60.00	14 31 46	3531.80	-40.25	132.04	286.21	92.16	15 30 37	2531.8	-34.99	102.26
70.00	14 58 22	3453.46	-34.11	125.72	286.23	88.25	15 55 56	2453.5	-31.26	97.36
80.00	15 41 50	3317.21	-29.55	115.10	285.94	85.51	16 37 7	2317.2	-28.41	87.74
90.00	16 51 50	3091.25	-27.78	98.32	285.76	84.47	17 43 21	2091.3	-27.28	71.33
100.00	18 24 42	2791.68	-29.55	76.47	285.94	85.51	19 11 14	1791.7	-28.41	49.10
110.00	19 57 49	2500.27	-34.11	54.64	286.23	88.25	20 39 29	1500.3	-31.26	26.28

DIFFERENTIAL CORRECTIONS

TDE -.5556 TRA-1.7366 TC3 .3901 BAU .1696
RDE -.2968 RRA .3874 RC3 -.2869 FAU .10541
FDE 1.3514 FRA 3.4553 FC3-3.4828 BSP 3725
BDE .6299 BRA 1.7793 BC3 .4842 FSP 729

MID-COURSE EXECUTION ACCURACY

SGT 2181.6 SGR 637.4 SG3 486.3
RRT -.6117 RRF .6731 RTF -.8753
SGB 2272.8 R23 -.1371 R13 .8818
SG1 2218.1 SG2 495.9 THA 169.33

ORBIT DETERMINATION ACCURACY

ST 43.8 SR 18.0 SS 45.5
CRT .3873 CRS .4754 CST .9942
LSA 63.6 MSA 16.4 SSA 1.4
EL1 44.4 EL2 16.3 ALF 10.47

LAUNCH DATE JUL 3 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 416.491 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.542 GAL -4.95 AZL 89.62 HCA 136.61 SMA 214.07 ECC .30102 INC .3836 V1 29.290
RP 223.06 LAP .26 LOP 57.54 VP 23.875 GAP 17.36 AZP 90.28 TAL 338.40 TAP 115.00 RCA 149.63 APO 278.51 V2 24.652
RC 98.976 GL 2.54 GP -9.17 ZAL 125.13 ZAP 158.07 ETS 205.48 ZAE 164.86 ETE 318.56 ZAC 75.29 ETC 283.50 LVI -9.47

PLANETOCENTRIC CONIC

C3 25.530 VHL 5.053 DLA 19.09 RAL 42.85 RAD 6645.2 VEL 12.062 PTH 7.05 VHP 5.263 DPA 5.08 RAP 38.56 ECC 1.4202

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 11 39	3579.45	-47.18	135.56	284.88	97.03	15 11 19	2579.4	-39.02	104.13
60.00	14 28 43	3534.00	-40.26	132.22	285.64	92.03	15 27 37	2534.0	-35.05	102.42
70.00	14 54 41	3457.56	-34.11	126.04	285.65	88.06	15 52 18	2457.6	-31.33	97.66
80.00	15 37 26	3323.56	-29.51	115.57	285.33	85.27	16 32 49	2323.6	-28.48	88.19
90.00	16 47 3	3098.79	-27.73	98.87	285.14	84.20	17 38 42	2098.8	-27.35	71.87
100.00	18 20 18	2798.03	-29.51	76.94	285.33	85.27	19 6 56	1798.0	-28.48	49.56
110.00	19 54 7	2504.38	-34.11	54.96	285.65	88.06	20 35 52	1504.4	-31.33	26.58

DIFFERENTIAL CORRECTIONS

TDE -.5611 TRA-1.7270 TC3 .4067 BAU .1755
RDE -.2766 RRA .4005 RC3 -.3147 FAU .10995
FDE 1.4304 FRA 3.5850 FC3-3.7285 BSP 3832
BDE .6256 BRA 1.7728 BC3 .5142 FSP 774

MID-COURSE EXECUTION ACCURACY

SGT 2206.3 SGR 656.1 SG3 513.6
RRT -.6403 RRF .7068 RTF -.8765
SGB 2301.8 R23 -.1507 R13 .8840
SG1 2248.0 SG2 494.6 THA 168.66

ORBIT DETERMINATION ACCURACY

ST 44.5 SR 17.3 SS 47.2
CRT .3575 CRS .4487 CST .9940
LSA 65.2 MSA 16.0 SSA 1.4
EL1 45.0 EL2 16.0 ALF 9.05

LAUNCH DATE JUL 3 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 419.996 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.493 GAL -4.88 AZL 89.56 HCA 137.69 SMA 212.94 ECC .29707 INC .4430 V1 29.290
RP 223.44 LAP .30 LOP 58.62 VP 23.762 GAP 17.06 AZP 90.33 TAL 338.50 TAP 116.19 RCA 149.68 APO 276.19 V2 24.611
RC 101.244 GL 2.96 GP -9.58 ZAL 124.97 ZAP 157.07 ETS 205.36 ZAE 164.68 ETE 316.81 ZAC 74.85 ETC 283.51 LVI -9.03

PLANETOCENTRIC CONIC

C3 24.902 VHL 4.990 DLA 19.45 RAL 42.58 RAD 6645.0 VEL 12.036 PTH 7.02 VHP 5.128 DPA 4.75 RAP 38.86 ECC 1.4098

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 8 59	3581.03	-47.19	135.71	284.37	96.91	15 8 40	2581.0	-39.08	104.25
60.00	14 25 30	3537.03	-40.27	132.48	285.10	91.85	15 24 27	2537.0	-35.12	102.64
70.00	14 50 46	3462.65	-34.09	126.44	285.88	87.83	15 48 29	2462.7	-31.42	98.03
80.00	15 32 44	3331.11	-29.47	116.13	284.74	84.98	16 28 15	2331.1	-28.56	88.74
90.00	16 41 57	3107.66	-27.66	99.51	284.54	83.89	17 33 45	2107.7	-27.43	72.50
100.00	18 15 36	2805.58	-29.47	77.50	284.74	84.98	19 2 21	1805.6	-28.56	50.11
110.00	19 50 12	2509.47	-34.09	55.36	285.08	87.83	20 32 2	1509.5	-31.42	26.95

DIFFERENTIAL CORRECTIONS

TDE -.5654 TRA-1.7152 TC3 .4247 BAU .1821
RDE -.2558 RRA .4149 RC3 -.3448 FAU .11466
FDE 1.5161 FRA 3.7198 FC3-3.9862 BSP 3913
BDE .6206 BRA 1.7646 BC3 .5471 FSP 822

MID-COURSE EXECUTION ACCURACY

SGT 2227.8 SGR 678.2 SG3 542.2
RRT -.6687 RRF .7393 RTF -.8782
SGB 2328.8 R23 -.1635 R13 .8867
SG1 2275.8 SG2 493.6 THA 167.92

ORBIT DETERMINATION ACCURACY

ST 45.1 SR 16.5 SS 49.0
CRT .3203 CRS .4158 CST .9937
LSA 66.8 MSA 15.7 SSA 1.5
EL1 45.5 EL2 15.5 ALF 7.59

LAUNCH DATE JUL 3 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 423.525 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.446 GAL -4.81 AZL 89.50 HCA 138.78 SMA 211.87 ECC .29332 INC .5048 V1 29.290
RP 223.83 LAP .33 LOP 59.71 VP 23.653 GAP 16.76 AZP 90.38 TAL 338.60 TAP 117.37 RCA 149.73 APO 274.02 V2 24.569
RC 103.560 GL 3.42 GP -10.02 ZAL 124.82 ZAP 156.05 ETS 205.27 ZAE 164.51 ETE 314.88 ZAC 74.40 ETC 283.53 LVI -8.57

PLANETOCENTRIC CONIC

C3 24.314 VHL 4.931 DLA 19.84 RAL 42.31 RAD 6644.7 VEL 12.012 PTH 7.00 VHP 4.998 DPA 4.39 RAP 39.14 ECC 1.4002

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 6 11	3583.38	-47.21	135.93	283.90	96.74	15 5 54	2583.4	-39.15	104.42
60.00	14 22 7	3540.94	-40.27	132.81	284.60	91.63	15 21 8	2540.9	-35.22	102.93
70.00	14 46 37	3468.79	-34.08	126.92	284.55	87.54	15 44 26	2468.8	-31.52	98.48
80.00	15 27 43	3339.94	-29.42	116.78	284.17	84.64	16 23 23	2339.9	-28.65	89.38
90.00	16 36 28	3117.97	-27.59	100.25	283.96	83.52	17 28 26	2118.0	-27.52	73.25
100.00	18 10 35	2814.42	-29.42	78.15	284.17	84.64	18 57 29	1814.4	-28.65	50.75
110.00	19 46 3	2515.61	-34.08	55.84	284.55	87.54	20 27 59	1515.6	-31.52	27.40

DIFFERENTIAL CORRECTIONS

TDE -.5680 TRA-1.7002 TC3 .4446 BAU .1896
RDE -.2344 RRA .4304 RC3 -.3775 FAU .11961
FDE 1.6074 FRA 3.8564 FC3-4.2588 BSP 3975
BDE .6145 BRA 1.7538 BC3 .5833 FSP 871

MID-COURSE EXECUTION ACCURACY

SGT 2244.8 SGR 703.9 SG3 572.0
RRT -.6963 RRF .7700 RTF -.8802
SGB 2352.6 R23 -.1755 R13 .8899
SG1 2300.3 SG2 493.0 THA 167.08

ORBIT DETERMINATION ACCURACY

ST 45.6 SR 15.8 SS 50.9
CRT .2745 CRS .3755 CST .9933
LSA 68.4 MSA 15.3 SSA 1.5
EL1 45.9 EL2 15.1 ALF 6.09

LAUNCH DATE JUL 3 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 427.078 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.402 GAL -4.74 AZL 89.43 HCA 139.86 SMA 210.87 ECC .28976 INC .5690 V1 29.290
RP 224.22 LAP .37 LOP 60.79 VP 23.546 GAP 16.46 AZP 90.44 TAL 338.70 TAP 118.55 RCA 149.77 APO 271.97 V2 24.527
RC 105.921 GL 3.89 GP -10.48 ZAL 124.67 ZAP 155.00 ETS 205.21 ZAE 164.35 ETE 312.77 ZAC 73.93 ETC 283.54 LVI -8.10

PLANETOCENTRIC CONIC

C3 23.766 VHL 4.875 DLA 20.26 RAL 42.02 RAD 6644.5 VEL 11.989 PTH 6.98 VHP 4.872 DPA 4.00 RAP 39.41 ECC 1.3911

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 3 13	3586.53	-47.24	136.23	283.47	96.51	15 3 0	2586.5	-39.26	104.64
60.00	14 18 32	3545.76	-40.28	133.22	284.13	91.35	15 17 37	2545.8	-35.34	103.29
70.00	14 42 12	3476.05	-34.05	127.48	284.03	87.21	15 40 8	2476.1	-31.64	99.01
80.00	15 22 21	3350.18	-29.35	117.53	283.62	84.25	16 18 11	2350.2	-28.76	90.12
90.00	16 30 36	3129.85	-27.49	101.11	283.39	83.10	17 22 46	2129.9	-27.61	74.10
100.00	18 5 13	2824.65	-29.35	78.90	283.62	84.25	18 52 18	1824.7	-28.76	51.49
110.00	19 41 38	2522.87	-34.05	56.40	284.03	87.21	20 23 41	1522.9	-31.64	27.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5706 TRA-1.6846 TC3 .4626 BAU .1970 SGT 2259.8 SGR 733.6 SG3 603.1 ST 46.1 SR 15.0 SS 52.8
RDE -.2120 RRA .4473 RC3 -.4128 FAU .12468 RRT -.7222 RRF .7988 RTF -.8820 CRT .2179 CRS .3250 CST .9928
FDE 1.7061 FRA 3.9985 FC3-4.5418 BSP 4038 SGB 2375.9 R23 -.1875 R13 .8930 LSA 70.1 MSA 14.9 SSA 1.5
BDE .6087 BRA 1.7429 BC3 .6200 FSP 925 SG1 2324.1 SG2 493.4 THA 166.17 EL1 46.2 EL2 14.6 ALF 4.52

LAUNCH DATE JUL 3 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 430.652 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.360 GAL -4.67 AZL 89.36 HCA 140.93 SMA 209.93 ECC .28638 INC .6360 V1 29.290
RP 224.61 LAP .40 LOP 61.86 VP 23.443 GAP 16.16 AZP 90.49 TAL 338.79 TAP 119.73 RCA 149.81 APO 270.05 V2 24.485
RC 108.326 GL 4.39 GP -10.96 ZAL 124.51 ZAP 153.93 ETS 205.17 ZAE 164.18 ETE 310.47 ZAC 73.43 ETC 283.57 LVI -7.60

PLANETOCENTRIC CONIC

C3 23.254 VHL 4.822 DLA 20.70 RAL 41.72 RAD 6644.3 VEL 11.968 PTH 6.97 VHP 4.751 DPA 3.58 RAP 39.67 ECC 1.3827

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 0 6	3590.51	-47.27	136.61	283.09	96.22	14 59 57	2590.5	-39.39	104.93
60.00	14 14 44	3551.56	-40.29	133.72	283.70	91.02	15 13 56	2551.6	-35.48	103.71
70.00	14 37 30	3484.50	-34.02	128.14	283.55	86.82	15 35 35	2484.5	-31.77	99.64
80.00	15 16 36	3361.93	-29.27	118.39	283.09	83.80	16 12 38	2361.9	-28.87	90.98
90.00	16 24 16	3143.45	-27.38	102.09	282.84	82.62	17 16 40	2143.5	-27.71	75.09
100.00	17 59 28	2836.40	-29.27	79.76	283.09	83.80	18 46 44	1836.4	-28.87	52.34
110.00	19 36 56	2531.32	-34.02	57.06	283.55	86.82	20 19 8	1531.3	-31.77	28.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5720 TRA-1.6659 TC3 .4815 BAU .2051 SGT 2270.3 SGR 767.5 SG3 635.4 ST 46.5 SR 14.3 SS 54.8
RDE -.1887 RRA .4655 RC3 -.4511 FAU .13002 RRT -.7464 RRF .8253 RTF -.8839 CRT .1488 CRS .2624 CST .9923
FDE 1.8108 FRA 4.1414 FC3-4.8405 BSP 4082 SGB 2396.5 R23 -.1990 R13 .8964 LSA 71.8 MSA 14.6 SSA 1.5
BDE .6023 BRA 1.7297 BC3 .6598 FSP 980 SG1 2345.0 SG2 494.5 THA 165.16 EL1 46.6 EL2 14.1 ALF 2.89

LAUNCH DATE JUL 3 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 434.246 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.320 GAL -4.61 AZL 89.29 HCA 142.00 SMA 209.05 ECC .28317 INC .7061 V1 29.290
RP 225.00 LAP .43 LOP 62.94 VP 23.342 GAP 15.87 AZP 90.56 TAL 338.89 TAP 120.89 RCA 149.85 APO 268.25 V2 24.443
RC 110.773 GL 4.92 GP -11.48 ZAL 124.35 ZAP 152.82 ETS 205.16 ZAE 164.01 ETE 308.00 ZAC 72.91 ETC 283.60 LVI -7.08

PLANETOCENTRIC CONIC

C3 22.779 VHL 4.773 DLA 21.16 RAL 41.42 RAD 6644.1 VEL 11.949 PTH 6.95 VHP 4.635 DPA 3.12 RAP 39.92 ECC 1.3749

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 56 49	3595.38	-47.30	137.08	282.75	95.86	14 56 45	2595.4	-39.55	105.29
60.00	14 10 43	3558.38	-40.30	134.30	283.30	90.62	15 10 1	2558.4	-35.64	104.22
70.00	14 32 30	3494.23	-33.98	128.90	283.09	86.38	15 30 44	2494.2	-31.92	100.36
80.00	15 10 25	3375.34	-29.16	119.38	282.58	83.29	16 6 40	2375.3	-29.00	91.95
90.00	16 17 26	3158.97	-27.24	103.20	282.30	82.08	17 10 5	2159.0	-27.81	76.21
100.00	17 53 17	2849.81	-29.16	80.75	282.58	83.29	18 40 47	1849.8	-29.00	53.32
110.00	19 31 56	2541.05	-33.98	57.82	283.09	86.38	20 14 17	1541.1	-31.92	29.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5734 TRA-1.6465 TC3 .4985 BAU .2134 SGT 2278.7 SGR 806.2 SG3 669.1 ST 46.9 SR 13.6 SS 57.0
RDE -.1643 RRA .4851 RC3 -.4925 FAU .13552 RRT -.7684 RRF .8495 RTF -.8956 CRT .0644 CRS .1845 CST .9917
FDE 1.9231 FRA 4.2879 FC3-5.1507 BSP 4128 SGB 2417.1 R23 -.2105 R13 .8998 LSA 73.6 MSA 14.2 SSA 1.5
BDE .5965 BRA 1.7165 BC3 .7008 FSP 1037 SG1 2365.5 SG2 497.0 THA 164.07 EL1 46.9 EL2 13.6 ALF 1.17

LAUNCH DATE JUL 3 1973 FLIGHT TIME 172.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 437.857 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.282 GAL -4.55 AZL 89.22 HCA 143.07 SMA 208.22 ECC .28013 INC .7791 V1 29.290
RP 225.39 LAP .47 LOP 64.00 VP 23.244 GAP 15.58 AZP 90.62 TAL 338.98 TAP 122.06 RCA 149.89 APO 266.55 V2 24.401
RC 113.259 GL 5.48 GP -12.03 ZAL 124.19 ZAP 151.69 ETS 205.16 ZAE 163.81 ETE 305.34 ZAC 72.36 ETC 283.63 LVI -6.54

PLANETOCENTRIC CONIC

C3 22.338 VHL 4.726 DLA 21.66 RAL 41.11 RAD 6643.9 VEL 11.930 PTH 6.93 VHP 4.523 DPA 2.62 RAP 40.16 ECC 1.3676

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 53 22	3601.17	-47.34	137.63	282.46	95.44	14 53 23	2601.2	-39.74	105.71
60.00	14 6 27	3566.30	-40.30	134.97	282.94	90.17	15 5 53	2566.3	-35.82	104.81
70.00	14 27 9	3505.34	-33.93	129.76	282.66	85.87	15 25 34	2505.3	-32.09	101.18
80.00	15 3 45	3390.57	-29.04	120.49	282.09	82.72	16 0 15	2390.6	-29.12	93.07
90.00	16 10 1	3176.62	-27.07	104.46	281.78	81.47	17 2 58	2176.6	-27.92	77.49
100.00	17 46 37	2865.04	-29.04	81.86	282.09	82.72	18 34 22	1865.0	-29.12	54.44
110.00	19 26 35	2552.16	-33.93	58.68	282.66	85.87	20 9 7	1552.2	-32.09	30.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5744 TRA-1.6252 TC3 .5137 BAU .2220 SGT 2283.5 SGR 849.8 SG3 703.9 ST 47.2 SR 13.0 SS 59.2
RDE -.1386 RRA .5062 RC3 -.5373 FAU .14124 RRT -.7881 RRF .8712 RTF -.8869 CRT -.0374 CRS .0889 CST .9911
FDE 2.0433 FRA 4.4350 FC3-5.4740 BSP 4165 SGB 2436.5 R23 -.2219 R13 .9032 LSA 75.5 MSA 13.8 SSA 1.5
BDE .5909 BRA 1.7022 BC3 .7434 FSP 1096 SG1 2384.4 SG2 501.0 THA 162.88 EL1 47.2 EL2 13.0 ALF 179.36

LAUNCH DATE JUL 3 1973 FLIGHT TIME 174.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 441.486 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.246 GAL -4.50 AZL 89.14 HCA 144.14 SMA 207.44 ECC .27725 INC .8557 V1 29.290
RP 225.78 LAP .50 LOP 65.07 VP 23.148 GAP 15.30 AZP 90.69 TAL 339.07 TAP 123.21 RCA 149.93 APO 264.95 V2 24.359
RC 115.782 GL 6.07 GP -12.61 ZAL 124.02 ZAP 150.53 ETS 205.18 ZAE 163.58 ETE 302.53 ZAC 71.79 ETC 283.67 LVI -5.97

PLANETOCENTRIC CONIC

C3 21.930 VHL 4.683 DLA 22.18 RAL 40.79 RAD 6643.7 VEL 11.913 PTH 6.92 VHP 4.415 DPA 2.08 RAP 40.38 ECC 1.3609

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 49 42	3607.95	-47.38	138.28	282.22	94.94	14 49 50	2607.9	-39.96	106.21
60.00	14 1 55	3575.39	-40.30	135.74	282.61	89.64	15 1 31	2575.4	-36.03	105.49
70.00	14 21 25	3517.95	-33.87	130.74	282.26	85.29	15 20 3	2517.9	-32.27	102.12
80.00	14 56 32	3407.83	-28.88	121.75	281.61	82.08	15 53 20	2407.8	-29.26	94.33
90.00	16 1 56	3196.69	-26.86	105.89	281.27	80.79	16 55 12	2196.7	-28.02	78.95
100.00	17 39 24	2882.30	-28.88	83.12	281.61	82.08	18 27 26	1882.3	-29.26	55.70
110.00	19 20 51	2564.76	-33.87	59.66	282.26	85.29	20 3 36	1564.8	-32.27	31.04

DIFFERENTIAL CORRECTIONS

TDE -.5756 TRA-1.6025 TC3 .5272 BAU .2310
RDE -.1114 RRA .5289 RC3 -.5857 FAU .14713
FDE 2.1722 FRA 4.5840 FC3-5.8081 BSP 4204
BDE .5863 BRA 1.6875 BC3 .7880 FSP 1158

MID-COURSE EXECUTION ACCURACY

SGT 2285.4 SGR 898.8 SG3 739.9
RRT -.8055 RRF .8905 RTF -.8881
SGB 2455.7 R23 -.2326 R13 .9066
SG1 2402.9 SG2 506.6 THA 161.58

ORBIT DETERMINATION ACCURACY

ST 47.4 SR 12.5 SS 61.5
CRT -.1575 CRS -.0265 CST .9904
LSA 77.5 MSA 13.4 SSA 1.5
EL1 47.5 EL2 12.4 ALF 177.44

LAUNCH DATE JUL 3 1973 FLIGHT TIME 176.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 445.131 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.211 GAL -4.44 AZL 89.06 HCA 145.20 SMA 206.71 ECC .27451 INC .9361 V1 29.290
RP 226.17 LAP .53 LOP 66.13 VP 23.055 GAP 15.01 AZP 90.77 TAL 339.16 TAP 124.36 RCA 149.96 APO 263.45 V2 24.318
RC 118.341 GL 6.69 GP -13.23 ZAL 123.86 ZAP 149.33 ETS 205.22 ZAE 163.32 ETE 299.55 ZAC 71.18 ETC 283.72 LVI -5.36

PLANETOCENTRIC CONIC

C3 21.553 VHL 4.643 DLA 22.74 RAL 40.47 RAD 6643.5 VEL 11.898 PTH 6.91 VHP 4.312 DPA 1.49 RAP 40.59 ECC 1.3547

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 45 49	3615.74	-47.42	139.03	282.03	94.36	14 46 5	2615.7	-40.21	106.79
60.00	13 57 5	3585.70	-40.29	136.62	282.32	89.05	14 56 51	2585.7	-36.26	106.27
70.00	14 15 16	3532.15	-33.78	131.84	281.87	84.65	15 14 8	2532.2	-32.46	103.18
80.00	14 48 41	3427.35	-28.69	123.17	281.14	81.35	15 45 48	2427.4	-29.39	95.77
90.00	15 53 3	3219.51	-26.60	107.51	280.76	80.02	16 46 43	2219.5	-28.12	80.61
100.00	17 31 33	2901.83	-28.69	84.54	281.14	81.35	18 19 55	1901.8	-29.39	57.14
110.00	19 14 42	2578.97	-33.78	60.76	281.87	84.65	19 57 41	1579.0	-32.46	32.10

DIFFERENTIAL CORRECTIONS

TDE -.5646 TRA-1.5669 TC3 .5599 BAU .2449
RDE -.0832 RRA .5525 RC3 -.6392 FAU .15349
FDE 2.3033 FRA 4.7268 FC3-6.1651 BSP 4100
BDE .5707 BRA 1.6615 BC3 .8497 FSP 1214

MID-COURSE EXECUTION ACCURACY

SGT 2269.8 SGR 953.7 SG3 776.9
RRT -.8257 RRF .9075 RTF -.8926
SGB 2462.0 R23 -.2330 R13 .9132
SG1 2409.3 SG2 506.9 THA 159.94

ORBIT DETERMINATION ACCURACY

ST 46.9 SR 12.3 SS 63.7
CRT -.2966 CRS -.1575 CST .9889
LSA 79.0 MSA 13.2 SSA 1.5
EL1 47.1 EL2 11.7 ALF 175.28

LAUNCH DATE JUL 3 1973 FLIGHT TIME 178.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 448.788 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.179 GAL -4.39 AZL 88.98 HCA 146.25 SMA 206.02 ECC .27193 INC 1.0204 V1 29.290
RP 226.56 LAP .57 LOP 67.19 VP 22.964 GAP 14.73 AZP 90.85 TAL 339.25 TAP 125.50 RCA 150.00 APO 262.04 V2 24.276
RC 120.933 GL 7.35 GP -13.09 ZAL 123.69 ZAP 148.10 ETS 205.27 ZAE 163.00 ETE 296.45 ZAC 70.54 ETC 283.77 LVI -4.75

PLANETOCENTRIC CONIC

C3 21.210 VHL 4.605 DLA 23.33 RAL 40.13 RAD 6643.4 VEL 11.883 PTH 6.89 VHP 4.213 DPA .87 RAP 40.78 ECC 1.3491

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 41 42	3624.68	-47.47	139.89	281.90	93.70	14 42 7	2624.7	-40.50	107.46
60.00	13 51 57	3597.40	-40.27	137.62	282.08	88.37	14 51 54	2597.4	-36.52	107.16
70.00	14 8 39	3548.20	-33.67	133.08	281.52	83.92	15 7 47	2548.2	-32.67	104.39
80.00	14 40 6	3449.84	-28.45	124.78	280.69	80.54	15 37 36	2449.5	-29.53	97.40
90.00	15 43 14	3245.67	-26.27	109.36	280.25	79.15	16 37 20	2245.7	-28.20	82.52
100.00	17 22 58	2924.01	-28.45	86.14	280.69	80.54	18 11 42	1924.0	-29.53	58.77
110.00	19 8 5	2595.02	-33.67	62.00	281.52	83.92	19 51 20	1595.0	-32.67	33.30

DIFFERENTIAL CORRECTIONS

TDE -.5750 TRA-1.5514 TC3 .5495 BAU .2510
RDE -.0517 RRA .5794 RC3 -.6941 FAU .15941
FDE 2.4565 FRA 4.8825 FC3-6.5064 BSP 4256
BDE .5773 BRA 1.6561 BC3 .8853 FSP 1286

MID-COURSE EXECUTION ACCURACY

SGT 2277.3 SGR 1014.5 SG3 815.2
RRT -.8344 RRF .9223 RTF -.9001
SGB 2493.1 R23 -.2303 R13 .9143
SG1 2437.8 SG2 522.4 THA 158.58

ORBIT DETERMINATION ACCURACY

ST 47.7 SR 12.2 SS 66.4
CRT -.4401 CRS -.3070 CST .9867
LSA 81.7 MSA 12.7 SSA 1.5
EL1 48.0 EL2 10.9 ALF 173.20

LAUNCH DATE JUL 3 1973 FLIGHT TIME 180.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 452.459 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.149 GAL -4.34 AZL 88.89 HCA 147.31 SMA 205.37 ECC .26948 INC 1.1094 V1 29.290
RP 226.95 LAP .60 LOP 68.24 VP 22.876 GAP 14.45 AZP 90.93 TAL 339.33 TAP 126.64 RCA 150.03 APO 260.71 V2 24.234
RC 123.556 GL 8.05 GP -14.59 ZAL 123.52 ZAP 146.83 ETS 205.34 ZAE 162.61 ETE 293.25 ZAC 69.87 ETC 283.84 LVI -4.09

PLANETOCENTRIC CONIC

C3 20.898 VHL 4.571 DLA 23.96 RAL 39.78 RAD 6643.2 VEL 11.870 PTH 6.88 VHP 4.119 DPA .19 RAP 40.97 ECC 1.3439

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 37 20	3634.79	-47.51	140.86	281.82	92.95	14 37 55	2634.8	-40.61	108.23
60.00	13 46 26	3610.53	-40.24	138.73	281.87	87.61	14 46 37	2610.5	-36.79	108.16
70.00	14 1 29	3566.21	-33.53	134.47	281.19	83.11	15 0 55	2566.2	-32.88	105.75
80.00	14 30 39	3474.72	-28.16	126.59	280.24	79.63	15 28 34	2474.7	-29.65	99.26
90.00	15 32 16	3275.73	-25.87	111.47	279.74	78.16	16 26 52	2275.7	-28.26	84.71
100.00	17 13 31	2949.19	-28.16	87.96	280.24	79.63	18 2 40	1949.2	-29.65	60.63
110.00	19 0 55	2613.03	-33.53	63.39	281.19	83.11	19 44 28	1613.0	-32.88	34.66

DIFFERENTIAL CORRECTIONS

TDE -.5770 TRA-1.5262 TC3 .5505 BAU .2609
RDE -.0185 RRA .6076 RC3 -.7541 FAU .16565
FDE 2.6147 FRA 5.0311 FC3-6.8624 BSP 4319
BDE .5773 BRA 1.6427 BC3 .9337 FSP 1356

MID-COURSE EXECUTION ACCURACY

SGT 2271.2 SGR 1081.9 SG3 854.1
RRT -.8444 RRF .9351 RTF -.8896
SGB 2515.7 R23 -.2597 R13 .9175
SG1 2458.1 SG2 535.5 THA 156.93

ORBIT DETERMINATION ACCURACY

ST 47.9 SR 12.6 SS 69.1
CRT -.5825 CRS -.4557 CST .9880
LSA 84.1 MSA 12.4 SSA 1.5
EL1 48.5 EL2 10.1 ALF 170.89

LAUNCH DATE JUL 3 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC — DISTANCE 456.143 — EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.119 GAL -4.30 AZL 88.80 HCA 148.36 SMA 204.76 ECC .26716 INC 1.2030 V1 29.290
RP 227.34 LAP .63 LOP 69.29 VP 22.790 GAP 14.17 AZP 91.02 TAL 339.41 TAP 127.77 RCA 150.06 APO 259.46 V2 24.193
RC 126.208 GL 8.79 GP -15.33 ZAL 123.35 ZAP 145.52 ETS 205.42 ZAE 162.16 ETE 289.97 ZAC 69.16 ETC 283.91 LVI -3.39

PLANETOCENTRIC CONIC

C3 20.615 VHL 4.540 DLA 24.63 RAL 39.42 RAD 6643.1 VEL 11.858 PTH 6.87 VHP 4.029 DPA -.54 RAP 41.14 ECC 1.3393

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 32 41	3646.16	-47.54	141.96	281.80	92.11	14 33 27	2646.2	-41.16	109.09
60.00	13 40 32	3625.24	-40.19	139.98	281.70	86.77	14 40 57	2625.2	-37.09	109.30
70.00	13 53 42	3586.43	-33.36	136.02	280.87	82.21	14 53 28	2586.4	-33.11	107.28
80.00	14 20 8	3503.47	-27.79	128.64	279.78	78.61	15 18 32	2503.5	-29.76	101.39
90.00	15 19 50	3310.69	-25.36	113.90	279.20	77.05	16 15 1	2310.7	-28.28	97.27
100.00	17 3 0	2977.94	-27.79	90.01	279.78	78.61	17 52 38	1977.9	-29.76	62.76
110.00	18 53 8	2633.25	-33.36	64.94	280.87	82.21	19 37 1	1633.2	-33.11	36.20

DIFFERENTIAL CORRECTIONS

TDE -.5710 TRA-1.4912 TC3 .5638 BAU .2743
RDE .0166 RRA .6368 RC3 -.8202 FAU .17232
FDE 2.7771 FRA 5.1687 FC3-7.2367 BSP 4286
BDE .5712 BRA 1.6215 BC3 .9953 FSP 1419

MID-COURSE EXECUTION ACCURACY

SGT 2250.9 SGR 1156.2 SG3 893.5
RRT -.8555 RRF .9460 RTF -.8911
SGB 2530.5 R23 -.2615 R13 .9228
SG1 2471.0 SG2 545.3 THA 154.98

ORBIT DETERMINATION ACCURACY

ST 47.6 SR 13.3 SS 71.7
CRT -.7093 CRS -.5901 CST .9867
LSA 86.2 MSA 12.1 SSA 1.5
EL1 48.5 EL2 9.2 ALF 168.32

LAUNCH DATE JUL 3 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC — DISTANCE 459.837 — EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.092 GAL -4.26 AZL 88.70 HCA 149.40 SMA 204.19 ECC .26497 INC 1.3023 V1 29.290
RP 227.73 LAP .66 LOP 70.34 VP 22.706 GAP 13.90 AZP 91.12 TAL 339.48 TAP 128.89 RCA 150.08 APO 258.29 V2 24.152
RC 128.887 GL 9.57 GP -16.12 ZAL 123.17 ZAP 144.18 ETS 205.50 ZAE 161.62 ETE 286.66 ZAC 68.41 ETC 283.99 LVI -2.66

PLANETOCENTRIC CONIC

C3 20.364 VHL 4.513 DLA 25.35 RAL 39.05 RAD 6643.0 VEL 11.848 PTH 6.86 VHP 3.944 DPA -1.32 RAP 41.31 ECC 1.3351

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 27 42	3658.92	-47.57	143.20	281.84	91.16	14 28 41	2658.9	-41.54	110.08
60.00	13 34 10	3641.70	-40.12	141.38	281.56	85.82	14 34 52	2641.7	-37.41	110.58
70.00	13 45 12	3609.19	-33.14	137.76	280.58	81.20	14 45 21	2609.2	-33.33	109.02
80.00	14 8 19	3536.61	-27.32	131.00	279.31	77.46	15 7 16	2536.6	-29.83	103.85
90.00	15 5 27	3352.09	-24.70	116.75	278.61	75.77	16 1 19	2352.1	-28.23	90.30
100.00	16 51 11	3011.08	-27.32	92.36	279.31	77.46	17 41 22	2011.1	-29.83	65.22
110.00	18 44 38	2656.01	-33.14	66.68	280.58	81.20	19 28 54	1656.0	-33.33	37.94

DIFFERENTIAL CORRECTIONS

TDE -.5754 TRA-1.4660 TC3 .5515 BAU .2847
RDE .0557 RRA .6694 RC3 -.8887 FAU .17858
FDE 2.9600 FRA 5.3136 FC3-7.5918 BSP 4388
BDE .5781 BRA 1.6116 BC3 1.0459 FSP 1493

MID-COURSE EXECUTION ACCURACY

SGT 2241.3 SGR 1238.0 SG3 933.8
RRT -.8605 RRF .9553 RTF -.8889
SGB 2560.5 R23 -.2697 R13 .9258
SG1 2497.2 SG2 566.0 THA 153.08

ORBIT DETERMINATION ACCURACY

ST 47.8 SR 14.6 SS 74.6
CRT -.8106 CRS -.7062 CST .9860
LSA 89.0 MSA 11.8 SSA 1.5
EL1 49.3 EL2 8.3 ALF 165.70

LAUNCH DATE JUL 3 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC — DISTANCE 463.542 — EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.066 GAL -4.21 AZL 88.59 HCA 150.45 SMA 203.65 ECC .26289 INC 1.4074 V1 29.290
RP 228.12 LAP .69 LOP 71.38 VP 22.624 GAP 13.62 AZP 91.22 TAL 339.55 TAP 130.00 RCA 150.11 APO 257.19 V2 24.110
RC 131.592 GL 10.40 GP -16.97 ZAL 122.98 ZAP 142.79 ETS 205.59 ZAE 160.99 ETE 283.34 ZAC 67.61 ETC 284.08 LVI -1.88

PLANETOCENTRIC CONIC

C3 20.143 VHL 4.488 DLA 26.11 RAL 38.67 RAD 6642.9 VEL 11.839 PTH 6.86 VHP 3.863 DPA -2.16 RAP 41.46 ECC 1.3315

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 22 22	3673.15	-47.58	144.57	281.94	90.10	14 23 36	2673.2	-41.95	111.20
60.00	13 27 17	3660.06	-40.02	142.93	281.47	84.78	14 28 17	2660.1	-37.75	112.02
70.00	13 35 51	3634.82	-32.85	139.70	280.28	80.09	14 36 26	2634.8	-33.56	110.99
80.00	13 54 49	3575.27	-26.72	133.71	278.80	76.15	14 54 24	2575.3	-29.86	106.73
90.00	14 48 17	3402.56	-23.81	120.18	277.95	74.27	15 44 59	2402.6	-28.08	93.98
100.00	16 37 41	3049.74	-26.72	95.08	278.80	76.15	17 28 30	2049.7	-29.86	68.10
110.00	18 35 17	2681.64	-32.85	68.62	280.28	80.09	19 19 59	1681.6	-33.56	39.90

DIFFERENTIAL CORRECTIONS

TDE -.5708 TRA-1.4302 TC3 .5526 BAU .2992
RDE .0975 RRA .7031 RC3 -.9637 FAU .18517
FDE 3.1484 FRA 5.4441 FC3-7.9586 BSP 4391
BDE .5791 BRA 1.5937 BC3 1.1109 FSP 1561

MID-COURSE EXECUTION ACCURACY

SGT 2216.1 SGR 1327.7 SG3 974.0
RRT -.8674 RRF .9631 RTF -.8990
SGB 2583.4 R23 -.2690 R13 .9310
SG1 2517.0 SG2 581.7 THA 150.83

ORBIT DETERMINATION ACCURACY

ST 47.5 SR 16.3 SS 77.6
CRT -.8852 CRS -.7944 CST .9846
LSA 91.7 MSA 11.5 SSA 1.4
EL1 49.7 EL2 7.2 ALF 162.75

LAUNCH DATE JUL 3 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC — DISTANCE 467.255 — EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.041 GAL -4.18 AZL 88.48 HCA 151.48 SMA 203.14 ECC .26093 INC 1.5191 V1 29.290
RP 228.51 LAP .73 LOP 72.42 VP 22.544 GAP 13.35 AZP 91.34 TAL 339.62 TAP 131.10 RCA 150.13 APO 256.15 V2 24.069
RC 134.321 GL 11.28 GP -17.87 ZAL 122.79 ZAP 141.38 ETS 205.69 ZAE 160.25 ETE 280.06 ZAC 66.77 ETC 284.19 LVI -1.05

PLANETOCENTRIC CONIC

C3 19.954 VHL 4.467 DLA 26.92 RAL 38.27 RAD 6642.8 VEL 11.831 PTH 6.85 VHP 3.788 DPA -3.07 RAP 41.61 ECC 1.3284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 16 38	3689.02	-47.57	146.11	282.10	88.92	14 18 8	2689.0	-42.40	112.46
60.00	13 19 49	3680.56	-39.88	144.65	281.41	83.61	14 21 9	2680.6	-38.11	113.65
70.00	13 25 29	3663.85	-32.49	141.89	279.99	78.84	14 26 33	2663.8	-33.77	113.22
80.00	13 39 0	3621.40	-25.93	136.91	278.22	74.65	14 39 21	2621.4	-29.79	110.15
90.00	14 26 32	3467.77	-22.54	124.54	277.13	72.45	15 24 20	2467.8	-27.71	98.71
100.00	16 21 52	3095.87	-25.93	98.28	278.22	74.65	17 13 28	2095.9	-29.79	71.52
110.00	18 24 55	2710.67	-32.49	70.81	279.99	78.84	19 10 6	1710.7	-33.77	42.14

DIFFERENTIAL CORRECTIONS

TDE -.5730 TRA-1.4000 TC3 .5331 BAU .3122
RDE .1438 RRA .7395 RC3-1.0418 FAU .19140
FDE 3.3529 FRA 5.5710 FC3-8.3040 BSP 4493
BDE .5908 BRA 1.5833 BC3 1.1703 FSP 1636

MID-COURSE EXECUTION ACCURACY

SGT 2196.0 SGR 1425.5 SG3 1014.1
RRT -.8693 RRF .9697 RTF -.8859
SGB 2618.1 R23 -.2716 R13 .9349
SG1 2546.7 SG2 607.7 THA 148.57

ORBIT DETERMINATION ACCURACY

ST 47.6 SR 18.5 SS 80.7
CRT -.9347 CRS -.8594 CST .9837
LSA 94.8 MSA 11.2 SSA 1.4
EL1 50.7 EL2 6.2 ALF 159.73

LAUNCH DATE JUL 3 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 470.978 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 33.018 GAL -4.14 AZL 88.36 HCA 152.52 SMA 202.67 ECC .25908 INC 1.6381 V1 29.290
RP 228.90 LAP .76 LOP 73.46 VP 22.467 GAP 13.08 AZP 91.45 TAL 339.68 TAP 132.20 RCA 150.16 APO 255.17 V2 24.028
RC 137.073 GL 12.22 GP -18.82 ZAL 122.60 ZAP 139.89 ETS 205.79 ZAE 159.40 ETE 276.85 ZAC 65.88 ETC 284.31 LVI -.18

PLANETOCENTRIC CONIC

C3 19.798 VHL 4.449 DLA 27.78 RAL 37.86 RAD 6642.7 VEL 11.824 PTH 6.84 VHP 3.718 DPA -4.04 RAP 41.75 ECC 1.3258

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 10 27	3706.65	-47.53	147.81	282.33	87.60	14 12 14	2706.7	-42.88	113.88
60.00	13 11 39	3703.45	-39.69	146.57	281.37	82.33	14 13 23	2703.5	-38.48	115.48
70.00	13 13 52	3696.92	-32.03	144.36	279.69	77.45	14 15 29	2696.9	-33.95	115.79
80.00	13 19 44	3678.48	-24.84	140.80	277.52	72.88	14 21 2	2678.5	-29.58	114.38
90.00	13 54 31	3566.01	-20.38	130.93	275.90	69.96	14 53 57	2566.0	-26.83	105.76
100.00	16 2 36	3152.96	-24.84	102.17	277.52	72.88	16 55 9	2153.0	-29.58	75.75
110.00	18 13 18	2743.74	-32.03	73.28	279.69	77.45	18 59 2	1743.7	-33.95	44.71

DIFFERENTIAL CORRECTIONS

TDE -.5698 TRA-1.3634 TC3 .5198 BAU .3284
RDE .1941 RRA .7775 RC3-1.1265 FAU .19778
FDE 3.5652 FRA 5.6820 FC3-8.6489 BSP 4538
BDE .6019 BRA 1.5695 BC3 1.2407 FSP 1704

MID-COURSE EXECUTION ACCURACY

SGT 2165.6 SGR 1532.4 SG3 1053.6
RRT -.8717 RRF .9752 RTF -.8838
SGB 2652.9 R23 -.2684 R13 .9400
SG1 2576.7 SG2 631.1 THA 146.02

ORBIT DETERMINATION ACCURACY

ST 47.2 SR 21.1 SS 83.9
CRT -.9663 CRS -.9044 CST .9823
LSA 97.9 MSA 11.0 SSA 1.4
EL1 51.5 EL2 5.0 ALF 156.39

LAUNCH DATE JUL 3 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 474.708 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.996 GAL -4.11 AZL 88.23 HCA 153.55 SMA 202.22 ECC .25734 INC 1.7654 V1 29.290
RP 229.28 LAP .79 LOP 74.49 VP 22.391 GAP 12.81 AZP 91.58 TAL 339.74 TAP 133.29 RCA 150.18 APO 254.26 V2 23.988
RC 139.847 GL 13.21 GP -19.84 ZAL 122.39 ZAP 138.37 ETS 205.89 ZAE 158.44 ETE 273.74 ZAC 64.93 ETC 284.44 LVI .75

PLANETOCENTRIC CONIC

C3 19.675 VHL 4.436 DLA 28.70 RAL 37.42 RAD 6642.7 VEL 11.819 PTH 6.84 VHP 3.652 DPA -5.07 RAP 41.89 ECC 1.3238

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 3 44	3726.26	-47.46	149.70	282.61	86.15	14 5 50	2726.3	-43.39	115.49
60.00	13 2 41	3729.06	-39.43	148.70	281.36	80.90	14 4 50	2729.1	-38.85	117.55
70.00	13 0 40	3735.00	-31.43	147.16	279.35	75.89	14 2 55	2735.0	-34.09	118.75
80.00	12 54 20	3754.96	-23.21	145.90	276.57	70.67	13 56 55	2755.0	-29.06	120.00
84.88	12 23 23	3854.68	-16.83	150.57	273.90	66.40	13 27 38	2854.7	-25.11	126.50
100.00	15 37 11	3229.44	-23.21	107.26	276.57	70.67	16 31 1	2229.4	-29.06	81.37
110.00	18 0 7	2781.82	-31.43	76.08	279.35	75.89	18 46 28	1781.8	-34.09	47.67

DIFFERENTIAL CORRECTIONS

TDE -.5668 TRA-1.3258 TC3 .4990 BAU .3455
RDE .2502 RRA .8182 RC3-1.2151 FAU .20377
FDE 3.7944 FRA 5.7831 FC3-8.9661 BSP 4618
BDE .6196 BRA 1.5579 BC3 1.3136 FSP 1778

MID-COURSE EXECUTION ACCURACY

SGT 2131.7 SGR 1648.7 SG3 1092.3
RRT -.8725 RRF .9797 RTF -.8808
SGB 2694.8 R23 -.2624 R13 .9454
SG1 2613.5 SG2 657.1 THA 143.29

ORBIT DETERMINATION ACCURACY

ST 46.9 SR 24.3 SS 87.3
CRT -.9848 CRS -.9355 CST .9808
LSA 101.4 MSA 10.9 SSA 1.3
EL1 52.7 EL2 3.8 ALF 152.81

LAUNCH DATE JUL 3 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 478.446 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.975 GAL -4.07 AZL 88.10 HCA 154.58 SMA 201.80 ECC .25569 INC 1.9015 V1 29.290
RP 229.67 LAP .82 LOP 75.52 VP 22.317 GAP 12.55 AZP 91.72 TAL 339.79 TAP 134.37 RCA 150.20 APO 253.39 V2 23.947
RC 142.641 GL 14.28 GP -20.93 ZAL 122.17 ZAP 136.81 ETS 205.98 ZAE 157.36 ETE 270.75 ZAC 63.93 ETC 284.59 LVI 1.73

PLANETOCENTRIC CONIC

C3 19.588 VHL 4.426 DLA 29.69 RAL 36.96 RAD 6642.7 VEL 11.815 PTH 6.84 VHP 3.593 DPA -6.18 RAP 42.02 ECC 1.3224

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 56 25	3748.05	-47.34	151.79	282.96	84.54	13 58 53	2748.0	-43.92	117.31
60.00	12 52 45	3757.81	-39.10	151.07	281.36	79.32	13 55 23	2757.8	-39.22	119.91
70.00	12 45 24	3779.53	-30.65	150.40	278.94	74.13	13 48 24	2779.5	-34.15	122.23
80.00	12 9 27	3893.01	-19.82	154.75	274.75	67.21	13 14 20	2893.0	-27.48	129.95
80.56	11 47 10	3964.24	-17.40	158.92	273.63	65.56	12 53 14	2964.2	-25.97	134.83
100.00	14 52 19	3367.48	-19.82	116.11	274.75	67.21	15 48 26	2367.5	-27.48	91.32
110.00	17 44 50	2826.35	-30.65	79.31	278.94	74.13	18 31 57	1826.4	-34.15	51.15

DIFFERENTIAL CORRECTIONS

TDE -.5608 TRA-1.2846 TC3 .4764 BAU .3651
RDE .3111 RRA .8600 RC3-1.3102 FAU .20974
FDE 4.0275 FRA 5.8607 FC3-9.2697 BSP 4679
BDE .6413 BRA 1.5459 BC3 1.3941 FSP 1841

MID-COURSE EXECUTION ACCURACY

SGT 2090.4 SGR 1774.7 SG3 1129.1
RRT -.8720 RRF .9834 RTF -.8772
SGB 2742.1 R23 -.2533 R13 .9511
SG1 2655.5 SG2 683.9 THA 140.34

ORBIT DETERMINATION ACCURACY

ST 46.3 SR 27.9 SS 90.6
CRT -.9945 CRS -.9563 CST .9790
LSA 105.0 MSA 10.8 SSA 1.3
EL1 54.0 EL2 2.5 ALF 148.99

LAUNCH DATE JUL 3 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 482.190 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.956 GAL -4.04 AZL 87.95 HCA 155.60 SMA 201.40 ECC .25414 INC 2.0477 V1 29.290
RP 230.05 LAP .85 LOP 76.55 VP 22.244 GAP 12.28 AZP 91.87 TAL 339.84 TAP 135.44 RCA 150.22 APO 252.59 V2 23.907
RC 145.456 GL 15.41 GP -22.09 ZAL 121.93 ZAP 135.20 ETS 206.07 ZAE 156.16 ETE 267.91 ZAC 62.86 ETC 284.76 LVI 2.78

PLANETOCENTRIC CONIC

C3 19.540 VHL 4.420 DLA 30.75 RAL 36.48 RAD 6642.6 VEL 11.813 PTH 6.83 VHP 3.539 DPA -7.37 RAP 42.15 ECC 1.3216

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 48 24	3772.30	-47.15	154.11	283.37	82.77	13 51 16	2772.3	-44.48	119.37
60.00	12 41 40	3790.24	-38.65	153.71	281.36	77.58	13 44 50	2790.2	-39.57	122.59
70.00	12 27 13	3832.96	-29.59	154.20	278.40	72.11	13 31 6	2833.0	-34.08	126.40
77.40	11 21 37	4038.82	-18.00	164.77	273.39	64.64	12 28 56	3038.8	-26.88	140.67
77.40	11 21 37	4038.82	-18.00	164.77	273.39	64.64	12 28 56	3038.8	-26.88	140.67
77.40	11 21 37	4038.82	-18.00	164.77	273.39	64.64	12 28 56	3038.8	-26.88	140.67
110.00	17 26 39	2879.78	-29.59	83.11	278.40	72.11	18 14 39	1879.8	-34.08	55.32

DIFFERENTIAL CORRECTIONS

TDE -.5537 TRA-1.2416 TC3 .4490 BAU .3866
RDE .3790 RRA .9038 RC3-1.4101 FAU .21533
FDE 4.2724 FRA 5.9176 FC3-9.5404 BSP 4756
BDE .6710 BRA 1.5357 BC3 1.4799 FSP 1901

MID-COURSE EXECUTION ACCURACY

SGT 2044.2 SGR 1911.4 SG3 1163.8
RRT -.8701 RRF .9865 RTF -.8728
SGB 2798.6 R23 -.2413 R13 .9570
SG1 2706.7 SG2 711.5 THA 137.21

ORBIT DETERMINATION ACCURACY

ST 45.6 SR 32.0 SS 94.1
CRT -.9985 CRS -.9704 CST .9769
LSA 108.8 MSA 10.7 SSA 1.2
EL1 55.7 EL2 1.4 ALF 144.93

LAUNCH DATE JUL 3 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 485.940 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.937 GAL -4.02 AZL 87.79 HCA 156.62 SMA 201.03 ECC .25268 INC 2.2055 V1 29.290
RP 230.44 LAP .87 LOP 77.57 VP 22.174 GAP 12.02 AZP 92.02 TAL 339.88 TAP 136.51 RCA 150.23 APO 251.83 V2 23.867
RC 148.289 GL 16.63 GP -23.33 ZAL 121.68 ZAP 133.53 ETS 206.15 ZAE 154.83 ETE 265.22 ZAC 61.73 ETC 284.95 LVI 5.90

PLANETOCENTRIC CONIC

C3 19.534 VHL 4.420 DLA 31.88 RAL 35.96 RAD 6642.6 VEL 11.813 PTH 6.83 VHP 3.491 DPA -8.65 RAP 42.28 ECC 1.3215

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 39 32	3799.33	-46.89	156.67	283.82	80.81	13 42 51	2799.3	-45.05	121.73
60.00	12 29 8	3827.08	-38.07	156.67	281.33	75.65	13 32 55	2827.1	-39.89	125.67
70.00	12 4 27	3900.10	-28.09	158.85	277.63	69.73	13 9 27	2900.1	-33.78	131.62
74.64	11 0 11	4099.73	-18.62	169.68	273.18	63.65	12 8 31	3099.7	-27.85	145.58
74.64	11 0 11	4099.73	-18.62	169.68	273.18	63.65	12 8 31	3099.7	-27.85	145.58
74.64	11 0 11	4099.73	-18.62	169.68	273.18	63.65	12 8 31	3099.7	-27.85	145.58
110.00	17 3 53	2946.92	-28.09	87.77	277.63	69.73	17 53 0	1946.9	-33.78	60.53

DIFFERENTIAL CORRECTIONS

TDE -.5426 TRA-1.1938 TC3 .4214 BAU .4108
RDE .4544 RRA .9485 RC3-1.5154 FAU .22054
FDE 4.5250 FRA 5.9450 FC3-9.7743 BSP 4823
BDE .7077 BRA 1.5247 BC3 1.5729 FSP 1954

MID-COURSE EXECUTION ACCURACY

SGT 1988.7 SGR 2058.7 SG3 1195.4
RRT -.8677 RRF .9890 RTF -.8681
SGB 2862.4 R23 -.2256 R13 .9632
SG1 2766.2 SG2 735.8 THA 133.86

ORBIT DETERMINATION ACCURACY

ST 44.5 SR 36.7 SS 97.6
CRT -.9988 CRS -.9798 CST .9742
LSA 112.9 MSA 10.7 SSA 1.2
EL1 57.7 EL2 1.4 ALF 140.56

LAUNCH DATE JUL 3 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 489.696 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.920 GAL -3.99 AZL 87.62 HCA 157.64 SMA 200.68 ECC .25131 INC 2.3763 V1 29.290
RP 230.82 LAP .90 LOP 78.59 VP 22.105 GAP 11.76 AZP 92.20 TAL 339.92 TAP 137.56 RCA 150.25 APO 251.12 V2 23.827
RC 151.140 GL 17.93 GP -24.65 ZAL 121.41 ZAP 131.81 ETS 206.22 ZAE 153.36 ETE 262.70 ZAC 60.53 ETC 285.17 LVI 5.08

PLANETOCENTRIC CONIC

C3 19.573 VHL 4.424 DLA 33.09 RAL 35.41 RAD 6642.6 VEL 11.815 PTH 6.84 VHP 3.450 DPA -10.01 RAP 42.42 ECC 1.3221

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 41	3829.54	-46.52	159.49	284.30	78.66	13 33 30	2829.5	-45.63	124.41
60.00	12 14 46	3869.36	-37.31	160.00	281.24	73.50	13 19 16	2869.4	-40.15	129.24
70.00	11 32 39	3994.25	-25.71	165.13	276.33	66.70	12 39 13	2994.2	-32.94	138.83
72.05	10 41 1	4152.95	-19.26	174.10	273.02	62.55	11 50 14	3152.9	-28.87	149.99
72.05	10 41 1	4152.95	-19.26	174.10	273.02	62.55	11 50 14	3152.9	-28.87	149.99
72.05	10 41 1	4152.95	-19.26	174.10	273.02	62.55	11 50 14	3152.9	-28.87	149.99
110.00	16 32 5	3041.06	-25.71	94.05	276.33	66.70	17 22 46	2041.1	-32.94	67.75

DIFFERENTIAL CORRECTIONS

TDE -.5233 TRA-1.1379 TC3 .4015 BAU .4391
RDE .5366 RRA .9925 RC3-1.6291 FAU .22570
FDE 4.7726 FRA 5.9305 FC3-9.9831 BSP 4840
BDE .7495 BRA 1.5099 BC3 1.6779 FSP 1986

MID-COURSE EXECUTION ACCURACY

SGT 1918.2 SGR 2216.9 SG3 1222.7
RRT -.8658 RRF .9911 RTF -.8639
SGB 2931.6 R23 -.2054 R13 .9696
SG1 2833.8 SG2 750.9 THA 130.24

ORBIT DETERMINATION ACCURACY

ST 42.9 SR 41.7 SS 100.9
CRT -.9963 CRS -.9861 CST .9703
LSA 116.8 MSA 10.8 SSA 1.1
EL1 59.8 EL2 2.6 ALF 135.82

LAUNCH DATE JUL 3 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 493.455 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.904 GAL -3.97 AZL 87.44 HCA 158.65 SMA 200.36 ECC .25003 INC 2.5620 V1 29.290
RP 231.20 LAP .93 LOP 79.60 VP 22.038 GAP 11.50 AZP 92.39 TAL 339.95 TAP 138.61 RCA 150.26 APO 250.45 V2 23.787
RC 154.008 GL 19.32 GP -26.05 ZAL 121.11 ZAP 130.05 ETS 206.27 ZAE 151.77 ETE 260.35 ZAC 59.25 ETC 285.41 LVI 6.35

PLANETOCENTRIC CONIC

C3 19.667 VHL 4.435 DLA 34.40 RAL 34.82 RAD 6642.7 VEL 11.819 PTH 6.84 VHP 3.417 DPA -11.45 RAP 42.56 ECC 1.3237

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 18 38	3863.51	-46.02	162.62	284.80	76.30	13 23 1	2863.5	-46.19	127.49
60.00	11 57 59	3918.71	-36.29	163.79	281.02	71.11	13 3 17	2918.7	-40.29	133.43
69.55	10 23 19	4201.09	-19.92	178.21	272.89	61.36	11 33 21	3201.1	-29.95	154.12
69.55	10 23 19	4201.09	-19.92	178.21	272.89	61.36	11 33 21	3201.1	-29.95	154.12
69.55	10 23 19	4201.09	-19.92	178.21	272.89	61.36	11 33 21	3201.1	-29.95	154.12
69.55	10 23 19	4201.09	-19.92	178.21	272.89	61.36	11 33 21	3201.1	-29.95	154.12
69.55	10 23 19	4201.09	-19.92	178.21	272.89	61.36	11 33 21	3201.1	-29.95	154.12

DIFFERENTIAL CORRECTIONS

TDE -.5249 TRA-1.1032 TC3 .3271 BAU .4631
RDE .6368 RRA 1.0448 RC3-1.7307 FAU .22604
FDE 5.0709 FRA 5.9265 FC-10.0381 BSP 5143
BDE .8253 BRA 1.5194 BC3 1.7613 FSP 2059

MID-COURSE EXECUTION ACCURACY

SGT 1878.2 SGR 2389.5 SG3 1247.0
RRT -.8532 RRF .9928 RTF -.8605
SGB 3039.3 R23 -.1934 R13 .9738
SG1 2932.6 SG2 798.2 THA 127.05

ORBIT DETERMINATION ACCURACY

ST 42.7 SR 48.0 SS 105.2
CRT -.9927 CRS -.9907 CST .9684
LSA 122.7 MSA 10.8 SSA 1.0
EL1 64.1 EL2 3.8 ALF 131.64

LAUNCH DATE JUL 3 1973 FLIGHT TIME 204.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 497.219 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.888 GAL -3.95 AZL 87.24 HCA 159.66 SMA 200.05 ECC .24882 INC 2.7644 V1 29.290
RP 231.58 LAP .96 LOP 80.62 VP 21.972 GAP 11.24 AZP 92.59 TAL 339.98 TAP 139.65 RCA 150.27 APO 249.83 V2 23.748
RC 156.890 GL 20.82 GP -27.55 ZAL 120.78 ZAP 128.23 ETS 206.29 ZAE 150.05 ETE 258.15 ZAC 57.89 ETC 285.68 LVI 7.70

PLANETOCENTRIC CONIC

C3 19.820 VHL 4.452 DLA 35.81 RAL 34.18 RAD 6642.8 VEL 11.825 PTH 6.84 VHP 3.392 DPA -13.00 RAP 42.72 ECC 1.3262

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 6 5	3901.86	-45.35	166.07	285.26	73.72	13 11 7	2901.9	-46.72	131.04
60.00	11 37 44	3977.72	-34.89	168.18	280.58	68.41	12 44 1	2977.7	-40.24	138.45
67.06	10 6 34	4245.73	-20.59	182.14	272.81	60.04	11 17 20	3245.7	-31.09	158.08
67.06	10 6 34	4245.73	-20.59	182.14	272.81	60.04	11 17 20	3245.7	-31.09	158.08
67.06	10 6 34	4245.73	-20.59	182.14	272.81	60.04	11 17 20	3245.7	-31.09	158.08
67.06	10 6 34	4245.73	-20.59	182.14	272.81	60.04	11 17 20	3245.7	-31.09	158.08
67.06	10 6 34	4245.73	-20.59	182.14	272.81	60.04	11 17 20	3245.7	-31.09	158.08

DIFFERENTIAL CORRECTIONS

TDE -.5102 TRA-1.0525 TC3 .2766 BAU .4938
RDE .7451 RRA 1.0931 RC3-1.8428 FAU .23061
FDE 5.3468 FRA 5.8567 FC-10.0731 BSP 5313
BDE .9031 BRA 1.5174 BC3 1.8635 FSP 2093

MID-COURSE EXECUTION ACCURACY

SGT 1811.4 SGR 2573.1 SG3 1264.4
RRT -.8434 RRF .9942 RTF -.8393
SGB 3146.8 R23 -.1743 R13 .9788
SG1 3036.7 SG2 824.8 THA 123.49

ORBIT DETERMINATION ACCURACY

ST 41.3 SR 54.6 SS 108.9
CRT -.9874 CRS -.9937 CST .9643
LSA 128.1 MSA 11.0 SSA .9
EL1 68.3 EL2 5.2 ALF 127.00

LAUNCH DATE JUL 3 1973 FLIGHT TIME 206.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 500.988 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.774 GAL -3.93 AZL 87.01 HCA 160.67 SMA 199.76 ECC .24769 INC 2.9863 V1 29.290
RP 231.95 LAP .99 LOP 81.63 VP 21.908 GAP 10.99 AZP 92.82 TAL 340.00 TAP 140.68 RCA 150.28 APO 249.24 V2 23.708
RC 159.785 GL 22.44 GP -29.14 ZAL 120.42 ZAP 126.36 ETS 206.29 ZAE 148.20 ETE 256.11 ZAC 56.45 ETC 285.99 LVI 8.14

PLANETOCENTRIC CONIC

C3 20.043 VHL 4.477 DLA 37.32 RAL 33.49 RAD 6642.9 VEL 11.834 PTH 6.85 VHP 3.375 DPA -14.64 RAP 42.90 ECC 1.3299

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 39	3945.54	-44.44	169.89	285.64	70.89	12 57 24	2945.5	-47.17	135.17
60.00	11 12 2	4051.67	-32.91	173.45	279.72	7.30	12 19 34	3051.7	-39.85	144.70
64.56	9 50 27	4287.84	-21.28	185.97	272.78	58.59	11 1 55	3287.8	-32.29	161.97
64.56	9 50 27	4287.84	-21.28	185.97	272.78	58.59	11 1 55	3287.8	-32.29	161.97
64.56	9 50 27	4287.84	-21.28	185.97	272.78	58.59	11 1 55	3287.8	-32.29	161.97
64.56	9 50 27	4287.84	-21.28	185.97	272.78	58.59	11 1 55	3287.8	-32.29	161.97
64.56	9 50 27	4287.84	-21.28	185.97	272.78	58.59	11 1 55	3287.8	-32.29	161.97

DIFFERENTIAL CORRECTIONS

TDE -.4922 TRA -.9994 TC3 .2228 BAU .5275
RDE .8682 RRA 1.1405 RC3-1.9559 FAU .23213
FDE 5.6239 FRA 5.7409 FC-10.0268 BSP 5508
BDE .9980 BRA 1.5164 BC3 1.9686 FSP 2115

MID-COURSE EXECUTION ACCURACY

SGT 1738.8 SGR 2769.5 SG3 1275.0
RRT -.8309 RRF .9953 RTF -.8256
SGB 3270.1 R23 -.1546 R13 .9832
SG1 3158.2 SG2 848.4 THA 119.93

ORBIT DETERMINATION ACCURACY

ST 39.7 SR 62.1 SS 112.5
CRT -.9808 CRS -.9957 CST .9590
LSA 134.0 MSA 11.2 SSA .8
EL1 73.4 EL2 6.6 ALF 122.38

LAUNCH DATE JUL 3 1973 FLIGHT TIME 208.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 504.759 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.860 GAL -3.91 AZL 86.77 HCA 161.67 SMA 199.50 ECC .24664 INC 3.2308 V1 29.290
RP 232.33 LAP 1.02 LOP 82.63 VP 21.846 GAP 10.73 AZP 93.07 TAL 340.02 TAP 141.70 RCA 150.29 APO 248.70 V2 23.670
RC 162.693 GL 24.18 GP -30.83 ZAL 120.01 ZAP 124.44 ETS 206.25 ZAE 146.21 ETE 254.22 ZAC 54.92 ETC 286.35 LVI 10.67

PLANETOCENTRIC CONIC

C3 20.348 VHL 4.511 DLA 38.96 RAL 32.72 RAD 6643.0 VEL 11.847 PTH 6.86 VHP 3.369 DPA -16.39 RAP 43.09 ECC 1.3349

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 34 43	3995.90	-43.23	174.12	285.85	67.81	12 41 19	2995.9	-47.48	139.99
60.00	10 35 25	4155.31	-29.75	180.40	277.93	61.45	11 44 41	3155.3	-38.69	153.26
62.01	9 34 43	4328.10	-21.98	189.76	272.79	56.99	10 46 52	3328.1	-33.55	165.65
62.01	9 34 43	4328.10	-21.98	189.76	272.79	56.99	10 46 52	3328.1	-33.55	165.65
62.01	9 34 43	4328.10	-21.98	189.76	272.79	56.99	10 46 52	3328.1	-33.55	165.65
62.01	9 34 43	4328.10	-21.98	189.76	272.79	56.99	10 46 52	3328.1	-33.55	165.65
62.01	9 34 43	4328.10	-21.98	189.76	272.79	56.99	10 46 52	3328.1	-33.55	165.65

DIFFERENTIAL CORRECTIONS

TDE -.4690 TRA -.9436 TC3 .1657 BAU .5644
RDE 1.0071 RRA 1.1857 RC3-2.0682 FAU .23242
FDE 5.8910 FRA 5.5731 FC3-9.8886 BSP 5716
BDE 1.1110 BRA 1.5154 BC3 2.0749 FSP 2119

MID-COURSE EXECUTION ACCURACY

SGT 1659.2 SGR 2978.1 SG3 1277.0
RRT -.8148 RRF .9962 RTF -.8083
SGB 3409.1 R23 -.1350 R13 .9870
SG1 3296.5 SG2 869.0 THA 116.39

ORBIT DETERMINATION ACCURACY

ST 37.7 SR 70.3 SS 116.0
CRT -.9723 CRS -.9971 CST .9519
LSA 140.3 MSA 11.4 SSA .8
EL1 79.4 EL2 7.8 ALF 117.83

LAUNCH DATE JUL 3 1973 FLIGHT TIME 210.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 508.534 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.848 GAL -3.90 AZL 86.50 HCA 162.67 SMA 199.25 ECC .24565 INC 3.5017 V1 29.290
RP 232.70 LAP 1.04 LOP 83.63 VP 21.785 GAP 10.48 AZP 93.34 TAL 340.04 TAP 142.71 RCA 150.30 APO 248.19 V2 23.631
RC 165.610 GL 26.07 GP -32.63 ZAL 119.55 ZAP 122.47 ETS 206.17 ZAE 144.10 ETE 252.46 ZAC 53.31 ETC 286.75 LVI 12.30

PLANETOCENTRIC CONIC

C3 20.753 VHL 4.556 DLA 40.72 RAL 31.86 RAD 6643.2 VEL 11.864 PTH 6.88 VHP 3.374 DPA -18.25 RAP 43.32 ECC 1.3415

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 14 23	4055.05	-41.60	178.87	285.74	64.45	12 21 58	3055.0	-47.57	145.71
59.38	9 19 12	4367.05	-22.67	193.55	272.85	55.22	10 31 59	3367.0	-34.87	169.78
59.38	9 19 12	4367.05	-22.67	193.55	272.85	55.22	10 31 59	3367.0	-34.87	169.78
59.38	9 19 12	4367.05	-22.67	193.55	272.85	55.22	10 31 59	3367.0	-34.87	169.78
59.38	9 19 12	4367.05	-22.67	193.55	272.85	55.22	10 31 59	3367.0	-34.87	169.78
59.38	9 19 12	4367.05	-22.67	193.55	272.85	55.22	10 31 59	3367.0	-34.87	169.78
59.38	9 19 12	4367.05	-22.67	193.55	272.85	55.22	10 31 59	3367.0	-34.87	169.78

DIFFERENTIAL CORRECTIONS

TDE -.4393 TRA -.8835 TC3 .1105 BAU .6049
RDE 1.1663 RRA 1.2273 RC3-2.1775 FAU .23127
FDE 6.1489 FRA 5.3504 FC3-9.6480 BSP 5933
BDE 1.2463 BRA 1.5123 BC3 2.1803 FSP 2105

MID-COURSE EXECUTION ACCURACY

SGT 1570.1 SGR 3199.4 SG3 1269.6
RRT -.7956 RRF .9969 RTF -.7978
SGB 3563.9 R23 -.1156 R13 .9903
SG1 3453.2 SG2 881.3 THA 112.90

ORBIT DETERMINATION ACCURACY

ST 35.3 SR 79.5 SS 119.3
CRT -.9612 CRS -.9980 CST .9422
LSA 147.2 MSA 11.7 SSA .7
EL1 86.5 EL2 9.0 ALF 113.38

LAUNCH DATE JUL 3 1973 FLIGHT TIME 212.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 512.310 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.836 GAL -3.89 AZL 86.20 HCA 163.67 SMA 199.01 ECC .24473 INC 3.8037 V1 29.290
RP 233.07 LAP 1.07 LOP 84.63 VP 21.725 GAP 10.23 AZP 93.65 TAL 340.04 TAP 143.71 RCA 150.31 APO 247.72 V2 23.593
RC 168.537 GL 28.11 GP -34.54 ZAL 119.03 ZAP 120.45 ETS 206.04 ZAE 141.85 ETE 250.82 ZAC 51.59 ETC 287.21 LVI 14.03

PLANETOCENTRIC CONIC

C3 21.280 VHL 4.613 DLA 42.64 RAL 30.90 RAD 6643.4 VEL 11.886 PTH 6.90 VHP 3.392 DPA -20.22 RAP 43.58 ECC 1.3502

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 48 58	4126.72	-39.36	184.26	285.07	60.75	11 57 45	3126.7	-47.26	152.61
56.66	9 3 43	4405.16	-23.34	197.39	272.97	53.25	10 17 8	3405.2	-36.25	173.82
56.66	9 3 43	4405.16	-23.34	197.39	272.97	53.25	10 17 8	3405.2	-36.25	173.82
56.66	9 3 43	4405.16	-23.34	197.39	272.97	53.25	10 17 8	3405.2	-36.25	173.82
56.66	9 3 43	4405.16	-23.34	197.39	272.97	53.25	10 17 8	3405.2	-36.25	173.82
56.66	9 3 43	4405.16	-23.34	197.39	272.97	53.25	10 17 8	3405.2	-36.25	173.82
56.66	9 3 43	4405.16	-23.34	197.39	272.97	53.25	10 17 8	3405.2	-36.25	173.82

DIFFERENTIAL CORRECTIONS

TDE -.4135 TRA -.8314 TC3 .0338 BAU .6459
RDE 1.3549 RRA 1.2696 RC3-2.2701 FAU .22747
FDE 6.4116 FRA 5.0935 FC3-9.2544 BSP 6291
BDE 1.4166 BRA 1.5176 BC3 2.2704 FSP 2096

MID-COURSE EXECUTION ACCURACY

SGT 1495.0 SGR 3437.0 SG3 1252.8
RRT -.7665 RRF .9975 RTF -.7578
SGB 3748.0 R23 -.0994 R13 .9926
SG1 3636.5 SG2 907.5 THA 109.72

ORBIT DETERMINATION ACCURACY

ST 33.2 SR 90.1 SS 122.7
CRT -.9482 CRS -.9987 CST .9307
LSA 155.4 MSA 11.9 SSA .6
EL1 95.5 EL2 10.0 ALF 109.48

LAUNCH DATE JUL 3 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 516.089 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.825 GAL -3.87 AZL 85.86 HCA 164.66 SMA 198.80 ECC .24388 INC 4.1424 V1 29.290
RP 233.44 LAP 1.09 LOP 85.63 VP 21.667 GAP 9.98 AZP 94.00 TAL 340.04 TAP 144.71 RCA 150.31 APO 247.28 V2 23.554
RC 171.472 GL 30.32 GP -36.57 ZAL 118.43 ZAP 118.39 ETS 205.85 ZAE 139.49 ETE 249.28 ZAC 49.79 ETC 287.74 LVI 15.86

PLANETOCENTRIC CONIC

C3 21.958 VHL 4.686 DLA 44.71 RAL 29.81 RAD 6643.7 VEL 11.914 PTH 6.92 VHP 3.425 DPA -22.29 RAP 43.88 ECC 1.3614

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 14 47	4219.35	-36.07	190.68	283.30	56.58	11 25 6	3219.3	-46.20	161.30
53.81	8 48 2	4442.88	-23.97	201.32	273.13	51.06	10 2 5	3442.9	-37.66	178.04
53.81	8 48 2	4442.88	-23.97	201.32	273.13	51.06	10 2 5	3442.9	-37.66	178.04
53.81	8 48 2	4442.88	-23.97	201.32	273.13	51.06	10 2 5	3442.9	-37.66	178.04
53.81	8 48 2	4442.88	-23.97	201.32	273.13	51.06	10 2 5	3442.9	-37.66	178.04
53.81	8 48 2	4442.88	-23.97	201.32	273.13	51.06	10 2 5	3442.9	-37.66	178.04
53.81	8 48 2	4442.88	-23.97	201.32	273.13	51.06	10 2 5	3442.9	-37.66	178.04

DIFFERENTIAL CORRECTIONS

TDE -.3745 TRA -.7713 TC3 -.0324 BAU .6928
RDE 1.5678 RRA 1.2995 RC3-2.3596 FAU .22262
FDE 6.6284 FRA 4.7553 FC3-8.7771 BSP 6591
BDE 1.6119 BRA 1.5112 BC3 2.3599 FSP 2045

MID-COURSE EXECUTION ACCURACY

SGT 1404.1 SGR 3682.9 SG3 1222.7
RRT -.7305 RRF .9980 RTF -.7205
SGB 3941.4 R23 -.0835 R13 .9946
SG1 3832.2 SG2 921.5 THA 106.55

ORBIT DETERMINATION ACCURACY

ST 30.3 SR 101.6 SS 125.3
CRT -.9285 CRS -.9991 CST .9120
LSA 163.7 MSA 12.3 SSA .5
EL1 105.5 EL2 10.9 ALF 105.67

LAUNCH DATE JUL 3 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 519.869 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.814 GAL -3.86 AZL 85.47 HCA 165.65 SMA 198.59 ECC .24309 INC 4.5256 V1 29.290
RP 233.80 LAP 1.12 LOP 86.62 VP 21.610 GAP 9.73 AZP 94.39 TAL 340.04 TAP 145.69 RCA 150.32 APO 246.87 V2 23.517
RC 174.413 GL 32.73 GP -38.70 ZAL 117.75 ZAP 116.29 ETS 205.59 ZAE 137.00 ETE 247.82 ZAC 47.89 ETC 288.34 LVI 17.81

PLANETOCENTRIC CONIC

C3 22.830 VHL 4.778 DLA 46.95 RAL 28.55 RAD 6644.1 VEL 11.951 PTH 6.95 VHP 3.476 DPA -24.48 RAP 44.24 ECC 1.3757

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 16 41	4368.69	-30.06	199.86	278.54	51.21	10 29 30	3368.7	-43.09	174.30
50.82	8 32 1	4480.55	-24.54	205.37	273.32	48.62	9 46 42	3480.5	-39.09	182.50
50.82	8 32 1	4480.55	-24.54	205.37	273.32	48.62	9 46 42	3480.5	-39.09	182.50
50.82	8 32 1	4480.55	-24.54	205.37	273.32	48.62	9 46 42	3480.5	-39.09	182.50
50.82	8 32 1	4480.55	-24.54	205.37	273.32	48.62	9 46 42	3480.5	-39.09	182.50
50.82	8 32 1	4480.55	-24.54	205.37	273.32	48.62	9 46 42	3480.5	-39.09	182.50
50.82	8 32 1	4480.55	-24.54	205.37	273.32	48.62	9 46 42	3480.5	-39.09	182.50

DIFFERENTIAL CORRECTIONS

TDE -.3288 TRA -.7114 TC3 -.1007 BAU .7424
RDE 1.8184 RRA 1.3209 RC3-2.4304 FAU .21541
FDE 6.8184 FRA 4.3638 FC3-8.1687 BSP 6946
BDE 1.8478 BRA 1.5003 BC3 2.4325 FSP 1979

MID-COURSE EXECUTION ACCURACY

SGT 1314.1 SGR 3941.3 SG3 1180.1
RRT -.6828 RRF .9984 RTF -.6716
SGB 4154.6 R23 -.0694 R13 .9961
SG1 4048.0 SG2 934.7 THA 103.56

ORBIT DETERMINATION ACCURACY

ST 27.2 SR 114.5 SS 127.6
CRT -.8993 CRS -.9994 CST .8837
LSA 173.1 MSA 12.6 SSA .4
EL1 117.1 EL2 11.6 ALF 102.18

LAUNCH DATE JUL 3 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 523.650 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.805 GAL -3.86 AZL 85.04 HCA 166.64 SMA 198.41 ECC .24235 INC 4.9629 V1 29.290
RP 234.17 LAP 1.15 LOP 87.61 VP 21.555 GAP 9.48 AZP 94.83 TAL 340.03 TAP 146.67 RCA 150.32 APO 246.49 V2 23.479
RC 177.360 GL 35.35 GP -40.95 ZAL 116.97 ZAP 114.16 ETS 205.25 ZAE 134.40 ETE 246.44 ZAC 45.90 ETC 289.04 LVI 19.86

PLANETOCENTRIC CONIC

C3 23.950 VHL 4.894 DLA 49.39 RAL 27.08 RAD 6644.6 VEL 11.997 PTH 6.99 VHP 3.549 DPA -26.78 RAP 44.66 ECC 1.3942

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.66	8 15 25	4518.64	-25.01	209.57	273.51	45.91	9 30 43	3518.6	-40.51	187.29
47.66	8 15 25	4518.64	-25.01	209.57	273.51	45.91	9 30 43	3518.6	-40.51	187.29
47.66	8 15 25	4518.64	-25.01	209.57	273.51	45.91	9 30 43	3518.6	-40.51	187.29
47.66	8 15 25	4518.64	-25.01	209.57	273.51	45.91	9 30 43	3518.6	-40.51	187.29
47.66	8 15 25	4518.64	-25.01	209.57	273.51	45.91	9 30 43	3518.6	-40.51	187.29
47.66	8 15 25	4518.64	-25.01	209.57	273.51	45.91	9 30 43	3518.6	-40.51	187.29
47.66	8 15 25	4518.64	-25.01	209.57	273.51	45.91	9 30 43	3518.6	-40.51	187.29

DIFFERENTIAL CORRECTIONS

TDE -.2723 TRA -.6514 TC3 -.1679 BAU .7956
RDE 2.1124 RRA 1.3292 RC3-2.4792 FAU .20593
FDE 6.9606 FRA 3.9167 FC3-7.4438 BSP 7327
BDE 2.1299 BRA 1.4802 BC3 2.4849 FSP 1888

MID-COURSE EXECUTION ACCURACY

SGT 1225.2 SGR 4209.5 SG3 1123.6
RRT -.6185 RRF .9988 RTF -.6058
SGB 4384.2 R23 -.0570 R13 .9972
SG1 4280.7 SG2 946.7 THA 100.74

ORBIT DETERMINATION ACCURACY

ST 23.7 SR 126.8 SS 129.1
CRT -.8508 CRS -.9996 CST .8356
LSA 183.5 MSA 12.9 SSA .4
EL1 130.4 EL2 12.3 ALF 98.99

LAUNCH DATE JUL 3 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 527.431 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.796 GAL -3.85 AZL 84.53 HCA 167.62 SMA 198.23 ECC .24168 INC 5.4664 V1 29.290
RP 234.53 LAP 1.17 LOP 88.60 VP 21.500 GAP 9.23 AZP 95.34 TAL 340.02 TAP 147.64 RCA 150.32 APO 246.14 V2 23.442
RC 180.313 GL 38.21 GP -43.31 ZAL 116.08 ZAP 112.00 ETS 204.81 ZAE 131.69 ETE 245.10 ZAC 43.82 ETC 289.85 LVI 22.02

PLANETOCENTRIC CONIC

C3 25.401 VHL 5.040 DLA 52.03 RAL 25.32 RAD 6645.2 VEL 12.057 PTH 7.04 VHP 3.648 DPA -29.18 RAP 45.15 ECC 1.4180

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.32	7 57 53	4557.70	-25.32	213.95	273.67	42.90	9 13 50	3557.7	-41.87	192.48
44.32	7 57 53	4557.70	-25.32	213.95	273.67	42.90	9 13 50	3557.7	-41.87	192.48
44.32	7 57 53	4557.70	-25.32	213.95	273.67	42.90	9 13 50	3557.7	-41.87	192.48
44.32	7 57 53	4557.70	-25.32	213.95	273.67	42.90	9 13 50	3557.7	-41.87	192.48
44.32	7 57 53	4557.70	-25.32	213.95	273.67	42.90	9 13 50	3557.7	-41.87	192.48
44.32	7 57 53	4557.70	-25.32	213.95	273.67	42.90	9 13 50	3557.7	-41.87	192.48
44.32	7 57 53	4557.70	-25.32	213.95	273.67	42.90	9 13 50	3557.7	-41.87	192.48

DIFFERENTIAL CORRECTIONS

TDE -.2044 TRA -.5922 TC3 -.2334 BAU .6527
RDE 2.4626 RRA 1.3182 RC3-2.5002 FAU .19413
FDE 7.0462 FRA 3.4154 FC3-6.6166 BSP 7740
BDE 2.4710 BRA 1.4452 BC3 2.5110 FSP 1775

MID-COURSE EXECUTION ACCURACY

SGT 1143.0 SGR 4485.5 SG3 1052.8
RRT -.5310 RRF .9990 RTF -.5167
SGB 4628.9 R23 -.0462 R13 .9981
SG1 4528.4 SG2 959.4 THA 98.07

ORBIT DETERMINATION ACCURACY

ST 20.1 SR 144.7 SS 129.8
CRT -.7643 CRS -.9997 CST .7492
LSA 195.0 MSA 13.3 SSA .3
EL1 145.5 EL2 12.9 ALF 96.11

LAUNCH DATE JUL 3 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 531.213 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.787 GAL -3.84 AZL 83.95 HCA 168.59 SMA 198.07 ECC .24105 INC 6.0533 V1 29.290
RP 234.89 LAP 1.20 LOP 89.58 VP 21.447 GAP 8.99 AZP 95.93 TAL 340.00 TAP 148.60 RCA 150.32 APO 245.81 V2 23.405
RC 183.270 GL 41.32 GP -45.78 ZAL 115.05 ZAP 109.84 ETS 204.27 ZAE 128.90 ETE 243.78 ZAC 41.67 ETC 290.79 LVI 24.27

PLANETOCENTRIC CONIC

C3 27.298 VHL 5.225 DLA 54.88 RAL 23.20 RAD 6645.9 VEL 12.135 PTH 7.10 VHP 3.780 DPA -31.67 RAP 45.73 ECC 1.4493

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.79	7 39 1	4598.27	-25.41	218.54	273.69	39.56	8 55 40	3598.3	-43.09	198.16
40.79	7 39 1	4598.27	-25.41	218.54	273.69	39.56	8 55 40	3598.3	-43.09	198.16
40.79	7 39 1	4598.27	-25.41	218.54	273.69	39.56	8 55 40	3598.3	-43.09	198.16
40.79	7 39 1	4598.27	-25.41	218.54	273.69	39.56	8 55 40	3598.3	-43.09	198.16
40.79	7 39 1	4598.27	-25.41	218.54	273.69	39.56	8 55 40	3598.3	-43.09	198.16
40.79	7 39 1	4598.27	-25.41	218.54	273.69	39.56	8 55 40	3598.3	-43.09	198.16
40.79	7 39 1	4598.27	-25.41	218.54	273.69	39.56	8 55 40	3598.3	-43.09	198.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1188 TRA -.5338 TC3 -.2917 BAU .9139 SGT 1070.2 SGR 4767.5 SG3 967.7 ST 16.6 SR 162.3 SS 129.2
RDE 2.8827 RRA 1.2829 RC3-2.4872 FAU .18001 RRT -.4132 RRF .9992 RTF -.3972 CRT -.5893 CRS -.9998 CST .5740
FDE 7.0571 FRA 2.8723 FC3-5.7089 BSP 8178 SGB 4886.1 R23 -.0368 R13 .9987 LSA 207.7 MSA 13.6 SSA .2
BDE 2.8852 BRA 1.3895 BC3 2.5043 FSP 1638 SG1 4788.8 SG2 970.2 THA 95.53 EL1 162.6 EL2 13.4 ALF 93.47

LAUNCH DATE JUL 3 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 534.993 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.780 GAL -3.84 AZL 83.25 HCA 169.57 SMA 197.92 ECC .24048 INC 6.7458 V1 29.290
RP 235.24 LAP 1.22 LOP 90.57 VP 21.396 GAP 8.74 AZP 96.64 TAL 339.98 TAP 149.55 RCA 150.32 APO 245.52 V2 23.369
RC 186.232 GL 44.72 GP -48.33 ZAL 113.87 ZAP 107.67 ETS 203.60 ZAE 126.03 ETE 242.46 ZAC 39.47 ETC 291.88 LVI 26.61

PLANETOCENTRIC CONIC

C3 29.814 VHL 5.460 DLA 57.96 RAL 20.54 RAD 6646.9 VEL 12.237 PTH 7.19 VHP 3.953 DPA -34.25 RAP 46.41 ECC 1.4907

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.05	7 18 15	4641.08	-25.19	223.31	273.44	35.89	8 35 36	3641.1	-44.07	204.39
37.05	7 18 15	4641.08	-25.19	223.31	273.44	35.89	8 35 36	3641.1	-44.07	204.39
37.05	7 18 15	4641.08	-25.19	223.31	273.44	35.89	8 35 36	3641.1	-44.07	204.39
37.05	7 18 15	4641.08	-25.19	223.31	273.44	35.89	8 35 36	3641.1	-44.07	204.39
37.05	7 18 15	4641.08	-25.19	223.31	273.44	35.89	8 35 36	3641.1	-44.07	204.39
37.05	7 18 15	4641.08	-25.19	223.31	273.44	35.89	8 35 36	3641.1	-44.07	204.39
37.05	7 18 15	4641.08	-25.19	223.31	273.44	35.89	8 35 36	3641.1	-44.07	204.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0119 TRA -.4780 TC3 -.3407 BAU .9834 SGT 1016.2 SGR 5046.5 SG3 868.3 ST 14.2 SR 181.4 SS 127.0
RDE 3.3875 RRA 1.2083 RC3-2.4435 FAU .16430 RRT -.2557 RRF .9994 RTF -.2379 CRT -.2396 CRS -.9999 CST .2247
FDE 6.9636 FRA 2.2871 FC3-4.7708 BSP 8559 SGB 5147.8 R23 -.0286 R13 .9992 LSA 221.4 MSA 13.9 SSA .2
BDE 3.3876 BRA 1.2995 BC3 2.4671 FSP 1465 SG1 5053.5 SG2 981.0 THA 93.06 EL1 181.4 EL2 13.8 ALF 91.08

LAUNCH DATE JUL 3 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 538.772 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.772 GAL -3.84 AZL 82.42 HCA 170.53 SMA 197.78 ECC .23996 INC 7.5764 V1 29.290
RP 235.59 LAP 1.24 LOP 91.54 VP 21.345 GAP 8.50 AZP 97.47 TAL 339.96 TAP 150.49 RCA 150.32 APO 245.24 V2 23.332
RC 189.197 GL 48.42 GP -50.95 ZAL 112.52 ZAP 105.53 ETS 202.78 ZAE 123.11 ETE 241.11 ZAC 37.23 ETC 293.15 LVI 29.02

PLANETOCENTRIC CONIC

C3 33.217 VHL 5.763 DLA 61.26 RAL 17.14 RAD 6648.2 VEL 12.375 PTH 7.29 VHP 4.180 DPA -36.88 RAP 47.18 ECC 1.5467

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.09	6 54 36	4687.00	-24.55	228.25	272.64	31.91	8 12 43	3687.0	-44.66	211.20
33.09	6 54 36	4687.00	-24.55	228.25	272.64	31.91	8 12 43	3687.0	-44.66	211.20
33.09	6 54 36	4687.00	-24.55	228.25	272.64	31.91	8 12 43	3687.0	-44.66	211.20
33.09	6 54 36	4687.00	-24.55	228.25	272.64	31.91	8 12 43	3687.0	-44.66	211.20
33.09	6 54 36	4687.00	-24.55	228.25	272.64	31.91	8 12 43	3687.0	-44.66	211.20
33.09	6 54 36	4687.00	-24.55	228.25	272.64	31.91	8 12 43	3687.0	-44.66	211.20
33.09	6 54 36	4687.00	-24.55	228.25	272.64	31.91	8 12 43	3687.0	-44.66	211.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1230 TRA -.4268 TC3 -.3802 BAU 1.0561 SGT 992.8 SGR 5327.5 SG3 757.6 ST 14.6 SR 202.6 SS 123.0
RDE 4.0172 RRA 1.0934 RC3-2.3476 FAU .14598 RRT -.0606 RRF .9995 RTF -.2411 CRT .2622 CRS -.9999 CST -.2743
FDE 6.7687 FRA 1.7009 FC3-3.8048 BSP 9021 SGB 5419.2 R23 -.0216 R13 .9995 LSA 237.0 MSA 14.1 SSA .1
BDE 4.0191 BRA 1.1737 BC3 2.3782 FSP 1285 SG1 5327.9 SG2 990.9 THA 90.67 EL1 202.6 EL2 14.1 ALF 88.91

LAUNCH DATE JUL 3 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 542.548 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.766 GAL -3.84 AZL 81.41 HCA 171.50 SMA 197.66 ECC .23948 INC 8.5905 V1 29.290
RP 235.94 LAP 1.27 LOP 92.52 VP 21.296 GAP 8.25 AZP 98.50 TAL 339.94 TAP 151.43 RCA 150.32 APO 244.99 V2 23.297
RC 192.165 GL 52.46 GP -53.62 ZAL 110.99 ZAP 103.42 ETS 201.80 ZAE 120.16 ETE 239.70 ZAC 34.99 ETC 294.60 LVI 31.47

PLANETOCENTRIC CONIC

C3 37.930 VHL 6.159 DLA 64.77 RAL 12.60 RAD 6649.9 VEL 12.562 PTH 7.43 VHP 4.477 DPA -39.55 RAP 48.07 ECC 1.6242

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.95	6 26 38	4737.02	-23.37	233.27	270.86	27.67	7 45 35	3737.0	-44.67	218.51
28.95	6 26 38	4737.02	-23.37	233.27	270.86	27.67	7 45 35	3737.0	-44.67	218.51
28.95	6 26 38	4737.02	-23.37	233.27	270.86	27.67	7 45 35	3737.0	-44.67	218.51
28.95	6 26 38	4737.02	-23.37	233.27	270.86	27.67	7 45 35	3737.0	-44.67	218.51
28.95	6 26 38	4737.02	-23.37	233.27	270.86	27.67	7 45 35	3737.0	-44.67	218.51
28.95	6 26 38	4737.02	-23.37	233.27	270.86	27.67	7 45 35	3737.0	-44.67	218.51
28.95	6 26 38	4737.02	-23.37	233.27	270.86	27.67	7 45 35	3737.0	-44.67	218.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .2941 TRA -.3838 TC3 -.4073 BAU 1.1377 SGT 1014.0 SGR 5600.1 SG3 637.1 ST 18.6 SR 225.5 SS 116.6
RDE 4.8044 RRA .9161 RC3-2.2063 FAU .12609 RRT .1606 RRF .9996 RTF .1817 CRT .6402 CRS -.9999 CST -.6485
FDE 6.4291 FRA 1.1248 FC3-2.8779 BSP 9485 SGB 5691.1 R23 -.0162 R13 .9997 LSA 254.1 MSA 14.3 SSA .1
BDE 4.8134 BRA .9933 BC3 2.2436 FSP 1088 SG1 5602.5 SG2 1000.4 THA 88.28 EL1 225.8 EL2 14.3 ALF 86.97

LAUNCH DATE JUL 3 1973 FLIGHT TIME 270.00 ARRIVAL DATE MAR 30 1974

HELIOCENTRIC CONIC DISTANCE 622.518 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.724 GAL -4.30 AZL 98.24 HCA 191.59 SMA 196.86 ECC .23877 INC 8.2371 V1 29.290
RP 242.46 LAP 1.65 LOP 112.40 VP 20.507 GAP 3.41 AZP 81.93 TAL 337.41 TAP 168.99 RCA 149.85 APO 243.86 V2 22.638
RC 253.394 GL -50.25 GP 48.25 ZAL 113.93 ZAP 84.53 ETS 188.38 ZAE 107.99 ETE 162.08 ZAC 135.93 ETC 290.59 LVI -70.34

PLANETOCENTRIC CONIC

C3 36.976 VHL 6.081 DLA -30.64 RAL 61.66 RAD 6649.6 VEL 12.525 PTH 7.40 VHP 3.455 DPA 47.01 RAP 346.75 ECC 1.6085

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 50 58	2644.65	-14.55	72.72	288.16	135.82	19 35 3	1644.6	3.77	56.80
60.00	20 16 33	2416.95	-7.45	58.90	294.84	129.72	20 56 50	1417.0	8.65	40.95
70.00	22 14 42	2069.27	.93	37.02	301.13	124.14	22 49 12	1069.3	14.59	17.09
77.68	1 5 52	1546.67	13.11	4.64	308.49	117.95	1 31 39	545.7	23.48	341.88
77.68	1 5 52	1546.67	13.11	4.64	308.49	117.95	1 31 39	546.7	23.48	341.88
77.68	1 5 52	1546.67	13.11	4.64	308.49	117.95	1 31 39	546.7	23.48	341.88
110.00	3 18 5	1116.09	.93	325.94	301.13	124.14	3 36 41	116.1	14.59	306.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.4250 TRA 3.4165 TC3-2.2039 BAU 1.5282 SGT 4794.4 SGR 5575.5 SG3 1110.4 ST 87.6 SR 78.7 SS 51.3
RDE .6057 RRA-4.4554 RC3 2.1679 FAU .23193 RRT -.9760 RRF -.9986 RTF .9752 CRT -.8765 CRS .9962 CST -.8316
FDE-1.0244 FRA10.0291 FC3-5.4302 BSP 12399 SGB 7353.4 R23 .0900 R13 -.9945 LSA 124.0 MSA 33.6 SSA .3
BDE 1.5484 BRA 5.6145 BC3 3.0914 FSP 1987 SG1 7310.2 SG2 796.1 THA 130.59 EL1 114.1 EL2 29.1 ALF 138.51

LAUNCH DATE JUL 3 1973 FLIGHT TIME 272.00 ARRIVAL DATE APR 1 1974

HELIOCENTRIC CONIC DISTANCE 626.289 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.726 GAL -4.33 AZL 97.70 HCA 192.50 SMA 196.88 ECC .23902 INC 7.7013 V1 29.290
RP 242.73 LAP 1.66 LOP 113.32 VP 20.480 GAP 3.18 AZP 82.48 TAL 337.26 TAP 169.76 RCA 149.82 APO 243.94 V2 22.612
RC 256.191 GL -48.04 GP 46.28 ZAL 114.99 ZAP 83.30 ETS 189.18 ZAE 107.50 ETE 163.95 ZAC 134.18 ETC 289.93 LVI -68.59

PLANETOCENTRIC CONIC

C3 34.585 VHL 5.881 DLA -28.56 RAL 60.78 RAD 6648.7 VEL 12.429 PTH 7.33 VHP 3.305 DPA 45.20 RAP 347.98 ECC 1.5692

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 35 42	2676.19	-16.08	74.14	285.89	135.41	19 20 19	1676.2	2.18	58.12
60.00	19 55 34	2463.74	-9.48	61.18	292.06	129.36	20 36 38	1463.7	6.61	43.23
70.00	21 41 23	2152.56	-2.25	41.37	297.47	124.09	22 17 15	1152.6	11.60	21.69
80.00	0 5 58	1712.08	5.65	12.83	302.35	119.37	0 34 30	712.1	17.19	351.41
85.81	2 6 0	1325.63	12.79	348.12	306.12	115.76	2 28 6	325.6	22.31	325.08
100.00	2 48 50	1186.55	5.65	334.20	302.35	119.37	3 8 36	186.5	17.19	312.78
110.00	2 44 45	1199.37	-2.25	330.28	297.47	124.09	3 4 44	199.4	11.60	310.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3681 TRA 3.4820 TC3-2.4252 BAU 1.5203 SGT 4983.2 SGR 5381.9 SG3 1228.4 ST 88.4 SR 75.5 SS 53.8
RDE .5700 RRA-4.2125 RC3 2.2204 FAU .25378 RRT -.9784 RRF -.9985 RTF .9772 CRT -.8882 CRS .9950 CST -.8380
FDE-1.0560 FRA10.8651 FC3-6.3527 BSP 12216 SGB 7334.6 R23 .0942 R13 -.9941 LSA 123.9 MSA 32.6 SSA .3
BDE 1.4821 BRA 5.4653 BC3 3.2881 FSP 2163 SG1 7295.0 SG2 760.6 THA 132.75 EL1 113.0 EL2 27.1 ALF 140.06

LAUNCH DATE JUL 3 1973 FLIGHT TIME 274.00 ARRIVAL DATE APR 3 1974

HELIOCENTRIC CONIC DISTANCE 630.055 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.727 GAL -4.36 AZL 97.24 HCA 193.42 SMA 196.91 ECC .23930 INC 7.2385 V1 29.290
RP 242.99 LAP 1.68 LOP 114.24 VP 20.454 GAP 2.95 AZP 82.96 TAL 337.10 TAP 170.52 RCA 149.79 APO 244.03 V2 22.586
RC 258.972 GL -46.00 GP 44.40 ZAL 115.97 ZAP 82.05 ETS 189.91 ZAE 106.89 ETE 165.73 ZAC 132.49 ETC 289.35 LVI -66.88

PLANETOCENTRIC CONIC

C3 32.672 VHL 5.716 DLA -26.63 RAL 60.04 RAD 6648.0 VEL 12.353 PTH 7.28 VHP 3.183 DPA 43.44 RAP 349.07 ECC 1.5377

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 22 33	2705.64	-17.50	75.50	284.07	134.98	19 7 38	1705.6	.70	59.35
60.00	19 37 55	2505.18	-11.26	63.23	289.86	128.96	20 19 40	1505.2	4.80	45.23
70.00	21 15 40	2217.75	-4.74	44.78	294.71	123.86	21 52 37	1217.8	9.20	25.21
80.00	23 16 39	1839.04	1.38	19.83	298.51	119.83	23 47 18	839.0	13.41	358.94
90.00	1 13 28	1474.99	4.56	354.81	300.26	117.94	1 38 3	475.0	15.63	333.25
100.00	2 3 27	1313.51	1.38	341.20	298.51	119.83	2 25 20	313.5	13.41	320.31
110.00	2 19 2	1264.57	-4.74	333.70	294.71	123.86	2 40 7	264.6	9.20	314.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3073 TRA 3.5654 TC3-2.6368 BAU 1.5058 SGT 5175.7 SGR 5190.6 SG3 1338.3 ST 88.9 SR 72.2 SS 55.8
RDE .5074 RRA-4.0119 RC3 2.2207 FAU .27058 RRT -.9792 RRF -.9984 RTF .9779 CRT -.8922 CRS .9933 CST -.8344
FDE -.9805 FRA11.6883 FC3-7.1698 BSP 12371 SGB 7330.1 R23 .1002 R13 -.9933 LSA 123.2 MSA 32.6 SSA .4
BDE 1.4023 BRA 5.3672 BC3 3.4474 FSP 2401 SG1 7291.8 SG2 748.2 THA 134.92 EL1 111.6 EL2 26.0 ALF 141.62

LAUNCH DATE JUL 3 1973 FLIGHT TIME 276.00 ARRIVAL DATE APR 5 1974

HELIOCENTRIC CONIC DISTANCE 633.880 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.729 GAL -4.39 AZL 96.83 HCA 194.33 SMA 196.94 ECC .23957 INC 6.8344 V1 29.290
RP 243.24 LAP 1.69 LOP 115.16 VP 20.429 GAP 2.72 AZP 83.38 TAL 336.97 TAP 171.30 RCA 149.76 APO 244.13 V2 22.560
RC 261.736 GL -44.13 GP 42.59 ZAL 116.85 ZAP 80.70 ETS 190.63 ZAE 106.10 ETE 167.46 ZAC 130.89 ETC 288.85 LVI -65.24

PLANETOCENTRIC CONIC

C3 31.105 VHL 5.577 DLA -24.85 RAL 59.39 RAD 6647.4 VEL 12.289 PTH 7.23 VHP 3.082 DPA 41.69 RAP 349.95 ECC 1.5119

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 11 3	2732.65	-18.80	76.76	282.56	134.55	18 56 36	1732.7	-.65	60.48
60.00	19 22 48	2541.86	-12.82	65.07	288.06	128.54	20 5 10	1541.9	3.19	46.99
70.00	20 54 45	2271.53	-6.77	47.62	292.53	123.56	21 32 36	1271.5	7.19	28.08
80.00	22 45 51	1923.77	-1.49	24.48	295.79	119.82	23 17 55	923.8	10.75	3.82
90.00	0 33 41	1568.68	.91	1.17	297.12	118.27	1 0 10	568.7	12.39	340.02
100.00	1 32 39	1398.25	-1.49	345.85	295.79	119.82	1 55 57	398.2	10.75	325.19
110.00	1 58 7	1318.34	-6.77	336.53	292.53	123.56	2 20 5	318.3	7.19	317.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3310 TRA 3.5281 TC3-2.9334 BAU 1.6369 SGT 5341.5 SGR 5003.7 SG3 1444.7 ST 91.0 SR 71.9 SS 58.3
RDE .7772 RRA-3.5085 RC3 2.6322 FAU .33684 RRT -.9940 RRF -.9983 RTF .9907 CRT -.9662 CRS .9944 CST -.9338
FDE-1.9836 FRA11.3819 FC3-9.3753 BSP 8986 SGB 7319.0 R23 .0728 R13 -.9957 LSA 126.3 MSA 20.1 SSA .3
BDE 1.5413 BRA 4.9756 BC3 3.9412 FSP 1461 SG1 7308.0 SG2 401.5 THA 136.88 EL1 115.1 EL2 14.7 ALF 141.94

LAUNCH DATE JUL 3 1973 FLIGHT TIME 270.00 ARRIVAL DATE APR 7 1974

HELIOCENTRIC CONIC DISTANCE 637.589 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.731 GAL -4.43 AZL 96.48 HCA 196.24 SNA 196.98 ECC .23993 INC 6.4784 V1 29.298
RP 243.90 LAP 1.70 LOP 116.07 VP 20.404 GAP 2.50 AZP 83.75 TAL 336.77 TAP 172.01 RCA 149.72 APO 244.24 V2 22.535
RC 264.483 GL -42.37 GP 40.87 ZAL 117.74 ZAP 79.46 ETS 191.18 ZAE 105.38 ETE 168.97 ZAC 129.84 ETC 298.40 LVI -63.64

PLANETOCENTRIC CONIC

C3 29.850 VHL 5.463 DLA -23.15 RAL 58.89 RAD 6646.9 VEL 12.239 PTH 7.19 VHP 2.997 DPA 40.10 RAP 350.88 ECC 1.4913

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 0 56	2799.37	-20.07	78.03	281.40	134.09	18 46 56	1759.4	-1.99	61.60
60.00	19 9 32	2876.91	-14.30	66.85	286.66	128.09	19 52 29	1836.9	1.65	48.67
70.00	20 36 52	2320.21	-8.59	50.21	290.84	123.18	21 15 32	1320.2	5.38	30.66
80.00	22 21 22	1993.13	-3.84	28.29	293.76	119.63	22 54 35	993.1	8.50	7.74
90.00	0 4 38	1672.73	-1.00	5.86	294.88	118.23	0 32 31	672.7	9.87	344.80
100.00	1 8 10	1467.61	-3.84	349.68	293.76	119.63	1 32 38	467.6	8.50	329.11
110.00	1 40 14	1367.03	-8.59	339.12	290.84	123.18	2 3 1	367.0	5.38	319.87

DIFFERENTIAL CORRECTIONS

TDE-1.2011 TRA 3.7372 TC3-3.0884 BAU 1.5025
RDE .4142 RRA-3.6307 RC3 2.1988 FAU .30176
FDE -.8093 FRA13.0374 FC3-8.7519 BSP 12444
BDE 1.2705 BRA 5.2109 BC3 3.7652 FSP 2766

MID-COURSE EXECUTION ACCURACY

SGT 5959.7 SGR 4607.3 SG3 1529.3
RRT -.9811 RRF -.9981 RTF .9795
SGB 7349.8 R23 .1095 R13 -.9920
SG1 7315.8 SG2 706.1 THA 139.23

ORBIT DETERMINATION ACCURACY

ST 89.9 SR 65.9 SS 58.9
CRT -.9044 CRS .9890 CST -.8316
LSA 121.9 NSA 32.2 SSA .4
EL1 109.0 EL2 23.2 ALF 144.61

LAUNCH DATE JUL 3 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 9 1974

HELIOCENTRIC CONIC DISTANCE 641.354 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.733 GAL -4.47 AZL 96.18 HCA 196.15 SNA 197.02 ECC .24027 INC 6.1624 V1 29.290
RP 243.74 LAP 1.71 LOP 116.99 VP 20.381 GAP 2.28 AZP 84.08 TAL 336.60 TAP 172.75 RCA 149.68 APO 244.36 V2 22.511
RC 267.212 GL -40.75 GP 39.23 ZAL 118.55 ZAP 78.16 ETS 191.72 ZAE 104.45 ETE 170.43 ZAC 127.86 ETC 298.00 LVI -62.11

PLANETOCENTRIC CONIC

C3 28.800 VHL 5.367 DLA -21.59 RAL 58.45 RAD 6646.5 VEL 12.196 PTH 7.15 VHP 2.928 DPA 38.53 RAP 351.61 ECC 1.4760

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 51 57	2784.09	-21.24	79.22	280.45	133.63	18 36 21	1784.1	-3.24	62.63
60.00	18 57 54	2808.70	-15.63	68.49	285.52	127.63	19 41 23	1808.7	.25	50.19
70.00	20 21 31	2362.89	-10.17	52.50	289.46	122.78	21 0 54	1362.9	3.73	32.89
80.00	22 1 18	2050.63	-5.76	31.47	292.14	119.35	22 35 28	1050.6	6.61	10.96
90.00	23 37 47	1739.42	-3.94	9.59	293.14	118.03	24 6 46	739.4	7.81	348.72
100.00	0 48 5	1525.10	-5.76	352.84	292.14	119.35	1 13 30	525.1	6.61	332.33
110.00	1 24 53	1409.71	-10.17	341.42	289.46	122.78	1 48 23	409.7	3.73	321.81

DIFFERENTIAL CORRECTIONS

TDE-1.1479 TRA 3.8326 TC3-3.2555 BAU 1.5041
RDE .3671 RRA-3.4642 RC3 2.1589 FAU .31346
FDE -.8662 FRA13.8187 FC3-9.4225 BSP 12593
BDE 1.2051 BRA 5.1662 BC3 3.9063 FSP 2955

MID-COURSE EXECUTION ACCURACY

SGT 5751.1 SGR 4619.8 SG3 1610.1
RRT -.9816 RRF -.9978 RTF .9799
SGB 7376.9 R23 .1144 R13 -.9913
SG1 7344.4 SG2 691.3 THA 141.34

ORBIT DETERMINATION ACCURACY

ST 90.2 SR 62.9 SS 60.1
CRT -.9089 CRS .9861 CST -.8272
LSA 121.1 NSA 32.3 SSA .5
EL1 107.8 EL2 22.0 ALF 146.04

LAUNCH DATE JUL 3 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 11 1974

HELIOCENTRIC CONIC DISTANCE 645.121 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.735 GAL -4.51 AZL 95.88 HCA 197.06 SNA 197.06 ECC .24063 INC 5.8797 V1 29.290
RP 243.98 LAP 1.72 LOP 117.90 VP 20.358 GAP 2.06 AZP 84.38 TAL 336.43 TAP 173.48 RCA 149.64 APO 244.48 V2 22.487
RC 269.924 GL -39.24 GP 37.68 ZAL 119.30 ZAP 76.85 ETS 192.21 ZAE 103.47 ETE 171.80 ZAC 126.46 ETC 297.65 LVI -60.84

PLANETOCENTRIC CONIC

C3 27.927 VHL 5.285 DLA -20.12 RAL 58.07 RAD 6646.2 VEL 12.160 PTH 7.13 VHP 2.870 DPA 37.02 RAP 352.28 ECC 1.4596

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 43 55	2807.96	-22.33	80.37	279.68	133.17	18 30 43	1807.6	-4.41	63.62
60.00	18 47 33	2638.32	-16.85	70.03	284.59	127.17	19 31 32	1638.3	-1.05	51.60
70.00	20 8 5	2401.62	-11.59	54.80	288.35	122.35	20 48 6	1401.6	2.26	34.92
80.00	21 44 10	2100.86	-7.43	34.27	290.86	119.00	22 19 11	1100.9	4.93	13.74
90.00	23 18 37	1796.22	-5.75	12.78	291.77	117.74	23 48 33	796.2	6.02	351.94
100.00	0 30 58	1575.33	-7.43	355.64	290.86	119.00	0 57 13	575.3	4.93	335.11
110.00	1 11 27	1448.44	-11.59	343.52	288.35	122.35	1 35 35	448.4	2.26	323.84

DIFFERENTIAL CORRECTIONS

TDE-1.1045 TRA 3.9200 TC3-3.4586 BAU 1.5180
RDE .3448 RRA-3.2890 RC3 2.1374 FAU .32737
FDE -.9936 FRA14.0494 FC-10.1484 BSP 12510
BDE 1.1971 BRA 5.1170 BC3 4.0658 FSP 3035

MID-COURSE EXECUTION ACCURACY

SGT 5940.0 SGR 4434.6 SG3 1680.9
RRT -.9831 RRF -.9976 RTF .9812
SGB 7412.7 R23 .1151 R13 -.9909
SG1 7383.8 SG2 654.0 THA 143.39

ORBIT DETERMINATION ACCURACY

ST 90.7 SR 60.0 SS 61.0
CRT -.9191 CRS .9829 CST -.8312
LSA 120.8 NSA 31.6 SSA .5
EL1 106.9 EL2 20.1 ALF 147.38

LAUNCH DATE JUL 3 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 13 1974

HELIOCENTRIC CONIC DISTANCE 648.885 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.737 GAL -4.55 AZL 95.63 HCA 197.96 SNA 197.11 ECC .24101 INC 5.6253 V1 29.290
RP 244.22 LAP 1.73 LOP 118.81 VP 20.336 GAP 1.83 AZP 84.65 TAL 336.25 TAP 174.21 RCA 149.60 APO 244.61 V2 22.464
RC 272.018 GL -37.84 GP 36.20 ZAL 120.02 ZAP 75.54 ETS 192.64 ZAE 102.48 ETE 173.06 ZAC 125.12 ETC 297.54 LVI -59.24

PLANETOCENTRIC CONIC

C3 27.198 VHL 5.216 DLA -18.74 RAL 57.76 RAD 6645.9 VEL 12.131 PTH 7.10 VHP 2.822 DPA 35.59 RAP 352.68 ECC 1.4476

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 36 42	2829.95	-23.37	81.49	279.08	132.70	18 23 52	1830.0	-5.53	64.56
60.00	18 38 17	2866.16	-17.99	71.50	283.85	126.69	19 22 43	1866.2	-2.28	52.93
70.00	19 56 9	2437.26	-12.88	56.55	287.47	121.91	20 36 46	1437.3	.90	36.78
80.00	21 29 16	2145.85	-8.91	36.79	289.83	118.62	22 5 1	1145.8	3.42	16.23
90.00	23 2 8	1846.28	-7.33	15.61	290.68	117.39	23 32 54	846.3	4.43	354.76
100.00	0 16 3	1620.32	-8.91	358.16	289.83	118.62	0 43 4	620.3	3.42	337.89
110.00	0 59 31	1484.08	-12.88	345.47	287.47	121.91	1 24 15	484.1	.90	325.70

DIFFERENTIAL CORRECTIONS

TDE-1.0873 TRA 4.0172 TC3-3.6492 BAU 1.5290
RDE .3141 RRA-3.1388 RC3 2.0896 FAU .33719
FDE -.4630 FRA14.4933 FC-10.7332 BSP 12610
BDE 1.1029 BRA 5.0967 BC3 4.2081 FSP 3138

MID-COURSE EXECUTION ACCURACY

SGT 6128.4 SGR 4258.6 SG3 1742.8
RRT -.9837 RRF -.9972 RTF .9818
SGB 7461.1 R23 .1171 R13 -.9903
SG1 7434.4 SG2 630.8 THA 145.38

ORBIT DETERMINATION ACCURACY

ST 91.1 SR 57.3 SS 61.8
CRT -.9263 CRS .9790 CST -.8303
LSA 120.0 NSA 31.4 SSA .5
EL1 106.0 EL2 18.8 ALF 148.68

LAUNCH DATE JUL 3 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 15 1974

DISTANCE 662.647

EARTH TO MARS

HELIOCENTRIC CONIC
RL 152.11 LAL .00 LOL 280.93 VL 32.740 GAL -4.59 AZL 95.40 HCA 198.87 SNA 197.16 ECC .24141 INC 5.3951 V1 29.299
RP 244.45 LAP 1.74 LOP 119.72 VP 20.315 GAP 1.61 AZP 84.89 TAL 336.06 TAP 174.83 RCA 149.96 APO 244.75 V2 22.441
RC 275.292 GL -36.52 GP 34.79 ZAL 120.70 ZAP 74.25 ETS 193.03 ZAE 101.37 ETE 174.22 ZAC 123.84 ETC 297.06 LVI -57.99

PLANETOCENTRIC CONIC
C3 26.587 VHL 5.156 DLA -17.44 RAL 87.80 RAD 6648.6 VEL 12.106 PTH 7.06 VHP 2.703 DPA 34.22 RAP 353.43 ECC 1.4578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 30 10	2851.34	-24.36	82.57	278.62	132.22	18 17 41	1891.3	-6.60	68.46
60.00	18 29 55	2682.43	-19.05	72.91	283.27	126.21	19 14 48	1692.4	-3.43	54.19
70.00	19 45 28	2470.33	-14.07	58.38	286.76	121.48	20 26 39	1470.3	-.37	38.80
80.00	21 16 5	2186.74	-10.23	39.10	289.01	118.20	21 52 31	1186.7	2.04	18.48
90.00	22 47 41	1891.25	-8.73	18.17	289.81	117.01	23 19 12	891.2	2.99	357.28
100.00	0 2 53	1661.21	-10.23	.47	289.01	118.20	0 30 34	661.2	2.04	339.84
110.00	0 48 51	1517.15	-14.07	347.30	286.76	121.48	1 14 8	517.1	-.37	327.42

DIFFERENTIAL CORRECTIONS
TDE-1.0102 TRA 4.1164 TC3-3.8329 BAU 1.8427
RDE .2875 RRA-2.9921 RC3 2.0361 FAU .34961
FDE -.3241 FRA14.7898 FC-11.2538 B8P 12722
BDE 1.0503 BRA 5.0889 BC3 4.3401 F8P 3284

MID-COURSE EXECUTION ACCURACY
8GT 6314.4 8GR 4081.2 8G3 1794.9
RRT -.9844 RRF -.9969 RTF .9824
8GB 7818.5 R23 .1180 R13 -.9899
8G1 7494.0 8G2 608.8 THA 147.29

ORBIT DETERMINATION ACCURACY
8T 91.4 8R 54.8 8S 62.4
CRT -.9339 CR8 .9744 CST -.8300
L8A 119.5 N8A 31.2 88A .8
EL1 108.2 EL2 17.0 ALP 149.91

LAUNCH DATE JUL 3 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 17 1974

DISTANCE 656.408

EARTH TO MARS

HELIOCENTRIC CONIC
RL 152.11 LAL .00 LOL 280.93 VL 32.743 GAL -4.63 AZL 95.19 HCA 199.77 SNA 197.21 ECC .24183 INC 5.1888 V1 29.290
RP 244.68 LAP 1.75 LOP 120.63 VP 20.294 GAP 1.39 AZP 85.12 TAL 335.87 TAP 175.65 RCA 149.82 APO 244.90 V2 22.418
RC 277.948 GL -35.29 GP 33.46 ZAL 121.34 ZAP 72.97 ETS 193.37 ZAE 100.26 ETE 176.30 ZAC 122.63 ETC 296.80 LVI -56.63

PLANETOCENTRIC CONIC
C3 26.075 VHL 5.106 DLA -16.22 RAL 87.28 RAD 6645.4 VEL 12.088 PTH 7.06 VHP 2.751 DPA 32.92 RAP 353.93 ECC 1.4291

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 24 14	2871.84	-25.29	83.63	278.28	131.74	18 12 6	1871.8	-7.63	66.33
60.00	18 22 20	2717.33	-20.05	74.26	282.83	125.72	19 7 37	1717.3	-4.93	53.38
70.00	19 35 50	2501.25	-15.16	60.12	286.20	120.98	20 17 31	1501.3	-1.58	40.12
80.00	21 4 18	2224.37	-11.43	41.25	288.36	117.77	21 41 22	1224.4	.76	20.84
90.00	22 34 51	1932.28	-9.99	20.53	289.11	116.60	23 7 3	932.3	1.67	359.87
100.00	23 47 10	1698.84	-11.43	2.62	288.36	117.77	24 15 29	698.8	.76	341.91
110.00	0 39 12	1548.07	-15.16	349.03	286.20	120.98	1 5 1	548.1	-1.58	329.04

DIFFERENTIAL CORRECTIONS
TDE -.9657 TRA 4.2183 TC3-4.0120 BAU 1.8891
RDE .2848 RRA-2.8569 RC3 1.9771 FAU .35247
FDE -.1838 FRA15.0684 FC-11.7029 B8P 12546
BDE 1.0013 BRA 5.0931 BC3 4.4727 F8P 3339

MID-COURSE EXECUTION ACCURACY
8GT 6499.1 8GR 3912.9 8G3 1838.8
RRT -.9848 RRF -.9964 RTF .9829
8GB 7586.1 R23 .1184 R13 -.9894
8G1 7963.6 8G2 583.7 THA 149.13

ORBIT DETERMINATION ACCURACY
8T 91.8 8R 52.3 8S 63.0
CRT -.9416 CR8 .9691 CST -.8297
L8A 119.0 N8A 31.1 88A .8
EL1 104.6 EL2 15.8 ALP 151.10

LAUNCH DATE JUL 3 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 19 1974

DISTANCE 660.167

EARTH TO MARS

HELIOCENTRIC CONIC
RL 152.11 LAL .00 LOL 280.93 VL 32.746 GAL -4.67 AZL 94.99 HCA 200.67 SNA 197.26 ECC .24227 INC 4.9939 V1 29.290
RP 244.90 LAP 1.76 LOP 121.53 VP 20.275 GAP 1.16 AZP 85.33 TAL 335.68 TAP 176.38 RCA 149.47 APO 245.06 V2 22.397
RC 280.584 GL -34.13 GP 32.19 ZAL 121.96 ZAP 71.71 ETS 193.67 ZAE 99.12 ETE 176.29 ZAC 121.47 ETC 296.58 LVI -55.42

PLANETOCENTRIC CONIC
C3 25.645 VHL 5.064 DLA -15.07 RAL 87.10 RAD 6645.3 VEL 12.067 PTH 7.05 VHP 2.726 DPA 31.69 RAP 354.39 ECC 1.4221

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 18 50	2891.51	-26.10	84.66	278.04	131.26	18 7 1	1891.5	-8.61	67.17
60.00	18 19 25	2741.01	-20.99	75.57	282.50	125.23	19 1 6	1741.0	-5.56	56.52
70.00	19 27 5	2530.33	-16.17	61.76	285.78	120.50	20 9 16	1530.3	-2.66	41.64
80.00	20 53 40	2259.31	-12.53	43.26	287.85	117.32	21 31 20	1259.3	-.42	22.48
90.00	22 23 19	1970.12	-11.13	22.72	288.57	116.17	22 56 9	970.1	.45	1.68
100.00	23 36 32	1733.78	-12.53	4.63	287.85	117.32	24 8 26	733.8	-.42	343.83
110.00	0 30 28	1577.14	-16.17	350.68	285.78	120.50	0 86 45	577.1	-2.66	330.88

DIFFERENTIAL CORRECTIONS
TDE -.9222 TRA 4.3170 TC3-4.1859 BAU 1.8782
RDE .2454 RRA-2.7297 RC3 1.9150 FAU .38811
FDE -.0402 FRA15.2911 FC-12.0891 B8P 12980
BDE .9543 BRA 5.1076 BC3 4.6031 F8P 3410

MID-COURSE EXECUTION ACCURACY
8GT 6681.8 8GR 3750.8 8G3 1874.9
RRT -.9852 RRF -.9959 RTF .9833
8GB 7662.6 R23 .1181 R13 -.9890
8G1 7641.9 8G2 582.9 THA 150.88

ORBIT DETERMINATION ACCURACY
8T 92.3 8R 50.0 8S 63.4
CRT -.9492 CR8 .9630 CST -.8296
L8A 118.7 N8A 31.0 88A .8
EL1 104.0 EL2 14.0 ALP 152.23

LAUNCH DATE JUL 3 1973 FLIGHT TIME 292.00 ARRIVAL DATE APR 21 1974

DISTANCE 663.824

EARTH TO MARS

HELIOCENTRIC CONIC
RL 152.11 LAL .00 LOL 280.93 VL 32.749 GAL -4.72 AZL 94.68 HCA 201.87 SNA 197.32 ECC .24273 INC 4.8179 V1 29.290
RP 245.11 LAP 1.77 LOP 122.44 VP 20.256 GAP .94 AZP 85.52 TAL 338.48 TAP 177.06 RCA 149.43 APO 245.22 V2 22.375
RC 283.198 GL -33.03 GP 30.99 ZAL 122.86 ZAP 70.48 ETS 193.93 ZAE 97.93 ETE 177.20 ZAC 120.37 ETC 296.36 LVI -54.86

PLANETOCENTRIC CONIC
C3 25.286 VHL 5.028 DLA -13.97 RAL 86.96 RAD 6648.1 VEL 12.052 PTH 7.04 VHP 2.708 DPA 30.82 RAP 354.83 ECC 1.4181

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 13 53	2910.42	-27.02	86.67	277.88	130.78	18 2 24	1910.4	-9.58	67.99
60.00	18 9 6	2763.61	-21.87	76.82	282.26	124.74	18 55 9	1763.6	-6.58	57.62
70.00	19 19 6	2557.80	-17.11	63.33	285.46	120.02	20 1 44	1557.8	-3.70	43.07
80.00	20 44 1	2291.98	-13.58	45.16	287.46	116.86	21 22 13	1292.0	-1.53	24.25
90.00	22 12 53	2005.32	-12.18	24.77	288.16	115.72	22 46 18	1005.3	-.68	3.64
100.00	23 26 53	1766.46	-13.58	6.52	287.46	116.86	23 56 20	766.5	-1.53	345.62
110.00	0 22 26	1604.62	-17.11	352.28	285.46	120.02	0 49 13	604.6	-3.70	331.09

DIFFERENTIAL CORRECTIONS
TDF -.8810 TRA 4.4173 TC3-4.3547 BAU 1.8997
RDE .2309 RRA-2.6088 RC3 1.8522 FAU .36282
FDE .0921 FRA15.4542 FC-12.4229 B8P 13109
BDE .9107 BRA 5.1300 BC3 4.7323 F3P 3489

MID-COURSE EXECUTION ACCURACY
8GT 6862.2 8GR 3894.5 8G3 1903.4
RRT -.9855 RRF -.9954 RTF .9838
8GB 7746.6 R23 .1186 R13 -.9887
8G1 7727.6 8G2 541.7 THA 152.88

ORBIT DETERMINATION ACCURACY
8T 92.6 8R 47.9 8S 63.8
CRT -.9572 CR8 .9560 CST -.8308
L8A 118.4 N8A 30.8 88A .8
EL1 103.7 EL2 12.4 ALP 153.31

LAUNCH DATE JUL 3 1973 FLIGHT TIME 294.00 ARRIVAL DATE APR 23 1974

HELIOCENTRIC CONIC DISTANCE 667.680 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.782 GAL -4.76 AZL 94.66 HCA 202.47 SMA 197.38 ECC .24320 INC 4.6597 V1 29.290
RP 245.32 LAP 1.78 LOP 123.34 VP 20.236 GAP .72 AZP 85.70 TAL 335.28 TAP 177.78 RCA 149.38 APO 245.39 V2 22.384
RC 289.791 GL -32.00 GP 29.85 ZAL 123.13 ZAP 88.26 ETS 194.16 ZAE 98.77 ETE 176.03 ZAC 119.33 ETC 286.19 LVI -53.16

PLANETOCENTRIC CONIC

C3 24.987 VHL 4.999 DLA -12.93 RAL 56.85 RAD 6645.0 VEL 12.040 PTH 7.03 VHP 2.690 DPA 29.42 RAP 355.24 ECC 1.4118

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 9 21	2928.65	-27.83	88.86	277.81	130.29	17 58 10	1928.6	-10.45	68.77
60.00	18 3 17	2785.24	-22.70	78.05	282.12	124.24	18 49 42	1785.2	-7.49	58.67
70.00	19 11 46	2583.88	-17.99	64.84	285.24	119.53	19 54 50	1583.9	-4.69	44.44
80.00	20 35 12	2322.73	-14.49	46.96	287.18	116.40	21 13 55	1322.7	-2.57	25.94
90.00	22 3 22	2038.30	-13.15	26.71	287.85	115.27	22 37 20	1038.3	-1.75	5.48
100.00	23 18 4	1797.20	-14.49	8.32	287.18	116.40	23 48 1	797.2	-2.57	347.31
110.00	0 15 8	1630.70	-17.99	353.76	285.24	119.53	0 42 19	630.7	-4.69	333.36

DIFFERENTIAL CORRECTIONS

TDE .8382 TRA 4.5211 TC3-4.5138 BAU 1.6213
RDE .2169 RRA-2.4966 RC3 1.7836 FAU .36563
FDE .2167 FRA15.5844 FC-12.6684 BSP 13283
BDE .8658 BRA 5.1647 BC3 4.8534 FSP 3506

MID-COURSE EXECUTION ACCURACY

SGT 7039.7 SGR 3444.2 SG3 1925.0
RRT -.9856 RRF -.9947 RTF .9841
SGB 7837.1 R23 .1148 R13 -.9883
SG1 7819.6 SG2 524.1 THA 154.13

ORBIT DETERMINATION ACCURACY

ST 93.4 SR 45.8 SS 64.1
CRT -.9646 CRS .9480 CST -.8310
LSA 118.2 MSA 30.8 SSA .7
EL1 103.4 EL2 10.9 ALF 154.38

LAUNCH DATE JUL 3 1973 FLIGHT TIME 296.00 ARRIVAL DATE APR 25 1974

HELIOCENTRIC CONIC DISTANCE 671.434 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.755 GAL -4.81 AZL 94.51 HCA 203.37 SMA 197.44 ECC .24369 INC 4.5856 V1 29.290
RP 245.53 LAP 1.79 LOP 124.24 VP 20.221 GAP .50 AZP 85.86 TAL 335.07 TAP 178.45 RCA 149.33 APO 245.56 V2 22.334
RC 288.361 GL -31.03 GP 28.76 ZAL 123.69 ZAP 88.06 ETS 194.36 ZAE 95.58 ETE 178.80 ZAC 118.33 ETC 286.03 LVI -52.11

PLANETOCENTRIC CONIC

C3 24.740 VHL 4.974 DLA -11.95 RAL 56.77 RAD 6644.9 VEL 12.030 PTH 7.02 VHP 2.678 DPA 28.37 RAP 355.63 ECC 1.4072

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 5 11	2946.24	-28.60	87.62	277.80	129.79	17 54 17	1946.2	-11.32	69.54
60.00	17 57 45	2805.99	-23.49	79.23	282.05	123.74	18 44 41	1806.0	-8.39	59.66
70.00	19 5 *	2608.72	-18.82	66.29	285.10	119.04	19 48 30	1608.7	-5.64	45.75
80.00	20 27 6	2351.80	-15.36	48.67	286.99	115.92	21 6 17	1351.8	-3.55	27.54
90.00	21 54 38	2069.38	-14.04	28.55	287.63	114.80	22 29 7	1069.4	-2.75	7.22
100.00	23 9 57	1826.28	-15.36	10.04	286.99	115.92	23 40 24	826.3	-3.55	348.91
110.00	0 8 23	1655.54	-18.82	355.21	285.10	119.04	0 35 59	655.5	-5.64	334.67

DIFFERENTIAL CORRECTIONS

TDE -.7966 TRA 4.6250 TC3-4.6677 BAU 1.6448
RDE .2065 RRA-2.3902 RC3 1.7158 FAU .36769
FDE .3722 FRA15.6665 FC-12.6667 BSP 13465
BDE .8229 BRA 5.2062 BC3 4.9730 FSP 3541

MID-COURSE EXECUTION ACCURACY

SGT 7215.1 SGR 3300.0 SG3 1940.2
RRT -.9857 RRF -.9940 RTF .9844
SGB 7934.0 R23 .1118 R13 -.9880
SG1 7917.8 SG2 506.9 THA 155.63

ORBIT DETERMINATION ACCURACY

ST 93.9 SR 43.9 SS 64.4
CRT -.9720 CRS .9389 CST -.8323
LSA 118.2 MSA 30.7 SSA .7
EL1 103.3 EL2 9.4 ALF 155.34

LAUNCH DATE JUL 3 1973 FLIGHT TIME 298.00 ARRIVAL DATE APR 27 1974

HELIOCENTRIC CONIC DISTANCE 675.186 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.758 GAL -4.86 AZL 94.37 HCA 204.27 SMA 197.51 ECC .24420 INC 4.5662 V1 29.290
RP 245.73 LAP 1.79 LOP 125.14 VP 20.208 GAP .28 AZP 86.02 TAL 334.86 TAP 179.13 RCA 149.28 APO 245.74 V2 22.314
RC 290.907 GL -30.11 GP 27.74 ZAL 124.23 ZAP 88.90 ETS 194.53 ZAE 94.39 ETE 179.50 ZAC 117.37 ETC 285.88 LVI -51.11

PLANETOCENTRIC CONIC

C3 24.539 VHL 4.954 DLA -11.01 RAL 56.71 RAD 6644.8 VEL 12.021 PTH 7.01 VHP 2.671 DPA 27.38 RAP 356.01 ECC 1.4039

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 1 20	2963.25	-29.34	88.57	277.86	129.30	17 50 43	1963.2	-12.16	70.28
60.00	17 52 58	2825.95	-24.24	80.39	282.04	123.24	18 40 4	1825.9	-9.26	60.66
70.00	18 58 46	2632.46	-19.60	67.69	285.04	118.55	19 42 39	1632.5	-6.53	47.00
80.00	20 19 36	2379.42	-16.17	50.32	286.87	115.44	20 59 16	1379.4	-4.48	29.06
90.00	21 46 35	2098.82	-14.87	30.31	287.50	114.33	22 21 34	1098.8	-3.69	8.87
100.00	23 2 28	1853.89	-16.17	11.69	286.87	115.44	23 33 22	853.9	-4.48	350.43
110.00	0 2 9	1679.28	-19.60	356.61	285.04	118.55	0 30 8	679.3	-6.53	335.92

DIFFERENTIAL CORRECTIONS

TDE -.7570 TRA 4.7281 TC3-4.8179 BAU 1.6705
RDE .1988 RRA-2.2897 RC3 1.6468 FAU .36894
FDE .5009 FRA15.7097 FC-13.0163 BSP 13636
BDE .7927 BRA 5.2533 BC3 5.0921 FSP 3559

MID-COURSE EXECUTION ACCURACY

SGT 7368.4 SGR 3182.2 SG3 1949.8
RRT -.9858 RRF -.9931 RTF .9846
SGB 8036.6 R23 .1083 R13 -.9878
SG1 8021.8 SG2 491.9 THA 157.04

ORBIT DETERMINATION ACCURACY

ST 94.6 SR 42.1 SS 64.8
CRT -.9788 CRS .9286 CST -.8337
LSA 118.2 MSA 30.6 SSA .7
EL1 103.3 EL2 7.9 ALF 156.30

LAUNCH DATE JUL 3 1973 FLIGHT TIME 300.00 ARRIVAL DATE APR 29 1974

HELIOCENTRIC CONIC DISTANCE 678.937 EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.762 GAL -4.90 AZL 94.24 HCA 205.17 SMA 197.58 ECC .24472 INC 4.2364 V1 29.290
RP 245.93 LAP 1.80 LOP 126.03 VP 20.189 GAP .06 AZP 86.16 TAL 334.65 TAP 179.82 RCA 149.23 APO 245.93 V2 22.295
RC 293.430 GL -29.23 GP 26.76 ZAL 124.75 ZAP 89.75 ETS 194.68 ZAE 93.19 ETE 180.15 ZAC 116.47 ETC 285.74 LVI -50.16

PLANETOCENTRIC CONIC

C3 24.378 VHL 4.937 DLA -10.11 RAL 56.68 RAD 6644.7 VEL 12.015 PTH 7.01 VHP 2.666 DPA 26.45 RAP 356.37 ECC 1.4012

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 57 47	2979.72	-30.04	89.51	277.97	128.80	17 47 26	1979.7	-12.97	71.01
60.00	17 48 22	2845.18	-24.95	81.52	282.10	122.73	18 35 47	1845.2	-10.09	61.60
70.00	18 52 59	2655.22	-20.33	69.05	285.04	118.05	19 37 14	1655.2	-7.39	48.21
80.00	20 12 40	2405.75	-16.94	51.90	286.82	114.96	20 52 46	1405.8	-5.36	30.52
90.00	21 39 8	2126.81	-15.65	32.00	287.43	113.86	22 14 34	1126.8	-4.58	10.44
100.00	22 55 32	1880.22	-16.94	13.27	286.82	114.96	23 26 52	880.2	-5.36	351.89
110.00	23 52 25	1702.04	-20.33	357.97	285.04	118.05	24 20 47	702.0	-7.39	337.13

DIFFERENTIAL CORRECTIONS

TDE -.7154 TRA 4.8351 TC3-4.9573 BAU 1.6956
RDE .1920 RRA-2.1982 RC3 1.5789 FAU .36881
FDE .6334 FRA15.7286 FC-13.0974 BSP 13853
BDE .7407 BRA 5.3105 BC3 5.2027 FSP 3577

MID-COURSE EXECUTION ACCURACY

SGT 7558.8 SGR 3030.3 SG3 1954.1
RRT -.9855 RRF -.9921 RTF .9848
SGB 8143.6 R23 .1042 R13 -.9875
SG1 8129.5 SG2 478.9 THA 158.36

ORBIT DETERMINATION ACCURACY

ST 95.3 SR 40.5 SS 64.8
CRT -.9850 CRS .9171 CST -.8359
LSA 118.3 MSA 30.5 SSA .7
EL1 103.4 EL2 6.4 ALF 157.21

LAUNCH DATE JUL 3 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 1 1974

DISTANCE 682.685

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.765 GAL -4.95 AZL 94.12 HCA 206.06 SMA 197.65 ECC .24926 INC 4.1151 V1 29.290
RP 246.12 LAP 1.81 LOP 126.93 VP 20.174 GAP -.16 AZP 86.30 TAL 334.43 TAP 180.49 RCA 149.17 APO 246.12 V2 22.276
RC 295.928 GL -28.40 GP 25.84 ZAL 125.26 ZAP 64.64 ETS 194.81 ZAE 92.00 ETE 180.74 ZAC 115.60 ETC 285.62 LVI -49.25

PLANETOCENTRIC CONIC

C3 24.253 VHL 4.925 DLA -9.26 RAL 56.67 RAD 6644.7 VEL 12.010 PTH 7.00 VHP 2.665 DPA 25.57 RAP 356.72 ECC 1.3991

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 29	2995.70	-30.72	90.43	278.13	128.30	17 44 25	1995.7	-13.76	71.72
60.00	17 44 6	2863.76	-25.63	82.62	282.21	122.23	18 31 49	1863.8	-10.89	62.52
70.00	18 47 35	2677.10	-21.03	70.36	285.09	117.55	19 32 12	1677.1	-8.21	49.37
80.00	20 6 13	2430.94	-17.65	53.43	286.84	114.48	20 46 44	1430.9	-6.20	31.92
90.00	21 32 12	2153.53	-16.38	33.62	287.43	113.38	22 8 5	1153.5	-5.43	11.94
100.00	22 49 5	1905.41	-17.65	14.79	286.84	114.48	23 20 50	905.4	-6.20	353.29
110.00	23 47 1	1723.92	-21.03	359.28	285.09	117.55	24 15 45	723.9	-8.21	338.29

DIFFERENTIAL CORRECTIONS

TDE -.6766 TRA 4.9401 TC3-5.0940 BAU 1.7229
RDE .1885 RRA-2.1070 RC3 1.5121 FAU .36830
FDE .7498 FRA15.7099 FC-13.1469 B8P 14042
BDE .7024 BRA 5.3707 BC3 5.3137 F8P 3577

MID-COURSE EXECUTION ACCURACY

SGT 7726.9 SGR 2904.3 SG3 1953.8
RRT -.9852 RRF -.9910 RTF .9851
SGB 8254.7 R23 .0992 R13 -.9874
SG1 8241.5 SG2 467.1 THA 180.61

ORBIT DETERMINATION ACCURACY

ST 96.1 SR 38.9 SS 64.9
CRT -.9904 CRS .9042 CST -.8378
LSA 118.5 NSA 30.5 SSA .8
EL1 103.6 EL2 5.0 ALF 180.10

LAUNCH DATE JUL 3 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 3 1974

DISTANCE 686.432

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.769 GAL -5.00 AZL 94.00 HCA 206.98 SMA 197.72 ECC .24581 INC 4.0018 V1 29.290
RP 246.30 LAP 1.81 LOP 127.83 VP 20.160 GAP -.38 AZP 86.43 TAL 334.21 TAP 181.16 RCA 149.12 APO 246.32 V2 22.258
RC 298.401 GL -27.61 GP 24.96 ZAL 125.75 ZAP 63.55 ETS 194.91 ZAE 90.81 ETE 181.28 ZAC 114.77 ETC 285.51 LVI -48.39

PLANETOCENTRIC CONIC

C3 24.159 VHL 4.915 DLA -8.44 RAL 56.68 RAD 6644.6 VEL 12.006 PTH 7.00 VHP 2.666 DPA 24.74 RAP 357.07 ECC 1.3978

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 51 26	3011.22	-31.37	91.33	278.34	127.80	17 41 37	2011.2	-14.52	72.41
60.00	17 40 7	2881.74	-26.28	83.70	282.37	121.72	18 28 9	1881.7	-11.66	63.42
70.00	18 42 33	2698.18	-21.69	71.65	285.20	117.06	19 27 31	1698.2	-8.99	50.50
80.00	20 0 12	2455.11	-18.33	54.90	286.90	113.99	20 41 7	1455.1	-7.00	33.26
90.00	21 25 44	2179.12	-17.07	35.19	287.48	112.90	22 2 3	1179.1	-6.24	13.36
100.00	22 43 4	1929.58	-18.33	16.27	286.90	113.99	23 15 13	929.6	-7.00	354.63
110.00	23 41 59	1744.99	-21.69	.56	285.20	117.06	24 11 4	745.0	-8.99	339.42

DIFFERENTIAL CORRECTIONS

TDE -.6377 TRA 5.0463 TC3-5.2250 BAU 1.7510
RDE .1863 RRA-2.0230 RC3 1.4462 FAU .36706
FDE .8634 FRA15.6667 FC-13.1534 B8P 14249
BDE .6644 BRA 5.4367 BC3 5.4214 F8P 3572

MID-COURSE EXECUTION ACCURACY

SGT 7893.0 SGR 2784.2 SG3 1949.4
RRT -.9848 RRF -.9898 RTF .9853
SGB 8369.6 R23 .0937 R13 -.9872
SG1 8357.1 SG2 457.3 THA 160.78

ORBIT DETERMINATION ACCURACY

ST 96.9 SR 37.4 SS 66.0
CRT -.9948 CRS .8899 CST -.8403
LSA 118.7 NSA 30.4 SSA .8
EL1 103.9 EL2 3.6 ALF 158.96

LAUNCH DATE JUL 3 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 5 1974

DISTANCE 690.176

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.773 GAL -5.06 AZL 93.89 HCA 207.84 SMA 197.79 ECC .24638 INC 3.8948 V1 29.290
RP 246.48 LAP 1.82 LOP 128.72 VP 20.147 GAP -.60 AZP 86.55 TAL 333.99 TAP 181.83 RCA 149.06 APO 246.52 V2 22.241
RC 300.850 GL -26.86 GP 24.12 ZAL 126.24 ZAP 62.49 ETS 195.00 ZAE 89.62 ETE 181.78 ZAC 113.98 ETC 285.41 LVI -47.56

PLANETOCENTRIC CONIC

C3 24.094 VHL 4.909 DLA -7.65 RAL 56.71 RAD 6644.6 VEL 12.003 PTH 7.00 VHP 2.669 DPA 23.96 RAP 357.41 ECC 1.3965

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 48 36	3026.33	-32.00	92.23	278.58	127.30	17 39 2	2026.3	-15.25	73.09
60.00	17 36 24	2899.18	-26.90	84.76	282.57	121.22	18 24 43	1899.2	-12.40	64.29
70.00	18 37 51	2718.53	-22.31	72.89	285.35	116.56	19 23 9	1718.5	-9.75	51.59
80.00	19 54 34	2478.36	-18.97	56.33	287.02	113.50	20 35 52	1478.4	-7.77	34.56
90.00	21 19 41	2203.70	-17.71	36.70	287.58	112.41	21 56 25	1203.7	-7.02	14.77
100.00	22 37 26	1952.83	-18.97	17.70	287.02	113.50	23 9 58	952.8	-7.77	355.93
110.00	23 37 17	1765.35	-22.31	1.81	285.35	116.56	24 6 42	765.3	-9.75	340.51

DIFFERENTIAL CORRECTIONS

TDE -.5983 TRA 5.1540 TC3-5.3479 BAU 1.7791
RDE .1850 RRA-1.9441 RC3 1.3802 FAU .36485
FDE .9769 FRA15.6042 FC-13.1096 B8P 14473
BDE .6263 BRA 5.5085 BC3 5.5231 F8P 3565

MID-COURSE EXECUTION ACCURACY

SGT 8055.9 SGR 2669.3 SG3 1941.0
RRT -.9842 RRF -.9884 RTF .9854
SGB 8486.7 R23 .0881 R13 -.9870
SG1 8474.7 SG2 449.8 THA 161.89

ORBIT DETERMINATION ACCURACY

ST 97.8 SR 36.1 SS 68.1
CRT -.9978 CRS .8738 CST -.8426
LSA 119.1 NSA 30.4 SSA .8
EL1 104.2 EL2 2.2 ALF 159.80

LAUNCH DATE JUL 3 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 7 1974

DISTANCE 693.919

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.11 LAL .00 LOL 280.93 VL 32.777 GAL -5.11 AZL 93.79 HCA 208.73 SMA 197.87 ECC .24696 INC 3.7944 V1 29.290
RP 246.65 LAP 1.82 LOP 129.61 VP 20.134 GAP -.82 AZP 86.67 TAL 333.76 TAP 182.49 RCA 149.00 APO 246.73 V2 22.224
RC 303.274 GL -26.14 GP 23.32 ZAL 126.71 ZAP 61.48 ETS 195.07 ZAE 88.44 ETE 182.23 ZAC 113.22 ETC 285.31 LVI -46.78

PLANETOCENTRIC CONIC

C3 24.055 VHL 4.905 DLA -6.90 RAL 56.75 RAD 6644.6 VEL 12.001 PTH 6.99 VHP 2.674 DPA 23.23 RAP 357.75 ECC 1.3959

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 45 57	3041.04	-32.60	93.11	278.87	126.79	17 36 39	2041.0	-15.97	73.75
60.00	17 32 56	2916.10	-27.49	85.80	282.81	120.71	18 21 32	1916.1	-13.12	65.15
70.00	18 33 26	2736.22	-22.91	74.11	285.55	116.06	19 19 4	1736.2	-10.47	52.66
80.00	19 49 16	2500.78	-19.57	57.73	287.18	113.01	20 30 57	1500.8	-8.51	35.82
90.00	21 14 1	2227.37	-18.32	38.17	287.73	111.93	21 51 8	1227.4	-7.76	16.12
100.00	22 32 8	1975.26	-19.57	19.09	287.18	113.01	23 5 4	975.3	-8.51	357.19
110.00	23 32 52	1785.04	-22.91	3.03	285.55	116.06	24 2 37	785.0	-10.47	341.57

DIFFERENTIAL CORRECTIONS

TDE -.5597 TRA 5.2621 TC3-5.4663 BAU 1.8082
RDE .1855 RRA-1.8696 RC3 1.3164 FAU .36223
FDE 1.0803 FRA15.5210 FC-13.0367 B8P 14697
BDE .5897 BRA 5.5843 BC3 5.6226 F8P 3550

MID-COURSE EXECUTION ACCURACY

SGT 8217.0 SGR 2560.1 SG3 1929.4
RRT -.9834 RRF -.9868 RTF .9855
SGB 8606.6 R23 .0820 R13 -.9869
SG1 8595.2 SG2 443.9 THA 162.92

ORBIT DETERMINATION ACCURACY

ST 98.8 SR 34.8 SS 65.1
CRT -.9994 CRS .8563 CST -.8455
LSA 119.5 NSA 30.4 SSA .8
EL1 104.7 EL2 1.1 ALF 160.61

LAUNCH DATE JUL 3 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 9 1974

HELIOCENTRIC CONIC DISTANCE 687.660 EARTH TO MARS

RL	152.11	LAL	.00	LOL	280.93	VL	32.781	GAL	-5.16	AZL	93.70	HCA	209.62	SMA	197.94	ECC	.24796	INC	3.6996	V1	29.298
RP	246.82	LAP	1.63	LOP	130.50	VP	20.123	GAP	-1.03	AZP	86.78	TAL	333.52	TAP	183.15	RCA	148.94	APO	246.94	V2	22.207
RC	305.673	GL	-25.45	GP	22.57	ZAL	127.18	ZAP	60.48	ETS	195.13	ZAE	87.28	ETE	182.65	ZAC	112.49	ETC	285.23	LVI	-46.83

PLANETOCENTRIC CONIC

C3	24.039	VHL	4.903	DLA	-6.17	RAL	56.81	RAD	6644.6	VEL	12.001	PTH	6.99	VHP	2.682	DPA	22.94	RAP	358.08	ECC	1.3856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 43 30	3058.39	-33.18	93.99	279.19	126.29	17 34 26	2058.4	-16.66	74.41
60.00	17 29 41	2932.56	-28.06	86.82	283.09	120.20	18 18 33	1932.6	-13.81	68.98
70.00	18 29 17	2757.31	-23.47	75.31	285.78	115.55	19 15 14	1757.3	-11.17	63.69
80.00	19 44 18	2522.46	-20.14	59.08	287.38	112.52	20 26 21	1522.5	-9.21	57.04
90.00	21 8 40	2250.22	-18.89	39.60	287.92	111.44	21 46 11	1250.2	-8.47	17.42
100.00	22 27 10	1996.93	-20.14	20.45	287.38	112.52	23 0 27	996.9	-9.21	358.41
110.00	23 28 43	1804.13	-23.47	4.22	285.78	115.55	23 58 48	804.1	-11.17	342.61

DIFFERENTIAL CORRECTIONS

TDE	-.5220	TRA	5.3702	TC3	-5.5705	BAU	1.8378												
RDE	.1873	RRA	-1.7988	RC3	1.2545	FAU	.35917												
FDE	1.1774	FRA	15.4178	FC	-12.9349	BSP	14921												
BDE	.5546	BRA	5.6634	BC3	5.7188	FSP	3528												

MID-COURSE EXECUTION ACCURACY

SGT	8375.6	SGR	2456.0	SG3	1914.9														
RRT	-.9825	RRF	-.9851	RTF	.9856														
SGB	8728.2	R23	.0756	R13	-.9868														
SG1	8717.2	SG2	439.4	THA	183.89														

ORBIT DETERMINATION ACCURACY

ST	99.8	SR	33.6	SS	65.1														
CRT	-.9994	CRS	.0370	CST	-.8483														
LSA	120.0	NSA	30.4	SSA	.9														
EL1	105.3	EL2	1.1	ALF	161.40														

LAUNCH DATE JUL 3 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 11 1974

HELIOCENTRIC CONIC DISTANCE 701.398 EARTH TO MARS

RL	152.11	LAL	.00	LOL	280.93	VL	32.785	GAL	-5.22	AZL	93.61	HCA	210.51	SMA	198.02	ECC	.24817	INC	3.6100	V1	29.290
RP	246.98	LAP	1.63	LOP	131.39	VP	20.112	GAP	-1.25	AZP	86.89	TAL	333.29	TAP	183.80	RCA	148.88	APO	247.16	V2	22.191
RC	308.047	GL	-24.79	GP	21.85	ZAL	127.64	ZAP	59.46	ETS	195.17	ZAE	86.12	ETE	183.04	ZAC	111.80	ETC	285.15	LVI	-45.32

PLANETOCENTRIC CONIC

C3	24.045	VHL	4.904	DLA	-5.48	RAL	56.89	RAD	6644.6	VEL	12.001	PTH	6.99	VHP	2.691	DPA	21.89	RAP	358.42	ECC	1.3987

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 13	3069.40	-33.74	94.85	279.54	125.78	17 32 22	2069.4	-17.34	75.08
60.00	17 26 38	2948.59	-28.81	87.83	283.40	119.69	18 15 47	1948.6	-14.49	66.80
70.00	18 25 23	2775.84	-24.01	76.48	286.05	115.05	19 11 39	1775.8	-11.85	54.70
80.00	19 39 37	2543.45	-20.68	60.41	287.62	112.03	20 22 0	1543.4	-9.89	38.23
90.00	21 3 39	2272.33	-19.44	41.00	288.14	110.95	21 41 31	1272.3	-9.15	18.69
100.00	22 22 29	2017.92	-20.68	21.77	287.62	112.03	22 56 7	1017.9	-9.89	358.59
110.00	23 24 49	1822.66	-24.01	5.39	286.05	115.05	23 55 12	822.7	-11.85	343.62

DIFFERENTIAL CORRECTIONS

TDE	-.4839	TRA	5.4800	TC3	-5.6862	BAU	1.8677												
RDE	.1903	RRA	-1.7321	RC3	1.1943	FAU	.35560												
FDE	1.2672	FRA	15.3011	FC	-12.8035	BSP	15155												
BDE	.5200	BRA	5.7472	BC3	5.8102	FSP	3501												

MID-COURSE EXECUTION ACCURACY

SGT	8531.9	SGR	2356.9	SG3	1897.7														
RRT	-.9814	RRF	-.9831	RTF	.9857														
SGB	8851.5	R23	.0689	R13	-.9867														
SG1	8840.7	SG2	436.3	THA	184.79														

ORBIT DETERMINATION ACCURACY

ST	100.9	SR	32.5	SS	69.1														
CRT	-.9975	CRS	.0158	CST	-.8516														
LSA	120.6	NSA	30.3	SSA	.9														
EL1	106.0	EL2	2.2	ALF	162.17														

LAUNCH DATE JUL 3 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 13 1974

HELIOCENTRIC CONIC DISTANCE 705.135 EARTH TO MARS

RL	152.11	LAL	.00	LOL	280.93	VL	32.789	GAL	-5.27	AZL	93.53	HCA	211.40	SMA	198.10	ECC	.24880	INC	3.5251	V1	29.290
RP	247.14	LAP	1.64	LOP	132.28	VP	20.101	GAP	-1.47	AZP	86.99	TAL	333.05	TAP	184.45	RCA	148.81	APO	247.39	V2	22.176
RC	310.395	GL	-24.15	GP	21.17	ZAL	128.09	ZAP	58.51	ETS	195.20	ZAE	84.98	ETE	183.39	ZAC	111.13	ETC	285.08	LVI	-44.63

PLANETOCENTRIC CONIC

C3	24.071	VHL	4.906	DLA	-4.80	RAL	56.97	RAD	6644.6	VEL	12.002	PTH	7.00	VHP	2.701	DPA	21.29	RAP	358.76	ECC	1.3961

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 39 5	3083.10	-34.29	95.71	279.92	125.26	17 30 28	2083.1	-18.00	75.69
60.00	17 23 46	2964.23	-29.13	88.82	283.74	119.18	18 13 11	1964.2	-15.14	67.60
70.00	18 21 42	2793.87	-24.53	77.62	286.35	114.55	19 8 16	1793.9	-12.90	55.69
80.00	19 35 11	2563.82	-21.20	61.70	287.89	111.53	20 17 55	1563.8	-10.55	39.38
90.00	20 58 53	2293.76	-19.95	42.36	288.40	110.47	21 37 7	1293.8	-9.81	19.92
100.00	22 18 3	2038.29	-21.20	23.07	287.89	111.53	22 52 1	1038.3	-10.55	.75
110.00	23 21 9	1840.69	-24.53	6.54	286.35	114.55	23 51 49	840.7	-12.90	344.81

DIFFERENTIAL CORRECTIONS

TDE	-.4473	TRA	5.5889	TC3	-5.7893	BAU	1.8986												
RDE	.1943	RRA	-1.6887	RC3	1.1360	FAU	.35168												
FDE	1.3502	FRA	15.1689	FC	-12.6484	BSP	15378												
BDE	.4877	BRA	5.8327	BC3	5.8998	FSP	3468												

MID-COURSE EXECUTION ACCURACY

SGT	8685.8	SGR	2262.4	SG3	1878.2														
RRT	-.9801	RRF	-.9809	RTF	.9857														
SGB	8975.6	R23	.0624	R13	-.9868														
SG1	8965.1	SG2	435.1	THA	185.64														

ORBIT DETERMINATION ACCURACY

ST	102.0	SR	31.9	SS	65.0														
CRT	-.9936	CRS	.7928	CST	-.6546														
LSA	121.3	NSA	30.3	SSA	.9														
EL1	106.7	EL2	3.4	ALF	162.93														

LAUNCH DATE JUL 3 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC DISTANCE 708.870 EARTH TO MARS

RL	152.11	LAL	.00	LOL	280.93	VL	32.793	GAL	-5.33	AZL	93.44	HCA	212.29	SMA	198.18	ECC	.24944	INC	3.4445	V1	29.290
RP	247.29	LAP	1.64	LOP	133.17	VP	20.092	GAP	-1.69	AZP	87.09	TAL	332.81	TAP	185.09	RCA	148.75	APO	247.82	V2	22.161
RC	312.717	GL	-23.55	GP	20.51	ZAL	128.54	ZAP	57.58	ETS	195.22	ZAE	83.85	ETE	183.71	ZAC	110.49	ETC	285.02	LVI	-43.98

PLANETOCENTRIC CONIC

C3	24.115	VHL	4.911	DLA	-4.15	RAL	57.07	RAD	6644.6	VEL	12.004	PTH	7.00	VHP	2.713	DPA	20.72	RAP	359.10	ECC	1.3969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 37 5	3096.51	-34.81	96.56	280.33	124.75	17 28 42	2096.5	-18.64	76.32
60.00	17 21 5	2979.49	-29.63	89.80	284.11	118.67	18 10 44	1979.5	-15.78	68.39
70.00	18 18 14	2811.44	-25.02	78.75	286.68	114.05	19 5 5	1811.4	-13.13	56.66
80.00	19 31 0	2583.62	-21.69	62.97	288.19	111.04	20 14 4	1583.6	-11.18	40.51
90.00	20 54 23	2314.56	-20.44	43.68	288.68	109.98	21 32 58	1314.6	-10.44	21.12
100.00	22 13 52	2058.09	-21.69	24.33	288.19	111.04	22 48 10	1058.1	-11.18	1.88
110.00	23 17 40	1858.25	-25.02	7.67	286.68	114.05	23 48 39	858.3	-13.13	345.57

DIFFERENTIAL CORRECTIONS

TDE	-.4103	TRA	5.6999	TC3	-5.8862	BAU	1.9293												
RDE	.1991	RRA	-1.6091	RC3	1.0795	FAU	.34735												
FDE	1.4283	FRA	15.0293	FC	-12.4700	BSP	15608												
BDE	.4561	BRA	5.9226	BC3	5.9843	FSP	3434												

MID-COURSE EXECUTION ACCURACY

SGT	8838.0	SGR	2172.8	SG3	1856.9														
RRT	-.9785	RRF	-.9785	RTF	.9858														
SGB	9101.1	R23	.0559	R13	-.9865														
SG1	9090.7	SG2	435.2	THA	186.44														

ORBIT DETERMINATION ACCURACY

ST	103.2	SR	30.6	SS	65.0														
CRT	-.9875	CRS	.7679	CST	-.6579														
LSA	122.0	NSA	30.4	SSA	.9														
EL1	107.5	EL2	4.6	ALF	163.66														

LAUNCH DATE JUL 3 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 17 1974

DISTANCE 712.603

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 280.83 VL 32.797 GAL -5.39 AZL 93.37 HCA 213.17 SMA 198.27 ECC .25009 INC 3.3678 V1 29.290
RP 247.44 LAP 1.84 LOP 134.05 VP 20.083 GAP -1.90 AZP 87.18 TAL 332.56 TAP 185.73 RCA 148.68 APO 247.85 V2 22.147
RC 319.013 GL -22.96 GP 19.89 ZAL 128.98 ZAP 56.67 ETS 195.24 ZAE 82.73 ETE 184.01 ZAC 109.87 ETC 284.96 LVI -43.36

PLANETOCENTRIC CONIC

C3 24.177 VHL 4.917 DLA -3.52 RAL 57.18 RAD 6644.6 VEL 12.006 PTH 7.00 VHP 2.726 DPA 20.18 RAP 359.44 ECC 1.3879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 35 13	3109.65	-35.32	97.41	280.76	124.23	17 27 3	2109.6	-19.27	76.94
60.00	17 18 33	2994.42	-30.12	90.77	284.50	118.15	18 8 27	1994.4	-16.30	69.17
70.00	18 14 57	2828.57	-25.49	79.86	287.04	113.54	19 2 6	1828.6	-13.75	57.60
80.00	19 27 2	2602.89	-22.15	64.21	288.51	110.55	20 10 25	1602.9	-11.79	41.62
90.00	20 50 7	2334.80	-20.91	44.99	289.00	109.49	21 29 2	1334.8	-11.05	22.29
100.00	22 9 54	2077.36	-22.15	25.58	288.51	110.55	22 44 31	1077.4	-11.79	2.98
110.00	23 14 23	1875.38	-25.49	8.78	287.04	113.54	23 45 39	875.4	-13.75	346.52

DIFFERENTIAL CORRECTIONS

TDE -.3733 TRA 5.8119 TC3-5.9772 BAU 1.9602
RDE .2046 RRA-1.5524 RC3 1.0249 FAU .34271
FDE 1.5025 FRA14.8790 FC-12.2721 BSP 15849
BDE .4257 BRA 6.0157 BC3 6.0645 FSP 3397

MID-COURSE EXECUTION ACCURACY

SGT 8987.7 SGR 2087.5 SG3 1833.7
RRT -.9768 RRF -.9757 RTF .9858
SGB 9227.0 R23 .0494 R13 -.9864
SG1 9216.6 SG2 436.2 THA 167.19

ORBIT DETERMINATION ACCURACY

ST 104.4 SR 29.7 SS 64.8
CRT -.9791 CRS .7411 CST -.8611
LSA 122.8 MSA 30.4 SSA 1.0
EL1 108.4 EL2 5.8 ALF 164.39

LAUNCH DATE JUL 3 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 19 1974

DISTANCE 716.333

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 280.93 VL 32.802 GAL -5.45 AZL 93.29 HCA 214.05 SMA 198.35 ECC .25076 INC 3.2948 V1 29.290
RP 247.58 LAP 1.84 LOP 134.94 VP 20.075 GAP -2.12 AZP 87.27 TAL 332.31 TAP 186.37 RCA 148.61 APO 248.09 V2 22.133
RC 317.282 GL -22.40 GP 19.30 ZAL 129.42 ZAP 55.79 ETS 195.24 ZAE 81.63 ETE 184.29 ZAC 109.28 ETC 284.91 LVI -42.76

PLANETOCENTRIC CONIC

C3 24.255 VHL 4.925 DLA -2.92 RAL 57.31 RAD 6644.7 VEL 12.010 PTH 7.00 VHP 2.741 DPA 19.68 RAP 359.79 ECC 1.3992

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 33 29	3122.54	-35.81	98.25	281.22	123.71	17 25 32	2122.5	-19.88	77.55
60.00	17 16 10	3009.03	-30.58	91.73	284.92	117.64	18 6 19	2009.0	-17.00	69.93
70.00	18 11 51	2845.30	-25.94	80.95	287.42	113.04	18 59 16	1845.3	-14.34	58.54
80.00	19 23 16	2621.68	-22.60	65.43	288.87	110.05	20 6 57	1621.7	-12.38	42.70
90.00	20 46 4	2354.52	-21.35	46.26	289.34	109.00	21 25 18	1354.5	-11.84	23.44
100.00	22 6 8	2096.15	-22.60	26.79	288.87	110.05	22 41 4	1096.2	-12.38	4.07
110.00	23 11 17	1892.11	-25.94	9.87	287.42	113.04	23 42 49	892.1	-14.34	347.45

DIFFERENTIAL CORRECTIONS

TDE -.3368 TRA 5.9241 TC3-6.0640 BAU 1.9914
RDE .2109 RRA-1.4987 RC3 .9723 FAU .33780
FDE 1.5692 FRA14.7198 FC-12.0374 BSP 16082
BDE .3974 BRA 6.1107 BC3 6.1414 FSP 3356

MID-COURSE EXECUTION ACCURACY

SGT 9135.3 SGR 2006.3 SG3 1809.1
RRT -.9747 RRF -.9727 RTF .9858
SGB 9353.0 R23 .0432 R13 -.9863
SG1 9342.7 SG2 436.6 THA 167.89

ORBIT DETERMINATION ACCURACY

ST 105.7 SR 29.0 SS 64.8
CRT -.9682 CRS .7123 CST -.8644
LSA 123.6 MSA 30.4 SSA 1.0
EL1 109.4 EL2 7.0 ALF 165.09

LAUNCH DATE JUL 4 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 378.887 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	34.866	GAL	-6.11	AZL	90.26	HCA	120.08	SMA	241.10	ECC	.36234	INC	.2966
RP	217.98	LAP	-.22	LOP	42.49	VP	25.834	GAP	21.83	AZP	89.87	TAL	337.72	TAP	98.32	RCA	148.96	APO	333.41
RC	74.281	GL	-1.41	GP	-5.36	ZAL	125.96	ZAP	180.80	ETS	213.22	ZAE	170.66	ETE	325.87	ZAC	79.78	ETC	283.68
V1	29.290																		
V2	25.880																		
LVI	-14.70																		

PLANETOCENTRIC CONIC

C3	39.406	VHL	6.277	DLA	15.81	RAL	45.80	RAD	6650.8	VEL	12.681	PTH	7.47	VHP	7.644	DPA	7.33	RAP	33.71	ECC	1.6485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 33 12	3620.23	-47.45	138.46	295.34	94.03	15 33 32	2620.2	-40.36	107.13
60.00	14 54 49	3562.70	-40.30	134.67	295.73	90.37	15 54 11	2562.7	-35.74	104.84
70.00	15 26 27	3469.57	-34.07	126.98	295.58	87.51	16 24 17	2469.6	-31.53	98.84
80.00	16 15 15	3316.64	-29.55	115.06	295.26	85.53	17 10 32	2316.6	-28.40	87.66
90.00	17 27 54	3082.13	-27.84	97.66	295.09	84.60	18 19 16	2082.1	-27.20	70.67
100.00	18 58 7	2791.11	-29.55	76.43	295.26	85.53	19 44 36	1791.1	-28.40	49.06
110.00	20 25 53	2516.39	-34.07	55.90	295.58	87.51	21 7 50	1516.4	-31.53	27.46

DIFFERENTIAL CORRECTIONS

TDE	-.5395	TRA	-1.8079	TC3	.1062	BAU	.0703
RDE	-.5332	RRA	.2933	RC3	-.0807	FAU	.06310
FDE	.6798	FRA	2.0786	FC3	-1.3864	BSP	2934
BDE	.7585	BRA	1.8316	BC3	.1334	FSP	318

MID-COURSE EXECUTION ACCURACY

SGT	1789.2	SGR	569.7	SG3	233.8
RRT	-.2463	RRF	.2748	RTF	-.8106
SGB	1877.7	R23	-.0559	R13	.8123
SG1	1795.3	SG2	550.2	THA	175.08

ORBIT DETERMINATION ACCURACY

ST	35.6	SR	24.7	SS	29.4
CRT	.5593	CRS	.5932	CST	.9974
LSA	48.1	NSA	19.2	SSA	1.2
EL1	39.1	EL2	18.6	ALP	29.10

LAUNCH DATE JUL 4 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 373.670 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	34.465	GAL	-6.00	AZL	90.22	HCA	121.74	SMA	238.19	ECC	.37432	INC	.2163
RP	218.35	LAP	-.18	LOP	43.63	VP	25.661	GAP	21.48	AZP	89.89	TAL	337.79	TAP	99.53	RCA	149.03	APO	327.35
RC	75.647	GL	-1.21	GP	-5.55	ZAL	125.88	ZAP	180.06	ETS	212.01	ZAE	170.10	ETE	326.86	ZAC	79.51	ETC	283.00
V1	29.290																		
V2	25.168																		
LVI	-13.81																		

PLANETOCENTRIC CONIC

C3	37.898	VHL	6.156	DLA	15.97	RAL	45.66	RAD	6649.9	VEL	12.561	PTH	7.43	VHP	7.433	DPA	7.20	RAP	34.15	ECC	1.6837

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 31 57	3613.78	-47.41	138.84	294.38	94.51	15 32 11	2613.8	-40.15	106.64
60.00	14 53 20	3556.84	-40.30	134.17	294.83	90.71	15 52 37	2556.8	-35.00	104.11
70.00	15 24 43	3464.49	-34.09	126.58	294.73	87.74	16 22 27	2464.5	-31.48	98.17
80.00	16 13 14	3312.42	-29.57	114.75	294.42	85.69	17 8 27	2312.4	-28.38	87.39
90.00	17 25 46	3078.34	-27.86	97.39	294.26	84.93	18 17 4	2078.3	-27.16	70.40
100.00	18 56 6	2786.89	-29.57	76.12	294.42	85.69	19 42 33	1786.9	-28.36	48.76
110.00	20 24 9	2511.31	-34.09	55.50	294.73	87.74	21 6 0	1511.3	-31.45	27.08

DIFFERENTIAL CORRECTIONS

TDE	-.5415	TRA	-1.8066	TC3	.1235	BAU	.0775
RDE	-.5151	RRA	.2963	RC3	-.0901	FAU	.06557
FDE	.7129	FRA	2.1596	FC3	-1.4980	BSP	3027
BDE	.7474	BRA	1.8307	BC3	.1529	FSP	339

MID-COURSE EXECUTION ACCURACY

SGT	1826.5	SGR	569.6	SG3	247.6
RRT	-.2661	RRF	.2979	RTF	-.8160
SGB	1913.3	R23	-.0615	R13	.8160
SG1	1833.4	SG2	547.0	THA	174.79

ORBIT DETERMINATION ACCURACY

ST	36.4	SR	24.4	SS	29.4
CRT	.5544	CRS	.5924	CST	.9974
LSA	49.1	NSA	19.1	SSA	1.3
EL1	39.6	EL2	18.6	ALP	28.69

LAUNCH DATE JUL 4 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 376.568 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	34.370	GAL	-5.89	AZL	90.18	HCA	122.88	SMA	239.42	ECC	.36668	INC	.1751
RP	218.71	LAP	-.15	LOP	44.76	VP	25.493	GAP	21.14	AZP	89.90	TAL	337.86	TAP	100.74	RCA	149.10	APO	321.74
RC	77.098	GL	-1.00	GP	-5.76	ZAL	125.78	ZAP	180.31	ETS	210.98	ZAE	169.38	ETE	327.19	ZAC	79.23	ETC	283.57
V1	29.290																		
V2	25.127																		
LVI	-13.91																		

PLANETOCENTRIC CONIC

C3	36.480	VHL	6.040	DLA	16.15	RAL	45.50	RAD	6649.4	VEL	12.505	PTH	7.39	VHP	7.229	DPA	7.23	RAP	34.99	ECC	1.6804

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 30 36	3607.78	-47.38	138.26	293.45	94.08	15 30 44	2607.8	-39.96	106.28
60.00	14 51 46	3551.45	-40.29	133.71	293.96	91.02	15 50 57	2551.5	-35.47	103.71
70.00	15 22 51	3459.94	-34.10	126.23	293.89	87.98	16 20 31	2459.9	-31.37	97.83
80.00	16 11 5	3308.78	-29.59	114.48	293.60	85.83	17 6 14	2308.8	-28.31	87.13
90.00	17 23 28	3075.16	-27.88	97.16	293.44	85.05	18 14 43	2075.2	-27.13	70.17
100.00	18 53 57	2783.25	-29.59	75.85	293.60	85.83	19 40 20	1783.3	-28.31	48.58
110.00	20 22 18	2506.76	-34.10	55.15	293.89	87.95	21 4 4	1506.8	-31.37	26.75

DIFFERENTIAL CORRECTIONS

TDE	-.5431	TRA	-1.8038	TC3	.1424	BAU	.0850
RDE	-.4971	RRA	.2998	RC3	-.1005	FAU	.06816
FDE	.7485	FRA	2.2436	FC3	-1.6176	BSP	3111
BDE	.7363	BRA	1.8285	BC3	.1743	FSP	363

MID-COURSE EXECUTION ACCURACY

SGT	1862.4	SGR	569.9	SG3	262.8
RRT	-.2877	RRF	.3225	RTF	-.8216
SGB	1947.6	R23	-.0669	R13	.8238
SG1	1870.3	SG2	543.5	THA	174.50

ORBIT DETERMINATION ACCURACY

ST	37.1	SR	24.0	SS	30.4
CRT	.5487	CRS	.5904	CST	.9973
LSA	50.2	NSA	18.9	SSA	1.3
EL1	40.1	EL2	18.6	ALP	29.31

LAUNCH DATE JUL 4 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 379.342 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	34.280	GAL	-5.78	AZL	90.13	HCA	124.01	SMA	232.88	ECC	.35942	INC	.1340
RP	219.08	LAP	-.11	LOP	45.89	VP	25.330	GAP	20.80	AZP	89.92	TAL	337.94	TAP	101.98	RCA	149.16	APO	316.54
RC	78.631	GL	-.77	GP	-5.98	ZAL	125.68	ZAP	167.54	ETS	210.09	ZAE	168.71	ETE	327.53	ZAC	78.94	ETC	283.96
V1	29.290																		
V2	25.067																		
LVI	-13.21																		

PLANETOCENTRIC CONIC

C3	35.152	VHL	5.929	DLA	16.33	RAL	45.33	RAD	6648.9	VEL	12.452	PTH	7.35	VHP	7.030	DPA	7.16	RAP	35.01	ECC	1.5788

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 29 10	3602.25	-47.35	137.73	292.53	98.36	15 29 13	2602.2	-39.78	105.79
60.00	14 50 5	3546.58	-40.28	133.29	293.10	91.30	15 49 12	2546.6	-35.36	103.35
70.00	15 20 52	3455.09	-34.11	125.92	293.06	88.13	16 18 28	2456.0	-31.31	97.54
80.00	16 8 48	3305.77	-29.61	114.26	292.79	85.95	17 3 53	2305.8	-28.28	86.91
90.00	17 21 1	3072.64	-27.89	96.97	292.64	85.14	18 12 14	2072.6	-27.11	69.99
100.00	18 51 40	2780.24	-29.61	75.62	292.79	85.95	19 36 0	1780.2	-28.28	48.28
110.00	20 20 19	2502.77	-34.11	54.83	293.06	88.13	21 2 1	1502.8	-31.31	26.46

DIFFERENTIAL CORRECTIONS

TDE	-.5444	TRA	-1.7998	TC3	.1624	BAU	.0926
RDE	-.4791	RRA	.3039	RC3	-.1118	FAU	.07085
FDE	.7871	FRA	2.3313	FC3	-1.7450	BSP	3193
BDE	.7252	BRA	1.8293	BC3	.1971	FSP	388

MID-COURSE EXECUTION ACCURACY

SGT	1897.1	SGR	570.6	SG3	278.2
RRT	-.3110	RRF	.3486	RTF	-.8272
SGB	1981.0	R23	-.0722	R13	.8296
SG1	1906.1	SG2	539.8	THA	174.19

ORBIT DETERMINATION ACCURACY

ST	37.8	SR	23.6	SS	31.8
CRT	.5422	CRS	.5900	CST	.9971
LSA	51.3	NSA	18.8	SSA	1.3
EL1	40.6	EL2	18.5	ALP	23.96

LAUNCH DATE JUL 4 1973 FLIGHT TIME 140.00 ARRIVAL DATE NOV 21 1973

DISTANCE 382.586

HELIOCENTRIC CONIC

RL	152.11	LAL	.00	LOL	281.88	VL	34.194	GAL	-5.68	AZL	90.09	HCA	125.14	SMA	230.47	ECC	.35252	INC	.0901	V1	29.290
RP	219.45	LAP	-.08	LOP	47.02	VP	25.173	GAP	20.47	AZP	89.95	TAL	338.03	TAP	103.16	RCA	149.23	APO	311.72	V2	25.046
RC	80.245	GL	-.54	GP	-6.20	ZAL	125.57	ZAP	166.76	ETS	209.31	ZAE	168.10	ETE	327.63	ZAC	78.65	ETC	283.54	LVI	-12.90

EARTH TO MARS

PLANETOCENTRIC CONIC

C3	33.907	VHL	5.823	DLA	16.53	RAL	45.15	RAD	6648.5	VEL	12.402	PTH	7.31	VHP	6.839	DPA	7.08	RAP	35.42	ECC	1.8580

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 27 39	3597.20	-47.31	137.25	291.65	95.73	15 27 36	2597.2	-39.61	105.42
60.00	14 48 18	3542.23	-40.28	132.92	292.27	91.55	15 47 20	2542.2	-35.25	103.02
70.00	15 18 46	3452.55	-34.12	125.65	292.26	88.29	16 16 18	2452.6	-31.25	97.29
80.00	16 6 21	3303.42	-29.62	114.08	291.99	86.04	17 1 24	2303.4	-28.25	86.74
90.00	17 18 25	3070.81	-27.90	96.84	291.84	85.20	18 9 36	2070.8	-27.09	69.86
100.00	18 49 13	2777.89	-29.62	75.45	291.99	86.04	19 35 31	1777.9	-28.25	48.11
110.00	20 18 12	2499.37	-34.12	54.57	292.26	88.29	20 59 51	1499.4	-31.25	26.21

DIFFERENTIAL CORRECTIONS

TDE	-.5453	TRA	-1.7948	TC3	.1837
RDE	-.4613	RRA	.3087	RC3	-.1242
FDE	.8278	FRA	2.4223	FC3	-1.8819
BDE	.7142	BRA	1.8212	BC3	.2217
BAU	.1005				
FAU	.07371				
BSP	3264				
FSP	414				

MID-COURSE EXECUTION ACCURACY

SGT	1930.6	SGR	572.1	SG3	294.9
RRT	-.3359	RRF	.3764	RTF	-.8326
SGB	2013.6	R23	-.0778	R13	.8353
SG1	1941.0	SG2	536.0	THA	173.84

ORBIT DETERMINATION ACCURACY

ST	38.5	SR	23.2	SS	32.7
CRT	.5346	CRS	.5818	CST	.9970
LSA	52.3	MSA	18.7	SSA	1.3
EL1	41.0	EL2	18.4	ALF	22.64

LAUNCH DATE JUL 4 1973 FLIGHT TIME 142.00 ARRIVAL DATE NOV 23 1973

DISTANCE 385.693

HELIOCENTRIC CONIC

RL	152.11	LAL	.00	LOL	281.88	VL	34.112	GAL	-5.58	AZL	90.05	HCA	126.26	SMA	228.26	ECC	.34597	INC	.0453	V1	29.290
RP	219.82	LAP	-.04	LOP	48.14	VP	25.022	GAP	20.13	AZP	89.97	TAL	338.12	TAP	104.38	RCA	149.29	APO	307.23	V2	25.005
RC	81.936	GL	-.29	GP	-6.44	ZAL	125.46	ZAP	165.96	ETS	208.65	ZAE	167.53	ETE	327.51	ZAC	78.34	ETC	283.52	LVI	-12.59

EARTH TO MARS

PLANETOCENTRIC CONIC

C3	32.739	VHL	5.722	DLA	16.74	RAL	44.96	RAD	6648.1	VEL	12.355	PTH	7.28	VHP	6.653	DPA	6.97	RAP	35.83	ECC	1.5388

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 26 2	3592.66	-47.28	136.82	290.79	96.06	15 25 54	2592.7	-39.46	105.09
60.00	14 46 24	3538.43	-40.27	132.60	291.45	91.77	15 45 22	2538.4	-35.16	102.75
70.00	15 16 31	3449.77	-34.12	125.43	291.46	88.42	16 14 1	2449.8	-31.20	97.09
80.00	16 3 45	3301.76	-29.63	113.96	291.21	86.11	16 58 46	2301.8	-28.23	86.62
90.00	17 15 38	3069.72	-27.91	96.76	291.06	85.24	18 6 48	2069.7	-27.08	69.78
100.00	18 46 37	2776.23	-29.63	75.33	291.21	86.11	19 32 53	1776.2	-28.23	47.99
110.00	20 15 57	2496.58	-34.12	54.35	291.46	88.42	20 57 34	1496.6	-31.20	26.01

DIFFERENTIAL CORRECTIONS

TDE	-.5465	TRA	-1.7893	TC3	.2054
RDE	-.4434	RRA	.3140	RC3	-.1376
FDE	.8716	FRA	2.5170	FC3	-2.0281
BDE	.7037	BRA	1.8167	BC3	.2473
BAU	.1082				
FAU	.07669				
BSP	3337				
FSP	443				

MID-COURSE EXECUTION ACCURACY

SGT	1963.5	SGR	574.3	SG3	312.4
RRT	-.3623	RRF	.4057	RTF	-.8377
SGB	2045.8	R23	-.0838	R13	.8407
SG1	1975.4	SG2	532.0	THA	173.48

ORBIT DETERMINATION ACCURACY

ST	39.2	SR	22.7	SS	33.9
CRT	.5263	CRS	.5770	CST	.9968
LSA	53.5	MSA	18.5	SSA	1.3
EL1	41.5	EL2	18.3	ALF	21.31

LAUNCH DATE JUL 4 1973 FLIGHT TIME 144.00 ARRIVAL DATE NOV 25 1973

DISTANCE 388.858

HELIOCENTRIC CONIC

RL	152.11	LAL	.00	LOL	281.88	VL	34.034	GAL	-5.48	AZL	90.00	HCA	127.38	SMA	226.20	ECC	.33975	INC	.0000	V1	29.290
RP	220.19	LAP	-.00	LOP	49.26	VP	24.874	GAP	19.81	AZP	90.00	TAL	338.21	TAP	105.58	RCA	149.35	APO	303.05	V2	24.964
RC	83.701	GL	-.02	GP	-6.69	ZAL	125.34	ZAP	165.14	ETS	208.07	ZAE	167.03	ETE	327.21	ZAC	78.03	ETC	283.51	LVI	-12.26

EARTH TO MARS

PLANETOCENTRIC CONIC

C3	31.643	VHL	5.625	DLA	16.96	RAL	44.78	RAD	6647.6	VEL	12.311	PTH	7.24	VHP	6.473	DPA	6.85	RAP	36.23	ECC	1.9208

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 24 19	3588.64	-47.25	136.43	289.96	96.36	15 24 7	2588.6	-39.33	104.80
60.00	14 44 23	3535.21	-40.26	132.33	290.66	91.96	15 43 18	2535.2	-35.08	102.51
70.00	15 14 8	3447.63	-34.13	125.27	290.69	88.52	16 11 36	2447.6	-31.16	96.93
80.00	16 0 59	3300.83	-29.63	113.89	290.44	86.14	16 55 59	2300.8	-28.22	86.56
90.00	17 12 40	3069.40	-27.91	96.74	290.30	85.25	18 3 50	2069.4	-27.07	69.76
100.00	18 43 50	2775.30	-29.63	75.26	290.44	86.14	19 30 6	1775.3	-28.22	47.92
110.00	20 13 34	2494.44	-34.13	54.18	290.69	88.52	20 55 9	1494.4	-31.16	25.85

DIFFERENTIAL CORRECTIONS

TDE	-.5473	TRA	-1.7825	TC3	.2287
RDE	-.4255	RRA	.3201	RC3	-.1524
FDE	.9180	FRA	2.6149	FC3	-2.1845
BDE	.6933	BRA	1.8110	BC3	.2748
BAU	.1162				
FAU	.07984				
BSP	3400				
FSP	472				

MID-COURSE EXECUTION ACCURACY

SGT	1994.9	SGR	577.4	SG3	330.9
RRT	-.3902	RRF	.4364	RTF	-.8427
SGB	2076.8	R23	-.0899	R13	.8460
SG1	2008.5	SG2	528.0	THA	173.08

ORBIT DETERMINATION ACCURACY

ST	39.8	SR	22.3	SS	33.1
CRT	.5166	CRS	.5711	CST	.9966
LSA	54.6	MSA	18.3	SSA	1.3
EL1	41.9	EL2	18.1	ALF	20.01

LAUNCH DATE JUL 4 1973 FLIGHT TIME 146.00 ARRIVAL DATE NOV 27 1973

DISTANCE 392.075

HELIOCENTRIC CONIC

RL	152.11	LAL	.00	LOL	281.88	VL	33.961	GAL	-5.38	AZL	89.96	HCA	128.49	SMA	224.28	ECC	.33384	INC	.0389	V1	29.290
RP	220.57	LAP	.03	LOP	50.38	VP	24.732	GAP	19.48	AZP	90.03	TAL	338.30	TAP	106.60	RCA	149.41	APO	299.16	V2	24.923
RC	85.536	GL	.26	GP	-6.96	ZAL	125.21	ZAP	164.30	ETS	207.57	ZAE	166.57	ETE	326.74	ZAC	77.71	ETC	283.49	LVI	-11.93

EARTH TO MARS

PLANETOCENTRIC CONIC

C3	30.615	VHL	5.533	DLA	17.19	RAL	44.85	RAD	6647.2	VEL	12.270	PTH	7.21	VHP	6.298	DPA	6.71	RAP	36.61	ECC	1.9038

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 22 30	3585.17	-47.22	136.10	289.16	96.61	15 22 15	2585.2	-39.21	104.55
60.00	14 42 15	3532.58	-40.25	132.10	289.89	92.11	15 41 8	2532.6	-35.01	102.32
70.00	15 11 37	3446.16	-34.13	125.15	289.94	88.59	16 9 3	2446.2	-31.14	96.83
80.00	15 58 2	3300.66	-29.63	113.88	289.69	86.15	16 53 3	2300.7	-28.21	86.54
90.00	17 9 32	3069.89	-27.91	96.77	289.55	85.23	18 0 41	2069.9	-27.08	69.80
100.00	18 40 54	2775.13	-29.63	75.25	289.69	86.15	19 27 9	1775.1	-28.21	47.91
110.00	20 11 3	2492.98	-34.13	54.07	289.94	88.59	20 52 36	1493.0	-31.14	25.75

DIFFERENTIAL CORRECTIONS

TDE	-.5489	TRA	-1.7752	TC3	.2518
RDE	-.4075	RRA	.3269	RC3	-.1684
FDE	.9684	FRA	2.7165	FC3	-2.3509
BDE	.6836	BRA	1.8051	BC3	.3029
BAU	.1240				
FAU	.08313				
BSP	3470				
FSP	504				

MID-COURSE EXECUTION ACCURACY

SGT	2025.7	SGR	581.6	SG3	350.4
RRT	-.4191	RRF	.4684	RTF	-.8474
SGB	2107.5	R23	-.0966	R13	.8511
SG1	2041.3	SG2	524.0	THA	172.65

ORBIT DETERMINATION ACCURACY

ST	40.5	SR	21.8	SS	36.4
CRT	.5061	CRS	.5644	CST	.9963
LSA	55.8	MSA	18.1	SSA	1.4
EL1	42.3	EL2	18.0	ALF	18.69

LAUNCH DATE JUL 4 1973 FLIGHT TIME 148.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 395.342 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	33.890	GAL	-5.29	AZL	89.91	HCA	129.61	SMA	222.50	ECC	.32823	INC	.0887
RP	220.95	LAP	.07	LOP	51.49	VP	24.594	GAP	19.16	AZP	90.06	TAL	338.40	TAP	108.01	RCA	149.47	APO	295.53
RC	87.440	GL	.56	GP	-7.24	ZAL	125.07	ZAP	163.45	ETS	207.13	ZAE	166.18	ETE	326.09	ZAC	77.37	ETC	283.48

V1	29.290	V2	24.682	LVI	-11.98														

PLANETOCENTRIC CONIC

C3	29.850	VHL	5.445	DLA	17.44	RAL	44.33	RAD	6646.9	VEL	12.231	PTH	7.18	VHP	6.130	DPA	6.55	RAP	36.99

ECC	1.4880																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 20 35	3582.26	-47.20	135.82	288.39	96.82	15 20 18	2582.3	-39.12	104.34
60.00	14 40 0	3530.58	-40.25	131.93	289.15	92.23	15 38 51	2530.6	-34.96	102.17
70.00	15 8 56	3445.40	-34.13	125.09	289.20	88.62	16 6 21	2445.4	-31.13	96.77
80.00	15 54 55	3301.30	-29.63	113.93	288.96	86.12	16 49 56	2301.3	-28.22	86.59
90.00	17 6 11	3071.25	-27.90	96.87	288.81	85.19	17 57 22	2071.3	-27.09	69.89
100.00	18 37 46	2775.78	-29.63	75.29	288.96	86.12	19 24 2	1775.8	-28.22	47.96
110.00	20 8 22	2492.22	-34.13	54.01	289.20	88.62	20 49 55	1492.2	-31.13	25.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5495	TRA	-1.7666	TC3	.2762	BAU	.1320	SGT	2054.6	SGR	587.3	SG3	370.9	ST	41.1	SR	21.2	SS	37.8
RDE	-.3894	RRA	.3344	RC3	-.1859	FAU	.08661	RRT	-.4496	RRF	.5017	RTF	-.8520	CRT	.4934	CRS	.5561	CST	.9960
FDE	1.0215	FRA	2.8219	FC3	-2.5288	BSP	3528	SGB	2136.9	R23	-.1034	R13	.8561	LSA	57.0	MSA	17.8	SSA	1.4
BDE	.6735	BRA	1.7980	BC3	.3329	FSP	537	SG1	2072.6	SG2	520.0	THA	172.18	EL1	42.7	EL2	17.8	ALF	17.39

LAUNCH DATE JUL 4 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 398.652 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	33.824	GAL	-5.20	AZL	89.86	HCA	130.71	SMA	220.83	ECC	.32290	INC	.1374
RP	221.33	LAP	.10	LOP	52.60	VP	24.460	GAP	18.84	AZP	90.09	TAL	338.50	TAP	109.22	RCA	149.52	APO	292.13
RC	89.407	GL	.87	GP	-7.54	ZAL	124.93	ZAP	162.58	ETS	206.76	ZAE	165.80	ETE	325.29	ZAC	77.03	ETC	283.47

V1	29.290	V2	24.840	LVI	-11.22														

PLANETOCENTRIC CONIC

C3	28.745	VHL	5.361	DLA	17.70	RAL	44.10	RAD	6646.5	VEL	12.194	PTH	7.15	VHP	5.966	DPA	6.37	RAP	37.35

ECC	1.4731																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 18 34	3579.94	-47.18	135.60	287.65	96.99	15 18 14	2579.9	-39.04	104.17
60.00	14 37 37	3529.22	-40.25	131.82	288.43	92.30	15 36 26	2529.2	-34.93	102.07
70.00	15 6 6	3445.38	-34.13	125.09	288.49	88.62	16 3 31	2445.4	-31.13	96.77
80.00	15 51 36	3302.80	-29.62	114.04	288.25	86.07	16 46 38	2302.8	-28.24	86.70
90.00	17 2 37	3073.52	-27.89	97.04	288.09	85.10	17 53 51	2073.5	-27.12	70.06
100.00	18 34 27	2777.27	-29.62	75.40	288.25	86.07	19 20 45	1777.3	-28.24	48.07
110.00	20 5 32	2492.20	-34.13	54.01	288.49	88.62	20 47 5	1492.2	-31.13	25.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5510	TRA	-1.7575	TC3	.3004	BAU	.1398	SGT	2082.6	SGR	594.4	SG3	392.4	ST	41.7	SR	20.7	SS	39.2
RDE	-.3712	RRA	.3426	RC3	-.2049	FAU	.09026	RRT	-.4806	RRF	.5358	RTF	-.8561	CRT	.4794	CRS	.5463	CST	.9958
FDE	1.0787	FRA	2.9304	FC3	-2.7183	BSP	3595	SGB	2165.8	R23	-.1110	R13	.8607	LSA	58.2	MSA	17.6	SSA	1.4
BDE	.6643	BRA	1.7906	BC3	.3637	FSP	573	SG1	2103.4	SG2	516.1	THA	171.68	EL1	43.1	EL2	17.5	ALF	16.08

LAUNCH DATE JUL 4 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 402.003 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	33.761	GAL	-5.11	AZL	89.81	HCA	131.82	SMA	219.27	ECC	.31784	INC	.1882
RP	221.71	LAP	.14	LOP	53.70	VP	24.330	GAP	18.52	AZP	90.13	TAL	338.61	TAP	110.42	RCA	149.58	APO	288.96
RC	91.436	GL	1.20	GP	-7.85	ZAL	124.79	ZAP	161.69	ETS	206.44	ZAE	165.49	ETE	324.33	ZAC	76.67	ETC	283.47

V1	29.290	V2	24.799	LVI	-10.86														

PLANETOCENTRIC CONIC

C3	27.897	VHL	5.282	DLA	17.98	RAL	43.86	RAD	6646.2	VEL	12.159	PTH	7.12	VHP	5.808	DPA	6.17	RAP	37.70

ECC	1.4591																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 16 27	3578.23	-47.17	135.44	286.95	97.12	15 16 5	2578.2	-38.98	104.05
60.00	14 35 7	3528.54	-40.24	131.76	287.74	92.34	15 33 55	2528.5	-34.91	102.02
70.00	15 3 6	3446.13	-34.13	125.15	287.80	88.59	16 0 32	2446.1	-31.14	96.83
80.00	15 48 4	3305.19	-29.61	114.21	287.55	85.97	16 43 10	2305.2	-28.27	86.87
90.00	16 58 50	3076.76	-27.87	97.27	287.39	84.99	17 50 7	2076.8	-27.15	70.29
100.00	18 30 56	2779.66	-29.61	75.58	287.55	85.97	19 17 16	1779.7	-28.27	48.24
110.00	20 2 33	2492.95	-34.13	54.07	287.80	88.59	20 44 5	1493.0	-31.14	25.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5522	TRA	-1.7474	TC3	.3252	BAU	.1476	SGT	2109.1	SGR	603.5	SG3	415.2	ST	42.3	SR	20.1	SS	40.6
RDE	-.3527	RRA	.3518	RC3	-.2256	FAU	.09408	RRT	-.5124	RRF	.5706	RTF	-.8601	CRT	.4629	CRS	.5343	CST	.9954
FDE	1.1397	FRA	3.0434	FC3	-2.9198	BSP	3653	SGB	2193.7	R23	-.1189	R13	.8652	LSA	59.5	MSA	17.3	SSA	1.4
BDE	.6552	BRA	1.7825	BC3	.3958	FSP	611	SG1	2133.1	SG2	512.4	THA	171.14	EL1	43.5	EL2	17.3	ALF	14.75

LAUNCH DATE JUL 4 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 405.391 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	33.701	GAL	-5.03	AZL	89.76	HCA	132.92	SMA	217.81	ECC	.31303	INC	.2395
RP	222.09	LAP	.18	LOP	54.80	VP	24.204	GAP	18.21	AZP	90.16	TAL	338.71	TAP	111.63	RCA	149.63	APO	285.99
RC	93.523	GL	1.55	GP	-8.18	ZAL	124.64	ZAP	160.78	ETS	206.17	ZAE	165.21	ETE	323.20	ZAC	76.30	ETC	283.46

V1	29.290	V2	24.757	LVI	-10.47														

PLANETOCENTRIC CONIC

C3	27.101	VHL	5.206	DLA	18.27	RAL	43.61	RAD	6645.9	VEL	12.127	PTH	7.10	VHP	5.655	DPA	5.95	RAP	38.04

ECC	1.4460																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 14 13	3577.15	-47.16	135.34	286.28	97.19	15 13 50	2577.1	-38.94	103.97
60.00	14 32 28	3528.56	-40.24	131.76	287.08	92.34	15 31 16	2528.6	-34.91	102.02
70.00	14 59 56	3447.70	-34.13	125.27	287.14	88.52	15 57 24	2447.7	-31.17	96.94
80.00	15 44 20	3308.52	-29.59	114.46	286.87	85.84	16 39 29	2308.5	-28.31	87.11
90.00	16 54 49	3081.02	-27.84	97.58	286.71	84.84	17 46 10	2081.0	-27.19	70.59
100.00	18 27 12	2782.99	-29.59	75.83	286.87	85.84	19 13 35	1783.0	-28.31	48.48
110.00	19 59 22	2494.51	-34.13	54.19	287.14	88.52	20 40 57	1494.5	-31.17	25.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5534	TRA	-1.7364	TC3	.3497	BAU	.1553	SGT	2133.9	SGR	614.5	SG3	439.0	ST	42.9	SR	19.4	SS	42.1
RDE	-.3340	RRA	.3618	RC3	-.2481	FAU	.09809	RRT	-.5444	RRF	.6056	RTF	-.8638	CRT	.4437	CRS	.5199	CST	.9951
FDE	1.2045	FRA	3.1595	FC3	-3.1335	BSP	3710	SGB	2220.7	R23	-.1274	R13	.8695	LSA	60.8	MSA	17.0	SSA	1.4
BDE	.6464	BRA	1.7737	BC3	.4288	FSP	650	SG1	2161.6	SG2	508.9	THA	170.56	EL1	43.9	EL2	17.0	ALF	13.42

LAUNCH DATE JUL 4 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 7 1973

DISTANCE 408.814

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 281.88 VL 33.644 GAL -4.95 AZL 89.71 HCA 134.02 SMA 216.45 ECC .30846 INC .2930 V1 29.290
RP 222.48 LAP .21 LOP 55.90 VP 24.081 GAP 17.90 AZP 90.20 TAL 338.81 TAP 112.83 RCA 149.68 APO 283.21 V2 24.715
RC 95.665 GL 1.92 GP -8.53 ZAL 124.49 ZAP 159.85 ETS 205.94 ZAE 164.97 ETE 321.92 ZAC 75.91 ETC 283.46 LVI -10.08

PLANETOCENTRIC CONIC

C3 26.355 VHL 5.134 DLA 18.58 RAL 43.35 RAD 6645.6 VEL 12.096 PTH 7.07 VHP 5.507 DPA 5.70 RAP 38.37 ECC 1.4337

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 11 52	3576.72	-47.16	135.30	285.65	97.23	15 11 29	2576.7	-38.93	103.94
60.00	14 29 40	3529.32	-40.25	131.83	286.45	92.30	15 28 30	2529.3	-34.93	102.08
70.00	14 56 35	3450.11	-34.12	129.46	286.49	88.40	15 54 5	2450.1	-31.21	97.12
80.00	15 40 22	3312.86	-29.57	114.78	286.22	85.68	16 35 35	2312.9	-28.36	87.42
90.00	16 50 32	3086.37	-27.81	97.97	286.05	84.64	17 41 58	2086.4	-27.24	70.98
100.00	18 23 14	2787.33	-29.57	76.15	286.22	85.68	19 9 41	1787.3	-28.36	48.79
110.00	19 56 1	2496.93	-34.12	54.38	286.49	88.40	20 37 38	1496.9	-31.21	26.03

DIFFERENTIAL CORRECTIONS

TDE -.5549 TRA-1.7246 TC3 .3744 BAU .1632
RDE -.3149 RRA .3727 RC3 -.2725 FAU .10230
FDE 1.2744 FRA 3.2795 FC3-3.3605 BSP 3766
BDE .6380 BRA 1.7644 BC3 .4631 FSP 691

MID-COURSE EXECUTION ACCURACY

SGT 2157.4 SGR 628.0 SG3 464.0
RRT -.5764 RRF .6405 RTF -.8673
SGB 2247.0 R23 -.1364 R13 .8736
SG1 2189.3 SG2 505.7 THA 169.93

ORBIT DETERMINATION ACCURACY

ST 43.4 SR 18.8 SS 43.7
CRT .4212 CRS .5024 CST .9947
LSA 62.2 MSA 16.7 SSA 1.4
EL1 44.3 EL2 16.7 ALF 12.06

LAUNCH DATE JUL 4 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 9 1973

DISTANCE 412.268

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 281.88 VL 33.589 GAL -4.87 AZL 89.65 HCA 135.11 SMA 215.17 ECC .30411 INC .3482 V1 29.290
RP 222.86 LAP .25 LOP 56.99 VP 23.963 GAP 17.59 AZP 90.25 TAL 338.92 TAP 114.03 RCA 149.73 APO 280.60 V2 24.673
RC 97.860 GL 2.31 GP -8.89 ZAL 124.34 ZAP 158.89 ETS 205.75 ZAE 164.77 ETE 320.47 ZAC 75.51 ETC 283.47 LVI -9.67

PLANETOCENTRIC CONIC

C3 25.655 VHL 5.065 DLA 18.91 RAL 43.09 RAD 6645.3 VEL 12.067 PTH 7.05 VHP 5.364 DPA 5.42 RAP 38.69 ECC 1.4222

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 9 24	3576.95	-47.16	135.32	285.05	97.21	15 9 1	2576.9	-38.94	103.95
60.00	14 26 44	3530.81	-40.25	131.95	285.84	92.21	15 25 35	2530.8	-34.97	102.19
70.00	14 53 1	3453.39	-34.11	125.72	285.87	88.25	15 50 35	2453.4	-31.26	97.35
80.00	15 36 8	3318.24	-29.54	115.18	285.58	85.47	16 31 27	2318.2	-28.42	87.81
90.00	16 45 58	3092.86	-27.77	98.44	285.40	84.41	17 37 30	2092.9	-27.30	71.44
100.00	18 19 0	2792.71	-29.54	76.55	285.58	85.47	19 5 33	1792.7	-28.42	49.18
110.00	19 52 28	2500.21	-34.11	54.63	285.87	88.25	20 34 8	1500.2	-31.26	26.27

DIFFERENTIAL CORRECTIONS

TDE -.5471 TRA-1.7021 TC3 .4131 BAU .1749
RDE -.2954 RRA .3845 RC3 -.2991 FAU .10670
FDE 1.3491 FRA 3.4029 FC3-3.6007 BSP 3705
BDE .6218 BRA 1.7450 BC3 .5101 FSP 735

MID-COURSE EXECUTION ACCURACY

SGT 2166.1 SGR 644.1 SG3 490.2
RRT -.6128 RRF .6748 RTF -.8741
SGB 2261.7 R23 -.1378 R13 .8810
SG1 2205.7 SG2 500.3 THA 169.12

ORBIT DETERMINATION ACCURACY

ST 43.5 SR 18.1 SS 45.4
CRT .3895 CRS .4613 CST .9937
LSA 63.3 MSA 16.4 SSA 1.4
EL1 44.1 EL2 16.4 ALF 10.70

LAUNCH DATE JUL 4 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 11 1973

DISTANCE 415.751

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 281.88 VL 33.538 GAL -4.80 AZL 89.59 HCA 136.20 SMA 213.97 ECC .30000 INC .4057 V1 29.290
RP 223.25 LAP .28 LOP 58.08 VP 23.847 GAP 17.29 AZP 90.29 TAL 339.02 TAP 115.22 RCA 149.78 APO 278.16 V2 24.631
RC 100.104 GL 2.71 GP -9.28 ZAL 124.18 ZAP 157.92 ETS 205.60 ZAE 164.59 ETE 318.85 ZAC 75.10 ETC 283.47 LVI -9.25

PLANETOCENTRIC CONIC

C3 25.001 VHL 5.000 DLA 19.26 RAL 42.81 RAD 6645.0 VEL 12.040 PTH 7.03 VHP 5.225 DPA 5.12 RAP 39.00 ECC 1.4115

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 6 49	3577.91	-47.17	135.41	284.50	97.14	15 6 27	2577.9	-38.97	104.02
60.00	14 23 38	3533.14	-40.26	132.15	285.27	92.08	15 22 31	2533.1	-35.03	102.36
70.00	14 49 16	3457.65	-34.11	126.05	285.28	88.06	15 46 54	2457.7	-31.34	97.67
80.00	15 31 39	3324.79	-29.51	115.66	284.96	85.22	16 27 4	2324.8	-28.49	88.28
90.00	16 41 5	3100.64	-27.71	99.00	284.77	84.13	17 32 46	2100.6	-27.37	72.00
100.00	18 14 31	2799.27	-29.51	77.03	284.96	85.22	19 1 10	1799.3	-28.49	49.65
110.00	19 48 42	2504.47	-34.11	54.97	285.28	88.06	20 30 27	1504.5	-31.34	26.58

DIFFERENTIAL CORRECTIONS

TDE -.5532 TRA-1.6932 TC3 .4299 BAU .1807
RDE -.2754 RRA .3975 RC3 -.3279 FAU .11130
FDE 1.4293 FRA 3.5309 FC3-3.8541 BSP 3815
BDE .6179 BRA 1.7392 BC3 .5407 FSP 781

MID-COURSE EXECUTION ACCURACY

SGT 2193.2 SGR 663.2 SG3 517.7
RRT -.6411 RRF .7083 RTF -.[illegible]53
SGB 2291.3 R23 -.1516 R13 .8831
SG1 2236.3 SG2 499.2 THA 168.45

ORBIT DETERMINATION ACCURACY

ST 44.2 SR 17.4 SS 47.1
CRT .3603 CRS .4551 CST .9936
LSA 64.9 MSA 16.1 SSA 1.4
EL1 44.7 EL2 16.0 ALF 9.25

LAUNCH DATE JUL 4 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 13 1973

DISTANCE 419.260

HELIOCENTRIC CONIC

RL [illegible]52.11 LAL .00 LOL 28[illegible].88 VL 33.489 GAL -4.72 AZL 89.53 HCA 137.28 SMA 212.85 ECC .29809 INC .4649 V1 29.290
RP 223.64 LAP .32 LOP 59.17 VP 23.735 GAP 16.98 AZP 90.34 TAL 339.13 TAP 116.41 RCA 149.82 APO 275.87 V2 24.590
RC 102.397 GL 3.15 GP -9.69 ZAL 124.02 ZAP 156.92 ETS 205.47 ZAE 164.42 ETE 317.06 ZAC 74.66 ETC 283.48 LVI -8.81

PLANETOCENTRIC CONIC

C3 24.39[illegible] VHL 4.939 DLA 19.63 RAL 42.53 RAD 6644.7 VEL 12.015 PTH 7.01 VHP 5.092 DPA 4.79 RAP 39.29 ECC 1.4014

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 4 6	3579.60	-47.18	135.57	283.99	97.02	15 3 46	2579.6	-39.03	104.14
60.00	14 20 22	3536.29	-40.26	132.42	284.73	91.90	15 19 18	2536.3	-35.11	102.59
70.00	14 45 17	3462.90	-34.09	126.46	284.71	87.81	15 43 0	2462.9	-31.42	98.05
80.00	15 26 52	3332.55	-29.46	116.23	284.37	84.92	16 22 25	2332.6	-28.58	88.84
90.00	16 35 53	3109.76	-27.65	99.66	284.17	83.81	17 27 43	2109.8	-27.45	72.65
100.00	18 9 44	2807.02	-29.46	77.60	284.37	84.92	18 56 31	1807.0	-28.58	50.21
110.00	19 44 43	2509.72	-34.09	55.38	284.71	87.81	20 26 33	1509.7	-31.42	26.97

DIFFERENTIAL CORRECTIONS

TDE -.5573 TRA-1.6807 TC3 .4483 BAU .1873
RDE -.2547 RRA .4115 RC3 -.3590 FAU .11606
FDE 1.5155 FRA 3.6620 FC3-4.1195 BSP 3896
BDE .6128 BRA 1.7304 BC3 .5743 FSP 829

MID-COURSE EXECUTION ACCURACY

SGT 2213.6 SGR 685.5 SG3 546.4
RRT -.6691 RRF .7403 RTF -.8770
SGB 2317.3 R23 -.1643 R13 .8859
SG1 2263.1 SG2 498.4 THA 167.69

ORBIT DETERMINATION ACCURACY

ST 44.8 SR 16.6 SS 48.8
CRT .3236 CRS .4229 CST .9932
LSA 66.5 MSA 15.7 SSA 1.5
EL1 45.2 EL2 15.6 ALF 7.78

LAUNCH DATE JUL 4 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 422.795 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 33.443 GAL -4.66 AZL 89.47 HCA 138.38 SMA 211.79 ECC .29238 INC .5264 V1 29.290
RP 224.03 LAP .35 LOP 60.25 VP 23.626 GAP 16.68 AZP 90.39 TAL 339.23 TAP 117.59 RCA 149.87 APO 273.72 V2 24.848
RC 104.735 GL 3.60 GP -10.13 ZAL 123.86 ZAP 155.89 ETS 205.38 ZAE 164.27 ETE 315.09 ZAC 74.21 ETC 283.50 LVI -8.36

PLANETOCENTRIC CONIC

C3 23.818 VHL 4.880 DLA 20.02 RAL 42.25 RAD 6644.5 VEL 11.992 PTH 6.99 VHP 4.962 DPA 4.42 RAP 39.57 ECC 1.3920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 1 15	3582.05	-47.20	135.80	283.52	96.84	15 0 57	2582.1	-39.11	104.32
60.00	14 16 55	3540.32	-40.27	132.76	284.23	91.66	15 15 55	2540.3	-35.20	102.88
70.00	14 41 4	3469.20	-34.07	126.95	284.17	87.52	15 38 53	2469.2	-31.53	98.51
80.00	15 21 46	3341.61	-29.41	116.90	283.79	84.57	16 17 27	2341.6	-28.67	89.50
90.00	16 30 19	3120.32	-27.57	100.42	283.58	83.44	17 22 19	2120.3	-27.53	73.42
100.00	18 4 38	2816.08	-29.41	78.27	283.79	84.57	18 51 34	1816.1	-28.67	50.87
110.00	19 40 30	2516.02	-34.07	55.87	284.17	87.52	20 22 26	1516.0	-31.53	27.43

DIFFERENTIAL CORRECTIONS

TDE -.5601 TRA-1.6657 TC3 .4682 BAU .1946
RDE -.2333 RRA .4267 RC3 -.3927 FAU .12105
FDE 1.6075 FRA 3.7958 FC3-4.3997 BSP 3958
BDE .6068 BRA 1.7195 BC3 .6111 FSP 880

MID-COURSE EXECUTION ACCURACY

SGT 2230.0 SGR 711.5 SG3 576.3
RRT -.6962 RRF .7707 RTF -.8789
SGB 2340.8 R23 -.1762 R13 .8890
SG1 2287.2 SG2 497.9 THA 166.84

ORBIT DETERMINATION ACCURACY

ST 45.3 SR 15.9 SS 50.7
CRT .2783 CRS .3832 CST .9928
LSA 68.2 MSA 15.4 SSA 1.5
EL1 45.6 EL2 15.2 ALF 6.25

LAUNCH DATE JUL 4 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 426.352 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 33.399 GAL -4.59 AZL 89.41 HCA 139.44 SMA 210.80 ECC .28886 INC .5905 V1 29.290
RP 224.42 LAP .38 LOP 61.33 VP 23.520 GAP 16.39 AZP 90.45 TAL 339.33 TAP 118.77 RCA 149.91 APO 271.69 V2 24.506
RC 107.119 GL 4.08 GP -10.59 ZAL 123.70 ZAP 154.84 ETS 205.31 ZAE 164.13 ETE 312.94 ZAC 73.73 ETC 283.51 LVI -7.06

PLANETOCENTRIC CONIC

C3 23.285 VHL 4.825 DLA 20.44 RAL 41.95 RAD 6644.3 VEL 11.970 PTH 6.97 VHP 4.838 DPA 4.03 RAP 39.84 ECC 1.3832

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 58 14	3585.30	-47.23	136.11	283.09	96.60	14 58 0	2585.3	-39.22	104.55
60.00	14 13 16	3545.26	-40.28	133.18	283.76	91.38	15 12 22	2545.3	-35.32	103.25
70.00	14 36 35	3476.62	-34.05	127.53	283.66	87.18	15 34 32	2476.6	-31.65	99.08
80.00	15 16 19	3352.07	-29.34	117.67	283.24	84.18	16 12 11	2352.1	-28.78	90.26
90.00	16 24 20	3132.48	-27.47	101.30	283.00	83.01	17 16 32	2132.5	-27.63	74.29
100.00	17 59 10	2826.54	-29.34	79.04	283.24	84.18	18 46 17	1826.5	-28.78	51.63
110.00	19 36 1	2523.44	-34.05	56.45	283.66	87.18	20 18 5	1523.4	-31.65	27.97

DIFFERENTIAL CORRECTIONS

TDE -.5626 TRA-1.6492 TC3 .4882 BAU .2024
RDE -.2111 RRA .4431 RC3 -.4293 FAU .12627
FDE 1.7063 FRA 3.9331 FC3-4.6949 BSP 4008
BDE .6009 BRA 1.7077 BC3 .6501 FSP 932

MID-COURSE EXECUTION ACCURACY

SGT 2243.9 SGR 741.4 SG3 607.7
RRT -.7219 RRF .7992 RTF -.8809
SGB 2363.2 R23 -.1880 R13 .8923
SG1 2310.1 SG2 498.4 THA 165.91

ORBIT DETERMINATION ACCURACY

ST 45.8 SR 15.1 SS 52.7
CRT .2227 CRS .3337 CST .9923
LSA 69.8 MSA 15.0 SSA 1.5
EL1 45.9 EL2 14.7 ALF 4.68

LAUNCH DATE JUL 4 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 429.929 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 33.357 GAL -4.53 AZL 89.34 HCA 140.52 SMA 209.87 ECC .28551 INC .6571 V1 29.290
RP 224.81 LAP .42 LOP 62.40 VP 23.417 GAP 16.09 AZP 90.51 TAL 339.43 TAP 119.95 RCA 149.95 APO 269.80 V2 24.464
RC 109.544 GL 4.58 GP -11.08 ZAL 123.54 ZAP 153.76 ETS 205.26 ZAE 163.98 ETE 310.61 ZAC 73.23 ETC 283.54 LVI -7.38

PLANETOCENTRIC CONIC

C3 22.788 VHL 4.774 DLA 20.88 RAL 41.65 RAD 6644.1 VEL 11.949 PTH 6.95 VHP 4.718 DPA 3.60 RAP 40.09 ECC 1.3750

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 55 5	3589.39	-47.26	136.50	282.70	96.30	14 54 54	2589.4	-39.35	104.85
60.00	14 9 26	3551.18	-40.29	133.69	283.32	91.04	15 8 37	2551.2	-35.47	103.69
70.00	14 31 49	3485.23	-34.02	128.20	283.17	86.79	15 29 54	2485.2	-31.78	99.69
80.00	15 10 28	3364.05	-29.25	118.55	282.71	83.72	16 6 32	2364.1	-28.89	91.13
90.00	16 17 54	3146.37	-27.35	102.30	282.45	82.52	17 10 20	2146.4	-27.73	75.33
100.00	17 53 20	2838.52	-29.25	79.92	282.71	83.72	18 40 38	1838.5	-28.89	52.93
110.00	19 31 15	2532.05	-34.02	57.12	283.17	86.79	20 13 27	1532.1	-31.78	28.81

DIFFERENTIAL CORRECTIONS

TDE -.5644 TRA-1.6310 TC3 .5065 BAU .2103
RDE -.1879 RRA .4808 RC3 -.4688 FAU .13165
FDE 1.8121 FRA 4.0732 FC3-5.0014 BSP 4058
BDE .5948 BRA 1.6949 BC3 .6902 FSP 988

MID-COURSE EXECUTION ACCURACY

SGT 2254.4 SGR 775.6 SG3 640.2
RRT -.7457 RRF .8254 RTF -.9027
SGB 2384.1 R23 -.1996 R13 .8957
SG1 2331.1 SG2 499.8 THA 164.90

ORBIT DETERMINATION ACCURACY

ST 46.2 SR 14.4 SS 54.7
CRT .1542 CRS .2718 CST .9918
LSA 71.6 MSA 14.6 SSA 1.5
EL1 46.3 EL2 14.2 ALF 3.33

LAUNCH DATE JUL 4 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 433.527 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 33.317 GAL -4.47 AZL 89.27 HCA 141.59 SMA 209.00 ECC .28234 INC .7266 V1 29.290
RP 225.20 LAP .45 LOP 63.47 VP 23.317 GAP 15.80 AZP 90.57 TAL 339.53 TAP 121.11 RCA 149.99 APO 268.01 V2 24.422
RC 112.011 GL 5.12 GP -11.60 ZAL 123.37 ZAP 152.66 ETS 205.24 ZAE 163.82 ETE 308.10 ZAC 72.71 ETC 283.57 LVI -6.87

PLANETOCENTRIC CONIC

C3 22.326 VHL 4.725 DLA 21.34 RAL 41.34 RAD 6643.9 VEL 11.930 PTH 6.93 VHP 4.602 DPA 3.14 RAP 40.33 ECC 1.3674

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 51 45	3594.35	-47.29	136.98	282.36	95.94	14 51 40	2594.3	-39.52	105.21
60.00	14 5 21	3558.12	-40.30	134.28	282.92	90.64	15 4 39	2558.1	-35.63	104.20
70.00	14 26 45	3495.12	-33.98	128.97	282.71	86.33	15 25 0	2495.1	-31.93	100.42
80.00	15 4 12	3377.70	-29.14	119.55	282.19	83.20	16 0 29	2377.7	-29.02	92.13
90.00	16 10 57	3162.19	-27.21	103.43	281.90	81.97	17 3 39	2162.2	-27.83	76.44
100.00	17 47 3	2852.17	-29.14	80.92	282.19	83.20	18 34 36	1852.2	-29.02	53.49
110.00	19 26 11	2541.94	-33.98	57.89	282.71	86.33	20 8 33	1541.9	-31.93	29.34

DIFFERENTIAL CORRECTIONS

TDE -.5659 TRA-1.6115 TC3 .5242 BAU .2186
RDE -.1636 RRA .4800 RC3 -.5115 FAU .13726
FDE 1.9250 FRA 4.2160 FC3-5.3225 BSP 4101
BDE .5890 BRA 1.6815 BC3 .7324 FSP 1046

MID-COURSE EXECUTION ACCURACY

SGT 2262.2 SGR 814.6 SG3 674.1
RRT -.7675 RRF .8494 RTF -.8843
SGB 2404.4 R23 -.2109 R13 .8991
SG1 2351.3 SG2 502.4 THA 163.79

ORBIT DETERMINATION ACCURACY

ST 46.6 SR 13.7 SS 56.9
CRT .0705 CRS .1947 CST .9912
LSA 73.4 MSA 14.3 SSA 1.5
EL1 46.6 EL2 13.6 ALF 1.30

LAUNCH DATE JUL 4 1973 FLIGHT TIME 172.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 437.142 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 33.280 GAL -4.41 AZL 89.20 HCA 142.65 SMA 208.18 ECC .27934 INC .7980 V1 29.290
RP 225.59 LAP .48 LOP 64.54 VP 23.219 GAP 15.51 AZP 90.64 TAL 339.63 TAP 122.28 RCA 150.03 APO 266.33 V2 24.360
RC 114.516 GL 5.68 GP -12.15 ZAL 123.20 ZAP 151.52 ETS 205.24 ZAE 163.64 ETE 305.41 ZAC 72.17 ETC 283.60 LVI -6.33

PLANETOCENTRIC CONIC

C3 21.898 VHL 4.680 DLA 21.84 RAL 41.02 RAD 6643.7 VEL 11.912 PTH 6.92 VHP 4.491 DPA 2.64 RAP 40.56 ECC 1.3604

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 48 15	3600.23	-47.33	137.54	282.07	95.50	14 48 15	2600.2	-39.71	105.64
60.00	14 1 3	3566.15	-40.30	134.96	282.55	90.17	15 0 29	2566.1	-35.82	104.80
70.00	14 21 20	3506.39	-33.93	129.84	282.28	85.82	15 19 46	2506.4	-32.10	101.26
80.00	14 57 26	3393.18	-29.01	120.68	281.69	82.62	15 53 59	2393.2	-29.15	93.26
90.00	16 3 25	3180.17	-27.03	104.72	281.38	81.35	16 56 25	2180.2	-27.94	77.75
100.00	17 40 18	2867.66	-29.01	82.05	281.69	82.62	18 28 5	1867.7	-29.15	54.63
110.00	19 20 46	2553.20	-33.93	58.76	282.28	85.82	20 3 19	1553.2	-32.10	30.17

DIFFERENTIAL CORRECTIONS

TDE -.5671 TRA-1.5904 TC3 .5396 BAU .2272
RDE -.1380 RRA .5005 RC3 -.5577 FAU .14306
FDE 2.0459 FRA 4.3595 FC3-5.6559 BSP 4136
BDE .5836 BRA 1.6673 BC3 .7760 FSP 1109

MID-COURSE EXECUTION ACCURACY

SGT 2266.7 SGR 858.4 SG3 709.1
RRT -.7869 RRF .8709 RTF -.8856
SGB 2423.8 R23 -.2221 R13 .9025
SG1 2370.3 SG2 506.5 THA 162.59

ORBIT DETERMINATION ACCURACY

ST 46.9 SR 13.0 SS 59.1
CRT -.0308 CRS .0998 CST .9905
LSA 75.2 MSA 13.9 SSA 1.5
EL1 46.9 EL2 13.0 ALF 179.47

LAUNCH DATE JUL 4 1973 FLIGHT TIME 174.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 440.773 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 33.244 GAL -4.35 AZL 89.12 HCA 143.71 SMA 207.41 ECC .27649 INC .8749 V1 29.290
RP 225.98 LAP .52 LOP 65.60 VP 23.124 GAP 15.23 AZP 90.71 TAL 339.72 TAP 123.43 RCA 150.06 APO 264.75 V2 24.338
RC 117.057 GL 6.27 GP -12.73 ZAL 123.03 ZAP 150.35 ETS 205.25 ZAE 163.43 ETE 302.56 ZAC 71.59 ETC 283.64 LVI -5.76

PLANETOCENTRIC CONIC

C3 21.503 VHL 4.637 DLA 22.36 RAL 40.70 RAD 6643.5 VEL 11.895 PTH 6.91 VHP 4.384 DPA 2.10 RAP 40.77 ECC 1.3539

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 44 33	3607.08	-47.38	138.20	281.83	95.00	14 44 40	2607.1	-39.94	106.15
60.00	13 56 28	3575.33	-40.30	135.74	282.23	89.64	14 56 3	2575.3	-36.03	105.49
70.00	14 15 32	3519.14	-33.86	130.83	281.87	85.24	15 14 12	2519.1	-32.28	102.21
80.00	14 50 7	3410.71	-28.85	121.96	281.21	81.97	15 46 58	2410.7	-29.28	94.54
90.00	15 55 11	3200.60	-26.81	106.17	280.86	80.65	16 48 32	2200.6	-28.04	79.23
100.00	17 32 59	2885.18	-28.85	83.33	281.21	81.97	18 21 4	1885.2	-29.28	55.91
110.00	19 14 59	2565.96	-33.86	59.75	281.87	85.24	19 57 45	1566.0	-32.28	31.12

DIFFERENTIAL CORRECTIONS

TDE -.5682 TRA-1.5679 TC3 .5529 BAU .2361
RDE -.1110 RRA .5225 RC3 -.6075 FAU .14904
FDE 2.1751 FRA 4.5041 FC3-6.0004 BSP 4176
BDE .5789 BRA 1.6526 BC3 .8214 FSP 1167

MID-COURSE EXECUTION ACCURACY

SGT 2268.1 SGR 907.5 SG3 745.3
RRT -.8041 RRF .8901 RTF -.8867
SGB 2442.9 R23 -.2329 R13 .9059
SG1 2388.5 SG2 512.3 THA 161.27

ORBIT DETERMINATION ACCURACY

ST 47.1 SR 12.5 SS 61.4
CRT -.1505 CRS -.0151 CST .9898
LSA 77.2 MSA 13.5 SSA 1.5
EL1 47.2 EL2 12.4 ALF 177.54

LAUNCH DATE JUL 4 1973 FLIGHT TIME 176.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 444.420 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 33.210 GAL -4.30 AZL 89.05 HCA 144.77 SMA 206.68 ECC .27378 INC .9548 V1 29.290
RP 226.37 LAP .55 LOP 66.66 VP 23.031 GAP 14.94 AZP 90.78 TAL 339.81 TAP 124.58 RCA 150.10 APO 263.27 V2 24.297
RC 119.633 GL 6.89 GP -13.35 ZAL 122.86 ZAP 149.15 ETS 205.28 ZAE 163.17 ETE 299.55 ZAC 70.99 ETC 283.69 LVI -5.17

PLANETOCENTRIC CONIC

C3 21.138 VHL 4.598 DLA 22.92 RAL 40.36 RAD 6643.3 VEL 11.880 PTH 6.89 VHP 4.282 DPA 1.51 RAP 40.98 ECC 1.3479

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 40 38	3614.95	-47.42	138.95	281.64	94.42	14 40 53	2614.9	-40.19	106.73
60.00	13 51 36	3585.74	-40.29	136.63	281.93	89.04	14 51 21	2585.7	-36.26	106.27
70.00	14 9 20	3533.50	-33.77	131.94	281.48	84.59	15 8 13	2533.5	-32.48	103.28
80.00	14 42 10	3430.51	-28.66	123.40	280.74	81.24	15 39 20	2430.5	-29.41	96.00
90.00	15 46 10	3223.83	-26.54	107.82	280.34	79.87	16 39 54	2223.8	-28.13	80.92
100.00	17 25 2	2904.99	-28.66	84.77	280.74	81.24	18 13 27	1905.0	-29.41	57.37
110.00	19 8 46	2580.32	-33.77	60.86	281.48	84.59	19 51 46	1580.3	-32.48	32.20

DIFFERENTIAL CORRECTIONS

TDE -.5581 TRA-1.5327 TC3 .5849 BAU .2497
RDE -.0829 RRA .5458 RC3 -.6623 FAU .15544
FDE 2.3079 FRA 4.6431 FC3-6.3663 BSP 4081
BDE .5642 BRA 1.6269 BC3 .8836 FSP 1225

MID-COURSE EXECUTION ACCURACY

SGT 2252.5 SGR 962.4 SG3 782.4
RRT -.8240 RRF .9070 RTF -.9011
SGB 2449.8 R23 -.2332 R13 .9128
SG1 2395.2 SG2 512.8 THA 159.63

ORBIT DETERMINATION ACCURACY

ST 46.7 SR 12.2 SS 63.7
CRT -.2897 CRS -.1464 CST .9883
LSA 78.8 MSA 13.2 SSA 1.6
EL1 46.8 EL2 11.7 ALF 175.36

LAUNCH DATE JUL 4 1973 FLIGHT TIME 178.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 448.080 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 33.178 GAL -4.25 AZL 88.98 HCA 145.83 SMA 206.00 ECC .27123 INC 1.0360 V1 29.290
RP 226.76 LAP .58 LOP 67.72 VP 22.941 GAP 14.66 AZP 90.86 TAL 339.90 TAP 125.78 RCA 150.13 APO 261.88 V2 24.255
RC 122.240 GL 7.55 GP -14.00 ZAL 122.69 ZAP 147.92 ETS 205.32 ZAE 162.87 ETE 296.42 ZAC 70.35 ETC 283.78 LVI -4.84

PLANETOCENTRIC CONIC

C3 20.806 VHL 4.561 DLA 23.51 RAL 40.02 RAD 6643.2 VEL 11.866 PTH 6.88 VHP 4.164 DPA .88 RAP 41.17 ECC 1.3424

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 36 29	3623.95	-47.46	139.82	281.50	93.75	14 36 53	2623.9	-40.47	107.41
60.00	13 46 25	3597.52	-40.27	137.63	281.69	88.36	14 46 22	2597.5	-36.52	107.17
70.00	14 2 39	3549.68	-33.66	133.19	281.12	83.85	15 1 48	2549.7	-32.69	104.80
80.00	14 33 28	3452.99	-28.41	125.03	280.28	80.42	15 31 1	2453.0	-29.55	97.66
90.00	15 36 12	3250.44	-26.21	109.70	279.83	78.99	16 30 22	2250.4	-28.21	82.87
100.00	17 16 20	2927.46	-28.41	86.39	280.28	80.42	18 5 8	1927.5	-29.55	59.03
110.00	19 2 5	2596.50	-33.66	62.11	281.12	83.85	19 45 22	1596.5	-32.69	33.42

DIFFERENTIAL CORRECTIONS

TDE -.5679 TRA-1.5168 TC3 .5747 BAU .2560
RDE -.0516 RRA .5715 RC3 -.7188 FAU .16147
FDE 2.4611 FRA 4.7936 FC3-6.7190 BSP 4228
BDE .5702 BRA 1.6209 BC3 .9203 FSP 1296

MID-COURSE EXECUTION ACCURACY

SGT 2258.6 SGR 1023.2 SG3 820.8
RRT -.8326 RRF .9217 RTF -.8885
SGB 2479.5 R23 -.2503 R13 .9136
SG1 2422.6 SG2 528.4 THA 158.25

ORBIT DETERMINATION ACCURACY

ST 47.4 SR 12.2 SS 66.3
CRT -.4340 CRS -.2965 CST .9881
LSA 81.4 MSA 12.8 SSA 1.5
EL1 47.7 EL2 10.9 ALF 173.26

LAUNCH DATE JUL 4 1973 FLIGHT TIME 180.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 481.753 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	33.148	GAL	-4.20	AZL	88.87	HCA	146.88	SMA	209.36	ECC	.26881	INC	1.1259
RP	227.18	LAP	.62	LOP	68.77	VP	22.883	GAP	14.38	AZP	90.94	TAL	339.88	TAP	126.86	RCA	150.16	APO	268.56
RC	126.878	GL	8.28	GP	-14.70	ZAL	122.52	ZAP	148.65	ETS	209.37	ZAE	162.49	ETE	293.18	ZAC	69.68	ETC	283.61

VI	29.290	V1	29.290																
V2	24.814	V2	24.814																
LVI	-3.88	LVI	-3.88																

PLANETOCENTRIC CONIC

C3	20.903	VHL	4.528	DLA	24.14	RAL	39.67	RAD	6643.1	VEL	11.854	PTH	6.87	VHP	4.091	DPA	.20	RAP	41.38

ECC	1.3374	ECC	1.3374																
INJ Z LONG		INJ Z LAT		INJ Z LONG															

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ Z LAT	INJ Z LONG
50.00	13 32 6	3634.10	-47.50	140.80	281.42	93.00	14 32 40	2634.1	-40.79	108.17
60.00	13 40 52	3610.72	-40.24	138.75	281.47	87.60	14 41 3	2610.7	-36.80	106.18
70.00	13 55 25	3567.83	-33.52	134.59	280.79	83.04	14 54 53	2567.8	-32.90	105.87
80.00	14 23 54	3478.50	-28.11	126.86	279.82	79.50	15 21 52	2478.5	-29.87	99.84
90.00	15 25 2	3281.05	-25.80	111.84	279.30	77.99	16 19 44	2281.1	-28.27	85.10
100.00	17 6 46	2952.98	-28.11	88.23	279.82	79.50	17 55 59	1953.0	-29.87	60.91
110.00	18 54 52	2614.65	-33.52	63.51	280.79	83.04	19 38 26	1614.6	-32.90	34.79

DIFFERENTIAL CORRECTIONS

TDE	-.5704	TRA	-1.4917	TC3	.5756	BAU	.2658	SGT	2281.9	SGR	1090.6	SG3	880.0	ST	47.6	SR	12.6	SS	69.0
RDE	-.0184	RRA	.5987	RC3	-.7804	FAU	.18782	RRT	-.8424	RRF	.9344	RTF	-.8879	CRT	-.5778	CRS	-.4472	CST	.9874
FDE	2.6212	FRA	4.9379	FC3	-7.0862	BSP	4289	SGB	2502.0	R23	-.2595	R13	.9169	LSA	83.8	NSA	12.9	SSA	1.8
BDE	.5707	BRA	1.6073	BC3	.9697	FSP	1365	SG1	2442.7	SG2	541.7	THA	156.59	EL1	48.2	EL2	10.1	ALF	170.93

LAUNCH DATE JUL 4 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 455.439 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	33.119	GAL	-4.16	AZL	88.78	HCA	147.93	SMA	204.76	ECC	.26851	INC	1.2186
RP	227.54	LAP	.65	LOP	69.82	VP	22.768	GAP	14.10	AZP	91.03	TAL	340.06	TAP	127.99	RCA	150.19	APO	259.33
RC	127.544	GL	8.99	GP	-15.44	ZAL	122.34	ZAP	145.34	ETS	205.44	ZAE	162.05	ETE	289.87	ZAC	68.98	ETC	283.89

VI	29.290	V1	29.290																
V2	24.172	V2	24.172																
LVI	-3.19	LVI	-3.19																

PLANETOCENTRIC CONIC

C3	20.230	VHL	4.498	DLA	24.81	RAL	39.30	RAD	6642.9	VEL	11.842	PTH	6.86	VHP	4.002	DPA	-.52	RAP	41.51

ECC	1.3329	ECC	1.3329																
INJ Z LONG		INJ Z LAT		INJ Z LONG															

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ Z LAT	INJ Z LONG
50.00	13 27 25	3645.50	-47.54	141.90	281.39	92.16	14 28 10	2645.5	-41.14	109.04
60.00	13 34 55	3625.48	-40.19	140.00	281.30	86.75	14 35 21	2625.5	-37.10	109.32
70.00	13 47 35	3588.17	-33.34	136.15	280.47	82.13	14 47 23	2588.2	-33.13	107.41
80.00	14 13 15	3507.62	-27.73	128.94	279.35	78.47	15 11 43	2507.6	-29.77	101.70
90.00	15 12 22	3316.69	-25.27	114.32	278.75	76.86	16 7 39	2316.7	-28.28	87.71
100.00	16 56 7	2982.09	-27.73	90.31	279.35	78.47	17 45 49	1982.1	-29.77	63.07
110.00	18 47 1	2634.99	-33.34	65.07	280.47	82.13	19 30 56	1635.0	-33.13	36.33

DIFFERENTIAL CORRECTIONS

TDE	-.5641	TRA	-1.4570	TC3	.5885	BAU	.2791	SGT	2231.0	SGR	1164.8	SG3	899.6	ST	47.2	SR	13.3	SS	71.7
RDE	.0165	RRA	.6271	RC3	-.8479	FAU	.17452	RRT	-.8537	RRF	.9453	RTF	-.8895	CRT	-.7065	CRS	-.5837	CST	.9860
FDE	2.7848	FRA	5.0726	FC3	-7.4688	BSP	4257	SGB	2516.8	R23	-.2609	R13	.9223	LSA	86.0	NSA	12.2	SSA	1.8
BDE	.5643	BRA	1.5862	BC3	1.0321	FSP	1430	SG1	2455.7	SG2	551.1	THA	154.61	EL1	48.2	EL2	9.2	ALF	168.33

LAUNCH DATE JUL 4 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 459.134 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	33.092	GAL	-4.11	AZL	88.68	HCA	148.97	SMA	204.19	ECC	.26835	INC	1.3184
RP	227.93	LAP	.68	LOP	70.86	VP	22.684	GAP	13.83	AZP	91.13	TAL	340.14	TAP	129.11	RCA	150.21	APO	258.17
RC	130.237	GL	9.77	GP	-16.23	ZAL	122.16	ZAP	143.99	ETS	205.51	ZAE	161.51	ETE	286.53	ZAC	68.23	ETC	283.97

VI	29.290	V1	29.290																
V2	24.131	V2	24.131																
LVI	-2.46	LVI	-2.46																

PLANETOCENTRIC CONIC

C3	19.987	VHL	4.471	DLA	25.52	RAL	38.93	RAD	6642.8	VEL	11.832	PTH	6.85	VHP	3.917	DPA	-1.30	RAP	41.67

ECC	1.3289	ECC	1.3289																
INJ Z LONG		INJ Z LAT		INJ Z LONG															

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ Z LAT	INJ Z LONG
50.00	13 22 25	3658.26	-47.56	143.13	281.43	91.21	14 23 24	2658.3	-41.52	110.03
60.00	13 28 32	3641.96	-40.12	141.40	281.16	85.81	14 29 14	2642.0	-37.49	110.00
70.00	13 39 2	3611.04	-33.12	137.90	280.16	81.12	14 39 13	2611.0	-33.35	109.16
80.00	14 1 17	3541.21	-27.25	131.32	278.87	77.30	15 0 18	2541.2	-29.84	104.20
90.00	14 57 41	3359.03	-24.58	117.23	278.16	75.56	15 53 40	2359.0	-28.22	93.80
100.00	16 44 9	3015.66	-27.25	92.69	278.87	77.30	17 34 24	2015.7	-29.84	69.56
110.00	18 38 28	2657.86	-33.12	66.82	280.16	81.12	19 22 46	1657.9	-33.35	38.08

DIFFERENTIAL CORRECTIONS

TDE	-.5694	TRA	-1.4327	TC3	.5748	BAU	.2694	SGT	2221.7	SGR	1246.3	SG3	940.0	ST	47.6	SR	14.5	SS	74.7
RDE	.0557	RRA	.6586	RC3	-.9179	FAU	.18088	RRT	-.8583	RRF	.9546	RTF	-.8970	CRT	-.8091	CRS	-.7020	CST	.9854
FDE	2.9700	FRA	5.2132	FC3	-7.8345	BSP	4368	SGB	2547.5	R23	-.2694	R13	.9253	LSA	88.9	NSA	11.8	SSA	1.8
BDE	.5721	BRA	1.5768	BC3	1.0831	FSP	1508	SG1	2482.3	SG2	572.8	THA	152.72	EL1	49.0	EL2	8.3	ALF	165.71

LAUNCH DATE JUL 4 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 462.841 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	33.066	GAL	-4.07	AZL	88.58	HCA	150.01	SMA	203.66	ECC	.26830	INC	1.4201
RP	228.32	LAP	.71	LOP	71.90	VP	22.603	GAP	13.56	AZP	91.23	TAL	340.21	TAP	130.22	RCA	150.24	APO	257.08
RC	132.954	GL	10.59	GP	-17.07	ZAL	121.97	ZAP	142.61	ETS	205.59	ZAE	160.89	ETE	283.18	ZAC	67.44	ETC	284.06

VI	29.290	V1	29.290																
V2	24.090	V2	24.090																
LVI	-1.69	LVI	-1.69																

PLANETOCENTRIC CONIC

C3	19.774	VHL	4.447	DLA	26.27	RAL	38.54	RAD	6642.7	VEL	11.823	PTH	6.84	VHP	3.838	DPA	-2.14	RAP	41.82

ECC	1.3284	ECC	1.3284																
INJ Z LONG		INJ Z LAT		INJ Z LONG															

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ Z LAT	INJ Z LONG
50.00	13 17 5	3672.47	-47.58	144.51	281.93	90.15	14 18 17	2672.5	-41.93	111.14
60.00	13 21 38	3660.32	-40.02	142.95	281.06	84.76	14 22 39	2660.3	-37.76	112.04
70.00	13 29 38	3636.76	-32.83	139.85	279.87	80.00	14 30 14	2636.8	-33.57	111.13
80.00	13 47 34	3580.42	-26.63	134.07	278.35	75.98	14 47 15	2580.4	-29.85	107.11
90.00	14 40 2	3410.93	-23.65	120.75	277.47	74.03	15 36 53	2410.9	-28.04	94.89
100.00	16 30 26	3054.90	-26.63	95.44	278.35	75.98	17 21 21	2054.9	-29.85	68.48
110.00	18 29 4	2683.58	-32.83	68.77	279.87	80.00	19 13 48	1683.6	-33.57	40.08

DIFFERENTIAL CORRECTIONS

TDE	-.5641	TRA	-1.3963	TC3	.5769	BAU	.3040	SGT	2194.7	SGR	1335.6	SG3	980.3	ST	47.2	SR	16.2	SS	77.6
RDE	.0970	RRA	.6908	RC3	-.9949	FAU	.18762	RRT	-.8653	RRF	.9625	RTF	-.8872	CRT	-.8044	CRS	-.7911	CST	.9839
FDE	3.1573	FRA	5.3374	FC3	-8.2141	BSP	4361	SGB	2569.1	R23	-.2681	R13	.9307	LSA	91.5	NSA	11.6	SSA	1.8
BDE	.5724	BRA	1.5578	BC3	1.1500	FSP	1572	SG1	2501.0	SG2	587.5	THA	150.44	EL1	49.4	EL2	7.2	ALF	162.73

LAUNCH DATE JUL 4 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC — DISTANCE 466.555 — EARTH TO MARS

RL 132.11 LAL .00 LOL 281.88 VL 33.042 GAL -4.04 AZL 88.47 HCA 151.05 SMA 203.16 ECC .26036 INC 1.5300 V1 29.290
RP 228.70 LAP .74 LOP 72.94 VP 22.524 GAP 13.29 AZP 91.34 TAL 340.28 TAP 131.33 RCA 150.26 APO 256.05 V2 24.049
RC 135.694 GL 11.47 GP -17.96 ZAL 121.78 ZAP 141.18 ETS 205.67 ZAE 160.16 ETE 279.88 ZAC 66.61 ETC 284.17 LVI -.88

PLANETOCENTRIC CONIC

C3 19.593 VHL 4.426 DLA 27.08 RAL 38.14 RAD 6642.7 VEL 11.816 PTH 6.84 VHP 3.763 DPA -3.04 RAP 41.96 ECC 1.3225

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 11 21	3688.29	-47.57	146.04	281.68	88.97	14 12 49	2688.3	-42.38	112.40
60.00	13 14 10	3680.78	-39.68	144.67	280.99	83.60	14 15 30	2680.8	-38.11	113.66
70.00	13 19 13	3665.87	-32.46	142.04	279.57	78.75	14 20 19	2665.9	-33.78	113.36
80.00	13 31 29	3627.34	-25.82	137.32	277.76	74.46	14 31 56	2627.3	-29.78	110.59
90.00	14 17 24	3478.93	-22.31	125.27	276.61	72.15	15 15 23	2478.9	-27.63	99.52
100.00	16 14 21	3101.81	-25.82	98.69	277.76	74.46	17 6 3	2101.8	-29.78	71.96
110.00	18 18 39	2712.69	-32.46	70.96	279.57	78.75	19 3 52	1712.7	-33.78	42.30

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.5663 TRA-1.3671 TC3 .5568 BAU .3171 — SGT 2174.9 SGR 1433.1 SG3 1020.7 — ST 47.2 SR 18.4 SS 80.7
RDE .1431 RRA .7261 RC3-1.0748 FAU .19396 — RRT -.8671 RRF .9691 RTF -.8839 — CRT -.9346 CRS -.8573 CST .9830
FDE 3.3631 FRA 5.4618 FC3-8.5702 BSP 4461 — SGB 2604.6 R23 -.2707 R13 .9346 — LSA 94.7 MSA 11.3 SSA 1.4
BDE .5841 BRA 1.5480 BC3 1.2104 FSP 1647 — SG1 2531.3 SG2 613.4 THA 148.17 — EL1 50.3 EL2 6.1 ALF 159.69

LAUNCH DATE JUL 4 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC — DISTANCE 470.279 — EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 33.019 GAL -4.00 AZL 88.35 HCA 152.08 SMA 202.68 ECC .25854 INC 1.6469 V1 29.290
RP 229.09 LAP .77 LOP 73.98 VP 22.446 GAP 13.02 AZP 91.46 TAL 340.34 TAP 132.42 RCA 150.28 APO 255.09 V2 24.008
RC 138.457 GL 12.40 GP -18.91 ZAL 121.58 ZAP 139.71 ETS 205.75 ZAE 159.32 ETE 276.65 ZAC 65.72 ETC 284.29 LVI -.01

PLANETOCENTRIC CONIC

C3 19.443 VHL 4.409 DLA 27.93 RAL 37.72 RAD 6642.6 VEL 11.809 PTH 6.83 VHP 3.693 DPA -4.01 RAP 42.09 ECC 1.3200

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 5 10	3705.83	-47.53	147.73	281.90	87.66	14 6 56	2705.8	-42.66	113.81
60.00	13 6 0	3703.60	-39.69	146.58	280.95	82.32	14 7 44	2703.6	-38.48	115.49
70.00	13 7 34	3699.01	-32.00	144.51	279.26	77.36	14 9 13	2699.0	-33.96	115.95
80.00	13 11 47	3685.74	-24.69	141.29	277.04	72.66	14 13 12	2685.7	-29.54	114.92
90.00	13 42 16	3587.13	-19.88	132.28	275.25	69.47	14 42 3	2587.1	-26.59	107.26
100.00	15 54 39	3160.21	-24.69	102.66	277.04	72.66	16 47 19	2160.2	-29.54	76.29
110.00	18 7 0	2745.83	-32.00	73.43	279.26	77.36	18 52 46	1745.8	-33.96	44.87

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.5637 TRA-1.3315 TC3 .5414 BAU .3329 — SGT 2144.7 SGR 1539.3 SG3 1060.5 — ST 47.0 SR 21.0 SS 84.0
RDE .1932 RRA .7627 RC3-1.1608 FAU .20039 — RRT -.8692 RRF .9746 RTF -.8816 — CRT -.9663 CRS -.9031 CST .9816
FDE 3.5776 FRA 5.5706 FC3-8.9229 BSP 4512 — SGB 2639.9 R23 -.2674 R13 .9398 — LSA 97.8 MSA 11.1 SSA 1.4
BDE .5958 BRA 1.5345 BC3 1.2809 FSP 1717 — SG1 2561.9 SG2 637.2 THA 145.62 — EL1 51.2 EL2 5.0 ALF 156.34

LAUNCH DATE JUL 4 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC — DISTANCE 474.010 — EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.997 GAL -3.97 AZL 88.23 HCA 153.11 SMA 202.24 ECC .25681 INC 1.7717 V1 29.290
RP 229.48 LAP .80 LOP 75.01 VP 22.371 GAP 12.78 AZP 91.58 TAL 340.40 TAP 133.51 RCA 150.30 APO 254.18 V2 23.967
RC 141.241 GL 13.39 GP -19.92 ZAL 121.38 ZAP 138.19 ETS 205.83 ZAE 158.37 ETE 273.52 ZAC 64.79 ETC 284.42 LVI .90

PLANETOCENTRIC CONIC

C3 19.325 VHL 4.396 DLA 28.85 RAL 37.28 RAD 6642.5 VEL 11.804 PTH 6.83 VHP 3.628 DPA -5.04 RAP 42.21 ECC 1.3180

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 58 28	3725.30	-47.46	149.61	282.18	86.22	14 0 34	2725.3	-43.36	115.41
60.00	12 57 3	3729.08	-39.43	148.70	280.94	80.90	13 59 12	2729.1	-38.85	117.35
70.00	12 54 20	3737.13	-31.39	147.32	278.91	75.80	13 56 37	2737.1	-34.10	118.92
80.00	12 45 24	3765.22	-22.98	146.57	276.03	70.39	13 48 9	2765.2	-28.97	120.75
84.07	12 12 16	3871.86	-17.03	151.92	273.52	66.36	13 16 48	2871.9	-25.30	127.82
100.00	15 28 16	3239.69	-22.98	107.94	276.03	70.39	16 22 15	2239.7	-28.97	82.12
110.00	17 53 48	2783.95	-31.39	76.24	278.91	75.80	18 40 10	1783.9	-34.10	47.84

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.5593 TRA-1.2936 TC3 .5206 BAU .3303 — SGT 2108.5 SGR 1654.4 SG3 1099.1 — ST 46.5 SR 24.2 SS 87.3
RDE .2481 RRA .8012 RC3-1.2518 FAU .20660 — RRT -.8698 RRF .9791 RTF -.8784 — CRT -.9849 CRS -.9344 CST .9800
FDE 3.8024 FRA 5.6643 FC3-9.2555 BSP 4576 — SGB 2680.1 R23 -.2613 R13 .9452 — LSA 101.2 MSA 11.0 SSA 1.4
BDE .6118 BRA 1.5216 BC3 1.3557 FSP 1766 — SG1 2896.8 SG2 662.8 THA 142.86 — EL1 52.3 EL2 3.7 ALF 152.78

LAUNCH DATE JUL 4 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC — DISTANCE 477.748 — EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.977 GAL -3.94 AZL 88.09 HCA 154.14 SMA 201.83 ECC .25519 INC 1.9052 V1 29.290
RP 229.86 LAP .83 LOP 76.03 VP 22.297 GAP 12.48 AZP 91.71 TAL 340.45 TAP 134.59 RCA 150.32 APO 253.33 V2 23.927
RC 144.046 GL 14.44 GP -21.00 ZAL 121.16 ZAP 136.63 ETS 205.91 ZAE 157.30 ETE 270.51 ZAC 63.80 ETC 284.57 LVI 1.87

PLANETOCENTRIC CONIC

C3 19.243 VHL 4.387 DLA 29.82 RAL 36.82 RAD 6642.8 VEL 11.801 PTH 6.82 VHP 3.569 DPA -6.14 RAP 42.33 ECC 1.3187

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 51 11	3746.90	-47.34	151.68	282.52	84.63	13 53 38	2746.9	-43.90	117.21
60.00	12 47 10	3757.64	-39.10	151.06	280.93	79.33	13 49 47	2757.6	-39.22	119.89
70.00	12 39 1	3781.70	-30.60	150.55	278.49	74.04	13 42 2	2781.7	-34.15	122.40
80.00	11 50 50	3934.03	-18.72	157.29	273.78	66.31	12 56 24	2934.0	-26.86	132.84
80.12	11 39 19	3970.82	-17.60	159.50	273.25	65.53	12 45 29	2970.8	-26.16	135.37
100.00	14 33 41	3408.51	-18.72	118.66	273.78	66.31	15 30 30	2408.5	-26.86	94.21
110.00	17 38 27	2828.52	-30.60	79.47	278.49	74.04	18 25 36	1828.5	-34.15	51.32

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.5548 TRA-1.2542 TC3 .4946 BAU .3693 — SGT 2068.5 SGR 1779.5 SG3 1136.4 — ST 46.0 SR 27.8 SS 90.8
RDE .3092 RRA .8417 RC3-1.3476 FAU .21253 — RRT -.8689 RRF .9829 RTF -.8745 — CRT -.9946 CRS -.9557 CST .9783
FDE 4.0413 FRA 5.7427 FC3-9.5621 BSP 4655 — SGB 2728.6 R23 -.2524 R13 .9509 — LSA 104.9 MSA 10.9 SSA 1.3
BDE .6352 BRA 1.5105 BC3 1.4355 FSP 1854 — SG1 2639.9 SG2 690.2 THA 139.93 — EL1 53.7 EL2 2.5 ALF 148.93

LAUNCH DATE JUL 4 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 481.493 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.958	GAL	-3.91	AZL	87.95	HCA	155.16	SMA	201.44	ECC	.25366	INC	2.0488	V1	29.290
RP	230.25	LAP	.86	LOP	77.06	VP	22.225	GAP	12.22	AZP	91.86	TAL	340.50	TAP	135.68	RCA	150.34	APO	252.53	V2	23.887
RC	148.870	GL	15.56	GP	-22.14	ZAL	120.93	ZAP	135.02	ETS	205.98	ZAE	156.10	ETE	267.65	ZAC	62.75	ETC	284.74	LVI	2.91

PLANETOCENTRIC CONIC

C3	19.197	VHL	4.381	DLA	30.86	RAL	36.34	RAD	6642.5	VEL	11.799	PTH	6.82	VHP	3.515	DPA	-7.32	RAP	42.45	ECC	1.3189

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 43 13	3770.89	-47.17	153.98	282.92	82.87	13 46 4	2770.9	-44.45	119.25
60.00	12 36 8	3789.79	-38.66	153.68	280.92	77.60	13 39 18	2789.8	-39.57	122.55
70.00	12 20 46	3835.19	-29.54	154.35	277.94	72.03	13 24 41	2835.2	-34.08	126.57
77.10	11 14 55	4041.67	-18.19	165.08	273.01	64.63	12 22 17	3041.7	-27.06	140.94
77.10	11 14 55	4041.67	-18.19	165.08	273.01	64.63	12 22 17	3041.7	-27.06	140.94
77.10	11 14 55	4041.67	-18.19	165.08	273.01	64.63	12 22 17	3041.7	-27.06	140.94
110.00	17 20 13	2882.01	-29.54	83.27	277.94	72.03	18 8 15	1882.0	-34.08	55.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5475	TRA	-1.2117	TC3	.4663	BAU	.3905	SGT	2021.6	SGR	1914.8	SG3	1171.5	ST	45.3	SR	31.9	SS	94.3
RDE	.3767	RRA	.8838	RC3	-1.4484	FAU	.21812	RRT	-.8671	RRF	.9861	RTF	-.8700	CRT	-.9985	CRS	-.9700	CST	.9762
FDE	4.2898	FRA	5.7999	FC3	-9.8366	BSP	4731	SGB	2784.5	R23	-.2400	R13	.9569	LSA	108.8	MSA	10.8	SSA	1.2
BDE	.6646	BRA	1.4998	BC3	1.5216	FSP	1917	SG1	2690.8	SG2	716.5	THA	136.79	EL1	55.4	EL2	1.4	ALF	144.83

LAUNCH DATE JUL 4 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 485.244 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.939	GAL	-3.88	AZL	87.80	HCA	156.18	SMA	201.07	ECC	.25222	INC	2.2027	V1	29.290
RP	230.63	LAP	.89	LOP	78.08	VP	22.155	GAP	11.96	AZP	92.02	TAL	340.54	TAP	136.72	RCA	150.36	APO	251.78	V2	23.847
RC	149.713	GL	16.76	GP	-23.36	ZAL	120.69	ZAP	133.36	ETS	206.04	ZAE	154.78	ETE	264.95	ZAC	61.63	ETC	284.93	LVI	4.00

PLANETOCENTRIC CONIC

C3	19.192	VHL	4.381	DLA	31.98	RAL	35.83	RAD	6642.5	VEL	11.799	PTH	6.82	VHP	3.468	DPA	-8.57	RAP	42.57	ECC	1.3159

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 34 27	3797.57	-46.91	156.50	283.36	80.94	13 37 44	2797.6	-45.02	121.57
60.00	12 23 42	3826.25	-38.09	156.60	280.89	75.69	13 27 28	2826.2	-39.89	125.60
70.00	11 57 55	3902.53	-28.04	159.01	277.15	69.64	13 2 57	2902.5	-33.76	131.80
74.41	10 54 12	4100.27	-18.80	169.82	272.81	63.64	12 2 33	3100.3	-28.01	145.67
74.41	10 54 12	4100.27	-18.80	169.82	272.81	63.64	12 2 33	3100.3	-28.01	145.67
74.41	10 54 12	4100.27	-18.80	169.82	272.81	63.64	12 2 33	3100.3	-28.01	145.67
110.00	16 57 21	2949.35	-28.04	87.93	277.15	69.64	17 46 30	1949.4	-33.76	60.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5361	TRA	-1.1648	TC3	.4370	BAU	.4146	SGT	1965.7	SGR	2060.4	SG3	1203.3	ST	44.2	SR	36.5	SS	97.8
RDE	.4509	RRA	.9264	RC3	-1.5555	FAU	.22349	RRT	-.8643	RRF	.9886	RTF	-.8649	CRT	-.9987	CRS	-.9795	CST	.9735
FDE	4.5411	FRA	5.8255	FC3	-10.0816	BSP	4795	SGB	2847.7	R23	-.2244	R13	.9631	LSA	112.8	MSA	10.8	SSA	1.2
BDE	.7006	BRA	1.4883	BC3	1.6157	FSP	1968	SG1	2749.6	SG2	740.8	THA	133.44	EL1	57.3	EL2	1.4	ALF	140.46

LAUNCH DATE JUL 4 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 489.001 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.922	GAL	-3.86	AZL	87.63	HCA	157.20	SMA	200.72	ECC	.25086	INC	2.3693	V1	29.290
RP	231.01	LAP	.92	LOP	79.10	VP	22.087	GAP	11.70	AZP	92.18	TAL	340.58	TAP	137.78	RCA	150.37	APO	251.08	V2	23.807
RC	152.572	GL	18.04	GP	-24.66	ZAL	120.42	ZAP	131.65	ETS	206.09	ZAE	153.34	ETE	262.41	ZAC	60.45	ETC	285.15	LVI	5.17

PLANETOCENTRIC CONIC

C3	19.231	VHL	4.385	DLA	33.17	RAL	35.28	RAD	6642.5	VEL	11.800	PTH	6.82	VHP	3.427	DPA	-9.92	RAP	42.70	ECC	1.3165

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 24 42	3827.33	-46.55	159.29	283.83	78.82	13 28 29	2827.3	-45.59	124.21
60.00	12 9 28	3868.01	-37.33	159.90	280.78	73.57	13 13 56	2868.0	-40.14	128.13
70.00	11 25 45	3997.67	-25.62	165.35	275.82	66.60	12 32 22	2997.7	-32.90	139.09
71.89	10 35 34	4151.83	-19.43	174.11	272.64	62.57	11 44 45	3151.8	-29.02	149.96
71.89	10 35 34	4151.83	-19.43	174.11	272.64	62.57	11 44 45	3151.8	-29.02	149.96
71.89	10 35 34	4151.83	-19.43	174.11	272.64	62.57	11 44 45	3151.8	-29.02	149.96
110.00	16 25 11	3044.49	-25.62	94.27	275.82	66.60	17 15 55	2044.5	-32.90	68.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5169	TRA	-1.1102	TC3	.4148	BAU	.4424	SGT	1895.1	SGR	2216.5	SG3	1231.1	ST	42.6	SR	41.6	SS	101.1
RDE	.5322	RRA	.9683	RC3	-1.6699	FAU	.22868	RRT	-.8622	RRF	.9907	RTF	-.8605	CRT	-.9961	CRS	-.9859	CST	.9696
FDE	4.7911	FRA	5.8126	FC3	-10.2947	BSP	4817	SGB	2916.2	R23	-.2042	R13	.9695	LSA	116.8	MSA	10.9	SSA	1.1
BDE	.7419	BRA	1.4731	BC3	1.7206	FSP	2004	SG1	2816.7	SG2	755.5	THA	129.83	EL1	59.5	EL2	2.6	ALF	135.72

LAUNCH DATE JUL 4 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 492.759 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.906	GAL	-3.84	AZL	87.45	HCA	158.21	SMA	200.40	ECC	.24960	INC	2.5499	V1	29.290
RP	231.39	LAP	.95	LOP	80.11	VP	22.020	GAP	11.44	AZP	92.37	TAL	340.62	TAP	138.82	RCA	150.38	APO	250.42	V2	23.767
RC	155.447	GL	19.41	GP	-26.04	ZAL	120.14	ZAP	129.90	ETS	206.12	ZAE	151.76	ETE	260.04	ZAC	59.20	ETC	285.38	LVI	6.41

PLANETOCENTRIC CONIC

C3	19.322	VHL	4.396	DLA	34.45	RAL	34.70	RAD	6642.5	VEL	11.804	PTH	6.83	VHP	3.393	DPA	-11.34	RAP	42.83	ECC	1.3180

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 13 49	3860.71	-46.07	162.36	284.31	76.49	13 18 9	2860.7	-46.15	127.23
60.00	11 52 53	3916.63	-36.33	163.63	280.57	71.21	12 58 10	2916.6	-40.29	133.25
69.45	10 18 17	4198.69	-20.08	178.12	272.52	61.40	11 28 16	3198.7	-30.08	153.98
69.45	10 18 17	4198.69	-20.08	178.12	272.52	61.40	11 28 16	3198.7	-30.08	153.98
69.45	10 18 17	4198.69	-20.08	178.12	272.52	61.40	11 28 16	3198.7	-30.08	153.98
69.45	10 18 17	4198.69	-20.08	178.12	272.52	61.40	11 28 16	3198.7	-30.08	153.98
69.45	10 18 17	4198.69	-20.08	178.12	272.52	61.40	11 28 16	3198.7	-30.08	153.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5181	TRA	-1.0764	TC3	.3397	BAU	.4665	SGT	1854.8	SGR	2386.9	SG3	1256.1	ST	42.3	SR	47.7	SS	105.4
RDE	.6308	RRA	1.0181	RC3	-1.7736	FAU	.23129	RRT	-.8491	RRF	.9925	RTF	-.8465	CRT	-.9925	CRS	-.9905	CST	.9677
FDE	5.0893	FRA	5.8099	FC3	-10.3630	BSP	5113	SGB	3022.9	R23	-.1921	R13	.9738	LSA	122.7	MSA	10.9	SSA	1.0
BDE	.8163	BRA	1.4816	BC3	1.8058	FSP	2076	SG1	2914.4	SG2	802.4	THA	126.65	EL1	63.7	EL2	3.9	ALF	131.54

LAUNCH DATE JUL 4 1973 FLIGHT TIME 204.00 ARRIVAL DATE JAN 24 1974

DISTANCE 496.524

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 281.88 VL 32.891 GAL -3.82 AZL 87.25 HCA 159.22 SMA 200.10 ECC .24841 INC 2.7465 V1 29.290
RP 231.77 LAP .97 LOP 81.12 VP 21.955 GAP 11.18 AZP 92.57 TAL 340.64 TAP 139.86 RCA 150.39 APO 249.81 V2 23.728
RC 158.336 GL 20.88 GP -27.51 ZAL 119.82 ZAP 128.09 ETS 206.12 ZAE 150.06 ETE 257.83 ZAC 57.87 ETC 285.66 LVI 7.73

PLANETOCENTRIC CONIC

C3 19.469 VHL 4.412 DLA 35.83 RAL 34.06 RAD 6642.6 VEL 11.810 PTH 6.83 VHP 3.367 DPA -12.86 RAP 42.97 ECC 1.3204

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 1 29	3898.30	-45.42	165.75	284.76	73.95	13 6 27	2898.3	-46.68	130.71
60.00	11 32 58	3974.59	-34.97	167.95	280.13	68.55	12 39 12	2974.6	-40.25	138.18
67.02	10 1 55	4242.21	-20.75	181.96	272.43	60.11	11 12 37	3242.2	-31.20	157.85
67.02	10 1 55	4242.21	-20.75	181.96	272.43	60.11	11 12 37	3242.2	-31.20	157.85
67.02	10 1 55	4242.21	-20.75	181.96	272.43	60.11	11 12 37	3242.2	-31.20	157.85
67.02	10 1 55	4242.21	-20.75	181.96	272.43	60.11	11 12 37	3242.2	-31.20	157.85
67.02	10 1 55	4242.21	-20.75	181.96	272.43	60.11	11 12 37	3242.2	-31.20	157.85

DIFFERENTIAL CORRECTIONS

TDE -.5029 TRA-1.0264 TC3 .2887 BAU .4970
RDE .7368 RRA 1.0636 RC3-1.8877 FAU .23410
FDE 5.3644 FRA 5.7421 FC-10.4101 BSP 5274
BDE .8918 BRA 1.4781 BC3 1.9097 FSP 2110

MID-COURSE EXECUTION ACCURACY

SGT 1786.9 SGR 2567.5 SG3 1274.2
RRT -.8389 RRF .9939 RTF -.8350
SGB 3128.1 R23 -.1728 R13 .9788
SG1 3016.6 SG2 827.7 THA 123.09

ORBIT DETERMINATION ACCURACY

ST 40.9 SR 54.3 SS 109.1
CRT -.9871 CRS -.9935 CST .9634
LSA 128.0 MSA 11.0 SSA .9
EL1 67.8 EL2 5.2 ALF 126.89

LAUNCH DATE JUL 4 1973 FLIGHT TIME 206.00 ARRIVAL DATE JAN 26 1974

DISTANCE 500.292

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 281.88 VL 32.877 GAL -3.80 AZL 87.04 HCA 160.22 SMA 199.82 ECC .24729 INC 2.9615 V1 29.290
RP 232.14 LAP 1.00 LOP 82.13 VP 21.891 GAP 10.93 AZP 92.79 TAL 340.67 TAP 140.89 RCA 150.40 APO 249.23 V2 23.689
RC 161.238 GL 22.46 GP -29.07 ZAL 119.47 ZAP 126.24 ETS 206.10 ZAE 148.23 ETE 255.78 ZAC 56.46 ETC 285.96 LVI 9.13

PLANETOCENTRIC CONIC

C3 19.682 VHL 4.436 DLA 37.31 RAL 33.38 RAD 6642.7 VEL 11.819 PTH 6.84 VHP 3.350 DPA -14.48 RAP 43.13 ECC 1.3239

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 47 21	3940.98	-44.54	169.49	285.14	71.18	12 53 1	2941.0	-47.13	134.73
60.00	11 7 49	4046.89	-33.05	173.12	279.30	65.49	12 15 16	3046.9	-39.88	144.30
64.58	9 46 9	4283.27	-21.43	185.70	272.39	58.70	10 57 33	3283.3	-32.38	161.64
64.58	9 46 9	4283.27	-21.43	185.70	272.39	58.70	10 57 33	3283.3	-32.38	161.64
64.58	9 46 9	4283.27	-21.43	185.70	272.39	58.70	10 57 33	3283.3	-32.38	161.64
64.58	9 46 9	4283.27	-21.43	185.70	272.39	58.70	10 57 33	3283.3	-32.38	161.64
64.58	9 46 9	4283.27	-21.43	185.70	272.39	58.70	10 57 33	3283.3	-32.38	161.64

DIFFERENTIAL CORRECTIONS

TDE -.4849 TRA -.9755 TC3 .2309 BAU .5300
RDE .8576 RRA 1.1090 RC3-2.0008 FAU .23565
FDE 5.6448 FRA 5.6354 FC-10.3655 BSP 5472
BDE .9852 BRA 1.4770 BC3 2.0141 FSP 2135

MID-COURSE EXECUTION ACCURACY

SGT 1715.5 SGR 2760.7 SG3 1285.8
RRT -.8255 RRF .9951 RTF -.8204
SGB 3250.3 R23 -.1534 R13 .9832
SG1 3136.6 SG2 852.1 THA 119.55

ORBIT DETERMINATION ACCURACY

ST 39.3 SR 61.7 SS 112.8
CRT -.9804 CRS -.9956 CST .9582
LSA 134.0 MSA 11.2 SSA .9
EL1 72.8 EL2 6.6 ALF 122.29

LAUNCH DATE JUL 4 1973 FLIGHT TIME 208.00 ARRIVAL DATE JAN 28 1974

DISTANCE 504.064

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 281.88 VL 32.863 GAL -3.78 AZL 86.80 HCA 161.22 SMA 199.55 ECC .24625 INC 3.1979 V1 29.290
RP 232.51 LAP 1.03 LOP 83.13 VP 21.829 GAP 10.67 AZP 93.03 TAL 340.68 TAP 141.91 RCA 150.41 APO 248.69 V2 23.690
RC 164.150 GL 24.16 GP -30.73 ZAL 119.09 ZAP 124.33 ETS 206.04 ZAE 146.28 ETE 253.87 ZAC 54.96 ETC 286.31 LVI 10.63

PLANETOCENTRIC CONIC

C3 19.973 VHL 4.469 DLA 38.91 RAL 32.62 RAD 6642.8 VEL 11.831 PTH 6.85 VHP 3.342 DPA -16.19 RAP 43.31 ECC 1.3287

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 30 51	3990.01	-43.38	173.64	285.35	68.16	12 37 21	2990.0	-47.46	139.43
60.00	10 32 22	4147.20	-30.01	179.87	277.59	61.73	11 41 29	3147.2	-38.80	152.60
62.09	9 30 46	4322.63	-22.12	189.40	272.40	57.14	10 42 49	3322.6	-33.62	165.42
62.09	9 30 46	4322.63	-22.12	189.40	272.40	57.14	10 42 49	3322.6	-33.62	165.42
62.09	9 30 46	4322.63	-22.12	189.40	272.40	57.14	10 42 49	3322.6	-33.62	165.42
62.09	9 30 46	4322.63	-22.12	189.40	272.40	57.14	10 42 49	3322.6	-33.62	165.42
62.09	9 30 46	4322.63	-22.12	189.40	272.40	57.14	10 42 49	3322.6	-33.62	165.42

DIFFERENTIAL CORRECTIONS

TDE -.4624 TRA -.9221 TC3 .1711 BAU .5660
RDE .9946 RRA 1.1531 RC3-2.1127 FAU .23595
FDE 5.9202 FRA 5.4833 FC-10.2277 BSP 5693
BDE 1.0968 BRA 1.4765 BC3 2.1196 FSP 2147

MID-COURSE EXECUTION ACCURACY

SGT 1637.9 SGR 2966.7 SG3 1289.6
RRT -.8090 RRF .9960 RTF -.8026
SGB 3388.8 R23 -.1339 R13 .9870
SG1 3274.6 SG2 872.3 THA 116.05

ORBIT DETERMINATION ACCURACY

ST 37.4 SR 69.9 SS 116.4
CRT -.9719 CRS -.9970 CST .9512
LSA 140.4 MSA 11.4 SSA .8
EL1 78.9 EL2 7.8 ALF 117.77

LAUNCH DATE JUL 4 1973 FLIGHT TIME 210.00 ARRIVAL DATE JAN 30 1974

DISTANCE 507.839

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 281.88 VL 32.851 GAL -3.77 AZL 86.54 HCA 162.22 SMA 199.31 ECC .24528 INC 3.4587 V1 29.290
RP 232.89 LAP 1.06 LOP 84.13 VP 21.768 GAP 10.42 AZP 93.29 TAL 340.70 TAP 142.92 RCA 150.42 APO 248.19 V2 23.612
RC 167.073 GL 26.00 GP -32.48 ZAL 118.65 ZAP 122.38 ETS 205.94 ZAE 144.19 ETE 252.09 ZAC 53.39 ETC 286.70 LVI 12.21

PLANETOCENTRIC CONIC

C3 20.356 VHL 4.512 DLA 40.63 RAL 31.78 RAD 6643.0 VEL 11.847 PTH 6.86 VHP 3.345 DPA -18.01 RAP 43.51 ECC 1.3350

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 11 8	4047.31	-41.83	178.26	285.27	64.87	12 18 35	3047.3	-47.57	144.96
59.52	9 15 35	4360.71	-22.80	193.11	272.46	55.42	10 28 15	3360.7	-34.91	169.25
59.52	9 15 35	4360.71	-22.80	193.11	272.46	55.42	10 28 15	3360.7	-34.91	169.25
59.52	9 15 35	4360.71	-22.80	193.11	272.46	55.42	10 28 15	3360.7	-34.91	169.25
59.52	9 15 35	4360.71	-22.80	193.11	272.46	55.42	10 28 15	3360.7	-34.91	169.25
59.52	9 15 35	4360.71	-22.80	193.11	272.46	55.42	10 28 15	3360.7	-34.91	169.25
59.52	9 15 35	4360.71	-22.80	193.11	272.46	55.42	10 28 15	3360.7	-34.91	169.25

DIFFERENTIAL CORRECTIONS

TDE .4317 TRA -.8628 TC3 .1142 BAU .6064
RDE 1.1481 RRA 1.1909 RC3-2.2254 FAU .23530
FDE 6.1739 FRA 5.2644 FC-10.0073 BSP 5892
BDE 1.2266 BRA 1.4706 BC3 2.2284 FSP 2130

MID-COURSE EXECUTION ACCURACY

SGT 1547.7 SGR 3182.6 SG3 1283.3
RRT -.7883 RRF .9968 RTF -.7807
SGB 3539.0 R23 -.1145 R13 .9902
SG1 3426.7 SG2 884.5 THA 112.56

ORBIT DETERMINATION ACCURACY

ST 34.9 SR 78.8 SS 119.6
CRT -.9606 CRS -.9979 CST .9412
LSA 147.0 MSA 11.7 SSA .7
EL1 85.8 EL2 8.9 ALF 113.32

LAUNCH DATE JUL 4 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 511.615 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.830 GAL -3.75 AZL 86.25 HCA 163.21 SMA 199.08 ECC .24438 INC 3.7488 V1 29.290
RP 233.25 LAP 1.08 LOP 85.13 VP 21.709 GAP 10.17 AZP 93.59 TAL 340.70 TAP 143.92 RCA 150.43 APO 247.73 V2 23.873
RC 170.003 GL 27.98 GP -34.35 ZAL 118.17 ZAP 120.38 ETS 205.79 ZAE 141.99 ETE 250.43 ZAC 51.72 ETC 287.15 LVI 13.89

PLANETOCENTRIC CONIC

C3 20.853 VHL 4.567 DLA 42.48 RAL 30.85 RAD 6643.2 VEL 11.868 PTH 6.88 VHP 3.380 DPA -19.84 RAP 43.78 ECC 1.3432

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 46 43	4116.26	-39.70	183.50	284.68	81.26	11 55 19	3116.3	-47.33	151.61
56.87	9 0 27	4397.90	-23.47	196.85	272.57	53.51	10 13 45	3397.9	-36.26	173.18
56.87	9 0 27	4397.90	-23.47	196.85	272.57	53.51	10 13 45	3397.9	-36.26	173.18
56.87	9 0 27	4397.90	-23.47	196.85	272.57	53.51	10 13 45	3397.9	-36.26	173.18
56.87	9 0 27	4397.90	-23.47	196.85	272.57	53.51	10 13 45	3397.9	-36.26	173.18
56.87	9 0 27	4397.90	-23.47	196.85	272.57	53.51	10 13 45	3397.9	-36.26	173.18
56.87	9 0 27	4397.90	-23.47	196.85	272.57	53.51	10 13 45	3397.9	-36.26	173.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4044 TRA -.8117 TC3 .0367 BAU .6471 SGT 1471.5 SGR 3414.5 SG3 1268.2 ST 32.8 SR 89.2 SS 123.1
RDE 1.3302 RRA 1.2303 RC3-2.3208 FAU .23190 RRT -.7579 RRF .9974 RTF -.7493 CRT -.9472 CRS -.9986 CST .9292
FDE 6.4367 FRA 5.0194 FC3-9.6275 BSP 6231 SGB 3718.1 R23 -.0982 R13 .9926 LSA 155.0 MSA 11.9 SSA .6
BDE 1.3903 BRA 1.4739 BC3 2.3210 FSP 2121 SG1 3605.3 SG2 909.2 THA 109.37 EL1 94.5 EL2 9.9 ALF 109.40

LAUNCH DATE JUL 4 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 515.393 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.828 GAL -3.74 AZL 85.93 HCA 164.21 SMA 198.86 ECC .24354 INC 4.0729 V1 29.290
RP 233.62 LAP 1.11 LOP 86.13 VP 21.651 GAP 9.92 AZP 93.92 TAL 340.70 TAP 144.91 RCA 150.43 APO 247.29 V2 23.536
RC 172.941 GL 30.13 GP -36.31 ZAL 117.61 ZAP 118.35 ETS 205.58 ZAE 139.67 ETE 248.88 ZAC 49.96 ETC 287.66 LVI 15.68

PLANETOCENTRIC CONIC

C3 21.490 VHL 4.636 DLA 44.49 RAL 29.79 RAD 6643.5 VEL 11.895 PTH 6.90 VHP 3.390 DPA -21.96 RAP 44.03 ECC 1.3537

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 14 23	4204.12	-36.64	189.67	283.11	57.22	11 24 27	3204.1	-46.42	159.90
54.10	8 45 11	4434.66	-24.10	200.68	272.72	51.40	9 59 5	3434.7	-37.64	177.28
54.10	8 45 11	4434.66	-24.10	200.68	272.72	51.40	9 59 5	3434.7	-37.64	177.28
54.10	8 45 11	4434.66	-24.10	200.68	272.72	51.40	9 59 5	3434.7	-37.64	177.28
54.10	8 45 11	4434.66	-24.10	200.68	272.72	51.40	9 59 5	3434.7	-37.64	177.28
54.10	8 45 11	4434.66	-24.10	200.68	272.72	51.40	9 59 5	3434.7	-37.64	177.28
54.10	8 45 11	4434.66	-24.10	200.68	272.72	51.40	9 59 5	3434.7	-37.64	177.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3657 TRA -.7544 TC3 -.0327 BAU .6931 SGT 1383.3 SGR 3655.5 SG3 1240.6 ST 29.9 SR 100.4 SS 125.8
RDE 1.5357 RRA 1.2590 RC3-2.4123 FAU .22737 RRT -.7200 RRF .9979 RTF -.7102 CRT -.9271 CRS -.9991 CST .9102
FDE 6.6589 FRA 4.7007 FC3-9.1599 BSP 6529 SGB 3908.5 R23 -.0825 R13 .9946 LSA 163.3 MSA 12.2 SSA .5
BDE 1.5786 BRA 1.4678 BC3 2.4125 FSP 2074 SG1 3797.7 SG2 924.0 THA 106.23 EL1 104.2 EL2 10.8 ALF 105.61

LAUNCH DATE JUL 4 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 519.173 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.818 GAL -3.73 AZL 85.56 HCA 165.19 SMA 198.66 ECC .24276 INC 4.4382 V1 29.290
RP 233.99 LAP 1.13 LOP 87.12 VP 21.595 GAP 9.67 AZP 94.29 TAL 340.70 TAP 145.89 RCA 150.44 APO 246.89 V2 23.498
RC 175.886 GL 32.46 GP -38.39 ZAL 116.98 ZAP 116.28 ETS 205.30 ZAE 137.23 ETE 247.42 ZAC 48.12 ETC 288.24 LVI 17.56

PLANETOCENTRIC CONIC

C3 22.303 VHL 4.723 DLA 46.66 RAL 28.57 RAD 6643.8 VEL 11.929 PTH 6.93 VHP 3.437 DPA -24.10 RAP 44.35 ECC 1.3670

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 22 54	4337.36	-31.39	198.04	279.14	52.21	10 35 11	3337.4	-43.87	171.70
51.20	8 29 34	4471.41	-24.67	204.62	272.90	49.05	9 44 5	3471.4	-39.05	181.60
51.20	8 29 34	4471.41	-24.67	204.62	272.90	49.05	9 44 5	3471.4	-39.05	181.60
51.20	8 29 34	4471.41	-24.67	204.62	272.90	49.05	9 44 5	3471.4	-39.05	181.60
51.20	8 29 34	4471.41	-24.67	204.62	272.90	49.05	9 44 5	3471.4	-39.05	181.60
51.20	8 29 34	4471.41	-24.67	204.62	272.90	49.05	9 44 5	3471.4	-39.05	181.60
51.20	8 29 34	4471.41	-24.67	204.62	272.90	49.05	9 44 5	3471.4	-39.05	181.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3189 TRA -.6963 TC3 -.1024 BAU .7422 SGT 1293.8 SGR 3907.8 SG3 1200.7 ST 26.7 SR 113.0 SS 128.1
RDE 1.7753 RRA 1.2793 RC3-2.4871 FAU .22067 RRT -.6704 RRF .9983 RTF -.[illegible]92 CRT -.8968 CRS -.9994 CST .8806
FDE 6.8522 FRA 4.3292 FC3-8.3657 BSP 6864 SGB 4116.5 R23 -.0883 R13 .9961 LSA 172.4 MSA 12.6 SSA .5
BDE 1.8037 BRA 1.4565 BC3 2.4892 FSP 2010 SG1 4008.7 SG2 935.9 THA 103.25 EL1 115.5 EL2 11.6 ALF 102.11

LAUNCH DATE JUL 4 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 522.954 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.808 GAL -3.73 AZL 85.15 HCA 166.18 SMA 198.48 ECC .24204 INC 4.8531 V1 29.290
RP 234.35 LAP 1.16 LOP 88.11 VP 21.540 GAP 9.42 AZP 94.71 TAL 340.69 TAP 146.87 RCA 150.44 APO 246.51 V2 23.461
RC 178.836 GL 34.98 GP -40.58 ZAL 116.27 ZAP 114.19 ETS 204.95 ZAE 134.69 ETE 246.02 ZAC 46.19 ETC 288.91 LVI 19.55

PLANETOCENTRIC CONIC

C3 23.341 VHL 4.831 DLA 49.00 RAL 27.16 RAD 6644.3 VEL 11.972 PTH 6.97 VHP 3.503 DPA -26.33 RAP 44.74 ECC 1.3841

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.15	8 13 26	4508.45	-25.15	208.70	273.10	46.44	9 28 35	3508.4	-40.45	186.22
48.15	8 13 26	4508.45	-25.15	208.70	273.10	46.44	9 28 35	3508.4	-40.45	186.22
48.15	8 13 26	4508.45	-25.15	208.70	273.10	46.44	9 28 35	3508.4	-40.45	186.22
48.15	8 13 26	4508.45	-25.15	208.70	273.10	46.44	9 28 35	3508.4	-40.45	186.22
48.15	8 13 26	4508.45	-25.15	208.70	273.10	46.44	9 28 35	3508.4	-40.45	186.22
48.15	8 13 26	4508.45	-25.15	208.70	273.10	46.44	9 28 35	3508.4	-40.45	186.22
48.15	8 13 26	4508.45	-25.15	208.70	273.10	46.44	9 28 35	3508.4	-40.45	186.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2629 TRA -.6387 TC3 -.1728 BAU .7941 SGT 1207.6 SGR 4170.3 SG3 1147.6 ST 23.3 SR 126.9 SS 129.8
RDE 2.0570 RRA 1.2881 RC3-2.5389 FAU .21156 RRT -.6036 RRF .9987 RTF -.5910 CRT -.8470 CRS -.9996 CST .9313
FDE 7.0073 FRA 3.9066 FC3-7.8470 BSP 7248 SGB 4341.7 R23 -.0559 R13 .9972 LSA 182.6 MSA 12.9 SSA .4
BDE 2.0737 BRA 1.4377 BC3 2.5448 FSP 1928 SG1 4237.0 SG2 947.7 THA 100.44 EL1 128.5 EL2 12.2 ALF 93.92

LAUNCH DATE JUL 4 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC — DISTANCE 526.736 — EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.799 GAL -3.72 AZL 84.67 HCA 167.16 SMA 198.30 ECC .24137 INC 5.3286 V1 29.290
RP 234.71 LAP 1.18 LOP 89.09 VP 21.486 GAP 9.17 AZP 95.20 TAL 340.68 TAP 147.84 RCA 150.44 APO 246.17 V2 23.424
RC 181.791 GL 37.73 GP -42.87 ZAL 115.44 ZAP 112.07 ETS 204.51 ZAE 132.05 ETE 244.68 ZAC 44.18 ETC 289.69 LVI 21.64

PLANETOCENTRIC CONIC

C3 24.675 VHL 4.967 DLA 51.54 RAL 25.50 RAD 6644.9 VEL 12.027 PTH 7.02 VHP 3.594 DPA -28.67 RAP 45.19 ECC 1.4081

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.93	7 56 29	4546.33	-25.49	212.96	273.26	43.55	9 12 15	3546.3	-41.80	191.22
44.93	7 56 29	4546.33	-25.49	212.96	273.26	43.55	9 12 15	3546.3	-41.80	191.22
44.93	7 56 29	4546.33	-25.49	212.96	273.26	43.55	9 12 15	3546.3	-41.80	191.22
44.93	7 56 29	4546.33	-25.49	212.96	273.26	43.55	9 12 15	3546.3	-41.80	191.22
44.93	7 56 29	4546.33	-25.49	212.96	273.26	43.55	9 12 15	3546.3	-41.80	191.22
44.93	7 56 29	4546.33	-25.49	212.96	273.26	43.55	9 12 15	3546.3	-41.80	191.22
44.93	7 56 29	4546.33	-25.49	212.96	273.26	43.55	9 12 15	3546.3	-41.80	191.22

DIFFERENTIAL CORRECTIONS

TDE -.1956 TRA -.5827 TC3 -.2415 BAU .8494
RDE 2.3902 RRA 1.2807 RC3-2.5634 FAU .20013
FDE 7.1090 FRA 3.4354 FC3-7.0215 BSP .7664
BDE 2.3982 BRA 1.4070 BC3 2.5747 FSP .1823

MID-COURSE EXECUTION ACCURACY

SGT 1129.6 SGR 4441.6 SG3 1080.8
RRT -.5138 RRF .9989 RTF -.4997
SGB 4583.0 R23 -.0451 R13 .9981
SG1 4481.2 SG2 960.6 THA 97.81

ORBIT DETERMINATION ACCURACY

ST 19.8 SR 142.4 SS 130.8
CRT -.7576 CRS -.9997 CST .7419
LSA 193.9 MSA 13.2 SSA .3
EL1 143.2 EL2 12.8 ALF 96.05

LAUNCH DATE JUL 4 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC — DISTANCE 530.517 — EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.791 GAL -3.72 AZL 84.12 HCA 168.13 SMA 198.15 ECC .24076 INC 5.6793 V1 29.290
RP 235.06 LAP 1.21 LOP 90.08 VP 21.433 GAP 8.93 AZP 95.75 TAL 340.66 TAP 148.79 RCA 150.44 APO 245.85 V2 23.387
RC 184.750 GL 40.72 GP -45.25 ZAL 114.50 ZAP 109.95 ETS 203.97 ZAE 129.31 ETE 243.36 ZAC 42.09 ETC 290.58 LVI 23.82

PLANETOCENTRIC CONIC

C3 26.404 VHL 5.138 DLA 54.28 RAL 23.49 RAD 6645.6 VEL 12.098 PTH 7.07 VHP 3.714 DPA -31.09 RAP 45.73 ECC 1.4345

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.52	7 38 21	4585.53	-25.64	217.39	273.32	40.36	8 54 47	3585.5	-43.04	196.66
41.52	7 38 21	4585.53	-25.64	217.39	273.32	40.36	8 54 47	3585.5	-43.04	196.66
41.52	7 38 21	4585.53	-25.64	217.39	273.32	40.36	8 54 47	3585.5	-43.04	196.66
41.52	7 38 21	4585.53	-25.64	217.39	273.32	40.36	8 54 47	3585.5	-43.04	196.66
41.52	7 38 21	4585.53	-25.64	217.39	273.32	40.36	8 54 47	3585.5	-43.04	196.66
41.52	7 38 21	4585.53	-25.64	217.39	273.32	40.36	8 54 47	3585.5	-43.04	196.66
41.52	7 38 21	4585.53	-25.64	217.39	273.32	40.36	8 54 47	3585.5	-43.04	196.66

DIFFERENTIAL CORRECTIONS

TDE -.1118 TRA -.5274 TC3 -.3032 BAU .9093
RDE 2.7853 RRA 1.2498 RC3-2.5579 FAU .18661
FDE 7.1363 FRA 2.9180 FC3-6.1184 BSP .8089
BDE 2.7875 BRA 1.3565 BC3 2.5758 FSP .1692

MID-COURSE EXECUTION ACCURACY

SGT 1061.7 SGR 4717.4 SG3 999.8
RRT -.3938 RRF .9992 RTF -.3781
SGB 4835.4 R23 -.0356 R13 .9987
SG1 4736.7 SG2 971.9 THA 95.29

ORBIT DETERMINATION ACCURACY

ST 16.3 SR 159.4 SS 150.5
CRT -.5781 CRS -.9998 CST .5621
LSA 206.2 MSA 13.5 SSA .3
EL1 159.7 EL2 13.3 ALF 93.42

LAUNCH DATE JUL 4 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC — DISTANCE 534.298 — EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.784 GAL -3.71 AZL 83.47 HCA 169.10 SMA 198.00 ECC .24020 INC 6.5248 V1 29.290
RP 235.42 LAP 1.23 LOP 91.05 VP 21.382 GAP 8.68 AZP 96.41 TAL 340.64 TAP 149.74 RCA 150.44 APO 245.56 V2 23.351
RC 187.714 GL 43.97 GP -47.73 ZAL 113.42 ZAP 107.82 ETS 203.31 ZAE 126.51 ETE 242.05 ZAC 39.95 ETC 291.61 LVI 26.09

PLANETOCENTRIC CONIC

C3 28.674 VHL 5.355 DLA 57.23 RAL 21.01 RAD 6646.5 VEL 12.191 PTH 7.15 VHP 3.872 DPA -33.60 RAP 46.35 ECC 1.4719

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.92	7 18 30	4626.75	-25.51	222.02	273.14	36.85	8 35 37	3626.8	-44.07	202.62
37.92	7 18 30	4626.75	-25.51	222.02	273.14	36.85	8 35 37	3626.8	-44.07	202.62
37.92	7 18 30	4626.75	-25.51	222.02	273.14	36.85	8 35 37	3626.8	-44.07	202.62
37.92	7 18 30	4626.75	-25.51	222.02	273.14	36.85	8 35 37	3626.8	-44.07	202.62
37.92	7 18 30	4626.75	-25.51	222.02	273.14	36.85	8 35 37	3626.8	-44.07	202.62
37.92	7 18 30	4626.75	-25.51	222.02	273.14	36.85	8 35 37	3626.8	-44.07	202.62
37.92	7 18 30	4626.75	-25.51	222.02	273.14	36.85	8 35 37	3626.8	-44.07	202.62

DIFFERENTIAL CORRECTIONS

TDE -.0070 TRA -.4739 TC3 -.3557 BAU .9750
RDE 3.2590 RRA 1.1861 RC3-2.5183 FAU .17115
FDE 7.0725 FRA 2.3631 FC3-5.1673 BSP .8499
BDE 3.2590 BRA 1.2773 BC3 2.5433 FSP .1532

MID-COURSE EXECUTION ACCURACY

SGT 1011.5 SGR 4993.1 SG3 905.0
RRT -.2367 RRF .9994 RTF -.2.95
SGB 5094.6 R23 -.0274 R13 .9991
SG1 4999.1 SG2 981.5 THA 92.86

ORBIT DETERMINATION ACCURACY

ST 14.1 SR 177.9 SS 128.7
CRT -.2226 CRS -.9999 CST .2071
LSA 219.6 MSA 13.8 SSA .2
EL1 177.9 EL2 13.7 ALF 91.01

LAUNCH DATE JUL 4 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 1! 1974

HELIOCENTRIC CONIC — DISTANCE 538.077 — EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.777 GAL -3.71 AZL 82.71 HCA 170.07 SMA 197.86 ECC .23968 INC 7.2927 V1 29.290
RP 235.77 LAP 1.25 LOP 92.03 VP 21.332 GAP 8.44 AZP 97.18 TAL 340.62 TAP 150.69 RCA 150.44 APO 245.29 V2 23.315
RC 190.680 GL 47.51 GP -50.28 ZAL 112.20 ZAP 105.72 ETS 202.52 ZAE 123.66 ETE 240.72 ZAC 37.77 ETC 292.81 LVI 28.42

PLANETOCENTRIC CONIC

C3 31.706 VHL 5.631 DLA 60.39 RAL 17.87 RAD 6647.7 VEL 12.314 PTH 7.25 VHP 4.078 DPA -36.16 RAP 47.08 ECC 1.5218

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.12	6 56 9	4670.71	-25.00	226.82	272.52	33.03	8 14 0	3670.7	-44.76	209.14
34.12	6 56 9	4670.71	-25.00	226.82	272.52	33.03	8 14 0	3670.7	-44.76	209.14
34.12	6 56 9	4670.71	-25.00	226.82	272.52	33.03	8 14 0	3670.7	-44.76	209.14
34.12	6 56 9	4670.71	-25.00	226.82	272.52	33.03	8 14 0	3670.7	-44.76	209.14
34.12	6 56 9	4670.71	-25.00	226.82	272.52	33.03	8 14 0	3670.7	-44.76	209.14
34.12	6 56 9	4670.71	-25.00	226.82	272.52	33.03	8 14 0	3670.7	-44.76	209.14
34.12	6 56 9	4670.71	-25.00	226.82	272.52	33.03	8 14 0	3670.7	-44.76	209.14

DIFFERENTIAL CORRECTIONS

TDE .1238 TRA -.4254 TC3 -.3987 BAU 1.0436
RDE 3.8428 RRA 1.0874 RC3-2.4296 FAU .15320
FDE 6.9123 FRA 1.8028 FC3-4.1832 BSP .8986
BDE 3.8448 BRA 1.1677 BC3 2.4621 FSP .1363

MID-COURSE EXECUTION ACCURACY

SGT 992.5 SGR 5271.8 SG3 798.7
RRT -.0461 RRF .9995 RTF -.0275
SGB 5364.5 R23 -.0203 R13 .9995
SG1 5272.1 SG2 991.4 THA 90.52

ORBIT DETERMINATION ACCURACY

ST 14.6 SR 198.4 SS 125.4
CRT .2738 CRS -.9999 CST -.2864
LSA 234.8 MSA 14.1 SSA .1
EL1 198.5 EL2 14.0 ALF 88.84

LAUNCH DATE JUL 4 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 541.854 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.770	GAL	-3.71	AZL	81.78	HCA	171.03	SMA	197.74	ECC	.23922	INC	8.2208	V1	29.290
RP	236.12	LAP	1.28	LOP	93.01	VP	21.283	GAP	8.19	AZP	98.12	TAL	340.59	TAP	151.62	RCA	150.44	APO	245.04	V2	23.279
RC	193.649	GL	51.35	GP	-52.87	ZAL	110.80	ZAP	103.65	ETS	201.58	ZAE	120.78	ETE	239.34	ZAC	35.58	ETC	294.18	LVI	30.80

PLANETOCENTRIC CONIC

C3	35.844	VHL	5.987	DLA	63.78	RAL	13.76	RAD	6648.2	VEL	12.480	PTH	7.37	VHP	4.343	DPA	-38.76	RAP	47.81	ECC	1.8889

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.14	6 30 7	4718.30	-24.01	231.72	271.09	28.95	7 48 45	3718.3	-44.96	216.17
30.14	6 30 7	4718.30	-24.01	231.72	271.09	28.95	7 48 45	3718.3	-44.96	216.17
30.14	6 30 7	4718.30	-24.01	231.72	271.09	28.95	7 48 45	3718.3	-44.96	216.17
30.14	6 30 7	4718.30	-24.01	231.72	271.09	28.95	7 48 45	3718.3	-44.96	216.17
30.14	6 30 7	4718.30	-24.01	231.72	271.09	28.95	7 48 45	3718.3	-44.96	216.17
30.14	6 30 7	4718.30	-24.01	231.72	271.09	28.95	7 48 45	3718.3	-44.96	216.17
30.14	6 30 7	4718.30	-24.01	231.72	271.09	28.95	7 48 45	3718.3	-44.96	216.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2869	TRA	-.3853	TC3	-.4301	BAU	1.1221	SGT	1017.8	SGR	5539.4	SG3	681.6	ST	18.6	SR	220.3	SS	119.7
RDE	4.5591	RRA	.9302	RC3	-2.3018	FAU	.13397	RRT	.1666	RRF	.9996	RTF	.1866	CRT	.6401	CRS	-.9999	CST	-.6485
FDE	6.6116	FRA	1.2385	FC3	-3.2358	BSP	9420	SGB	5632.1	R23	-.0146	R13	.9997	LSA	251.0	MSA	14.3	SSA	.1
BDE	4.5681	BRA	1.0068	BC3	2.3417	FSP	1168	SG1	5542.1	SG2	1003.1	THA	88.19	EL1	220.6	EL2	14.3	ALF	86.90

LAUNCH DATE JUL 4 1973 FLIGHT TIME 270.00 ARRIVAL DATE MAR 31 1974

HELIOCENTRIC CONIC DISTANCE 621.814 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.730	GAL	-4.18	AZL	98.63	HCA	191.10	SMA	196.97	ECC	.23857	INC	8.6312	V1	29.290
RP	242.60	LAP	1.66	LOP	112.86	VP	20.502	GAP	3.36	AZP	81.53	TAL	338.04	TAP	169.14	RCA	149.98	APO	243.96	V2	22.625
RC	254.795	GL	-52.03	GP	49.67	ZAL	112.62	ZAP	84.64	ETS	188.64	ZAE	107.37	ETE	161.87	ZAC	137.19	ETC	291.10	LVI	-71.58

PLANETOCENTRIC CONIC

C3	38.613	VHL	6.214	DLA	-32.29	RAL	62.48	RAD	6650.2	VEL	12.589	PTH	7.45	VHP	3.573	DPA	48.30	RAP	345.77	ECC	1.6355

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	19 0 16	2616.00	-13.14	71.44	290.08	136.15	19 43 52	1616.0	5.20	55.60
60.00	20 31 18	2373.76	-5.56	56.80	297.25	129.98	21 10 51	1373.8	10.51	38.83
70.00	22 45 19	1979.07	4.37	32.30	304.69	123.91	23 18 18	979.1	17.70	11.95
73.72	0 37 42	1644.01	13.38	12.16	310.34	119.66	1 5 6	644.0	24.41	349.63
73.72	0 37 42	1644.01	13.38	12.16	310.34	119.66	1 5 6	644.0	24.41	349.63
73.72	0 37 42	1644.01	13.38	12.16	310.34	119.66	1 5 6	644.0	24.41	349.63
110.00	3 48 41	1025.89	4.37	321.22	304.69	123.91	4 5 47	25.9	17.70	300.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.5394	TRA	3.4491	TC3	-2.1378	BAU	1.5655	SGT	4819.4	SGR	5679.5	SG3	1018.4	ST	90.8	SR	81.3	SS	49.4
RDE	.7012	RRA	-4.5556	RC3	2.1511	FAU	.21675	RRT	-.9760	RRF	-.9986	RTF	.9752	CRT	-.8827	CRS	.9969	CST	-.8430
FDE	-1.1239	FRA	9.2314	FC3	-4.8597	BSP	12644	SGB	7448.7	R23	.0887	R13	-.9946	LSA	127.2	MSA	33.3	SSA	.3
BDE	1.6915	BRA	5.7140	BC3	3.0327	FSP	1834	SG1	7405.1	SG2	805.2	THA	130.20	EL1	118.3	EL2	29.3	ALF	138.54

LAUNCH DATE JUL 4 1973 FLIGHT TIME 272.00 ARRIVAL DATE APR 2 1974

HELIOCENTRIC CONIC DISTANCE 625.585 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.731	GAL	-4.21	AZL	98.04	HCA	192.01	SMA	196.99	ECC	.23882	INC	8.0428	V1	29.290
RP	242.86	LAP	1.67	LOP	113.78	VP	20.475	GAP	3.13	AZP	82.13	TAL	337.89	TAP	169.90	RCA	149.95	APO	244.04	V2	22.599
RC	257.584	GL	-49.71	GP	47.67	ZAL	113.71	ZAP	83.44	ETS	189.45	ZAE	106.93	ETE	163.75	ZAC	135.41	ETC	290.39	LVI	-69.83

PLANETOCENTRIC CONIC

C3	35.851	VHL	5.988	DLA	-30.12	RAL	61.50	RAD	6649.2	VEL	12.480	PTH	7.37	VHP	3.404	DPA	46.48	RAP	347.13	ECC	1.5900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 43 21	2649.19	-14.77	72.92	287.46	135.76	19 27 31	1649.2	3.54	56.99
60.00	20 7 23	2425.61	-7.82	59.32	293.99	129.66	20 47 49	1425.6	8.27	41.38
70.00	22 1 54	2088.72	.18	38.03	300.00	124.15	22 36 43	1088.7	13.90	18.17
79.18	1 12 24	1503.60	13.15	1.45	307.74	117.34	1 37 27	503.6	23.28	338.58
79.18	1 12 24	1503.60	13.15	1.45	307.74	117.34	1 37 27	503.6	23.28	338.58
79.18	1 12 24	1503.60	13.15	1.45	307.74	117.34	1 37 27	503.6	23.28	338.58
110.00	3 5 16	1135.54	.18	326.95	300.00	124.15	3 24 12	135.5	13.90	307.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4811	TRA	3.5013	TC3	-2.3680	BAU	1.5578	SGT	5005.4	SGR	5486.9	SG3	1138.6	ST	91.7	SR	78.2	SS	52.1
RDE	.6686	RRA	-4.2962	RC3	2.2262	FAU	.23998	RRT	-.9786	RRF	-.9985	RTF	.9974	CRT	-.8953	CRS	.9959	CST	-.8514
FDE	-1.2017	FRA	10.0733	FC3	-5.7952	BSP	12360	SGB	7426.9	R23	.0924	R13	-.9942	LSA	127.4	MSA	32.0	SSA	.3
BDE	1.6251	BRA	5.5423	BC3	3.2501	FSP	1998	SG1	7387.5	SG2	764.7	THA	132.32	EL1	117.5	EL2	27.2	ALF	140.06

LAUNCH DATE JUL 4 1973 FLIGHT TIME 274.00 ARRIVAL DATE APR 4 1974

HELIOCENTRIC CONIC DISTANCE 629.349 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.733	GAL	-4.24	AZL	97.54	HCA	192.93	SMA	197.02	ECC	.23909	INC	7.5375	V1	29.290
RP	243.12	LAP	1.68	LOP	114.70	VP	20.449	GAP	2.91	AZP	82.69	TAL	337.73	TAP	170.68	RCA	149.92	APO	244.13	V2	22.573
RC	260.358	GL	-47.57	GP	45.74	ZAL	114.73	ZAP	82.19	ETS	190.20	ZAE	106.37	ETE	165.53	ZAC	133.69	ETC	289.76	LVI	-68.10

PLANETOCENTRIC CONIC

C3	33.657	VHL	5.801	DLA	-28.10	RAL	60.69	RAD	6648.4	VEL	12.392	PTH	7.31	VHP	3.266	DPA	44.70	RAP	348.32	ECC	1.5539

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 28 53	2680.00	-16.27	74.32	285.35	135.35	19 13 33	1680.0	1.99	58.28
60.00	19 47 36	2470.60	-9.77	61.52	291.42	129.30	20 28 47	1470.6	6.31	43.56
70.00	21 31 15	2165.80	-2.76	42.06	296.66	124.06	22 7 21	1165.8	11.11	22.41
80.00	23 45 31	1745.40	4.54	14.68	301.18	119.54	24 14 36	745.4	16.23	353.41
90.00	2 8 37	1296.54	10.14	344.67	304.19	116.54	2 30 14	296.5	20.21	322.16
100.00	2 32 19	1219.87	4.54	336.04	301.18	119.54	2 52 38	219.9	16.23	314.78
110.00	2 34 37	1212.62	-2.76	330.98	296.66	124.06	2 54 50	212.6	11.11	311.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4187	TRA	3.5745	TC3	-2.5896	BAU	1.5405	SGT	5196.8	SGR	5298.0	SG3	1251.9	ST	92.4	SR	74.9	SS	54.3
RDE	.5987	RRA	-4.0901	RC3	2.2394	FAU	.25767	RRT	-.9792	RRF	-.9984	RTF	.9779	CRT	-.8981	CRS	.9944	CST	-.8470
FDE	-1.1534	FRA	10.9218	FC3	-6.6279	BSP	12514	SGB	7421.3	R23	.0987	R13	-.9935	LSA	126.7	MSA	32.1	SSA	.4
BDE	1.5398	BRA	5.4320	BC3	3.4236	FSP	2240	SG1	7382.6	SG2	756.2	THA	134.44	EL1	116.0	EL2	26.2	ALF	141.62

LAUNCH DATE JUL 4 1973 FLIGHT TIME 276.00 ARRIVAL DATE APR 6 1974

DISTANCE 633.257

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 281.88 VL 32.735 GAL -4.26 AZL 97.10 HCA 193.84 SMA 197.06 ECC .23931 INC 7.0985 V1 29.290
RP 243.37 LAP 1.69 LOP 115.62 VP 20.424 GAP 2.66 AZP 83.11 TAL 337.65 TAP 171.49 RCA 149.90 APO 244.21 V2 22.548
RC 263.112 GL -45.63 GP 43.88 ZAL 115.59 ZAP 80.76 ETS 191.03 ZAE 105.54 ETE 167.38 ZAC 132.07 ETC 289.21 LVI -66.44

PLANETOCENTRIC CONIC

C3 31.850 VHL 5.644 DLA -26.27 RAL 59.93 RAD 6647.7 VEL 12.320 PTH 7.25 VHP 3.154 DPA 42.88 RAP 349.20 ECC 1.9242

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 16 21	2707.23	-17.58	75.57	283.58	134.95	19 1 28	1707.2	.62	59.42
60.00	19 30 57	2508.81	-11.41	63.41	289.30	128.92	20 12 46	1508.8	4.64	45.41
70.00	21 7 26	2225.13	-5.02	45.17	294.05	123.83	21 44 31	1225.1	8.92	25.61
80.00	23 6 3	1853.82	.88	20.64	297.71	119.85	23 36 57	853.8	12.95	359.80
90.00	1 0 23	1497.80	3.83	356.09	299.34	118.04	1 25 21	497.8	15.00	334.63
100.00	1 52 51	1328.30	.88	342.01	297.71	119.85	2 14 59	328.3	12.95	321.17
110.00	2 10 48	1271.95	-5.02	334.09	294.05	123.83	2 32 0	271.9	8.92	314.52

DIFFERENTIAL CORRECTIONS

TDE-1.5525 TRA 3.3506 TC3-3.0136 BAU 1.8962
RDE 1.3550 RRA-3.1057 RC3 3.2788 FAU .39211
FDE-3.6401 FRA 9.2592 FC-10.6582 BSP 5834
BDE 2.0606 BRA 4.5686 BC3 4.4533 FSP -223

MID-COURSE EXECUTION ACCURACY

SGT 5333.4 SGR 5287.0 SG3 1415.2
RRT -.9964 RRF -.9985 RTF .9903
SGB 7509.8 R23 .0961 R13 -.9953
SG1 7503.0 SG2 319.8 THA 135.25

ORBIT DETERMINATION ACCURACY

ST 97.3 SR 86.9 SS 66.3
CRT -.9995 CRS .9987 CST -.9966
LSA 146.3 MSA 4.5 SSA .2
EL1 130.4 EL2 2.0 ALF 138.26

LAUNCH DATE JUL 4 1973 FLIGHT TIME 278.00 ARRIVAL DATE APR 8 1974

DISTANCE 636.880

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 281.88 VL 32.737 GAL -4.31 AZL 96.71 HCA 194.75 SMA 197.09 ECC .23971 INC 6.7137 V1 29.290
RP 243.62 LAP 1.71 LOP 116.53 VP 20.400 GAP 2.46 AZP 83.51 TAL 337.41 TAP 172.15 RCA 149.85 APO 244.34 V2 22.523
RC 265.850 GL -43.76 GP 42.13 ZAL 116.55 ZAP 79.62 ETS 191.49 ZAE 104.91 ETE 168.81 ZAC 130.46 ETC 288.72 LVI -64.79

PLANETOCENTRIC CONIC

C3 30.446 VHL 5.518 DLA -24.46 RAL 59.42 RAD 6647.2 VEL 12.263 PTH 7.21 VHP 3.058 DPA 41.32 RAP 350.29 ECC 1.5011

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 5 20	2735.92	-18.96	76.91	282.28	134.50	18 50 56	1735.9	-.82	60.62
60.00	19 16 19	2547.13	-13.04	65.34	287.71	128.48	19 58 46	1547.1	2.96	47.24
70.00	20 47 8	2280.16	-7.09	48.07	292.10	123.50	21 25 8	1280.2	6.87	28.54
80.00	22 36 32	1937.77	-1.97	25.25	295.26	119.80	23 8 49	937.8	10.30	4.62
90.00	0 23 6	1606.75	.33	2.18	296.54	118.28	0 49 52	606.7	11.85	341.08
100.00	1 23 19	1412.24	-1.97	346.62	295.26	119.80	1 46 52	412.2	10.30	325.98
110.00	1 50 30	1326.98	-7.09	336.99	292.10	123.50	2 12 37	327.0	6.87	317.45

DIFFERENTIAL CORRECTIONS

TDE-1.3044 TRA 3.7346 TC3-3.0228 BAU 1.5299
RDE .4884 RRA-3.7005 RC3 2.2338 FAU .29008
FDE-1.0120 FRA12.3368 FC3-8.2483 BSP 12636
BDE 1.3928 BRA 5.2575 BC3 3.7586 FSP 2632

MID-COURSE EXECUTION ACCURACY

SGT 5577.9 SGR 4914.6 SG3 1451.0
RRT -.9811 RRF -.9981 RTF .9794
SGB 7434.2 R23 .1085 R13 -.9922
SG1 7399.5 SG2 717.4 THA 138.69

ORBIT DETERMINATION ACCURACY

ST 93.2 SR 68.3 SS 57.6
CRT -.9078 CRS .9906 CST -.8422
LSA 125.2 MSA 31.8 SSA .4
EL1 113.2 EL2 23.6 ALF 144.60

LAUNCH DATE JUL 4 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 10 1974

DISTANCE 640.644

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 281.88 VL 32.739 GAL -4.35 AZL 96.37 HCA 195.65 SMA 197.13 ECC .24005 INC 6.3733 V1 29.290
RP 243.86 LAP 1.72 LOP 117.44 VP 20.377 GAP 2.23 AZP 83.86 TAL 337.24 TAP 172.89 RCA 149.81 APO 244.46 V2 22.499
RC 268.570 GL -42.06 GP 40.45 ZAL 117.38 ZAP 78.32 ETS 192.05 ZAE 104.05 ETE 170.29 ZAC 128.94 ETC 288.29 LVI -63.23

PLANETOCENTRIC CONIC

C3 29.260 VHL 5.409 DLA -22.82 RAL 58.93 RAD 6646.7 VEL 12.215 PTH 7.17 VHP 2.980 DPA 39.71 RAP 351.11 ECC 1.4815

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 55 37	2761.59	-20.17	78.13	281.17	134.05	18 41 38	1761.6	-2.11	61.69
60.00	19 3 38	2580.68	-14.46	67.04	286.38	128.04	19 46 39	1580.7	1.48	48.85
70.00	20 30 8	2326.42	-8.82	50.54	290.49	123.13	21 8 54	1326.4	5.12	30.98
80.00	22 13 32	2002.78	-4.16	28.83	293.35	119.59	22 46 55	1002.8	8.19	8.28
90.00	23 52 11	1684.59	-2.18	6.52	294.44	118.20	24 20 16	684.6	9.50	345.59
100.00	1 0 20	1477.25	-4.16	350.19	293.35	119.59	1 24 57	477.2	8.19	329.65
110.00	1 33 30	1373.24	-8.82	339.46	290.49	123.13	1 56 23	373.2	5.12	319.90

DIFFERENTIAL CORRECTIONS

TDE-1.2487 TRA 3.8238 TC3-3.2298 BAU 1.5296
RDE .4364 RRA-3.5276 RC3 2.2039 FAU .30299
FDE -.8910 FRA12.9416 FC3-8.9649 BSP 12761
BDE 1.3227 BRA 5.2024 BC3 3.9101 FSP 2819

MID-COURSE EXECUTION ACCURACY

SGT 5767.7 SGR 4725.6 SG3 1536.2
RRT -.9816 RRF -.9979 RTF .9899
SGB 7456.4 R23 .1132 R13 -.9915
SG1 7423.4 SG2 700.7 THA 140.77

ORBIT DETERMINATION ACCURACY

ST 93.5 SR 65.1 SS 56.8
CRT -.9118 CRS .9881 CST -.8378
LSA 124.2 MSA 31.8 SSA .4
EL1 111.8 EL2 22.4 ALF 146.03

LAUNCH DATE JUL 4 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 12 1974

DISTANCE 644.410

HELIOCENTRIC CONIC

RL 152.11 LAL .00 LOL 281.88 VL 32.741 GAL -4.39 AZL 96.07 HCA 196.56 SMA 197.18 ECC .24041 INC 6.0698 V1 29.290
RP 244.10 LAP 1.73 LOP 118.36 VP 20.354 GAP 2.01 AZP 84.18 TAL 337.06 TAP 173.62 RCA 149.77 APO 244.58 V2 22.475
RC 271.273 GL -40.48 GP 38.84 ZAL 118.16 ZAP 77.02 ETS 192.55 ZAE 103.11 ETE 171.68 ZAC 127.49 ETC 287.91 LVI -61.73

PLANETOCENTRIC CONIC

C3 28.275 VHL 5.317 DLA -21.28 RAL 58.52 RAD 6646.3 VEL 12.175 PTH 7.14 VHP 2.915 DPA 38.18 RAP 351.84 ECC 1.4653

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 46 57	2785.92	-21.32	79.31	280.28	133.60	18 33 23	1785.9	-3.33	62.71
60.00	18 52 25	2611.82	-15.76	68.65	285.30	127.59	19 35 57	1611.8	.11	50.34
70.00	20 15 22	2367.96	-10.36	52.77	289.20	122.73	20 54 50	1368.0	3.54	33.16
80.00	21 54 20	2058.22	-6.02	31.69	291.84	119.30	22 28 39	1058.2	6.36	11.38
90.00	23 30 22	1748.49	-4.23	10.10	292.82	117.99	23 59 30	748.5	7.52	349.24
100.00	0 41 8	1532.69	-6.02	353.26	291.84	119.30	1 6 41	532.7	6.36	332.75
110.00	1 18 45	1414.78	-10.36	341.69	289.20	122.73	1 42 19	414.8	3.54	322.08

DIFFERENTIAL CORRECTIONS

TDE-1.2033 TRA 3.9054 TC3-3.4419 BAU 1.5418
RDE .4073 RRA-3.3490 RC3 2.1885 FAU .31760
FDE -.8252 FRA13.4061 FC3-9.7242 BSP 12672
BDE 1.2703 BRA 5.1446 BC3 4.0788 FSP 2913

MID-COURSE EXECUTION ACCURACY

SGT 5956.1 SGR 4539.5 SG3 1611.9
RRT -.9830 RRF -.9977 RTF .9811
SGB 7488.8 R23 .1146 R13 -.9911
SG1 7459.1 SG2 665.7 THA 142.81

ORBIT DETERMINATION ACCURACY

ST 93.9 SR 62.2 SS 59.8
CRT -.9204 CRS .9852 CST -.8400
LSA 123.6 MSA 31.2 SSA .5
EL1 110.7 EL2 20.6 ALF 147.37

LAUNCH DATE JUL 4 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 14 1974

HELIOCENTRIC CONIC DISTANCE 648.173 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.743 GAL -4.43 AZL 95.80 HCA 197.47 SMA 197.22 ECC .24079 INC 5.7976 V1 29.290
RP 244.34 LAP 1.74 LOP 119.27 VP 20.333 GAP 1.79 AZP 84.47 TAL 336.88 TAP 174.35 RCA 149.73 APO 244.71 V2 22.452
RC 273.957 GL -39.00 GP 37.32 ZAL 118.90 ZAP 75.71 ETS 192.99 ZAE 102.11 ETE 172.96 ZAC 126.11 ETC 287.57 LVI -60.29

PLANETOCENTRIC CONIC

C3 27.455 VHL 5.240 DLA -19.84 RAL 58.18 RAD 6646.0 VEL 12.141 PTH 7.11 VHP 2.862 DPA 36.71 RAP 352.91 ECC 1.4518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 39 11	2809.12	-22.41	80.45	279.57	133.14	18 26 0	1809.1	-4.49	61.66
60.00	18 42 25	2640.99	-16.96	70.17	284.44	127.12	19 26 26	1641.0	-1.17	51.73
70.00	20 2 23	2405.89	-11.75	54.83	288.16	122.30	20 42 29	1405.9	2.10	35 14
80.00	21 37 51	2107.10	-7.64	34.62	290.63	118.95	22 12 58	1107.1	4.72	14.09
90.00	23 11 57	1803.55	-5.98	13.19	291.53	117.69	23 42 1	803.6	5.79	352.35
100.00	0 24 39	1581.57	-7.64	355.98	290.63	118.95	0 51 0	581.6	4.72	335.46
110.00	1 5 45	1452.71	-11.75	343.75	288.16	122.30	1 29 58	452.7	2.10	324.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.1536 TRA 3.9968 TC3-3.6405 BAU 1.5513 SGT 6142.8 SGR 4357.5 SG3 1678.0 ST 94.2 SR 59.3 SS 61.8
RDE .3715 RRA-3.1909 RC3 2.1472 FAU .32848 RRT -.9837 RRF -.9974 RTF .9818 CRT -.9269 CRS .9817 CST -.8386
FDE -.7041 FRA13.8377 FC-10.3582 BSP 12755 SGB 7531.4 R23 .1166 R13 -.9906 LSA 122.9 MSA 31.0 SSA .5
BDE 1.2120 BRA 5.1144 BC3 4.2265 FSP 3036 SG1 7504.1 SG2 640.7 THA 144.80 EL1 109.6 EL2 19.1 ALF 146.66

LAUNCH DATE JUL 4 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 16 1974

HELIOCENTRIC CONIC DISTANCE 651.934 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.746 GAL -4.47 AZL 95.55 HCA 198.37 SMA 197.27 ECC .24118 INC 5.5518 V1 29.290
RP 244.56 LAP 1.75 LOP 120.17 VP 20.312 GAP 1.56 AZP 84.73 TAL 336.70 TAP 175.07 RCA 149.69 APO 244.85 V2 22.430
RC 276.623 GL -37.62 GP 35.86 ZAL 119.60 ZAP 74.42 ETS 193.39 ZAE 101.06 ETE 174.15 ZAC 124.79 ETC 287.27 LVI -58.91

PLANETOCENTRIC CONIC

C3 26.767 VHL 5.174 DLA -18.49 RAL 57.89 RAD 6645.7 VEL 12.113 PTH 7.09 VHP 2.817 DPA 35.31 RAP 353.11 ECC 1.4405

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 32 11	2831.26	-23.43	81.56	279.01	132.67	18 19 23	1831.3	-5.60	64.62
60.00	18 33 25	2668.44	-18.08	71.62	283.75	126.65	19 17 53	1668.4	-2.38	53.04
70.00	19 50 49	2440.90	-13.01	56.75	287.33	121.86	20 31 30	1440.9	.76	36.9[illegible]
80.00	21 23 25	2151.07	-9.08	37.09	289.67	118.57	21 59 16	1151.1	3.24	16.9[illegible]
90.00	22 56 2	1852.34	-7.52	15.96	290.50	117.34	23 26 54	852.3	4.24	355.[illegible]
100.00	0 10 13	1625.55	-9.08	358.45	289.67	118.57	0 37 19	625.5	3.24	337.8[illegible]
110.00	0 54 11	1487.72	-13.01	345.67	287.33	121.86	1 18 59	487.7	.76	325.8[illegible]

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.1071 TRA 4.0890 TC3-3.8352 BAU 1.5646 SGT 6328.4 SGR 4181.2 SG3 1735.3 ST 94.5 SR 56.6 SS 61.2
RDE .3405 RRA-3.0425 RC3 2.0992 FAU .33795 RRT -.9843 RRF -.9971 RTF .9823 CRT -.9333 CRS .9775 CST -.8389
FDE -.5755 FRA14.2027 FC-10.9303 BSP 12835 SGB 7585.0 R23 .1181 R13 -.9900 LSA 122.1 MSA 30.9 SSA .5
BDE 1.1583 BRA 5.0968 BC3 4.3721 FSP 3140 SG1 7559.8 SG2 617.4 THA 146.71 EL1 108.7 EL2 17.7 ALF 149.90

LAUNCH DATE JUL 4 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 18 1974

HELIOCENTRIC CONIC DISTANCE 655.695 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.749 GAL -4.51 AZL 95.33 HCA 199.27 SMA 197.33 ECC .24160 INC 5.3287 V1 29.290
RP 244.79 LAP 1.76 LOP 121.08 VP 20.292 GAP 1.34 AZP 84.97 TAL 336.51 TAP 175.78 RCA 149.65 APO 245.00 V2 22.407
RC 279.268 GL -36.33 GP 34.49 ZAL 120.27 ZAP 73.14 ETS 193.74 ZAE 99.97 ETE 175.24 ZAC 123.54 ETC 286.99 LVI -57.60

PLANETOCENTRIC CONIC

C3 26.190 VHL 5.118 DLA -17.21 RAL 57.64 RAD 6645.5 VEL 12.089 PTH 7.07 VHP 2.781 DPA 33.98 RAP 353.66 ECC 1.4310

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 25 51	2852.46	-24.41	82.63	278.59	132.20	18 13 23	1852.5	-6.66	65.51
60.00	18 25 17	2694.40	-19.13	73.02	283.21	126.17	19 10 12	1694.4	-3.52	54.28
70.00	19 40 26	2473.48	-14.18	58.56	286.67	121.40	20 21 40	1473.5	-.49	38.87
80.00	21 10 37	2191.21	-10.38	39.36	288.90	118.15	21 47 9	1191.2	1.89	18.72
90.00	22 42 1	1896.40	-8.88	18.47	289.69	116.96	23 13 37	896.4	2.83	357.56
100.00	23 53 29	1665.68	-10.38	.73	288.90	118.15	24 21 15	665.7	1.89	340.09
110.00	0 43 49	1520.29	-14.18	347.48	286.67	121.40	1 9 9	520.3	-.49	327.[illegible]

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.0618 TRA 4.1827 TC3-4.0240 BAU 1.5806 SGT 6512.2 SGR 4010.0 SG3 1783.8 ST 94.8 SR 54.1 SS 6[illegible].7
RDE .3142 RRA-2.9024 RC3 2.0459 FAU .34607 RRT -.9849 RRF -.9967 RTF .[illegible] CRT -.9403 CRS .9727 CST -.[illegible]59
FDE -.4452 FRA14.5017 FC-11.4395 BSP 12930 SGB 7647.8 R23 .1186 R13 -.9896 LSA 121.5 MSA 30.7 SSA .6
BDE 1.1073 BRA 5.0910 BC3 4.5142 FSP 3227 SG1 7624.8 SG2 593.6 THA 148.55 EL1 107.9 EL2 16.2 ALF 15[illegible].38

LAUNCH DATE JUL 4 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 20 1974

HELIOCENTRIC CONIC DISTANCE 659.453 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.752 GAL -4.55 AZL 95.13 HCA 200.17 SMA 197.38 ECC .24203 INC 5.1253 V1 29.290
RP 245.01 LAP 1.77 LOP 121.98 VP 20.273 GAP 1.12 AZP 85.19 TAL 336.31 TAP 176.49 RCA 149.61 APO 245.15 V2 22.386
RC 281.893 GL -35.12 GP 33.18 ZAL 120.90 ZAP 71.88 ETS 194.04 ZAE 98.85 ETE 176.25 ZAC 122.34 ETC 286.75 LVI -55.34

PLANETOCENTRIC CONIC

C3 25.706 VHL 5.070 DLA -16.00 RAL 57.45 RAD 6645.3 VEL 12.069 PTH 7.05 VHP 2.751 DPA 32.72 RAP 354.17 ECC 1.4231

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 20 5	2872.79	-25.33	83.68	278.28	131.72	18 7 58	1872.8	-7.68	66.38
60.00	18 17 54	2719.05	-20.12	74.36	282.80	125.69	19 3 13	1719.0	-4.60	55.47
70.00	19 31 3	2504.00	-15.25	60.27	286.16	120.94	20 12 47	1504.0	-1.65	40.26
80.00	20 59 9	2228.26	-11.56	41.47	288.29	117.72	21 36 17	1228.3	.63	20.78
90.00	22 29 31	1936.73	-10.12	20.79	289.04	116.55	23 1 48	936.7	1.53	359.32
100.00	23 42 1	1702.73	-11.56	2.84	288.29	117.72	24 10 23	702.7	.63	342.12
110.00	0 34 25	1550.82	-15.25	349.19	286.16	120.94	1 0 16	550.8	-1.65	329.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.0151 TRA 4.2808 TC3-4.2030 BAU 1.5973 SGT 6693.9 SGR 3844.8 SG3 1824.1 ST 95.0 SR 51.6 SS 52.1
RDE .2890 RRA-2.7731 RC3 1.9840 FAU .35217 RRT -.9852 RRF -.9962 RTF .9832 CRT -.9470 CRS .9670 CST -.[illegible]142
FDE -.2967 FRA14.7569 FC-11.8607 BSP 13081 SGB 7719.5 R23 .1188 R13 -.9891 LSA 120.9 MSA 30.7 SSA .6
BDE 1.0555 BRA 5.1006 BC3 4.6477 FSP 3310 SG1 7698.2 SG2 572.8 THA 150.31 EL1 107.1 EL2 14.7 ALF 152.20

LAUNCH DATE JUL 4 1973 FLIGHT TIME 292.00 ARRIVAL DATE APR 22 1974

HELIOCENTRIC CONIC — DISTANCE 663.210 — EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.755 GAL -4.60 AZL 94.94 HCA 201.07 SMA 197.44 ECC .24249 INC 4.9389 V1 29.290
RP 245.22 LAP 1.77 LOP 122.89 VP 20.254 GAP .90 AZP 85.39 TAL 336.11 TAP 177.19 RCA 149.56 APO 245.31 V2 22.365
RC 284.497 GL -33.98 GP 31.93 ZAL 121.52 ZAP 70.64 ETS 194.31 ZAE 97.71 ETE 177.18 ZAC 121.20 ETC 286.53 LVI -55.15

PLANETOCENTRIC CONIC

C3 25.299 VHL 5.030 DLA -14.86 RAL 57.29 RAD 6645.1 VEL 12.053 PTH 7.04 VHP 2.728 DPA 31.52 RAP 354.64 ECC 1.4164

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 14 49	2892.33	-26.21	84.71	278.06	131.24	18 3 2	1892.3	-8.65	67.21
60.00	18 11 9	2742.53	-21.05	75.65	282.50	125.20	18 56 52	1742.5	-5.63	56.60
70.00	19 22 30	2532.76	-16.25	61.90	285.76	120.46	20 4 43	1532.8	-2.75	41.76
80.00	20 48 46	2262.74	-12.64	43.46	287.82	117.28	21 26 29	1262.7	-.54	22.65
90.00	22 18 16	1974.03	-11.25	22.95	288.54	116.12	22 51 10	974.0	.33	1.90
100.00	23 31 38	1737.21	-12.64	4.83	287.82	117.28	24 0 36	737.2	-.54	344.02
110.00	0 25 53	1579.58	-16.25	350.82	285.76	120.46	0 52 12	579.6	-2.75	330.68

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.9710 TRA 4.3786 TC3-4.3767 BAU 1.6165 — SGT 6872.9 SGR 3685.1 SG3 1856.6 — ST 95.4 SR 49.4 SS 62.5
RDE .2693 RRA-2.6500 RC3 1.9203 FAU .35722 — RRT -.9855 RRF -.9957 RTF .9836 — CRT -.9543 CRS .9605 CST -.8338
FDE -.1580 FRA14.9514 FC-12.2242 BSP 13223 — SGB 7798.6 R23 .1177 R13 -.9888 — LSA 120.4 MSA 30.5 SSA .6
BDE 1.0076 BRA 5.1181 BC3 4.7794 FSP 3372 — SG1 7779.0 SG2 551.8 THA 151.99 — EL1 106.6 EL2 13.2 ALF 153.26

LAUNCH DATE JUL 4 1973 FLIGHT TIME 294.00 ARRIVAL DATE APR 24 1974

HELIOCENTRIC CONIC — DISTANCE 666.965 — EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.758 GAL -4.64 AZL 94.77 HCA 201.97 SMA 197.50 ECC .24295 INC 4.7674 V1 29.290
RP 245.43 LAP 1.78 LOP 123.79 VP 20.237 GAP .68 AZP 85.58 TAL 335.91 TAP 177.88 RCA 149.52 APO 245.48 V2 22.344
RC 287.079 GL -32.90 GP 30.75 ZAL 122.10 ZAP 69.42 ETS 194.55 ZAE 96.54 ETE 178.04 ZAC 120.11 ETC 286.34 LVI -54.01

PLANETOCENTRIC CONIC

C3 24.959 VHL 4.996 DLA -13.78 RAL 57.16 RAD 6645.0 VEL 12.039 PTH 7.03 VHP 2.709 DPA 30.38 RAP 355.09 ECC 1.4108

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 10 0	2911.14	-27.05	85.71	277.94	130.76	17 58 31	1911.1	-9.58	68.02
60.00	18 4 58	2764.97	-21.92	76.90	282.30	124.71	18 51 3	1765.0	-6.61	57.68
70.00	19 14 41	2560.00	-17.19	63.46	285.48	119.98	19 57 21	1560.0	-3.79	43.19
80.00	20 39 20	2295.06	-13.64	45.34	287.46	116.82	21 17 35	1295.1	-1.63	24.42
90.00	22 8 3	2008.83	-12.28	24.98	288.15	115.67	22 41 32	1008.8	-.80	5.84
100.00	23 22 12	1769.54	-13.64	6.70	287.46	116.82	23 51 41	769.5	-1.63	345.79
110.00	0 18 4	1608.81	-17.19	352.38	285.48	119.98	0 44 50	608.8	-3.79	332.11

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.9283 TRA 4.4767 TC3-4.5456 BAU 1.6382 — SGT 7050.3 SGR 3532.0 SG3 1882.3 — ST 95.7 SR 47.3 SS 62.8
RDE .2526 RRA-2.5344 RC3 1.8550 FAU .36119 — RRT -.9857 RRF -.9951 RTF .9840 — CRT -.9614 CRS .9530 CST -.8333
FDE -.0187 FRA15.0994 FC-12.5284 BSP 13372 — SGB 7885.5 R23 .1161 R13 -.9884 — LSA 120.0 MSA 30.5 SSA .6
BDE .9621 BRA 5.1443 BC3 4.9095 FSP 3421 — SG1 7867.5 SG2 532.7 THA 153.59 — EL1 106.1 EL2 11.7 ALF 154.28

LAUNCH DATE JUL 4 1973 FLIGHT TIME 296.00 ARRIVAL DATE APR 26 1974

HELIOCENTRIC CONIC — DISTANCE 670.719 — EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.761 GAL -4.69 AZL 94.61 HCA 202.87 SMA 197.56 ECC .24344 INC 4.6089 V1 29.290
RP 245.63 LAP 1.79 LOP 124.69 VP 20.220 GAP .46 AZP 85.75 TAL 335.70 TAP 178.57 RCA 149.47 APO 245.66 V2 22.324
RC 289.637 GL -31.88 GP 29.63 ZAL 122.67 ZAP 68.22 ETS 194.75 ZAE 95.37 ETE 178.82 ZAC 119.08 ETC 286.16 LVI -52.92

PLANETOCENTRIC CONIC

C3 24.676 VHL 4.968 DLA -12.75 RAL 57.07 RAD 6644.9 VEL 12.027 PTH 7.02 VHP 2.696 DPA 29.30 RAP 355.51 ECC 1.4061

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 5 34	2929.29	-27.86	86.69	277.89	130.27	17 54 24	1929.3	-10.48	68.80
60.00	17 59 17	2786.47	-22.75	78.12	282.18	124.21	18 45 43	1786.5	-7.55	58.73
70.00	19 7 30	2585.88	-18.06	64.96	285.28	119.49	19 50 36	1585.9	-4.77	44.55
80.00	20 30 41	2325.54	-14.57	47.12	287.21	116.35	21 9 26	1325.5	-2.66	26.10
90.00	21 58 44	2041.49	-13.24	26.90	287.87	115.22	22 32 45	1041.5	-1.85	5.66
100.00	23 13 33	1800.01	-14.57	8.49	287.21	116.35	23 43 33	800.0	-2.66	347.46
110.00	0 10 53	1632.70	-18.06	353.87	285.28	119.49	0 38 5	632.7	-4.77	333.47

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.8853 TRA 4.5771 TC3-4.7057 BAU 1.6605 — SGT 7224.8 SGR 3384.7 SG3 1901.2 — ST 96.2 SR 45.3 SS 63.0
RDE .2383 RRA-2.4260 RC3 1.7864 FAU .36374 — RRT -.9858 RRF -.9944 RTF .9843 — CRT -.9684 CRS .9445 CST -.8333
FDE .1217 FRA15.2080 FC-12.7613 BSP 13550 — SGB 7978.4 R23 .1138 R13 -.9881 — LSA 119.7 MSA 30.4 SSA .7
BDE .9168 BRA 5.1803 BC3 5.0334 FSP 3462 — SG1 7961.7 SG2 515.4 THA 155.10 — EL1 105.8 EL2 10.3 ALF 155.25

LAUNCH DATE JUL 4 1973 FLIGHT TIME 298.00 ARRIVAL DATE APR 28 1974

HELIOCENTRIC CONIC — DISTANCE 674.471 — EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.764 GAL -4.73 AZL 94.46 HCA 203.77 SMA 197.63 ECC .24394 INC 4.4620 V1 29.290
RP 245.83 LAP 1.80 LOP 125.59 VP 20.204 GAP .24 AZP 85.91 TAL 335.49 TAP 179.26 RCA 149.42 APO 245.84 V2 22.305
RC 292.172 GL -30.92 GP 28.57 ZAL 123.23 ZAP 67.05 ETS 194.92 ZAE 94.18 ETE 179.54 ZAC 118.09 ETC 286.00 LVI -51.89

PLANETOCENTRIC CONIC

C3 24.443 VHL 4.944 DLA -11.77 RAL 57.00 RAD 6644.8 VEL 12.017 PTH 7.01 VHP 2.686 DPA 28.29 RAP 355.92 ECC 1.4023

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 1 30	2946.83	-28.62	87.66	277.90	129.78	17 50 37	1946.8	-11.35	69.56
60.00	17 54 2	2807.13	-23.53	79.30	282.13	123.71	18 40 49	1807.1	-8.44	59.73
70.00	19 0 53	2610.58	-18.88	66.40	285.17	119.00	19 44 23	1610.6	-5.71	45.85
80.00	20 22 43	2354.40	-15.44	48.83	287.04	115.88	21 1 58	1354.4	-3.64	27.68
90.00	21 50 9	2072.33	-14.12	28.73	287.68	114.76	22 24 41	1072.3	-2.84	7.36
100.00	23 5 35	1828.87	-15.44	10.19	287.04	115.88	23 36 4	828.9	-3.64	349.05
110.00	0 4 15	1657.40	-18.88	355.32	285.17	119.00	0 31 53	657.4	-5.71	334.77

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.8434 TRA 4.6780 TC3-4.8609 BAU 1.6848 — SGT 7397.7 SGR 3244.0 SG3 1914.5 — ST 96.6 SR 43.4 SS 63.2
RDE .2268 RRA-2.3239 RC3 1.7181 FAU .36545 — RRT -.9858 RRF -.9936 RTF .9845 — CRT -.9751 CRS .9349 CST -.8336
FDE .2581 FRA15.2776 FC-12.9437 BSP 13727 — SGB 8077.7 R23 .1107 R13 -.9878 — LSA 119.6 MSA 30.4 SSA .7
BDE .8733 BRA 5.2235 BC3 5.1557 FSP 3490 — SG1 8062.2 SG2 499.7 THA 156.53 — EL1 105.6 EL2 8.8 ALF 156.18

LAUNCH DATE JUL 4 1973 FLIGHT TIME 300.00 ARRIVAL DATE APR 30 1974

HELIOCENTRIC CONIC DISTANCE 678.226 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.788 GAL -4.78 AZL 94.33 HCA 204.86 SMA 197.69 ECC .24446 INC 4.3255 V1 29.290
RP 246.02 LAP 1.80 LOP 126.48 VP 20.189 GAP .02 AZP 86.07 TAL 335.28 TAP 178.94 RCA 149.37 APO 246.02 V2 22.286
RC 294.682 GL -30.01 GP 27.56 ZAL 123.76 ZAP 65.90 ETS 195.07 ZAE 92.99 ETE 180.20 ZAC 117.15 ETC 285.85 LVI -50.9

PLANETOCENTRIC CONIC

C3 24.253 VHL 4.925 DLA -10.84 RAL 56.96 RAD 6644.7 VEL 12.010 PTH 7.00 VHP 2.679 DPA 27.33 RAP 356.31 ECC 1.39

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 57 44	2963.80	-29.36	88.60	277.98	129.28	17 47 8	1963.8	-12.19	70.31
60.00	17 49 10	2827.02	-24.28	80.45	282.15	123.21	18 36 17	1827.0	-8.30	60.71
70.00	18 54 45	2634.21	-19.66	67.80	285.12	118.51	19 38 39	1634.2	-6.60	47.10
80.00	20 15 22	2381.85	-16.24	50.46	286.95	115.40	20 55 4	1381.9	-4.56	29.20
90.00	21 42 14	2101.57	-14.95	30.48	287.57	114.29	22 17 16	1101.6	-3.78	9.02
100.00	22 58 14	1856.33	-16.24	11.83	286.95	115.40	23 29 10	856.3	-4.56	350.57
110.00	23 54 11	1681.03	-19.66	356.71	285.12	118.51	24 22 12	681.0	-6.60	336.01

DIFFERENTIAL CORRECTIONS

TDE -.8015 TRA 4.7806 TC3-5.0075 BAU 1.7094
RDE .2177 RRA-2.2278 RC3 1.6484 FAU .36598
FDE .3909 FRA15.3136 FC-13.0636 BSP 13928
BDE .8305 BRA 5.2742 BC3 5.2719 FSP 3510

MID-COURSE EXECUTION ACCURACY

SGT 7567.3 SGR 3108.8 SG3 1921.9
RRT -.9857 RRF -.9927 RTF .9847
SGB 8181.0 R23 .1068 R13 -.9876
SG1 8166.5 SG2 485.6 THA 157.87

ORBIT DETERMINATION ACCURACY

ST 97.2 SR 41.6 SS 63.4
CRT -.9815 CRS .9240 CST -.8344
LSA 119.5 MSA 30.3 SSA .7
EL1 105.5 EL2 7.3 ALF 157.08

LAUNCH DATE JUL 4 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 2 1974

HELIOCENTRIC CONIC DISTANCE 681.968 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.771 GAL -4.83 AZL 94.20 HCA 205.55 SMA 197.76 ECC .24499 INC 4.1981 V1 29.290
RP 246.21 LAP 1.81 LOP 127.38 VP 20.174 GAP -.20 AZP 86.21 TAL 335.06 TAP 180.62 RCA 149.31 APO 246.21 V2 22.267
RC 297.167 GL -29.14 GP 26.60 ZAL 124.28 ZAP 64.78 ETS 195.20 ZAE 91.81 ETE 180.80 ZAC 116.25 ETC 285.72 LVI -49.97

PLANETOCENTRIC CONIC

C3 24.102 VHL 4.909 DLA -9.95 RAL 56.94 RAD 6644.6 VEL 12.003 PTH 7.00 VHP 2.676 DPA 26.42 RAP 356.69 ECC 1.3967

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 15	2980.25	-30.06	89.54	278.11	128.79	17 43 55	1980.2	-13.00	71.03
60.00	17 44 39	2846.21	-24.99	81.58	282.22	122.71	18 32 5	1846.2	-10.13	61.65
70.00	18 49 3	2656.89	-20.39	69.15	285.14	118.01	19 33 20	1656.9	-7.45	48.30
80.00	20 8 32	2408.06	-17.00	52.04	286.92	114.92	20 48 40	1408.1	-5.44	30.65
90.00	21 34 54	2129.42	-15.72	32.16	287.52	113.81	22 10 23	1129.4	-4.67	10.58
100.00	22 51 24	1882.54	-17.00	13.41	286.92	114.92	23 22 46	882.5	-5.44	352.02
110.00	23 48 29	1703.71	-20.39	358.07	285.14	118.01	24 16 53	703.7	-7.45	337.22

DIFFERENTIAL CORRECTIONS

TDE -.7609 TRA 4.8829 TC3-5.1498 BAU 1.7357
RDE .2108 RRA-2.1370 RC3 1.5799 FAU .36582
FDE .5179 FRA15.3170 FC-13.1398 BSP 14126
BDE .7895 BRA 5.3300 BC3 5.3867 FSP 3521

MID-COURSE EXECUTION ACCURACY

SGT 7735.0 SGR 2979.6 SG3 1924.6
RRT -.9854 RRF -.9917 RTF .9849
SGB 8289.0 R23 .1024 R13 -.9874
SG1 8275.5 SG2 473.5 THA 159.14

ORBIT DETERMINATION ACCURACY

ST 97.8 SR 40.0 SS 63.5
CRT -.9871 CRS .9118 CST -.8354
LSA 119.5 MSA 30.3 SSA .8
EL1 105.5 EL2 5.9 ALF 157.94

LAUNCH DATE JUL 4 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 4 1974

HELIOCENTRIC CONIC DISTANCE 685.715 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.775 GAL -4.88 AZL 94.08 HCA 206.45 SMA 197.84 ECC .24553 INC 4.0789 V1 29.290
RP 246.39 LAP 1.82 LOP 128.27 VP 20.160 GAP -.42 AZP 86.35 TAL 334.84 TAP 181.29 RCA 149.26 APO 246.41 V2 22.249
RC 299.628 GL -28.31 GP 25.69 ZAL 124.79 ZAP 63.69 ETS 195.30 ZAE 90.62 ETE 181.36 ZAC 115.39 ETC 285.60 LVI -49.08

PLANETOCENTRIC CONIC

C3 23.986 VHL 4.898 DLA -9.10 RAL 56.94 RAD 6644.6 VEL 11.999 PTH 6.99 VHP 2.675 DPA 25.57 RAP 357.06 ECC 1.3947

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 51 2	2996.22	-30.74	90.46	278.28	128.29	17 40 58	1996.2	-13.78	71.74
60.00	17 40 27	2864.77	-25.67	82.68	282.35	122.20	18 28 12	1864.8	-10.93	62.57
70.00	18 43 44	2678.72	-21.08	70.46	285.22	117.52	19 28 23	1678.7	-8.27	49.46
80.00	20 2 10	2433.17	-17.72	53.56	286.95	114.43	20 42 44	1433.2	-6.27	32.04
90.00	21 28 4	2156.05	-16.45	33.77	287.54	113.33	22 4 0	1156.0	-5.51	12.08
100.00	22 45 2	1907.64	-17.72	14.93	286.95	114.43	23 16 50	907.6	-6.27	353.41
110.00	23 43 11	1725.53	-21.08	359.38	285.22	117.52	24 11 56	725.5	-8.27	338.38

DIFFERENTIAL CORRECTIONS

TDE -.7208 TRA 4.9862 TC3-5.2859 BAU 1.7630
RDE .2058 RRA-2.0515 RC3 1.5121 FAU .36492
FDE .6399 FRA15.2948 FC-13.1713 BSP 14333
BDE .7496 BRA 5.3917 BC3 5.4979 FSP 3523

MID-COURSE EXECUTION ACCURACY

SGT 7900.5 SGR 2856.5 SG3 1923.0
RRT -.9851 RRF -.9905 RTF .9851
SGB 8401.0 R23 .0975 R13 -.9872
SG1 8388.3 SG2 463.2 THA 160.33

ORBIT DETERMINATION ACCURACY

ST 98.4 SR 38.5 SS 63.6
CRT -.9920 CRS .8983 CST -.8368
LSA 119.6 MSA 30.3 SSA .8
EL1 105.6 EL2 4.5 ALF 158.77

LAUNCH DATE JUL 4 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 6 1974

HELIOCENTRIC CONIC DISTANCE 689.459 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.779 GAL -4.93 AZL 93.97 HCA 207.34 SMA 197.91 ECC .24610 INC 3.9671 V1 29.290
RP 246.57 LAP 1.82 LOP 129.17 VP 20.147 GAP -.64 AZP 86.47 TAL 334.61 TAP 181.95 RCA 149.20 APO 246.61 V2 22.232
RC 302.065 GL -27.53 GP 24.82 ZAL 125.29 ZAP 62.63 ETS 195.39 ZAE 89.45 ETE 181.86 ZAC 114.57 ETC 285.49 LVI -48.22

PLANETOCENTRIC CONIC

C3 23.899 VHL 4.889 DLA -8.28 RAL 56.97 RAD 6644.5 VEL 11.995 PTH 6.99 VHP 2.677 DPA 24.76 RAP 357.42 ECC 1.3933

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 48 2	3011.75	-31.39	91.36	278.51	127.79	17 38 14	2011.7	-14.54	72.43
60.00	17 36 33	2882.74	-26.32	83.76	282.52	121.70	18 24 35	1882.7	-11.70	63.47
70.00	18 38 47	2699.76	-21.74	71.74	285.34	117.02	19 23 46	1699.8	-9.05	50.58
80.00	19 56 14	2457.28	-18.39	55.04	287.04	113.95	20 37 11	1457.3	-7.07	33.38
90.00	21 21 41	2181.57	-17.13	35.34	287.61	112.85	21 58 3	1181.6	-6.32	13.52
100.00	22 39 6	1931.75	-18.39	16.40	287.04	113.95	23 11 18	931.8	-7.07	354.75
110.00	23 38 13	1746.58	-21.74	.66	285.34	117.02	24 7 20	746.6	-9.05	339.50

DIFFERENTIAL CORRECTIONS

TDE -.6808 TRA 5.0908 TC3-5.4148 BAU 1.7908
RDE .2027 RRA-1.9710 RC3 1.4450 FAU .36322
FDE .7558 FRA15.2497 FC-13.1573 BSP 14546
BDE .7103 BRA 5.4591 BC3 5.6043 FSP 3518

MID-COURSE EXECUTION ACCURACY

SGT 8063.4 SGR 2738.9 SG3 1917.4
RRT -.9846 RRF -.9892 RTF .9852
SGB 8515.9 R23 .0920 R13 -.9870
SG1 8503.7 SG2 454.7 THA 161.45

ORBIT DETERMINATION ACCURACY

ST 99.2 SR 37.0 SS 63.6
CRT -.9958 CRS .8832 CST -.8387
LSA 119.7 MSA 30.3 SSA .8
EL1 105.8 EL2 3.2 ALF 159.58

LAUNCH DATE JUL 4 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 693.202 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.783	GAL	-4.99	AZL	93.86	HCA	208.23	SMA	197.98	ECC	.24667	INC	3.8620
RP	246.74	LAP	1.83	LOP	130.06	VP	20.135	GAP	-.85	AZP	86.60	TAL	334.38	TAP	182.61	RCA	149.15	APO	246.82
RC	304.476	GL	-26.78	GP	24.00	ZAL	125.77	ZAP	61.59	ETS	195.46	ZAE	88.28	ETE	182.33	ZAC	113.79	ETC	285.40

V1	29.290																		
V2	22.215																		
LVI	-47.41																		

PLANETOCENTRIC CONIC

C3	23.840	VHL	4.883	DLA	-7.50	RAL	57.00	RAD	6644.5	VEL	11.993	PTH	6.99	VHP	2.681	DPA	24.01	RAP	357.78
ECC	1.3924																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 45 15	3026.86	-32.02	92.26	278.77	127.28	17 35 42	2026.9	-15.28	73.11
60.00	17 32 53	2900.17	-26.94	84.82	282.74	121.19	18 21 14	1900.2	-12.44	64.34
70.00	18 34 8	2720.10	-22.36	72.99	285.51	116.52	19 19 28	1720.1	-9.80	51.68
80.00	19 50 40	2480.50	-19.02	56.47	287.17	113.46	20 32 1	1480.5	-7.84	34.68
90.00	21 15 43	2206.10	-17.77	36.85	287.73	112.37	21 52 29	1206.1	-7.09	14.91
100.00	22 33 32	1954.97	-19.02	17.83	287.17	113.46	23 6 7	955.0	-7.84	356.05
110.00	23 33 34	1766.92	-22.36	1.91	285.51	116.52	24 3 1	766.9	-9.80	340.59

DIFFERENTIAL CORRECTIONS

TDE	-.6414	TRA	5.1954	TC3	-5.5387	BAU	1.8193												
RDE	.2011	RRA	-1.8946	RC3	1.3798	FAU	.36102												
FDE	.8658	FRA	15.1805	FC	-13.1100	BSP	14767												
BDE	.6722	BRA	5.5301	BC3	5.7080	FSP	3507												

MID-COURSE EXECUTION ACCURACY

SGT	8223.9	SGR	2626.7	SG3	1908.2						
RRT	-.9839	RRF	-.9877	RTF	.9853						
SGB	8633.2	R23	.0861	R13	-.9869						
SG1	8621.6	SG2	447.7	THA	162.51						

ORBIT DETERMINATION ACCURACY

ST	99.9	SR	35.7	SS	63.7						
CRT	-.9985	CRS	.8665	CST	-.8408						
LSA	120.0	MSA	30.3	SSA	.8						
EL1	106.1	EL2	1.9	ALF	160.36						

LAUNCH DATE JUL 4 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 696.943 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.787	GAL	-5.04	AZL	93.76	HCA	209.12	SMA	198.06	ECC	.24726	INC	3.7629
RP	246.90	LAP	1.83	LOP	130.95	VP	20.124	GAP	-1.07	AZP	86.71	TAL	334.15	TAP	183.27	RCA	149.09	APO	247.04
RC	306.863	GL	-26.06	GP	23.22	ZAL	126.25	ZAP	60.58	ETS	195.52	ZAE	87.11	ETE	182.76	ZAC	113.03	ETC	285.31

V1	29.290																		
V2	22.199																		
LVI	-46.64																		

PLANETOCENTRIC CONIC

C3	23.807	VHL	4.879	DLA	-6.74	RAL	57.06	RAD	6644.5	VEL	11.991	PTH	6.99	VHP	2.687	DPA	23.29	RAP	358.14
ECC	1.3918																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 42 40	3041.59	-32.62	93.15	279.07	126.78	17 33 22	2041.6	-15.99	73.78
60.00	17 29 28	2917.11	-27.53	85.86	282.99	120.68	18 18 5	1917.1	-13.16	65.20
70.00	18 29 47	2739.79	-22.95	74.21	285.72	116.01	19 15 27	1739.8	-10.53	52.74
80.00	19 45 27	2502.91	-19.63	57.86	287.35	112.96	20 27 10	1502.9	-8.57	35.94
90.00	21 10 6	2229.75	-18.38	38.32	287.89	111.88	21 47 16	1229.8	-7.83	16.25
100.00	22 28 19	1977.38	-19.63	19.23	287.35	112.96	23 1 16	977.4	-8.57	357.31
110.00	23 29 13	1786.61	-22.95	3.13	285.72	116.01	23 59 0	786.6	-10.53	341.66

DIFFERENTIAL CORRECTIONS

TDE	-.6030	TRA	5.3007	TC3	-5.6566	BAU	1.8484												
RDE	.2010	RRA	-1.8225	RC3	1.3159	FAU	.35824												
FDE	.9683	FRA	15.0935	FC	-13.0274	BSP	14983												
BDE	.6356	BRA	5.6053	BC3	5.8076	FSP	3487												

MID-COURSE EXECUTION ACCURACY

SGT	8382.0	SGR	2519.7	SG3	1895.8						
RRT	-.9831	RRF	-.9861	RTF	.9854						
SGB	8752.5	R23	.0799	R13	-.9867						
SG1	8741.3	SG2	442.5	THA	163.49						

ORBIT DETERMINATION ACCURACY

ST	100.8	SR	34.5	SS	63.7						
CRT	-.9996	CRS	.8481	CST	-.8431						
LSA	120.4	MSA	30.3	SSA	.9						
EL1	106.5	EL2	.9	ALF	161.13						

LAUNCH DATE JUL 4 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 700.681 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.791	GAL	-5.09	AZL	93.67	HCA	210.00	SMA	198.14	ECC	.24787	INC	3.6693
RP	247.06	LAP	1.83	LOP	131.84	VP	20.113	GAP	-1.29	AZP	86.82	TAL	333.92	TAP	183.92	RCA	149.03	APO	247.25
RC	309.224	GL	-25.37	GP	22.48	ZAL	126.72	ZAP	59.59	ETS	195.56	ZAE	85.96	ETE	183.15	ZAC	112.31	ETC	285.22

V1	29.290																		
V2	22.183																		
LVI	-45.90																		

PLANETOCENTRIC CONIC

C3	23.796	VHL	4.878	DLA	-6.02	RAL	57.13	RAD	6644.5	VEL	11.991	PTH	6.99	VHP	2.695	DPA	22.63	RAP	358.49
ECC	1.3916																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 40 16	3055.97	-33.21	94.02	279.40	126.27	17 31 11	2056.0	-16.69	74.44
60.00	17 26 16	2933.59	-28.10	86.89	283.29	120.17	18 15 10	1933.6	-13.86	66.03
70.00	18 25 41	2758.90	-23.52	75.41	285.97	115.51	19 11 40	1758.9	-11.23	53.78
80.00	19 40 32	2524.59	-20.20	59.22	287.56	112.47	20 22 36	1524.6	-9.28	37.16
90.00	21 4 49	2252.60	-18.95	39.75	288.10	111.39	21 42 22	1252.6	-8.54	17.56
100.00	22 23 23	1999.06	-20.20	20.58	287.56	112.47	22 56 43	999.1	-9.28	358.83
110.00	23 25 7	1805.71	-23.52	4.32	285.97	115.51	23 55 13	805.7	-11.23	342.69

DIFFERENTIAL CORRECTIONS

TDE	-.5651	TRA	5.4066	TC3	-5.7696	BAU	1.8783												
RDE	.2024	RRA	-1.7542	RC3	1.2542	FAU	.35509												
FDE	1.0638	FRA	14.9892	FC	-12.9168	BSP	15203												
BDE	.6003	BRA	5.6841	BC3	5.8043	FSP	3463												

MID-COURSE EXECUTION ACCURACY

SGT	8538.2	SGR	2417.9	SG3	1880.7						
RRT	-.9821	RRF	-.9843	RTF	.9855						
SGB	8873.9	R23	.0734	R13	-.9866						
SG1	8863.1	SG2	438.6	THA	164.42						

ORBIT DETERMINATION ACCURACY

ST	101.7	SR	33.3	SS	63.7						
CRT	-.9991	CRS	.8280	CST	-.8456						
LSA	120.8	MSA	30.3	SSA	.9						
EL1	107.0	EL2	1.3	ALF	161.87						

LAUNCH DATE JUL 4 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 704.418 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.795	GAL	-5.15	AZL	93.58	HCA	210.89	SMA	198.22	ECC	.24849	INC	3.5807
RP	247.22	LAP	1.84	LOP	132.72	VP	20.103	GAP	-1.51	AZP	86.93	TAL	333.68	TAP	184.57	RCA	148.97	APO	247.48
RC	311.559	GL	-24.71	GP	21.77	ZAL	127.18	ZAP	58.63	ETS	195.59	ZAE	84.82	ETE	183.51	ZAC	111.62	ETC	285.13

V1	29.290																		
V2	22.168																		
LVI	-45.19																		

PLANETOCENTRIC CONIC

C3	23.806	VHL	4.879	DLA	-5.32	RAL	57.21	RAD	6644.5	VEL	11.991	PTH	6.99	VHP	2.704	DPA	22.00	RAP	358.84
ECC	1.3918																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 38 1	3070.02	-33.77	94.89	279.76	125.75	17 29 11	2070.0	-17.37	78.08
60.00	17 23 16	2949.65	-28.84	87.90	283.61	119.66	18 12 26	1949.7	-14.53	68.85
70.00	18 21 50	2777.46	-24.06	76.58	286.25	115.01	19 8 7	1777.5	-11.91	54.79
80.00	19 35 53	2545.60	-20.74	60.54	287.81	111.98	20 18 19	1545.6	-9.96	36.38
90.00	20 59 50	2274.72	-19.50	41.15	288.33	110.90	21 37 45	1274.7	-9.23	16.82
100.00	22 18 45	2020.07	-20.74	21.91	287.81	111.98	22 52 25	1020.1	-9.96	359.72
110.00	23 21 16	1824.28	-24.06	5.50	286.25	115.01	23 51 40	824.3	-11.91	343.71

DIFFERENTIAL CORRECTIONS

TDE	.5277	TRA	5.5128	TC3	-5.8777	BAU	1.9089												
RDE	.2050	RRA	-1.6895	RC3	1.1944	FAU	.35155												
FDE	1.1517	FRA	14.8699	FC	-12.7847	BSP	15419												
BDE	.5661	BRA	5.7659	BC3	5.9979	FSP	3432												

MID-COURSE EXECUTION ACCURACY

SGT	8692.2	SGR	2321.0	SG3	1863.2						
RRT	-.9809	RRF	-.9822	RTF	.9856						
SGB	8996.7	R23	.0667	R13	-.9865						
SG1	8986.1	SG2	436.3	THA	165.29						

ORBIT DETERMINATION ACCURACY

ST	102.7	SR	32.3	SS	63.6						
CRT	-.9967	CRS	.8060	CST	-.8485						
LSA	121.3	MSA	30.3	SSA	.9						
EL1	107.6	EL2	2.5	ALF	162.60						

LAUNCH DATE JUL 4 1973 FLIGHT TIME 300.00 ARRIVAL DATE APR 30 1974

HELIOCENTRIC CONIC DISTANCE 678.226 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.768 GAL -4.78 AZL 94.33 HCA 204.66 SMA 197.69 ECC .24446 INC 4.3255 V1 29.290
RP 246.02 LAP 1.80 LOP 126.48 VP 20.189 GAP .02 AZP 86.07 TAL 335.28 TAP 179.94 RCA 149.37 APO 246.02 V2 22.286
RC 294.682 GL -30.01 GP 27.56 ZAL 123.76 ZAP 65.90 ETS 195.07 ZAE 92.99 ETE 180.20 ZAC 117.15 ETC 285.85 LVI -50.9

PLANETOCENTRIC CONIC

C3 24.253 VHL 4.925 DLA -10.84 RAL 56.98 RAD 6644.7 VEL 12.010 PTH 7.00 VHP 2.679 DPA 27.33 RAP 356.31 ECC 1.39

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 57 44	2963.80	-29.36	88.60	277.98	129.28	17 47 8	1963.8	-12.19	70.31
60.00	17 49 10	2827.02	-24.28	80.45	282.15	123.21	18 36 17	1827.0	-9.30	60.71
70.00	18 54 45	2634.21	-19.66	67.80	285.12	118.51	19 38 39	1634.2	-6.60	47.10
80.00	20 15 22	2381.85	-16.24	50.46	286.95	115.40	20 55 4	1381.9	-4.56	29.20
90.00	21 42 14	2101.57	-14.95	30.48	287.57	114.29	22 17 16	1101.6	-3.78	9.02
100.00	22 58 14	1856.33	-16.24	11.83	286.95	115.40	23 29 10	856.3	-4.56	350.57
110.00	23 54 11	1681.03	-19.66	356.71	285.12	118.51	24 22 12	681.0	-6.60	336.01

DIFFERENTIAL CORRECTIONS

TDE -.8015 TRA 4.7806 TC3-5.0075 BAU 1.7094
RDE .2177 RRA-2.2278 RC3 1.6484 FAU .36598
FDE .3909 FRA15.3136 FC-13.0636 BSP 13928
BDE .8305 BRA 5.2742 BC3 5.2719 FSP 3510

MID-COURSE EXECUTION ACCURACY

SGT 7567.3 SGR 3108.8 SG3 1921.9
RRT -.9857 RRF -.9927 RTF .9847
SGB 8181.0 R23 .1068 R13 -.9876
SG1 8166.5 SG2 485.6 THA 157.87

ORBIT DETERMINATION ACCURACY

ST 97.2 SR 41.6 SS 63.4
CRT -.9815 CRS .9240 CST -.8344
LSA 119.5 NSA 30.3 SSA .7
EL1 105.5 EL2 7.3 ALF 157.08

LAUNCH DATE JUL 4 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 2 1974

HELIOCENTRIC CONIC DISTANCE 681.968 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.771 GAL -4.83 AZL 94.20 HCA 205.55 SMA 197.76 ECC .24499 INC 4.1981 V1 29.290
RP 246.21 LAP 1.81 LOP 127.38 VP 20.174 GAP -.20 AZP 86.21 TAL 335.06 TAP 180.62 RCA 149.31 APO 246.21 V2 22.267
RC 297.167 GL -29.14 GP 26.60 ZAL 124.28 ZAP 64.78 ETS 195.20 ZAE 91.81 ETE 180.80 ZAC 116.25 ETC 285.72 LVI -49.97

PLANETOCENTRIC CONIC

C3 24.102 VHL 4.909 DLA -9.95 RAL 56.94 RAD 6644.6 VEL 12.003 PTH 7.00 VHP 2.676 DPA 26.42 RAP 356.69 ECC 1.3967

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 15	2980.25	-30.06	89.54	278.11	128.79	17 43 55	1980.2	-13.00	71.03
60.00	17 44 39	2846.21	-24.99	81.58	282.22	122.71	18 32 5	1846.2	-10.13	61.65
70.00	18 49 3	2656.89	-20.39	69.15	285.14	118.01	19 33 20	1656.9	-7.45	48.30
80.00	20 8 32	2408.06	-17.00	52.04	286.92	114.92	20 48 40	1408.1	-5.44	30.65
90.00	21 34 54	2129.42	-15.72	32.16	287.52	113.81	22 10 23	1129.4	-4.67	10.58
100.00	22 51 24	1882.54	-17.00	13.41	286.92	114.92	23 22 46	882.5	-5.44	352.02
110.00	23 48 29	1703.71	-20.39	358.07	285.14	118.01	24 16 53	703.7	-7.45	337.22

DIFFERENTIAL CORRECTIONS

TDE -.7609 TRA 4.8829 TC3-5.1498 BAU 1.7357
RDE .2108 RRA-2.1370 RC3 1.5799 FAU .36582
FDE .5179 FRA15.3170 FC-13.1398 BSP 14126
BDE .7895 BRA 5.3300 BC3 5.3867 FSP 3521

MID-COURSE EXECUTION ACCURACY

SGT 7735.0 SGR 2979.6 SG3 1924.6
RRT -.9854 RRF -.9917 RTF .9849
SGB 8289.0 R23 .1024 R13 -.9874
SG1 8275.5 SG2 473.5 THA 159.14

ORBIT DETERMINATION ACCURACY

ST 97.8 SR 40.0 SS 63.5
CRT -.9871 CRS .9118 CST -.8354
LSA 119.5 NSA 30.3 SSA .8
EL1 105.5 EL2 5.9 ALF 157.94

LAUNCH DATE JUL 4 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 4 1974

HELIOCENTRIC CONIC DISTANCE 685.715 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.775 GAL -4.88 AZL 94.08 HCA 206.45 SMA 197.84 ECC .24553 INC 4.0789 V1 29.290
RP 246.39 LAP 1.82 LOP 128.27 VP 20.160 GAP -.42 AZP 86.35 TAL 334.84 TAP 181.29 RCA 149.26 APO 246.41 V2 22.249
RC 299.628 GL -28.31 GP 25.69 ZAL 124.79 ZAP 63.69 ETS 195.30 ZAE 90.62 ETE 181.36 ZAC 115.39 ETC 285.60 LVI -49.08

PLANETOCENTRIC CONIC

C3 23.986 VHL 4.898 DLA -9.10 RAL 56.94 RAD 6644.6 VEL 11.999 PTH 6.99 VHP 2.675 DPA 25.57 RAP 357.06 ECC 1.3947

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 51 2	2996.22	-30.74	90.46	278.28	128.29	17 40 58	1996.2	-13.78	71.74
60.00	17 40 27	2864.77	-25.67	82.68	282.35	122.20	18 28 12	1864.8	-10.93	62.57
70.00	18 43 44	2678.72	-21.08	70.46	285.22	117.52	19 28 23	1678.7	-8.27	49.46
80.00	20 2 10	2433.17	-17.72	53.56	286.95	114.43	20 42 44	1433.2	-6.27	32.04
90.00	21 28 4	2156.05	-16.45	33.77	287.54	113.33	22 4 0	1156.0	-5.51	12.08
100.00	22 45 2	1907.64	-17.72	14.93	286.95	114.43	23 16 50	907.6	-6.27	353.41
110.00	23 43 11	1725.53	-21.08	359.38	285.22	117.52	24 11 56	725.5	-8.27	338.38

DIFFERENTIAL CORRECTIONS

TDE -.7208 TRA 4.9862 TC3-5.2859 BAU 1.7630
RDE .2058 RRA-2.0515 RC3 1.5121 FAU .36492
FDE .6399 FRA15.2948 FC-13.1713 BSP 14333
BDE .7496 BRA 5.3917 BC3 5.4979 FSP 3523

MID-COURSE EXECUTION ACCURACY

SGT 7900.5 SGR 2856.5 SG3 1923.0
RRT -.9851 RRF -.9905 RTF .9851
SGB 8401.0 R23 .0975 R13 -.9872
SG1 8388.3 SG2 463.2 THA 160.33

ORBIT DETERMINATION ACCURACY

ST 98.4 SR 38.5 SS 63.6
CRT -.9920 CRS .8983 CST -.8368
LSA 119.6 NSA 30.3 SSA .8
EL1 105.6 EL2 4.5 ALF 156.77

LAUNCH DATE JUL 4 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 6 1974

HELIOCENTRIC CONIC DISTANCE 689.459 EARTH TO MARS

RL 152.11 LAL .00 LOL 281.88 VL 32.779 GAL -4.93 AZL 93.97 HCA 207.34 SMA 197.91 ECC .24610 INC 3.9671 V1 29.290
RP 246.57 LAP 1.82 LOP 129.17 VP 20.147 GAP -.64 AZP 86.47 TAL 334.61 TAP 181.95 RCA 149.20 APO 246.61 V2 22.232
RC 302.065 GL -27.53 GP 24.82 ZAL 125.29 ZAP 62.63 ETS 195.39 ZAE 89.45 ETE 181.86 ZAC 114.57 ETC 285.49 LVI -48.22

PLANETOCENTRIC CONIC

C3 23.899 VHL 4.889 DLA -8.28 RAL 56.97 RAD 6644.5 VEL 11.995 PTH 6.99 VHP 2.677 DPA 24.76 RAP 357.42 ECC 1.3933

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 48 2	3011.75	-31.39	91.36	278.51	127.79	17 38 14	2011.7	-14.54	72.43
60.00	17 36 33	2882.74	-26.32	83.76	282.52	121.70	18 24 35	1882.7	-11.70	63.47
70.00	18 38 47	2699.76	-21.74	71.74	285.34	117.02	19 23 46	1699.8	-9.05	50.58
80.00	19 56 14	2457.28	-18.39	55.04	287.04	113.95	20 37 11	1457.3	-7.07	33.38
90.00	21 21 41	2181.57	-17.13	35.34	287.61	112.85	21 58 3	1181.6	-6.32	13.92
100.00	22 39 6	1931.75	-18.39	16.40	287.04	113.95	23 11 18	931.8	-7.07	354.75
110.00	23 38 13	1746.58	-21.74	.66	285.34	117.02	24 7 20	746.6	-9.05	339.50

DIFFERENTIAL CORRECTIONS

TDE -.6808 TRA 5.0908 TC3-5.4148 BAU 1.7906
RDE .2027 RRA-1.9710 RC3 1.4450 FAU .36322
FDE .7558 FRA15.2497 FC-13.1573 BSP 14546
BDE .7103 BRA 5.4591 BC3 5.6043 FSP 3518

MID-COURSE EXECUTION ACCURACY

SGT 8063.4 SGR 2738.9 SG3 1917.4
RRT -.9846 RRF -.9892 RTF .9852
SGB 8515.9 R23 .0920 R13 -.9870
SG1 8503.7 SG2 454.7 THA 161.45

ORBIT DETERMINATION ACCURACY

ST 99.2 SR 37.0 SS 63.6
CRT -.9958 CRS .8832 CST -.8387
LSA 119.7 NSA 30.3 SSA .8
EL1 105.6 EL2 3.2 ALF 159.58

LAUNCH DATE JUL 4 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 693.202 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.783	GAL	-4.99	AZL	93.86	HCA	208.23	SMA	197.98	ECC	.24667	INC	3.8620	V1	29.290
RP	246.74	LAP	1.83	LOP	130.06	VP	20.135	GAP	-.85	AZP	86.60	TAL	334.38	TAP	182.61	RCA	149.15	APO	246.82	V2	22.215
RC	304.476	GL	-26.78	GP	24.00	ZAL	125.77	ZAP	61.59	ETS	195.46	ZAE	88.28	ETE	182.33	ZAC	113.79	ETC	285.40	LVI	-47.41

PLANETOCENTRIC CONIC

C3	23.840	VHL	4.883	DLA	-7.50	RAL	57.00	RAD	6644.5	VEL	11.993	PTH	6.99	VHP	2.681	DPA	24.01	RAP	357.78	ECC	1.3924

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 45 15	3026.86	-32.02	92.26	278.77	127.28	17 35 42	2026.9	-15.28	73.11
60.00	17 32 53	2900.17	-26.94	84.82	282.74	121.19	18 21 14	1900.2	-12.44	64.34
70.00	18 34 8	2720.10	-22.36	72.99	285.51	116.52	19 19 28	1720.1	-9.80	51.68
80.00	19 50 40	2480.50	-19.02	56.47	287.17	113.46	20 32 1	1480.5	-7.84	34.68
90.00	21 15 43	2206.10	-17.77	36.85	287.73	112.37	21 52 29	1206.1	-7.09	14.91
100.00	22 33 32	1954.97	-19.02	17.83	287.17	113.46	23 6 7	955.0	-7.84	356.05
110.00	23 33 34	1766.92	-22.36	1.91	285.51	116.52	24 3 1	766.9	-9.80	340.59

DIFFERENTIAL CORRECTIONS

TDE	-.6414	TRA	5.1954	TC3	-5.5387	BAU	1.8193												
RDE	.2011	RRA	-1.8946	RC3	1.3798	FAU	.36102												
FDE	.8658	FRA	15.1805	FC	-13.1100	BSP	14767												
BDE	.6722	BRA	5.5301	BC3	5.7080	FSP	3507												

MID-COURSE EXECUTION ACCURACY

SGT	8223.9	SGR	2626.7	SG3	1908.2						
RRT	-.9839	RRF	-.9877	RTF	.9853						
SGB	8633.2	R23	.0861	R13	-.9869						
SG1	8621.6	SG2	447.7	THA	162.51						

ORBIT DETERMINATION ACCURACY

ST	99.9	SR	35.7	SS	63.7						
CRT	-.9985	CRS	.8665	CST	-.8408						
LSA	120.0	MSA	30.3	SSA	.8						
EL1	106.1	EL2	1.9	ALF	180.36						

LAUNCH DATE JUL 4 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 696.943 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.787	GAL	-5.04	AZL	93.76	HCA	209.12	SMA	198.06	ECC	.24726	INC	3.7629	V1	29.290
RP	246.90	LAP	1.83	LOP	130.95	VP	20.124	GAP	-1.07	AZP	86.71	TAL	334.15	TAP	183.27	RCA	149.09	APO	247.04	V2	22.199
RC	306.863	GL	-26.06	GP	23.22	ZAL	126.25	ZAP	60.58	ETS	195.52	ZAE	87.11	ETE	182.76	ZAC	113.03	ETC	285.31	LVI	-46.64

PLANETOCENTRIC CONIC

C3	23.807	VHL	4.879	DLA	-6.74	RAL	57.06	RAD	6644.5	VEL	11.991	PTH	6.99	VHP	2.687	DPA	23.29	RAP	356.14	ECC	1.3918

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 42 40	3041.59	-32.62	93.15	279.07	126.78	17 33 22	2041.6	-15.99	73.78
60.00	17 29 28	2917.11	-27.53	85.86	282.99	120.68	18 18 5	1917.1	-13.16	65.20
70.00	18 29 47	2739.79	-22.95	74.21	285.72	116.01	19 15 27	1739.8	-10.53	52.74
80.00	19 45 27	2502.91	-19.63	57.86	287.35	112.96	20 27 10	1502.9	-8.57	35.94
90.00	21 10 6	2229.75	-18.38	38.32	287.89	111.88	21 47 16	1229.8	-7.83	16.25
100.00	22 28 19	1977.38	-19.63	19.23	287.35	112.96	23 1 16	977.4	-8.57	357.31
110.00	23 29 13	1786.61	-22.95	3.13	285.72	116.01	23 59 0	786.6	-10.53	341.66

DIFFERENTIAL CORRECTIONS

TDE	-.6030	TRA	5.3007	TC3	-5.6566	BAU	1.8484												
RDE	.2010	RRA	-1.8225	RC3	1.3159	FAU	.35824												
FDE	.9683	FRA	15.0935	FC	-13.0274	BSP	14983												
BDE	.6356	BRA	5.6053	BC3	5.8076	FSP	3487												

MID-COURSE EXECUTION ACCURACY

SGT	8382.0	SGR	2519.7	SG3	1895.8						
RRT	-.9831	RRF	-.9861	RTF	.9854						
SGB	8752.5	R23	.0799	R13	-.9867						
SG1	8741.3	SG2	442.5	THA	163.49						

ORBIT DETERMINATION ACCURACY

ST	100.8	SR	34.5	SS	63.7						
CRT	-.9996	CRS	.8481	CST	-.8431						
LSA	120.4	MSA	30.3	SSA	.9						
EL1	106.5	EL2	.9	ALF	141.13						

LAUNCH DATE JUL 4 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 700.681 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.791	GAL	-5.09	AZL	93.67	HCA	210.00	SMA	198.14	ECC	.24787	INC	3.6893	V1	29.290
RP	247.06	LAP	1.83	LOP	131.84	VP	20.113	GAP	-1.29	AZP	86.82	TAL	333.92	TAP	183.92	RCA	149.03	APO	247.25	V2	22.183
RC	309.224	GL	-25.37	GP	22.48	ZAL	126.72	ZAP	59.59	ETS	195.56	ZAE	85.96	ETE	183.15	ZAC	112.31	ETC	285.22	LVI	-45.90

PLANETOCENTRIC CONIC

C3	23.796	VHL	4.878	DLA	-6.02	RAL	57.13	RAD	6644.5	VEL	11.991	PTH	6.99	VHP	2.699	DPA	22.63	RAP	358.49	ECC	1.3918

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 40 16	3055.97	-33.21	94.02	279.40	126.27	17 31 11	2056.0	-16.69	74.44
60.00	17 26 16	2933.59	-28.10	86.89	283.29	120.17	18 15 10	1933.6	-13.86	66.03
70.00	18 25 41	2758.90	-23.52	75.41	285.97	115.51	19 11 40	1758.9	-11.23	53.78
80.00	19 40 32	2524.59	-20.20	59.22	287.56	112.47	20 22 36	1524.6	-9.28	37.16
90.00	21 4 49	2252.60	-18.95	39.75	288.10	111.39	21 42 22	1252.6	-8.54	17.56
100.00	22 23 23	1999.06	-20.20	20.58	287.56	112.47	22 56 43	999.1	-9.28	358.83
110.00	23 25 7	1805.71	-23.52	4.32	285.97	115.51	23 55 13	805.7	-11.23	342.69

DIFFERENTIAL CORRECTIONS

TDE	-.5651	TRA	5.4068	TC3	-5.7698	BAU	1.8783												
RDE	.2024	RRA	-1.7542	RC3	1.2542	FAU	.35508												
FDE	1.0638	FRA	14.9892	FC	-12.9168	BSP	15203												
BDE	.6003	BRA	5.6841	BC3	5.9043	FSP	3463												

MID-COURSE EXECUTION ACCURACY

SGT	8538.2	SGR	2417.9	SG3	1880.7						
RRT	-.9821	RRF	-.9843	RTF	.9855						
SGB	8873.9	R23	.0734	R13	-.9866						
SG1	8863.1	SG2	438.6	THA	164.42						

ORBIT DETERMINATION ACCURACY

ST	101.7	SR	33.3	SS	63.7						
CRT	-.9991	CRS	.8280	CST	-.8436						
LSA	120.8	MSA	30.3	SSA	.9						
EL1	107.0	EL2	1.3	ALF	161.87						

LAUNCH DATE JUL 4 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 704.418 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.795	GAL	-5.18	AZL	93.58	HCA	210.89	SMA	198.22	ECC	.24849	INC	3.5807	V1	29.290
RP	247.22	LAP	1.84	LOP	132.72	VP	20.103	GAP	-1.51	AZP	86.93	TAL	333.68	TAP	184.57	RCA	148.97	APO	247.48	V2	22.168
RC	311.559	GL	-24.71	GP	21.77	ZAL	127.18	ZAP	58.63	ETS	195.59	ZAE	84.82	ETE	183.91	ZAC	111.62	ETC	285.18	LVI	-45.19

PLANETOCENTRIC CONIC

C3	23.806	VHL	4.879	DLA	-5.32	RAL	57.21	RAD	6644.5	VEL	11.991	PTH	6.99	VHP	2.704	DPA	22.00	RAP	358.84	ECC	1.3918

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 38 1	3070.02	-33.77	94.89	279.76	125.75	17 29 11	2070.0	-17.37	75.08
60.00	17 23 16	2949.65	-28.84	87.90	283.61	119.66	18 12 26	1949.7	-14.53	66.85
70.00	18 21 50	2777.46	-24.06	76.58	286.25	115.01	19 8 7	1777.5	-11.91	54.79
80.00	19 35 53	2545.60	-20.74	60.54	287.81	111.98	20 18 19	1545.6	-9.96	38.38
90.00	20 59 50	2274.72	-19.50	41.15	288.33	110.90	21 37 45	1274.7	-9.23	18.82
100.00	22 18 45	2020.07	-20.74	21.91	287.81	111.98	22 52 25	1020.1	-9.96	359.72
110.00	23 21 16	1824.28	-24.06	5.50	286.25	115.01	23 51 40	824.3	-11.91	343.71

DIFFERENTIAL CORRECTIONS

TDE	.5277	TRA	5.5128	TC3	-5.8777	BAU	1.9089												
RDE	.2050	RRA	-1.6895	RC3	1.1944	FAU	.35155												
FDE	1.1517	FRA	14.8699	FC	-12.7847	BSP	15419												
BDE	.5661	BRA	5.7659	BC3	5.9979	FSP	3432												

MID-COURSE EXECUTION ACCURACY

SGT	8692.2	SGR	2321.0	SG3	1865.2						
RRT	-.9809	RRF	-.9822	RTF	.9856						
SGB	8996.7	R23	.0667	R13	-.9865						
SG1	8986.1	SG2	436.3	THA	165.29						

ORBIT DETERMINATION ACCURACY

ST	102.7	SR	32.3	SS	63.6						
CRT	-.9967	CRS	.8060	CST	-.8468						
LSA	121.3	MSA	30.3	SSA	.9						
EL1	107.6	EL2	2.5	ALF	162.60						

LAUNCH DATE JUL 4 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC DISTANCE 708.153 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.799	GAL	-5.21	AZL	93.50	HCA	211.78	SMA	198.30	ECC	.24912	INC	3.4967	V1	29.290
RP	247.37	LAP	1.84	LOP	133.61	VP	20.094	GAP	-1.72	AZP	87.03	TAL	333.43	TAP	185.21	RCA	148.90	APO	247.71	V2	22.154
RC	313.869	GL	-24.08	GP	21.09	ZAL	127.64	ZAP	57.70	ETS	195.61	ZAE	83.70	ETE	183.84	ZAC	110.96	ETC	285.08	LVI	-44.52

PLANETOCENTRIC CONIC

C3	23.836	VHL	4.882	DLA	-4.65	RAL	57.31	RAD	6644.5	VEL	11.992	PTH	6.99	VHP	2.715	DPA	21.41	RAP	359.20	ECC	1.3923

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 35 55	3083.76	-34.31	95.75	280.16	125.24	17 27 19	2083.8	-18.03	78.72
60.00	17 20 27	2965.33	-29.17	88.89	283.96	119.14	18 9 52	1965.3	-15.19	67.66
70.00	18 18 12	2795.52	-24.57	77.73	286.57	114.50	19 4 47	1795.5	-12.56	58.76
80.00	19 31 30	2566.00	-21.25	61.84	288.10	111.48	20 14 16	1566.0	-10.62	51.51
90.00	20 55 8	2296.18	-20.01	42.51	288.60	110.41	21 33 24	1296.2	-9.88	48.96
100.00	22 14 22	2040.47	-21.25	23.21	288.10	111.48	22 48 23	1040.5	-10.62	49.7
110.00	23 17 38	1842.34	-24.57	6.65	286.57	114.50	23 48 20	842.3	-12.56	344.79

DIFFERENTIAL CORRECTIONS

TDE	-.4896	TRA	5.6219	TC3	-5.9779	BAU	1.9390												
RDE	.2080	RRA	-1.6292	RC3	1.1354	FAU	.34733												
FDE	1.2395	FRA	14.7467	FC	-12.6155	BSP	15661												
BDE	.5319	BRA	5.8532	BC3	6.0848	FSP	3405												

MID-COURSE EXECUTION ACCURACY

SGT	8844.2	SGR	2229.0	SG3	1843.7						
RRT	-.9795	RRF	-.9799	RTF	.9856						
SGB	9120.7	R23	.0605	R13	-.9864						
SG1	9110.3	SG2	435.9	THA	166.10						

ORBIT DETERMINATION ACCURACY

ST	103.7	SR	31.3	SS	63.6						
CRT	-.9924	CRS	.7823	CST	-.8512						
LSA	121.9	MSA	30.3	SSA	.9						
EL1	108.3	EL2	3.7	ALF	183.31						

LAUNCH DATE JUL 4 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 711.886 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.804	GAL	-5.26	AZL	93.42	HCA	212.66	SMA	198.39	ECC	.24977	INC	3.4169	V1	29.290
RP	247.51	LAP	1.84	LOP	134.50	VP	20.086	GAP	-1.94	AZP	87.12	TAL	333.19	TAP	185.85	RCA	148.84	APO	247.94	V2	22.140
RC	316.151	GL	-23.48	GP	20.45	ZAL	128.09	ZAP	56.79	ETS	195.62	ZAE	82.58	ETE	184.15	ZAC	110.32	ETC	285.02	LVI	-43.87

PLANETOCENTRIC CONIC

C3	23.883	VHL	4.887	DLA	-4.00	RAL	57.42	RAD	6644.5	VEL	11.994	PTH	6.99	VHP	2.727	DPA	20.86	RAP	359.56	ECC	1.3931

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 33 58	3097.22	-34.84	96.61	280.58	124.72	17 25 35	2097.2	-18.67	76.35
60.00	17 17 48	2980.64	-29.67	89.88	284.35	118.63	18 7 28	1980.6	-15.82	68.45
70.00	18 14 46	2813.13	-25.06	78.86	286.91	114.00	19 1 39	1813.1	-13.19	56.75
80.00	19 27 21	2585.84	-21.74	63.11	288.41	110.99	20 10 27	1585.8	-11.25	40.64
90.00	20 50 40	2317.02	-20.50	43.84	288.91	109.92	21 29 17	1317.0	-10.52	21.26
100.00	22 10 13	2060.31	-21.74	24.48	288.41	110.99	22 44 34	1060.3	-11.25	2.01
110.00	23 14 12	1859.94	-25.06	7.78	286.91	114.00	23 45 12	859.9	-13.19	345.67

DIFFERENTIAL CORRECTIONS

TDE	-.4524	TRA	5.7304	TC3	-6.0737	BAU	1.9697												
RDE	.2123	RRA	-1.5712	RC3	1.0790	FAU	.34299												
FDE	1.3178	FRA	14.6053	FC	-12.4328	BSP	15888												
BDE	.4998	BRA	5.9419	BC3	6.1688	FSP	3367												

MID-COURSE EXECUTION ACCURACY

SGT	8993.3	SGR	2141.0	SG3	1822.0						
RRT	-.9779	RRF	-.9774	RTF	.9856						
SGB	9244.6	R23	.0539	R13	-.9863						
SG1	9234.3	SG2	436.2	THA	166.87						

ORBIT DETERMINATION ACCURACY

ST	104.8	SR	30.4	SS	63.5						
CRT	-.9858	CRS	.7566	CST	-.8542						
LSA	122.6	MSA	30.4	SSA	.9						
EL1	109.0	EL2	4.9	ALF	164.01						

LAUNCH DATE JUL 4 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC DISTANCE 715.617 EARTH TO MARS

RL	152.11	LAL	.00	LOL	281.88	VL	32.808	GAL	-5.32	AZL	93.34	HCA	213.54	SMA	198.47	ECC	.25043	INC	3.3408	V1	29.290
RP	247.65	LAP	1.85	LOP	135.38	VP	20.078	GAP	-2.15	AZP	87.21	TAL	332.93	TAP	186.48	RCA	148.77	APO	248.18	V2	22.126
RC	318.406	GL	-22.89	GP	19.84	ZAL	128.54	ZAP	55.90	ETS	195.62	ZAE	81.48	ETE	184.43	ZAC	109.71	ETC	284.96	LVI	-43.26

PLANETOCENTRIC CONIC

C3	23.948	VHL	4.894	DLA	-3.37	RAL	57.54	RAD	6644.6	VEL	11.997	PTH	6.99	VHP	2.741	DPA	20.34	RAP	359.92	ECC	1.3941

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 32 9	3110.41	-35.35	97.46	281.03	124.20	17 23 59	2110.4	-19.30	78.97
60.00	17 15 18	2995.62	-30.15	90.85	284.76	118.11	18 5 13	1995.6	-16.44	69.23
70.00	18 11 31	2830.31	-25.54	79.97	287.28	113.49	18 58 41	1830.3	-13.81	57.70
80.00	19 23 25	2605.16	-22.21	64.35	288.75	110.49	20 6 50	1605.2	-11.86	41.75
90.00	20 46 26	2337.31	-20.96	45.15	289.24	109.43	21 25 23	1337.3	-11.13	22.44
100.00	22 6 17	2079.63	-22.21	25.72	288.75	110.49	22 40 57	1079.6	-11.86	3.11
110.00	23 10 57	1877.12	-25.54	8.89	287.28	113.49	23 42 14	877.1	-13.81	346.62

DIFFERENTIAL CORRECTIONS

TDE	-.4162	TRA	5.8392	TC3	-6.1659	BAU	2.0011												
RDE	.2177	RRA	-1.5162	RC3	1.0251	FAU	.33848												
FDE	1.3885	FRA	14.4554	FC	-12.2366	BSP	16112												
BDE	.4697	BRA	6.0329	BC3	6.2505	FSP	3326												

MID-COURSE EXECUTION ACCURACY

SGT	9141.0	SGR	2057.6	SG3	1798.9						
RRT	-.9760	RRF	-.9745	RTF	.9856						
SGB	9369.7	R23	.0474	R13	-.9862						
SG1	9359.5	SG2	437.6	THA	167.58						

ORBIT DETERMINATION ACCURACY

ST	106.0	SR	29.6	SS	63.4						
CRT	-.9770	CRS	.7291	CST	-.8572						
LSA	123.3	MSA	30.4	SSA	1.0						
EL1	109.9	EL2	6.1	ALF	164.69						

LAUNCH DATE JUL 5 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 14 1973

DISTANCE 369.955

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	34.551	GAL	-5.94	AZL	90.23	HCA	120.22	SMA	240.75	ECC	.38056	INC	.2344	V1	29.290
RP	218.16	LAP	-.20	LOP	43.06	VP	25.795	GAP	21.74	AZP	89.88	TAL	338.29	TAP	98.51	RCA	149.13	APO	332.37	V2	25.188
RC	74.953	GL	-1.30	GP	-5.44	ZAL	125.12	ZAP	169.69	ETS	213.37	ZAE	170.24	ETE	327.20	ZAC	79.60	ETC	283.58	LVI	-13.89

PLANETOCENTRIC CONIC

C3	38.536	VHL	6.208	DLA	15.94	RAL	45.88	RAD	6650.2	VEL	12.586	PTH	7.45	VHP	7.588	DPA	7.43	RAP	34.20	ECC	1.6342

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 29 3	3617.36	-47.43	139.19	295.00	94.24	15 29 21	2617.4	-40.27	106.91
60.00	14 50 29	3560.30	-40.30	134.46	295.41	90.51	15 49 49	2560.3	-35.68	104.36
70.00	15 21 55	3467.80	-34.08	126.84	295.28	87.59	16 19 42	2467.8	-31.50	98.41
80.00	16 10 29	3315.57	-29.56	114.98	294.97	85.57	17 5 45	2315.6	-28.39	87.62
90.00	17 23 2	3081.41	-27.84	97.61	294.80	84.82	18 14 24	2081.4	-27.19	70.62
100.00	18 53 21	2790.04	-29.56	76.35	294.97	85.57	19 39 51	1790.0	-28.39	48.98
110.00	20 21 21	2514.62	-34.08	55.76	295.28	87.59	21 3 15	1514.6	-31.50	27.33

DIFFERENTIAL CORRECTIONS

TDE	-.5291	TRA	-1.7770	TC3	.1196	BAU	.0756
RDE	-.5296	RRA	.2916	RC3	-.0849	FAU	.06371
FDE	.6751	FRA	2.0527	FC3	-1.4313	BSP	2918
BDE	.7487	BRA	1.8007	BC3	.1467	FSP	321

MID-COURSE EXECUTION ACCURACY

SGT	1780.4	SGR	573.1	SG3	235.5
RRT	-.2493	RRF	.2780	RTF	-.8097
SGB	1870.4	R23	-.0563	R13	.8115
SG1	1786.8	SG2	553.0	THA	174.92

ORBIT DETERMINATION ACCURACY

ST	35.4	SR	24.8	SS	28.2
CRT	.5579	CRS	.5970	CST	.9972
LSA	47.9	MSA	19.2	SSA	1.3
EL1	38.9	EL2	18.7	ALF	28.50

LAUNCH DATE JUL 5 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 16 1973

DISTANCE 372.787

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	34.452	GAL	-5.83	AZL	90.19	HCA	121.36	SMA	237.79	ECC	.37258	INC	.1941	V1	29.290
RP	218.53	LAP	-.17	LOP	44.19	VP	25.623	GAP	21.40	AZP	89.90	TAL	338.36	TAP	99.72	RCA	149.19	APO	326.39	V2	25.148
RC	76.362	GL	-1.10	GP	-5.64	ZAL	125.03	ZAP	168.95	ETS	212.17	ZAE	169.50	ETE	327.93	ZAC	79.32	ETC	283.56	LVI	-13.61

PLANETOCENTRIC CONIC

C3	37.080	VHL	6.088	DLA	16.11	RAL	45.73	RAD	6649.6	VEL	12.528	PTH	7.41	VHP	7.378	DPA	7.39	RAP	34.64	ECC	1.6099

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 27 45	3610.96	-47.40	138.57	294.03	94.71	15 27 56	2611.0	-40.06	106.44
60.00	14 48 57	3554.50	-40.29	133.97	294.51	90.85	15 48 12	2554.5	-35.55	103.93
70.00	15 20 6	3462.80	-34.09	126.45	294.42	87.82	16 17 49	2462.8	-31.42	98.04
80.00	16 8 25	3311.44	-29.58	114.68	294.12	85.73	17 3 36	2311.4	-28.34	87.32
90.00	17 20 49	3077.71	-27.86	97.34	293.96	84.95	18 12 7	2077.7	-27.16	70.36
100.00	18 51 16	2785.91	-29.58	76.04	294.12	85.73	19 37 42	1785.9	-28.34	48.69
110.00	20 19 33	2509.62	-34.09	55.37	294.42	87.82	21 1 22	1509.6	-31.42	26.96

DIFFERENTIAL CORRECTIONS

TDE	-.5312	TRA	-1.7751	TC3	.1378	BAU	.0829
RDE	-.5118	RRA	.2948	RC3	-.0948	FAU	.06822
FDE	.7082	FRA	2.1322	FC3	-1.5470	BSP	3009
BDE	.7376	BRA	1.7994	BC3	.1672	FSP	343

MID-COURSE EXECUTION ACCURACY

SGT	1817.2	SGR	573.2	SG3	249.7
RRT	-.2692	RRF	.3012	RTF	-.8151
SGB	1905.4	R23	-.0619	R13	.8172
SG1	1824.4	SG2	549.9	THA	174.66

ORBIT DETERMINATION ACCURACY

ST	36.1	SR	24.5	SS	29.2
CRT	.5532	CRS	.5943	CST	.9971
LSA	48.9	MSA	19.1	SSA	1.3
EL1	39.4	EL2	18.7	ALF	27.08

LAUNCH DATE JUL 5 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 18 1973

DISTANCE 375.702

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	34.358	GAL	-5.72	AZL	90.15	HCA	122.49	SMA	233.06	ECC	.36500	INC	.1532	V1	29.290
RP	218.89	LAP	-.13	LOP	45.33	VP	25.456	GAP	21.06	AZP	89.92	TAL	338.44	TAP	100.93	RCA	149.26	APO	320.69	V2	25.107
RC	77.855	GL	-.88	GP	-5.84	ZAL	124.93	ZAP	168.20	ETS	211.14	ZAE	168.81	ETE	328.35	ZAC	79.05	ETC	283.54	LVI	-13.31

PLANETOCENTRIC CONIC

C3	35.677	VHL	5.973	DLA	16.29	RAL	45.56	RAD	6649.1	VEL	12.473	PTH	7.37	VHP	7.175	DPA	7.33	RAP	35.07	ECC	1.5872

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 26 21	3605.02	-47.36	138.00	293.09	95.15	15 26 26	2605.0	-39.87	106.00
60.00	14 47 19	3549.19	-40.29	133.52	293.63	91.15	15 46 28	2549.2	-35.42	103.54
70.00	15 18 11	3458.34	-34.10	126.10	293.57	88.02	16 15 49	2458.3	-31.35	97.72
80.00	16 6 11	3307.91	-29.60	114.41	293.29	85.87	17 1 19	2307.9	-28.30	87.07
90.00	17 18 27	3074.65	-27.88	97.12	293.13	85.06	18 9 42	2074.7	-27.13	70.14
100.00	18 49 3	2782.38	-29.60	75.78	293.29	85.87	19 35 25	1782.4	-28.30	48.43
110.00	20 17 37	2505.16	-34.10	55.02	293.57	88.02	20 59 23	1505.2	-31.35	26.63

DIFFERENTIAL CORRECTIONS

TDE	-.5330	TRA	-1.7720	TC3	.1574	BAU	.0904
RDE	-.4939	RRA	.2981	RC3	-.1056	FAU	.06884
FDE	.7441	FRA	2.2151	FC3	-1.6706	BSP	3094
BDE	.7266	BRA	1.7969	BC3	.1895	FSP	366

MID-COURSE EXECUTION ACCURACY

SGT	1852.8	SGR	573.7	SG3	264.8
RRT	-.2907	RRF	.3259	RTF	-.[illegible]07
SGB	1939.5	R23	-.0674	R13	.8230
SG1	1861.0	SG2	546.5	THA	174.37

ORBIT DETERMINATION ACCURACY

ST	36.9	SR	24.1	SS	30.3
CRT	.5477	CRS	.5916	CST	.9970
LSA	49.9	MSA	19.0	SSA	1.3
EL1	39.9	EL2	18.6	ALF	25.69

LAUNCH DATE JUL 5 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 20 1973

DISTANCE 378.692

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	34.268	GAL	-5.61	AZL	90.11	HCA	123.62	SMA	232.52	ECC	.35781	INC	.1110	V1	29.290
RP	219.26	LAP	-.09	LOP	46.46	VP	25.294	GAP	20.72	AZP	89.94	TAL	338.53	TAP	102.15	RCA	149.32	APO	315.72	V2	25.067
RC	79.428	GL	-.65	GP	-6.06	ZAL	124.82	ZAP	167.43	ETS	210.24	ZAE	168.16	ETE	328.53	ZAC	78.76	ETC	283.52	LVI	-13.01

PLANETOCENTRIC CONIC

C3	34.381	VHL	5.864	DLA	16.47	RAL	45.38	RAD	6648.7	VEL	12.421	PTH	7.33	VHP	6.979	DPA	7.25	RAP	35.49	ECC	1.5658

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 24 52	3599.56	-47.33	137.48	292.17	95.55	15 24 51	2599.6	-39.69	105.59
60.00	14 45 35	3544.39	-40.28	133.11	292.76	91.43	15 44 39	2544.4	-35.30	103.18
70.00	15 16 8	3454.44	-34.11	125.80	292.74	88.20	16 13 43	2454.4	-31.28	97.43
80.00	16 3 49	3305.02	-29.61	114.20	292.47	85.98	16 58 54	2305.0	-28.27	86.86
90.00	17 15 56	3072.26	-27.89	96.94	292.32	85.15	18 7 8	2072.3	-27.10	69.97
100.00	18 46 41	2779.49	-29.61	75.57	292.47	85.98	19 33 1	1779.5	-28.27	48.22
110.00	20 15 35	2501.26	-34.11	54.72	292.74	88.20	20 57 16	1501.3	-31.28	26.35

DIFFERENTIAL CORRECTIONS

TDE	-.5345	TRA	-1.7680	TC3	.1781	BAU	.0980
RDE	-.4762	RRA	.3022	RC3	-.1173	FAU	.07160
FDE	.7827	FRA	2.3009	FC3	-1.8029	BSP	3174
BDE	.7158	BRA	1.7937	BC3	.2133	FSP	391

MID-COURSE EXECUTION ACCURACY

SGT	1887.4	SGR	574.7	SG3	280.7
RRT	-.3139	RRF	.3520	RTF	-.8262
SGB	1972.9	R23	-.0729	R13	.8287
SG1	1896.7	SG2	542.9	THA	174.05

ORBIT DETERMINATION ACCURACY

ST	37.6	SR	23.7	SS	31.4
CRT	.5414	CRS	.5885	CST	.9969
LSA	51.0	MSA	18.9	SSA	1.3
EL1	40.4	EL2	18.6	ALF	24.32

LAUNCH DATE JUL 5 1973 FLIGHT TIME 140.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 381.750 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	34.183	GAL	-5.51	AZL	90.07	HCA	124.74	SMA	230.17	ECC	.35098	INC	.0682	V1	29.290
RP	219.63	LAP	-.06	LOP	47.58	VP	25.138	GAP	20.39	AZP	89.96	TAL	338.62	TAP	103.36	RCA	149.38	APO	310.95	V2	25.026
RC	81.081	GL	-.41	GP	-6.29	ZAL	124.70	ZAP	166.64	ETS	209.47	ZAE	167.58	ETE	328.90	ZAC	78.46	ETC	283.50	LVI	-12.70

PLANETOCENTRIC CONIC

C3	33.185	VHL	5.759	DLA	16.67	RAL	45.19	RAD	6648.2	VEL	12.372	PTH	7.29	VHP	6.708	DPA	7.16	RAP	35.90	ECC	1.5458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 23 17	3594.58	-47.29	137.00	291.27	95.92	15 23 11	2594.6	-39.53	105.23
60.00	14 43 44	3540.12	-40.27	132.75	291.92	91.66	15 42 44	2540.1	-35.20	102.87
70.00	15 13 56	3451.14	-34.12	125.54	291.92	88.36	16 11 29	2451.1	-31.22	97.19
80.00	16 1 18	3302.79	-29.62	114.04	291.66	86.07	16 56 21	2302.8	-28.24	86.70
90.00	17 13 15	3070.57	-27.90	96.82	291.51	85.21	18 4 25	2070.6	-27.09	69.84
100.00	18 44 10	2777.26	-29.62	75.40	291.66	86.07	19 30 27	1777.3	-28.24	48.06
110.00	20 13 24	2497.96	-34.12	54.46	291.92	88.36	20 55 2	1498.0	-31.22	26.11

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5357	TRA	-1.7626	TC3	.2001	BAU	.1059	SGT	1920.5	SGR	576.3	SG3	297.4	ST	38.3	SR	23.3	SS	32.8
RDE	-.4584	RRA	.3069	RC3	-.1302	FAU	.07448	RRT	-.3388	RRF	.3797	RTF	-.8316	CRT	.5342	CRS	.5846	CST	.9967
FDE	.8237	FRA	2.3902	FC3	-1.9443	BSP	3245	SGB	2005.1	R23	-.0785	R13	.8344	LSA	52.1	MSA	18.7	SSA	1.3
BDE	.7051	BRA	1.7892	BC3	.2388	FSP	418	SG1	1931.2	SG2	539.2	THA	173.70	EL1	40.8	EL2	18.5	ALF	22.98

LAUNCH DATE JUL 5 1973 FLIGHT TIME 142.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 384.870 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	34.102	GAL	-5.41	AZL	90.03	HCA	125.87	SMA	227.98	ECC	.34449	INC	.0221	V1	29.290
RP	220.00	LAP	-.02	LOP	48.70	VP	24.987	GAP	20.05	AZP	89.98	TAL	338.71	TAP	104.58	RCA	149.45	APO	306.52	V2	24.985
RC	82.809	GL	-.15	GP	-6.53	ZAL	124.57	ZAP	165.83	ETS	208.80	ZAE	167.04	ETE	328.28	ZAC	78.16	ETC	283.49	LVI	-12.38

PLANETOCENTRIC CONIC

C3	32.025	VHL	5.659	DLA	16.88	RAL	44.99	RAD	6647.8	VEL	12.327	PTH	7.26	VHP	6.604	DPA	7.05	RAP	36.30	ECC	1.5270

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 21 36	3590.12	-47.26	136.57	290.41	96.25	15 21 26	2590.1	-39.38	104.90
60.00	14 41 46	3536.42	-40.26	132.43	291.10	91.89	15 40 43	2536.4	-35.11	102.60
70.00	15 11 39	3448.47	-34.12	125.33	291.12	88.48	16 9 8	2448.5	-31.18	97.00
80.00	15 58 37	3301.26	-29.63	113.92	290.87	86.12	16 53 39	2301.3	-28.22	86.59
90.00	17 10 23	3069.62	-27.91	96.75	290.73	85.24	18 1 33	2069.6	-27.08	69.78
100.00	18 41 29	2775.73	-29.63	75.29	290.87	86.12	19 27 45	1775.7	-28.22	47.95
110.00	20 11 5	2495.29	-34.12	54.25	291.12	88.48	20 52 41	1495.3	-31.18	25.91

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5368	TRA	-1.7565	TC3	.2232	BAU	.1138	SGT	1952.8	SGR	578.7	SG3	315.1	ST	38.9	SR	22.9	SS	33.7
RDE	-.4408	RRA	.3122	RC3	-.1442	FAU	.07752	RRT	-.3652	RRF	.4090	RTF	-.8368	CRT	.5260	CRS	.5800	CST	.9965
FDE	.8675	FRA	2.4831	FC3	-2.0956	BSP	3317	SGB	2036.7	R23	-.0843	R13	.8399	LSA	53.2	MSA	18.5	SSA	1.3
BDE	.6946	BRA	1.7841	BC3	.2658	FSP	447	SG1	1965.1	SG2	535.4	THA	173.33	EL1	41.2	EL2	18.3	ALF	21.65

LAUNCH DATE JUL 5 1973 FLIGHT TIME 144.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 388.047 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	34.025	GAL	-5.31	AZL	89.98	HCA	126.98	SMA	225.95	ECC	.33833	INC	.0140	V1	29.290
RP	220.38	LAP	.02	LOP	49.82	VP	24.841	GAP	19.73	AZP	90.01	TAL	338.81	TAP	105.79	RCA	149.50	APO	302.40	V2	24.944
RC	84.610	GL	.12	GP	-6.79	ZAL	124.44	ZAP	165.01	ETS	208.22	ZAE	166.56	ETE	327.89	ZAC	77.84	ETC	283.47	LVI	-12.05

PLANETOCENTRIC CONIC

C3	30.956	VHL	5.564	DLA	17.11	RAL	44.78	RAD	6647.4	VEL	12.283	PTH	7.22	VHP	6.425	DPA	6.93	RAP	36.69	ECC	1.5095

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 19 50	3586.19	-47.23	136.20	289.57	96.53	15 19 36	2586.2	-39.25	104.62
60.00	14 39 42	3533.29	-40.26	132.16	290.30	92.07	15 38 35	2533.3	-35.03	102.37
70.00	15 9 12	3446.44	-34.13	125.17	290.34	88.57	16 6 39	2446.4	-31.14	96.85
80.00	15 55 47	3300.47	-29.63	113.86	290.10	86.16	16 50 47	2300.5	-28.21	86.53
90.00	17 7 21	3069.46	-27.91	96.74	289.95	85.25	17 58 30	2069.5	-27.08	69.77
100.00	18 38 39	2774.94	-29.63	75.23	290.10	86.16	19 24 54	1774.9	-28.21	47.90
110.00	20 8 38	2493.26	-34.13	54.09	290.34	88.57	20 50 12	1493.3	-31.14	25.77

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5378	TRA	-1.7496	TC3	.2469	BAU	.1216	SGT	1983.9	SGR	582.1	SG3	333.7	ST	39.6	SR	22.4	SS	35.0
RDE	-.4230	RRA	.3182	RC3	-.1595	FAU	.08071	RRT	-.3930	RRF	.4397	RTF	-.8418	CRT	.5166	CRS	.5745	CST	.9963
FDE	.9143	FRA	2.5792	FC3	-2.2572	BSP	3382	SGB	2067.5	R23	-.0905	R13	.8452	LSA	54.3	MSA	18.4	SSA	1.4
BDE	.6843	BRA	1.7783	BC3	.2939	FSP	477	SG1	1998.0	SG2	531.5	THA	172.92	EL1	41.7	EL2	18.2	ALF	20.33

LAUNCH DATE JUL 5 1973 FLIGHT TIME 146.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 391.276 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	33.952	GAL	-5.22	AZL	89.93	HCA	128.10	SMA	224.06	ECC	.33248	INC	.0633	V1	29.290
RP	220.76	LAP	.05	LOP	50.93	VP	24.699	GAP	19.40	AZP	90.04	TAL	338.91	TAP	107.01	RCA	149.56	APO	298.55	V2	24.902
RC	86.480	GL	.40	GP	-7.06	ZAL	124.30	ZAP	164.17	ETS	207.71	ZAE	166.13	ETE	327.33	ZAC	77.52	ETC	283.46	LVI	-11.79

PLANETOCENTRIC CONIC

C3	29.933	VHL	5.473	DLA	17.34	RAL	44.55	RAD	6647.0	VEL	12.243	PTH	7.19	VHP	6.252	DPA	6.78	RAP	37.07	ECC	1.4915

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 17 58	3582.80	-47.21	135.88	288.77	96.78	15 17 41	2582.8	-39.13	104.37
60.00	14 37 31	3530.77	-40.25	131.95	289.53	92.21	15 36 21	2530.8	-34.97	102.19
70.00	15 6 37	3445.10	-34.13	125.07	289.58	88.64	16 4 2	2445.1	-31.12	96.75
80.00	15 52 46	3300.45	-29.63	113.86	289.34	86.16	16 47 46	2300.5	-28.21	86.53
90.00	17 4 7	3070.12	-27.91	96.79	289.19	85.23	17 55 17	2070.1	-27.08	69.81
100.00	18 35 38	2774.92	-29.63	75.23	289.34	86.16	19 21 53	1774.9	-28.21	47.90
110.00	20 6 3	2491.92	-34.13	53.99	289.58	88.64	20 47 35	1491.9	-31.12	25.67

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5391	TRA	-1.7418	TC3	.2714	BAU	.1296	SGT	2014.0	SGR	586.6	SG3	353.3	ST	40.2	SR	21.9	SS	36.5
RDE	-.4052	RRA	.3249	RC3	-.1762	FAU	.08407	RRT	-.4220	RRF	.4716	RTF	-.8465	CRT	.5061	CRS	.5680	CST	.9965
FDE	.9645	FRA	2.6786	FC3	-2.4299	BSP	3449	SGB	2097.7	R23	-.0971	R13	.8503	LSA	55.5	MSA	18.1	SSA	1.4
BDE	.6744	BRA	1.7719	BC3	.3236	FSP	509	SG1	2030.3	SG2	527.6	THA	172.48	EL1	42.1	EL2	18.0	ALF	19.01

LAUNCH DATE JUL 5 1973 FLIGHT TIME 148.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC — DISTANCE 394.552

RL 152.10 LAL .00 LOL 282.84 VL 33.882 GAL -5.13 AZL 89.89 HCA 129.21 SMA 222.29 ECC .32692 INC .1112 V1 29.290
RP 221.14 LAP .09 LOP 52.04 VP 24.561 GAP 19.08 AZP 90.07 TAL 339.01 TAP 108.22 RCA 149.62 APO 294.96 V2 24.661
RC 88.416 GL .70 GP -7.34 ZAL 124.16 ZAP 163.32 ETS 207.28 ZAE 165.75 ETE 326.62 ZAC 77.19 ETC 283.45 LVI -11.37

EARTH TO MARS

PLANETOCENTRIC CONIC

C3 29.012 VHL 5.386 DLA 17.59 RAL 44.32 RAD 6646.6 VEL 12.205 PTH 7.16 VHP 6.085 DPA 6.62 RAP 37.44 ECC 1.4775

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 16 0	3579.99	-47.16	135.61	288.00	96.99	15 15 40	2580.0	-39.04	104.17
60.00	14 35 12	3528.87	-40.25	131.79	288.78	92.32	15 34 1	2528.9	-34.92	102.04
70.00	15 3 52	3444.47	-34.13	125.02	288.84	88.66	16 1 16	2444.5	-31.11	98.70
80.00	15 49 34	3301.25	-29.63	113.92	288.60	86.13	16 44 35	2301.3	-28.22	86.59
90.00	17 0 41	3071.65	-27.90	96.90	288.45	85.17	17 51 53	2071.7	-27.10	69.92
100.00	18 32 26	2775.72	-29.63	75.29	288.60	86.13	19 18 41	1775.7	-28.22	47.95
110.00	20 3 18	2491.29	-34.13	53.94	288.84	88.66	20 44 50	1491.3	-31.11	25.62

DIFFERENTIAL CORRECTIONS

TDE -.5405 TRA-1.7334 TC3 .2962 BAU .1374
RDE -.3873 RRA .3323 RC3 -.1943 FAU .08759
FDE 1.0179 FRA 2.7816 FC3-2.6138 BSP 3511
BDE .6649 BRA 1.7649 BC3 .3542 FSP 543

MID-COURSE EXECUTION ACCURACY

SGT 2043.0 SGR 592.5 SG3 374.0
RRT -.4520 RRF .5047 RTF -.8509
SGB 2127.2 R23 -.1042 R13 .8552
SG1 2061.7 SG2 523.7 THA 172.01

ORBIT DETERMINATION ACCURACY

ST 40.8 SR 21.3 SS 37.6
CRT .4941 CRS .5601 CST .9957
LSA 56.7 MSA 17.9 SSA 1.4
EL1 42.5 EL2 17.8 ALF 17.69

LAUNCH DATE JUL 5 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC — DISTANCE 397.871

RL 152.10 LAL .00 LOL 282.84 VL 33.817 GAL -5.04 AZL 89.84 HCA 130.31 SMA 220.64 ECC .32164 INC .1606 V1 29.290
RP 221.52 LAP .12 LOP 53.15 VP 24.428 GAP 18.76 AZP 90.10 TAL 339.12 TAP 109.43 RCA 149.67 APO 291.61 V2 24.819
RC 90.414 GL 1.02 GP -7.64 ZAL 124.01 ZAP 162.44 ETS 206.90 ZAE 165.42 ETE 325.76 ZAC 76.84 ETC 283.44 LVI -11.01

EARTH TO MARS

PLANETOCENTRIC CONIC

C3 28.130 VHL 5.304 DLA 17.85 RAL 44.08 RAD 6646.3 VEL 12.169 PTH 7.13 VHP 5.922 DPA 6.43 RAP 37.80 ECC 1.4630

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 13 56	3577.77	-47.16	135.40	287.26	97.15	15 13 33	2577.8	-38.96	104.01
60.00	14 32 46	3527.62	-40.24	131.68	288.05	92.40	15 31 33	2527.6	-34.89	101.95
70.00	15 0 58	3444.58	-34.13	125.03	288.13	88.66	15 58 23	2444.6	-31.11	98.71
80.00	15 46 10	3302.91	-29.62	114.04	287.88	86.06	16 41 13	2302.9	-28.24	86.71
90.00	16 57 3	3074.10	-27.88	97.08	287.73	85.08	17 48 17	2074.1	-27.12	70.10
100.00	18 29 2	2777.38	-29.62	75.41	287.88	86.06	19 15 19	1777.4	-28.24	48.07
110.00	20 0 24	2491.40	-34.13	53.95	288.13	88.66	20 41 56	1491.4	-31.11	25.63

DIFFERENTIAL CORRECTIONS

TDE -.5416 TRA-1.7235 TC3 .3217 BAU .1453
RDE -.3692 RRA .3404 RC3 -.2141 FAU .09131
FDE 1.0754 FRA 2.8880 FC3-2.8100 BSP 3571
BDE .6555 BRA 1.7568 BC3 .3864 FSP 579

MID-COURSE EXECUTION ACCURACY

SGT 2070.0 SGR 600.0 SG3 395.7
RRT -.4830 RRF .5386 RTF -.8552
SGB 2155.2 R23 -.1115 R13 .8599
SG1 2091.6 SG2 519.9 THA 171.50

ORBIT DETERMINATION ACCURACY

ST 41.4 SR 20.8 SS 39.0
CRT .4801 CRS .5507 CST .9954
LSA 57.9 MSA 17.6 SSA 1.4
EL1 42.9 EL2 17.6 ALF 16.37

LAUNCH DATE JUL 5 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC — DISTANCE 401.231

RL 152.10 LAL .00 LOL 282.84 VL 33.754 GAL -4.95 AZL 89.79 HCA 131.42 SMA 219.10 ECC .31663 INC .2103 V1 29.290
RP 221.90 LAP .16 LOP 54.25 VP 24.299 GAP 18.45 AZP 90.14 TAL 339.22 TAP 110.04 RCA 149.73 APO 288.47 V2 24.778
RC 92.473 GL 1.36 GP -7.95 ZAL 123.86 ZAP 161.55 ETS 206.58 ZAE 165.13 ETE 324.74 ZAC 76.48 ETC 283.43 LVI -10.64

EARTH TO MARS

PLANETOCENTRIC CONIC

C3 27.303 VHL 5.225 DLA 18.13 RAL 43.83 RAD 6645.9 VEL 12.135 PTH 7.10 VHP 5.766 DPA 6.23 RAP 38.15 ECC 1.4493

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 11 45	3576.16	-47.15	135.24	286.55	97.27	15 11 21	2576.2	-38.91	103.90
60.00	14 30 11	3527.06	-40.24	131.63	287.36	92.43	15 28 58	2527.1	-34.88	101.91
70.00	14 57 54	3445.47	-34.13	125.10	287.43	88.62	15 55 20	2445.5	-31.13	98.78
80.00	15 42 34	3305.47	-29.61	114.23	287.18	85.96	16 37 40	2305.5	-28.27	86.89
90.00	16 53 11	3077.53	-27.86	97.33	287.02	84.96	17 44 28	2077.5	-27.16	70.34
100.00	18 25 26	2779.94	-29.61	75.60	287.18	85.96	19 11 46	1779.9	-28.27	48.26
110.00	19 57 20	2492.29	-34.13	54.02	287.43	88.62	20 38 53	1492.3	-31.13	25.70

DIFFERENTIAL CORRECTIONS

TDE -.5432 TRA-1.7137 TC3 .3469 BAU .1530
RDE -.3509 RRA .3494 RC3 -.2356 FAU .09516
FDE 1.1367 FRA 2.9984 FC3-3.0181 BSP 3635
BDE .6467 BRA 1.7490 BC3 .4193 FSP 617

MID-COURSE EXECUTION ACCURACY

SGT 2096.7 SGR 609.2 SG3 418.6
RRT -.5149 RRF .5731 RTF -.8691
SGB 2183.4 R23 -.1195 R13 .8644
SG1 2121.4 SG2 516.3 THA 170.96

ORBIT DETERMINATION ACCURACY

ST 42.0 SR 20.2 SS 40.9
CRT .4640 CRS .5392 CST .9950
LSA 59.2 MSA 17.4 SSA 1.4
EL1 43.3 EL2 17.4 ALF 15.02

LAUNCH DATE JUL 5 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC — DISTANCE 404.626

RL 152.10 LAL .00 LOL 282.84 VL 33.694 GAL -4.87 AZL 89.74 HCA 132.91 SMA 217.66 ECC .31187 INC .2623 V1 29.290
RP 222.28 LAP .19 LOP 55.36 VP 24.174 GAP 18.13 AZP 90.18 TAL 339.33 TAP 111.85 RCA 149.78 APO 285.54 V2 24.736
RC 94.587 GL 1.71 GP -8.28 ZAL 123.70 ZAP 160.63 ETS 206.30 ZAE 164.88 ETE 323.97 ZAC 76.11 ETC 283.43 LVI -10.26

EARTH TO MARS

PLANETOCENTRIC CONIC

C3 26.928 VHL 5.191 DLA 18.43 RAL 43.57 RAD 6648.6 VEL 12.103 PTH 7.08 VHP 5.614 DPA 6.00 RAP 38.49 ECC 1.4366

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 9 28	3575.16	-47.14	135.15	285.88	97.34	15 9 3	2575.2	-38.88	103.83
60.00	14 27 29	3527.20	-40.24	131.65	286.69	92.42	15 26 16	2527.2	-34.88	101.92
70.00	14 54 40	3447.16	-34.13	125.23	286.76	88.54	15 52 7	2447.2	-31.16	98.90
80.00	15 38 45	3308.99	-29.59	114.49	286.50	85.83	16 33 54	2309.0	-28.31	87.14
90.00	16 49 4	3082.00	-27.84	97.65	286.33	84.80	17 40 26	2082.0	-27.20	70.66
100.00	18 21 37	2783.46	-29.59	75.86	286.50	85.83	19 8 0	1783.5	-28.31	48.51
110.00	19 54 6	2494.00	-34.13	54.15	286.76	88.54	20 35 40	1494.0	-31.16	25.82

DIFFERENTIAL CORRECTIONS

TDE -.5446 TRA-1.7023 TC3 .3723 BAU .1608
RDE -.3323 RRA .3592 RC3 -.2589 FAU .09927
FDE 1.2023 FRA 3.1118 FC3-3.2398 BSP 3688
BDE .6380 BRA 1.7398 BC3 .4535 FSP 656

MID-COURSE EXECUTION ACCURACY

SGT 2120.9 SGR 620.6 SG3 442.6
RRT -.5462 RRF .6078 RTF -.8626
SGB 2209.8 R23 -.1260 R13 .8687
SG1 2149.5 SG2 513.0 THA 170.37

ORBIT DETERMINATION ACCURACY

ST 42.6 SR 19.5 SS 42.0
CRT .4453 CRS .5253 CST .9946
LSA 60.5 MSA 17.1 SSA 1.4
EL1 43.6 EL2 17.1 ALF 13.66

LAUNCH DATE JUL 5 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 408.056 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.638 GAL -4.79 AZL 89.68 HCA 133.61 SMA 216.31 ECC .30735 INC .3154 V1 29.290
RP 222.67 LAP .23 LOP 56.45 VP 24.052 GAP 17.82 AZP 90.22 TAL 339.44 TAP 113.05 RCA 149.83 APO 282.79 V2 24.694
RC 96.756 GL 2.08 GP -8.63 ZAL 123.54 ZAP 159.70 ETS 206.07 ZAE 164.67 ETE 322.25 ZAC 75.72 ETC 283.43 LVI -9.87

PLANETOCENTRIC CONIC

C3 25.801 VHL 5.080 DLA 18.74 RAL 43.31 RAD 6645.3 VEL 12.073 PTH 7.05 VHP 5.467 DPA 5.74 RAP 38.81 ECC 1.4246

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 7 4	3574.85	-47.14	135.42	285.25	97.36	15 6 39	2574.8	-38.87	103.80
60.00	14 24 38	3528.07	-40.24	131.72	286.06	92.37	15 23 26	2528.1	-34.90	101.99
70.00	14 51 14	3449.74	-34.12	125.43	286.11	88.42	15 48 44	2449.7	-31.20	97.09
80.00	15 34 42	3313.51	-29.57	114.83	285.83	85.65	16 29 55	2313.5	-28.37	87.47
90.00	16 44 42	3087.56	-27.80	98.05	285.66	84.60	17 36 9	2087.6	-27.25	71.06
100.00	18 17 34	2787.98	-29.57	76.20	285.83	85.65	19 4 2	1788.0	-28.37	48.84
110.00	19 50 41	2496.56	-34.12	54.35	286.11	88.42	20 32 17	1496.6	-31.20	26.01

DIFFERENTIAL CORRECTIONS

TDE -.5463 TRA-1.6902 TC3 .3980 BAU .1687
RDE -.3134 RRA .3699 RC3 -.2843 FAU .10355
FDE 1.2725 FRA 3.2295 FC3-3.4746 BSP 3743
BDE .6298 BRA 1.7302 BC3 .4891 FSP 698

MID-COURSE EXECUTION ACCURACY

SGT 2143.9 SGR 634.4 SG3 467.8
RRT -.5779 RRF .6425 RTF -.8663
SGB 2235.8 R23 -.1369 R13 .8720
SG1 2176.9 SG2 509.9 THA 169.73

ORBIT DETERMINATION ACCURACY

ST 43.1 SR 18.9 SS 43.6
CRT .4232 CRS .5082 CST .9942
LSA 61.9 MSA 16.8 SSA 1.4
EL1 44.0 EL2 16.8 ALF 12.30

LAUNCH DATE JUL 5 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 411.516 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.584 GAL -4.71 AZL 89.63 HCA 134.70 SMA 215.04 ECC .30305 INC .3707 V1 29.290
RP 223.06 LAP .26 LOP 57.54 VP 23.934 GAP 17.52 AZP 90.26 TAL 339.55 TAP 114.25 RCA 149.87 APO 280.21 V2 24.652
RC 98.976 GL 2.48 GP -9.00 ZAL 123.38 ZAP 158.74 ETS 205.87 ZAE 164.48 ETE 320.75 ZAC 75.32 ETC 283.43 LVI -9.46

PLANETOCENTRIC CONIC

C3 25.120 VHL 5.012 DLA 19.07 RAL 43.03 RAD 6645.0 VEL 12.045 PTH 7.03 VHP 5.325 DPA 5.46 RAP 39.13 ECC 1.4134

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 4 33	3575.18	-47.14	135.15	284.65	97.34	15 4 8	2575.2	-38.88	103.83
60.00	14 21 38	3529.69	-40.25	131.86	285.45	92.28	15 20 28	2529.7	-34.94	102.10
70.00	14 47 37	3453.17	-34.11	125.70	285.49	88.26	15 45 10	2453.2	-31.26	97.34
80.00	15 30 24	3319.09	-29.54	115.24	285.19	85.44	16 25 43	2319.1	-28.43	87.87
90.00	16 40 2	3094.28	-27.76	98.54	285.01	84.36	17 31 36	2094.3	-27.31	71.54
100.00	18 13 15	2793.56	-29.54	76.61	285.19	85.44	18 59 49	1793.6	-28.43	49.24
110.00	19 47 3	2499.99	-34.11	54.62	285.49	88.26	20 28 43	1500.0	-31.26	26.26

DIFFERENTIAL CORRECTIONS

TDE -.5391 TRA-1.6681 TC3 .4367 BAU .1802
RDE -.2940 RRA .3815 RC3 -.3118 FAU .10801
FDE 1.3476 FRA 3.3499 FC3-3.7226 BSP 3687
BDE .6141 BRA 1.7111 BC3 .5366 FSP 742

MID-COURSE EXECUTION ACCURACY

SGT 2154.6 SGR 650.8 SG3 494.2
RRT -.6137 RRF .6764 RTF -.8730
SGB 2250.8 R23 -.1386 R13 .8801
SG1 2193.5 SG2 504.7 THA 168.90

ORBIT DETERMINATION ACCURACY

ST 43.2 SR 18.2 SS 45.2
CRT .3923 CRS .4876 CST .9933
LSA 63.0 MSA 16.5 SSA 1.4
EL1 43.9 EL2 16.5 ALF 10.93

LAUNCH DATE JUL 5 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 415.005 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.533 GAL -4.64 AZL 89.57 HCA 135.79 SMA 213.86 ECC .29898 INC .4275 V1 29.290
RP 223.44 LAP .30 LOP 58.62 VP 23.819 GAP 17.21 AZP 90.31 TAL 339.66 TAP 115.44 RCA 149.92 APO 277.80 V2 24.611
RC 101.244 GL 2.89 GP -9.39 ZAL 123.21 ZAP 157.76 ETS 205.71 ZAE 164.32 ETE 319.10 ZAC 74.90 ETC 283.44 LVI -9.04

PLANETOCENTRIC CONIC

C3 24.484 VHL 4.948 DLA 19.42 RAL 42.75 RAD 6644.8 VEL 12.019 PTH 7.01 VHP 5.187 DPA 5.16 RAP 39.43 ECC 1.4029

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 1 55	3576.25	-47.15	135.25	284.09	97.26	15 1 31	2576.3	-38.91	103.90
60.00	14 18 29	3532.13	-40.25	132.07	284.88	92.14	15 17 21	2532.1	-35.00	102.28
70.00	14 43 48	3457.58	-34.11	126.04	284.89	88.08	15 41 25	2457.6	-31.33	97.66
80.00	15 25 49	3325.84	-29.50	115.74	284.57	85.18	16 21 15	2325.8	-28.50	88.56
90.00	16 35 4	3102.28	-27.70	99.12	284.38	84.08	17 26 47	2102.3	-27.38	72.12
100.00	18 8 41	2800.31	-29.50	77.11	284.57	85.18	18 55 21	1800.3	-28.50	49.73
110.00	19 43 14	2504.40	-34.11	54.96	284.89	88.08	20 24 58	1504.4	-31.33	26.58

DIFFERENTIAL CORRECTIONS

TDE -.5445 TRA-1.6582 TC3 .4550 BAU .1862
RDE -.2742 RRA .3941 RC3 -.3416 FAU .11270
FDE 1.4275 FRA 3.4741 FC3-3.9851 BSP 3786
BDE .6097 BRA 1.7044 BC3 .5689 FSP 787

MID-COURSE EXECUTION ACCURACY

SGT 2178.4 SGR 670.2 SG3 521.8
RRT -.6419 RRF .7096 RTF -.8742
SGB 2279.2 R23 -.1521 R13 .8824
SG1 2222.8 SG2 503.7 THA 168.21

ORBIT DETERMINATION ACCURACY

ST 43.9 SR 17.5 SS 46.9
CRT .3632 CRS .4620 CST .9930
LSA 64.6 MSA 16.1 SSA 1.5
EL1 44.4 EL2 16.1 ALF 9.47

LAUNCH DATE JUL 5 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 418.520 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.485 GAL -4.57 AZL 89.51 HCA 136.87 SMA 212.75 ECC .29511 INC .4864 V1 29.290
RP 223.83 LAP .33 LOP 59.71 VP 23.707 GAP 16.91 AZP 90.36 TAL 339.76 TAP 116.63 RCA 149.96 APO 275.53 V2 24.569
RC 103.560 GL 3.33 GP -9.81 ZAL 123.05 ZAP 156.76 ETS 205.58 ZAE 164.18 ETE 317.27 ZAC 74.47 ETC 283.45 LVI -8.60

PLANETOCENTRIC CONIC

C3 23.889 VHL 4.888 DLA 19.80 RAL 42.46 RAD 6644.5 VEL 11.995 PTH 6.99 VHP 5.055 DPA 4.82 RAP 39.71 ECC 1.3932

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 59 8	3578.05	-47.17	135.42	283.58	97.13	14 58 47	2578.0	-38.97	104.03
60.00	14 15 9	3535.41	-40.26	132.34	284.33	91.95	15 14 4	2535.4	-35.08	102.52
70.00	14 39 45	3462.99	-34.09	126.47	284.32	87.81	15 37 28	2463.0	-31.42	98.06
80.00	15 20 57	3333.80	-29.45	116.33	283.97	84.87	16 16 31	2333.8	-28.59	88.93
90.00	16 29 46	3111.64	-27.64	99.80	283.76	83.74	17 21 38	2111.6	-27.46	72.79
100.00	18 3 49	2808.27	-29.45	77.69	283.97	84.87	18 50 37	1808.3	-28.59	50.30
110.00	19 39 11	2509.81	-34.09	55.38	284.32	87.81	20 21 1	1509.8	-31.42	26.97

DIFFERENTIAL CORRECTIONS

TDE -.5488 TRA-1.6454 TC3 .4743 BAU .1929
RDE -.2536 RRA .4078 RC3 -.3738 FAU .11756
FDE 1.5140 FRA 3.6013 FC3-4.2603 BSP 3865
BDE .6046 BRA 1.6951 BC3 .6039 FSP 836

MID-COURSE EXECUTION ACCURACY

SGT 2198.0 SGR 692.8 SG3 550.7
RRT -.6695 RRF .7413 RTF -.8759
SGB 2304.6 R23 -.1647 R13 .8852
SG1 2249.0 SG2 502.9 THA 167.45

ORBIT DETERMINATION ACCURACY

ST 44.5 SR 16.7 SS 48.7
CRT .3274 CRS .4307 CST .9927
LSA 66.2 MSA 15.8 SSA 1.5
EL1 44.9 EL2 15.7 ALF 7.99

LAUNCH DATE JUL 5 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 422.059 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	33.439	GAL	-4.50	AZL	89.45	HCA	137.95	SMA	211.71	ECC	.29144	INC	.5479	V1	29.290
RP	224.22	LAP	.37	LOP	60.79	VP	23.599	GAP	16.61	AZP	90.41	TAL	339.87	TAP	117.82	RCA	150.01	APO	273.41	V2	24.527
RC	105.921	GL	3.78	GP	-10.24	ZAL	122.88	ZAP	155.73	ETS	205.48	ZAE	164.05	ETE	315.26	ZAC	74.01	ETC	283.47	LVI	-8.14

PLANETOCENTRIC CONIC

C3	23.334	VHL	4.830	DLA	20.19	RAL	42.16	RAD	6644.3	VEL	11.972	PTH	6.97	VHP	4.927	DPA	4.46	RAP	39.99	ECC	1.3840

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 56 14	3580.60	-47.19	135.67	283.10	96.94	14 55 55	2580.6	-39.06	104.22
60.00	14 11 39	3539.56	-40.27	132.70	283.83	91.71	15 10 38	2539.6	-35.19	102.83
70.00	14 35 27	3469.44	-34.07	126.97	283.77	87.51	15 33 17	2469.4	-31.53	98.53
80.00	15 15 46	3343.07	-29.40	117.01	283.39	84.52	16 11 29	2343.1	-28.69	89.61
90.00	16 24 6	3122.47	-27.55	100.58	283.17	83.36	17 16 9	2122.5	-27.55	73.57
100.00	17 58 38	2817.54	-29.40	78.38	283.39	84.52	18 45 35	1817.5	-28.69	50.97
110.00	19 34 54	2516.26	-34.07	55.89	283.77	87.51	20 16 50	1516.3	-31.53	27.45

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.5523	TRA	-1.6313	TC3	.4939	BAU	.2000	SGT	2215.2	SGR	719.1	SG3	580.9	ST	45.1	SR	15.9	SS	50.6
RDE	-.2323	RRA	.4227	RC3	-.4086	FAU	.12259	RRT	-.6963	RRF	.7714	RTF	-.8778	CRT	.2826	CRS	.3914	CST	.9923
FDE	1.6076	FRA	3.7338	FC3	-4.5483	BSP	3934	SGB	2329.0	R23	-.1767	R13	.8883	LSA	67.9	MSA	15.4	SSA	1.5
BDE	.5992	BRA	1.6852	BC3	.6410	FSP	888	SG1	2274.1	SG2	502.8	THA	166.60	EL1	45.3	EL2	15.2	ALF	6.44

LAUNCH DATE JUL 5 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 425.620 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	33.396	GAL	-4.44	AZL	89.39	HCA	139.03	SMA	210.73	ECC	.28796	INC	.6115	V1	29.290
RP	224.61	LAP	.40	LOP	61.86	VP	23.494	GAP	16.32	AZP	90.46	TAL	339.97	TAP	119.00	RCA	150.05	APO	271.41	V2	24.485
RC	108.326	GL	4.27	GP	-10.70	ZAL	122.71	ZAP	154.68	ETS	205.40	ZAE	163.93	ETE	313.08	ZAC	73.54	ETC	283.48	LVI	-7.67

PLANETOCENTRIC CONIC

C3	22.815	VHL	4.777	DLA	20.61	RAL	41.86	RAD	6644.1	VEL	11.950	PTH	6.95	VHP	4.803	DPA	4.06	RAP	40.25	ECC	1.3755

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 53 11	3583.95	-47.22	135.98	282.67	96.70	14 52 55	2584.0	-39.17	104.46
60.00	14 7 57	3544.62	-40.28	133.13	283.35	91.42	15 7 2	2544.6	-35.31	103.20
70.00	14 30 55	3477.02	-34.05	127.56	283.26	87.17	15 28 52	2477.0	-31.65	99.09
80.00	15 10 14	3353.75	-29.32	117.79	282.83	84.11	16 6 7	2353.8	-28.79	90.38
90.00	16 18 1	3134.89	-27.45	101.47	282.59	82.92	17 10 16	2134.9	-27.65	74.47
100.00	17 53 5	2828.22	-29.32	79.16	282.83	84.11	18 40 14	1828.2	-28.79	51.75
110.00	19 30 21	2523.83	-34.05	56.48	283.26	87.17	20 12 25	1523.8	-31.65	28.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.5544	TRA	-1.6139	TC3	.5142	BAU	.2077	SGT	2227.4	SGR	749.3	SG3	612.4	ST	45.5	SR	15.2	SS	52.6
RDE	-.2103	RRA	.4386	RC3	-.4464	FAU	.12790	RRT	-.7216	RRF	.7995	RTF	-.8796	CRT	.2277	CRS	.3429	CST	.9917
FDE	1.7064	FRA	3.8665	FC3	-4.8532	BSP	3984	SGB	2350.1	R23	-.1884	R13	.8916	LSA	69.5	MSA	15.1	SSA	1.5
BDE	.5929	BRA	1.6725	BC3	.6809	FSP	941	SG1	2295.5	SG2	503.3	THA	165.65	EL1	45.6	EL2	14.7	ALF	4.85

LAUNCH DATE JUL 5 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 429.202 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	33.354	GAL	-4.38	AZL	89.32	HCA	140.10	SMA	209.81	ECC	.28465	INC	.6777	V1	29.290
RP	225.00	LAP	.43	LOP	62.94	VP	23.391	GAP	16.02	AZP	90.52	TAL	340.08	TAP	120.17	RCA	150.09	APO	269.53	V2	24.443
RC	110.773	GL	4.78	GP	-11.19	ZAL	122.54	ZAP	153.59	ETS	205.35	ZAE	163.80	ETE	310.71	ZAC	73.04	ETC	283.51	LVI	-7.17

PLANETOCENTRIC CONIC

C3	22.333	VHL	4.726	DLA	21.05	RAL	41.55	RAD	6643.9	VEL	11.930	PTH	6.93	VHP	4.684	DPA	3.63	RAP	40.50	ECC	1.3675

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 49 59	3588.14	-47.25	136.38	282.28	96.39	14 49 47	2588.1	-39.31	104.78
60.00	14 4 3	3550.65	-40.29	133.64	282.91	91.07	15 3 14	2550.7	-35.45	103.65
70.00	14 26 5	3485.78	-34.02	128.24	282.76	86.76	15 24 11	2485.8	-31.79	99.75
80.00	15 4 18	3365.96	-29.24	118.69	282.29	83.65	16 0 24	2366.0	-28.91	91.27
90.00	16 11 29	3149.06	-27.33	102.49	282.03	82.43	17 3 58	2149.1	-27.75	75.49
100.00	17 47 10	2840.43	-29.24	80.06	282.29	83.65	18 34 30	1840.4	-28.91	52.64
110.00	19 25 31	2532.60	-34.02	57.16	282.76	86.76	20 7 44	1532.6	-31.79	28.65

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.5568	TRA	-1.5963	TC3	.5326	BAU	.2155	SGT	2238.2	SGR	783.7	SG3	645.2	ST	45.9	SR	14.4	SS	54.6
RDE	-.1871	RRA	.4560	RC3	-.4870	FAU	.13333	RRT	-.7451	RRF	.8255	RTF	-.8614	CRT	.1600	CRS	.2817	CST	.9912
FDE	1.8135	FRA	4.0040	FC3	-5.1687	BSP	4037	SGB	2371.5	R23	-.2000	R13	.8949	LSA	71.3	MSA	14.7	SSA	1.5
BDE	.5874	BRA	1.6602	BC3	.7217	FSP	997	SG1	2317.1	SG2	505.0	THA	164.63	EL1	46.0	EL2	14.2	ALF	3.18

LAUNCH DATE JUL 5 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 432.802 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	33.315	GAL	-4.32	AZL	89.25	HCA	141.17	SMA	208.95	ECC	.28152	INC	.7467	V1	29.290
RP	225.39	LAP	.47	LOP	64.00	VP	23.291	GAP	15.73	AZP	90.58	TAL	340.18	TAP	121.34	RCA	150.12	APO	267.77	V2	24.401
RC	113.259	GL	5.31	GP	-11.71	ZAL	122.37	ZAP	152.48	ETS	205.31	ZAE	163.65	ETE	308.16	ZAC	72.52	ETC	283.54	LVI	-6.65

PLANETOCENTRIC CONIC

C3	21.885	VHL	4.678	DLA	21.52	RAL	41.23	RAD	6643.7	VEL	11.911	PTH	6.92	VHP	4.570	DPA	3.16	RAP	40.73	ECC	1.3602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 46 37	3593.19	-47.28	136.87	281.94	96.02	14 46 30	2593.2	-39.48	105.13
60.00	13 59 56	3557.70	-40.30	134.24	282.51	90.66	14 59 14	2557.7	-35.62	104.17
70.00	14 20 57	3495.82	-33.98	129.02	282.30	86.30	15 19 12	2495.8	-31.94	100.47
80.00	14 57 56	3379.84	-29.13	119.71	281.77	83.12	15 54 16	2379.8	-29.03	92.28
90.00	16 4 25	3165.18	-27.18	103.65	281.48	81.87	16 57 10	2165.2	-27.85	76.66
100.00	17 40 48	2854.32	-29.13	81.08	281.77	83.12	18 28 22	1854.3	-29.03	53.65
110.00	19 20 23	2542.64	-33.98	57.94	282.30	86.30	20 2 46	1542.6	-31.94	29.39

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.5585	TRA	-1.5765	TC3	.5507	BAU	.2238	SGT	2245.2	SGR	822.8	SG3	679.2	ST	46.3	SR	13.7	SS	56.8
RDE	-.1629	RRA	.4745	RC3	-.5311	FAU	.13903	RRT	-.7666	RRF	.8492	RTF	-.8830	CRT	.0772	CRS	.2056	CST	.9906
FDE	1.9275	FRA	4.1423	FC3	-5.4999	BSP	4077	SGB	2391.2	R23	-.2112	R13	.8984	LSA	73.1	MSA	14.3	SSA	1.5
BDE	.5818	BRA	1.6464	BC3	.7650	FSP	1055	SG1	2336.7	SG2	507.7	THA	163.51	EL1	46.3	EL2	13.7	ALF	1.44

LAUNCH DATE JUL 5 1973 FLIGHT TIME 172.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 436.420 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.278 GAL -4.26 AZL 89.18 HCA 142.23 SMA 208.13 ECC .27854 INC .8185 V1 29.290
RP 225.78 LAP .50 LOP 65.07 VP 23.194 GAP 15.44 AZP 90.65 TAL 340.28 TAP 122.51 RCA 150.16 APO 266.11 V2 24.359
RC 115.782 GL 5.87 GP -12.26 ZAL 122.19 ZAP 151.34 ETS 205.30 ZAE 163.49 ETE 305.44 ZAC 71.98 ETC 283.58 LVI -6.11

PLANETOCENTRIC CONIC

C3 21.469 VHL 4.633 DLA 22.01 RAL 40.91 RAD 6643.5 VEL 11.894 PTH 6.90 VHP 4.459 DPA 2.66 RAP 40.95 ECC 1.3533

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 43 4	3599.16	-47.33	137.44	281.65	95.58	14 43 3	2599.2	-39.68	105.56
60.00	13 55 34	3565.84	-40.30	134.93	282.14	90.19	14 55 0	2565.8	-35.81	104.78
70.00	14 15 28	3507.24	-33.92	129.91	281.86	85.78	15 13 55	2507.2	-32.11	101.32
80.00	14 51 5	3395.57	-28.99	120.86	281.27	82.53	15 47 40	2395.6	-29.16	93.43
90.00	15 56 46	3183.48	-27.00	104.95	280.95	81.24	16 49 49	2183.5	-27.95	77.99
100.00	17 33 56	2870.04	-28.99	82.23	281.27	82.53	18 21 47	1870.0	-29.16	54.60
110.00	19 14 54	2554.05	-33.92	58.83	281.86	85.78	19 57 29	1554.1	-32.11	30.24

DIFFERENTIAL CORRECTIONS

TDE -.5801 TRA-1.5553 TC3 .5660 BAU .2323
RDE -.1374 RRA .4944 RC3 -.5785 FAU .14489
FDE 2.0497 FRA 4.2816 FC3-5.8427 BSP .4114
BDE .5767 BRA 1.6320 BC3 .8093 FSP .1115

MID-COURSE EXECUTION ACCURACY

SGT 2249.1 SGR 866.7 SG3 714.3
RRT -.7857 RRF .8706 RTF -.8843
SGB 2410.3 R23 -.2223 R13 .9018
SG1 2355.3 SG2 512.0 THA 162.29

ORBIT DETERMINATION ACCURACY

ST 46.6 SR 13.1 SS 59.0
CRT -.0234 CRS .1113 CST .9899
LSA 75.0 MSA 14.0 SSA 1.5
EL1 46.6 EL2 13.1 ALF 179.59

LAUNCH DATE JUL 5 1973 FLIGHT TIME 174.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 440.055 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.243 GAL -4.21 AZL 89.11 HCA 143.29 SMA 207.37 ECC .27573 INC .8938 V1 29.290
RP 226.17 LAP .53 LOP 66.13 VP 23.100 GAP 15.16 AZP 90.72 TAL 340.37 TAP 123.66 RCA 150.19 APO 264.55 V2 24.318
RC 118.341 GL 6.47 GP -12.84 ZAL 122.02 ZAP 150.17 ETS 205.30 ZAE 163.29 ETE 302.55 ZAC 71.40 ETC 283.62 LVI -5.55

PLANETOCENTRIC CONIC

C3 21.086 VHL 4.592 DLA 22.54 RAL 40.57 RAD 6643.3 VEL 11.878 PTH 6.89 VHP 4.354 DPA 2.11 RAP 41.16 ECC 1.3470

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 39 20	3606.09	-47.37	138.10	281.41	95.07	14 39 26	2606.1	-39.90	106.07
60.00	13 50 57	3575.12	-40.30	135.72	281.81	89.66	14 50 32	2575.1	-36.02	105.47
70.00	14 9 37	3520.14	-33.85	130.91	281.45	85.19	15 8 17	2520.1	-32.30	102.28
80.00	14 43 40	3413.35	-28.83	122.15	280.78	81.87	15 40 33	2413.4	-29.30	94.74
90.00	15 48 25	3204.27	-26.77	106.43	280.42	80.53	16 41 50	2204.3	-28.05	79.50
100.00	17 26 32	2887.83	-28.83	83.52	280.78	81.87	18 14 40	1887.8	-29.30	56.11
110.00	19 9 3	2566.96	-33.85	59.83	281.45	85.19	19 51 50	1567.0	-32.30	31.20

DIFFERENTIAL CORRECTIONS

TDE -.5613 TRA-1.5331 TC3 .5795 BAU .2413
RDE -.1105 RRA .5159 RC3 -.6298 FAU .15097
FDE 2.1799 FRA 4.4230 FC3-6.1986 BSP .4150
BDE .5721 BRA 1.6175 BC3 .8558 FSP .1177

MID-COURSE EXECUTION ACCURACY

SGT 2250.1 SGR 916.1 SG3 750.8
RRT -.8027 RRF .8896 RTF -.8853
SGB 2429.4 R23 -.2328 R13 .9053
SG1 2373.6 SG2 517.9 THA 160.96

ORBIT DETERMINATION ACCURACY

ST 46.8 SR 12.6 SS 61.4
CRT -.1431 CRS -.0035 CST .9892
LSA 77.0 MSA 13.6 SSA 1.5
EL1 46.9 EL2 12.4 ALF 177.64

LAUNCH DATE JUL 5 1973 FLIGHT TIME 176.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 443.705 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.209 GAL -4.15 AZL 89.03 HCA 144.35 SMA 206.65 ECC .27305 INC .9727 V1 29.290
RP 226.56 LAP .57 LOP 67.19 VP 23.007 GAP 14.87 AZP 90.79 TAL 340.46 TAP 124.81 RCA 150.23 APO 263.08 V2 24.276
RC 120.933 GL 7.09 GP -13.46 ZAL 121.84 ZAP 148.97 ETS 205.32 ZAE 163.04 ETE 299.51 ZAC 70.80 ETC 283.67 LVI -4.96

PLANETOCENTRIC CONIC

C3 20.732 VHL 4.553 DLA 23.09 RAL 40.23 RAD 6643.2 VEL 11.863 PTH 6.88 VHP 4.252 DPA 1.53 RAP 41.36 ECC 1.3412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 35 22	3614.02	-47.41	138.86	281.21	94.49	14 35 37	2614.0	-40.16	106.66
60.00	13 46 2	3585.61	-40.29	136.61	281.52	89.05	14 45 48	2585.6	-36.26	106.26
70.00	14 3 21	3534.63	-33.77	132.03	281.06	84.53	15 2 15	2534.6	-32.49	103.37
80.00	14 35 37	3433.42	-28.63	123.61	280.30	81.13	15 32 50	2433.4	-29.43	96.21
90.00	15 39 16	3227.89	-26.50	108.11	279.90	79.74	16 33 4	2227.9	-28.15	81.22
100.00	17 18 29	2907.90	-28.63	84.98	280.30	81.13	18 6 56	1907.9	-29.43	57.58
110.00	19 2 47	2581.45	-33.77	60.95	281.06	84.53	19 45 48	1581.5	-32.49	32.28

DIFFERENTIAL CORRECTIONS

TDE -.5513 TRA-1.4982 TC3 .6112 BAU .2547
RDE -.0825 RRA .5380 RC3 -.6861 FAU .15746
FDE 2.3127 FRA 4.5571 FC3-6.5754 BSP .4056
BDE .5574 BRA 1.5919 BC3 .9189 FSP .1235

MID-COURSE EXECUTION ACCURACY

SGT 2234.1 SGR 971.0 SG3 788.0
RRT -.8224 RRF .9064 RTF -.8896
SGB 2436.0 R23 -.2331 R13 .9118
SG1 2380.2 SG2 518.5 THA 159.30

ORBIT DETERMINATION ACCURACY

ST 46.4 SR 12.2 SS 63.6
CRT -.2823 CRS -.1346 CST .9876
LSA 78.5 MSA 13.3 SSA 1.5
EL1 46.5 EL2 11.7 ALF 175.45

LAUNCH DATE JUL 5 1973 FLIGHT TIME 178.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 447.367 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.177 GAL -4.10 AZL 88.94 HCA 145.40 SMA 205.98 ECC .27053 INC 1.0554 V1 29.290
RP 226.95 LAP .60 LOP 68.24 VP 22.918 GAP 14.59 AZP 90.87 TAL 340.55 TAP 125.95 RCA 150.26 APO 261.70 V2 24.234
RC 123.556 GL 7.75 GP -14.12 ZAL 121.67 ZAP 147.73 ETS 205.35 ZAE 162.74 ETE 296.34 ZAC 70.17 ETC 283.72 LVI -4.34

PLANETOCENTRIC CONIC

C3 20.411 VHL 4.518 DLA 23.68 RAL 39.88 RAD 6643.0 VEL 11.850 PTH 6.87 VHP 4.155 DPA .90 RAP 41.54 ECC 1.3359

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 31 12	3623.08	-47.46	139.74	281.08	93.82	14 31 35	2623.1	-40.45	107.34
60.00	13 40 49	3597.47	-40.27	137.62	281.27	88.37	14 40 47	2597.5	-36.52	107.16
70.00	13 56 36	3550.95	-33.65	133.29	280.70	83.80	14 55 47	2550.9	-32.70	104.59
80.00	14 26 49	3456.19	-28.38	125.26	279.84	80.30	15 24 25	2456.2	-29.56	97.89
90.00	15 29 8	3254.94	-26.15	110.01	279.38	78.84	16 23 23	2254.9	-28.22	83.20
100.00	17 9 41	2930.66	-28.38	86.62	279.84	80.30	17 58 31	1930.7	-29.56	59.26
110.00	18 56 3	2597.77	-33.65	62.21	280.70	83.80	19 39 20	1597.8	-32.70	33.51

DIFFERENTIAL CORRECTIONS

TDE -.5614 TRA-1.4626 TC3 .6011 BAU .2610
RDE -.0512 RRA .5634 RC3 -.7440 FAU .16357
FDE 2.4687 FRA 4.7050 FC3-6.9379 BSP .4205
BDE .5637 BRA 1.5860 BC3 .9585 FSP .1308

MID-COURSE EXECUTION ACCURACY

SGT 2240.0 SGR 1031.9 SG3 826.7
RRT -.8310 RRF .9211 RTF -.8870
SGB 2466.2 R23 -.2498 R13 .9131
SG1 2407.7 SG2 534.0 THA 157.91

ORBIT DETERMINATION ACCURACY

ST 47.1 SR 12.2 SS 66.3
CRT -.4283 CRS -.2866 CST .9875
LSA 81.2 MSA 12.9 SSA 1.5
EL1 47.4 EL2 10.9 ALF 173.32

LAUNCH DATE JUL 5 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 451.042 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.147 GAL -4.06 AZL 88.86 HCA 146.45 SMA 205.35 ECC .26814 INC 1.1422 V1 29.290
RP 227.34 LAP .63 LOP 69.29 VP 22.830 GAP 14.31 AZP 90.95 TAL 340.64 TAP 127.09 RCA 150.29 APO 260.41 V2 24.193
RC 126.208 GL 8.45 GP -14.81 ZAL 121.49 ZAP 146.46 ETS 205.40 ZAE 162.38 ETE 293.07 ZAC 69.50 ETC 283.79 LVI -3.68

PLANETOCENTRIC CONIC

C3 20.118 VHL 4.485 DLA 24.31 RAL 39.53 RAD 6642.9 VEL 11.838 PTH 6.86 VHP 4.062 DPA .22 RAP 41.71 ECC 1.3311

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 26 47	3633.27	-47.50	140.72	280.99	93.06	14 27 20	2633.3	-40.76	108.11
60.00	13 35 15	3610.73	-40.24	138.75	281.05	87.60	14 35 25	2610.7	-36.80	108.18
70.00	13 49 20	3569.22	-33.51	134.70	280.36	82.98	14 48 49	2569.2	-32.92	105.97
80.00	14 17 7	3482.02	-28.07	127.11	279.37	79.37	15 15 9	2482.0	-29.68	99.80
90.00	15 17 48	3286.09	-25.72	112.19	278.84	77.83	16 12 34	2286.1	-28.27	85.47
100.00	16 59 59	2956.49	-28.07	88.48	279.37	79.37	17 49 16	1956.5	-29.68	61.17
110.00	18 48 46	2616.04	-33.51	63.62	280.36	82.98	19 32 22	1616.0	-32.92	34.89

DIFFERENTIAL CORRECTIONS
TDE -.5636 TRA-1.4576 TC3 .6011 BAU .2707
RDE -.0182 RRA .5897 RC3 -.8071 FAU .16998
FDE 2.6286 FRA 4.8442 FC3-7.3147 BSP 4262
BDE .5639 BRA 1.5724 BC3 1.0063 FSP 1377

MID-COURSE EXECUTION ACCURACY
SGT 2232.3 SGR 1099.1 SG3 865.9
RRT -.8406 RRF .9338 RTF -.8863
SGB 2488.2 R23 -.2591 R13 .9164
SG1 2427.2 SG2 547.5 THA 156.23

ORBIT DETERMINATION ACCURACY
ST 47.3 SR 12.5 SS 69.0
CRT -.5734 CRS -.4385 CST .9867
LSA 83.6 MSA 12.5 SSA 1.5
EL1 47.8 EL2 10.1 ALF 170.97

LAUNCH DATE JUL 5 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 454.729 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.119 GAL -4.01 AZL 88.77 HCA 147.50 SMA 204.75 ECC .26587 INC 1.2337 V1 29.290
RP 227.73 LAP .66 LOP 70.34 VP 22.745 GAP 14.04 AZP 91.04 TAL 340.72 TAP 128.22 RCA 150.31 APO 259.19 V2 24.152
RC 128.887 GL 9.19 GP -15.55 ZAL 121.31 ZAP 145.15 ETS 205.45 ZAE 161.94 ETE 289.73 ZAC 68.80 ETC 283.86 LVI -3.00

PLANETOCENTRIC CONIC

C3 19.854 VHL 4.456 DLA 24.97 RAL 39.16 RAD 6642.8 VEL 11.826 PTH 6.85 VHP 3.974 DPA -.51 RAP 41.87 ECC 1.3267

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 22 5	3644.69	-47.54	141.82	280.96	92.22	14 22 49	2644.7	-41.11	108.98
60.00	13 29 16	3625.52	-40.19	140.01	280.87	86.75	14 29 42	2625.5	-37.10	109.32
70.00	13 41 26	3589.67	-33.33	136.27	280.03	82.07	14 41 16	2589.7	-33.14	107.53
80.00	14 6 21	3511.49	-27.68	129.22	278.90	78.33	15 4 52	2511.5	-29.78	101.99
90.00	15 4 54	3322.40	-25.18	114.71	278.28	76.68	16 0 16	2322.4	-28.27	88.13
100.00	16 49 13	2985.96	-27.68	90.58	278.90	78.33	17 38 59	1986.0	-29.78	63.36
110.00	18 40 52	2636.49	-33.33	65.18	280.03	82.07	19 24 49	1636.5	-33.14	36.45

DIFFERENTIAL CORRECTIONS
TDE -.5565 TRA-1.4224 TC3 .6163 BAU .2844
RDE .0164 RRA .6170 RC3 -.8766 FAU .17687
FDE 2.7920 FRA 4.9741 FC3-7.7124 BSP 4220
BDE .5568 BRA 1.5504 BC3 1.0716 FSP 1441

MID-COURSE EXECUTION ACCURACY
SGT 2210.2 SGR 1173.3 SG3 905.8
RRT -.8522 RRF .9447 RTF -.8882
SGB 2502.3 R23 -.2594 R13 .9221
SG1 2439.7 SG2 556.1 THA 154.22

ORBIT DETERMINATION ACCURACY
ST 46.9 SR 13.2 SS 71.6
CRT -.7035 CRS -.5767 CST .9852
LSA 85.7 MSA 12.3 SSA 1.5
EL1 47.8 EL2 9.2 ALF 168.34

LAUNCH DATE JUL 5 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 458.426 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.092 GAL -3.97 AZL 88.67 HCA 148.54 SMA 204.19 ECC .26373 INC 1.3302 V1 29.290
RP 228.12 LAP .69 LOP 71.38 VP 22.662 GAP 13.76 AZP 91.13 TAL 340.80 TAP 129.34 RCA 150.34 APO 258.04 V2 24.110
RC 131.592 GL 9.96 GP -16.34 ZAL 121.12 ZAP 143.80 ETS 205.51 ZAE 161.42 ETE 286.36 ZAC 68.06 ETC 283.95 LVI -2.27

PLANETOCENTRIC CONIC

C3 19.620 VHL 4.429 DLA 25.68 RAL 38.78 RAD 6642.7 VEL 11.817 PTH 6.84 VHP 3.891 DPA -1.29 RAP 42.02 ECC 1.3229

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 17 4	3657.45	-47.56	143.05	280.99	91.27	14 18 2	2657.5	-41.50	109.97
60.00	13 22 52	3642.03	-40.12	141.40	280.73	85.81	14 23 34	2642.0	-37.42	110.60
70.00	13 32 50	3612.63	-33.10	138.02	279.72	81.05	14 33 3	2612.6	-33.37	109.28
80.00	13 54 13	3545.50	-27.19	131.62	278.41	77.15	14 53 19	2545.5	-29.85	104.51
90.00	14 49 53	3365.69	-24.47	117.68	277.67	75.36	15 45 59	2365.7	-28.20	91.29
100.00	16 37 5	3019.97	-27.19	92.99	278.41	77.15	17 27 25	2020.0	-29.85	65.88
110.00	18 32 16	2659.45	-33.10	66.94	279.72	81.05	19 16 36	1659.5	-33.37	38.20

DIFFERENTIAL CORRECTIONS
TDE -.5624 TRA-1.3983 TC3 .6008 BAU .2945
RDE .0553 RRA .6472 RC3 -.9483 FAU .18330
FDE 2.9782 FRA 5.1090 FC3-8.0881 BSP 4333
BDE .5651 BRA 1.5409 BC3 1.1226 FSP 1517

MID-COURSE EXECUTION ACCURACY
SGT 2200.1 SGR 1254.5 SG3 946.3
RRT -.8563 RRF .9539 RTF -.8953
SGB 2532.6 R23 -.2683 R13 .9250
SG1 2465.8 SG2 578.0 THA 152.32

ORBIT DETERMINATION ACCURACY
ST 47.2 SR 14.4 SS 74.7
CRT -.8075 CRS -.6971 CST .9847
LSA 88.7 MSA 11.9 SSA 1.5
EL1 48.7 EL2 8.3 ALF 165.71

LAUNCH DATE JUL 5 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 462.134 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.067 GAL -3.93 AZL 88.57 HCA 149.58 SMA 203.66 ECC .26171 INC 1.4322 V1 29.290
RP 228.51 LAP .73 LOP 72.42 VP 22.581 GAP 13.49 AZP 91.24 TAL 340.87 TAP 130.45 RCA 150.36 APO 256.96 V2 24.069
RC 134.321 GL 10.79 GP -17.17 ZAL 120.94 ZAP 142.41 ETS 205.57 ZAE 160.80 ETE 282.99 ZAC 67.28 ETC 284.04 LVI -1.51

PLANETOCENTRIC CONIC

C3 19.415 VHL 4.406 DLA 26.43 RAL 38.38 RAD 6642.6 VEL 11.808 PTH 6.83 VHP 3.812 DPA -2.12 RAP 42.16 ECC 1.3195

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 11 43	3671.64	-47.58	144.43	281.08	90.21	14 12 55	2671.6	-41.91	111.08
60.00	13 15 57	3660.37	-40.02	142.95	280.62	84.76	14 16 57	2660.4	-37.76	112.04
70.00	13 23 23	3638.44	-32.81	139.98	279.42	79.93	14 24 2	2638.4	-33.59	111.26
80.00	13 40 19	3585.26	-26.55	134.41	277.88	75.82	14 40 5	2585.3	-29.85	107.47
90.00	14 31 45	3419.09	-23.50	121.29	276.96	73.80	15 28 45	2419.1	-28.00	95.18
100.00	16 23 11	3059.74	-26.55	95.78	277.88	75.82	17 14 11	2059.7	-29.85	68.84
110.00	18 22 50	2685.26	-32.81	68.89	279.42	79.93	19 7 35	1685.3	-33.59	40.18

DIFFERENTIAL CORRECTIONS
TDE -.5572 TRA-1.3629 TC3 .6008 BAU .3088
RDE .0964 RRA .6783 RC3-1.0267 FAU .19011
FDE 3.1660 FRA 5.2297 FC3-8.4770 BSP 4327
BDE .5655 BRA 1.5224 BC3 1.1896 FSP 1583

MID-COURSE EXECUTION ACCURACY
SGT 2173.0 SGR 1343.3 SG3 986.7
RRT -.8630 RRF .9618 RTF -.8852
SGB 2554.7 R23 -.2673 R13 .9303
SG1 2484.8 SG2 593.5 THA 150.04

ORBIT DETERMINATION ACCURACY
ST 46.8 SR 16.1 SS 77.6
CRT -.8837 CRS -.7878 CST .9632
LSA 91.3 MSA 11.7 SSA 1.5
EL1 49.0 EL2 7.2 ALF 162.71

LAUNCH DATE JUL 5 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 465.850 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.043 GAL -3.90 AZL 88.46 HCA 150.61 SMA 203.17 ECC .25980 INC 1.5406 V1 29.290
RP 228.90 LAP .76 LOP 73.46 VP 22.503 GAP 13.22 AZP 91.34 TAL 340.94 TAP 131.55 RCA 150.38 APO 255.95 V2 24.028
RC 137.073 GL 11.66 GP -18.05 ZAL 120.75 ZAP 140.99 ETS 205.64 ZAE 160.07 ETE 279.66 ZAC 66.45 ETC 284.15 LVI -.70

PLANETOCENTRIC CONIC

C3 19.241 VHL 4.386 DLA 27.23 RAL 37.98 RAD 6642.5 VEL 11.801 PTH 6.82 VHP 3.738 DPA -3.02 RAP 42.29 ECC 1.3167

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 5 59	3687.39	-47.57	145.95	281.24	89.04	14 7 27	2687.4	-42.36	112.33
60.00	13 8 28	3680.80	-39.88	144.67	280.55	83.60	14 9 49	2680.8	-38.11	113.66
70.00	13 12 56	3667.61	-32.44	142.17	279.12	78.68	14 14 4	2667.6	-33.79	113.52
80.00	13 23 58	3632.96	-25.72	137.70	277.27	74.28	14 24 31	2633.0	-29.76	111.01
90.00	14 8 9	3490.14	-22.07	126.01	276.06	71.86	15 6 19	2490.1	-27.55	100.33
100.00	16 6 50	3107.43	-25.72	99.07	277.27	74.28	16 58 37	2107.4	-29.76	72.36
110.00	18 12 22	2714.43	-32.44	71.09	279.12	78.68	18 57 37	1714.4	-33.79	42.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5602 TRA-1.3341 TC3 .5804 BAU .3218 SGT 2152.9 SGR 1440.4 SG3 1027.5 ST 46.9 SR 18.3 SS 80.8
RDE .1426 RRA .7123 RC3-1.1082 FAU .19653 RRT -.8648 RRF .9684 RTF -.8820 CRT -.9347 CRS -.8556 CST .9823
FDE 3.3783 FRA 5.3511 FC3-8.8431 BSP 4428 SGB 2590.3 R23 -.2695 R13 .9344 LSA 94.6 MSA 11.4 SSA 1.5
BDE .5780 BRA 1.5123 BC3 1.2510 FSP 1660 SG1 2515.3 SG2 619.0 THA 147.76 EL1 50.0 EL2 6.1 ALF 159.65

LAUNCH DATE JUL 5 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 469.575 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 33.020 GAL -3.86 AZL 88.34 HCA 151.64 SMA 202.70 ECC .25799 INC 1.6555 V1 29.290
RP 229.28 LAP .79 LOP 74.49 VP 22.426 GAP 12.95 AZP 91.46 TAL 341.00 TAP 132.65 RCA 150.41 APO 255.00 V2 23.988
RC 139.847 GL 12.58 GP -19.00 ZAL 120.55 ZAP 139.52 ETS 205.71 ZAE 159.24 ETE 276.41 ZAC 65.57 ETC 284.27 LVI .15

PLANETOCENTRIC CONIC

C3 19.097 VHL 4.370 DLA 28.08 RAL 37.56 RAD 6642.4 VEL 11.795 PTH 6.82 VHP 3.668 DPA -3.98 RAP 42.41 ECC 1.3143

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 59 49	3704.85	-47.54	147.64	281.45	87.74	14 1 34	2704.8	-42.83	113.73
60.00	13 0 19	3703.52	-39.69	146.58	280.51	82.32	14 2 2	2703.5	-38.48	115.48
70.00	13 1 14	3700.79	-31.97	144.64	278.80	77.29	14 2 55	2700.8	-33.97	116.09
80.00	13 3 49	3692.71	-24.55	141.76	276.52	72.45	14 5 21	2692.7	-29.50	115.43
90.00	13 28 37	3612.45	-19.27	133.88	274.53	68.89	14 28 49	2612.4	-26.28	109.05
100.00	15 46 41	3167.18	-24.55	103.13	276.52	72.45	16 39 28	2167.2	-29.50	76.80
110.00	18 0 41	2747.61	-31.97	73.56	278.80	77.29	18 46 28	1747.6	-33.97	45.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .5580 TRA-1.2993 TC3 .5618 BAU .3372 SGT 2122.3 SGR 1545.6 SG3 1067.3 ST 46.7 SR 21.0 SS 84.1
RDE .1924 RRA .7475 RC3-1.1954 FAU .20297 RRT -.8664 RRF .9740 RTF -.8792 CRT -.9665 CRS -.9021 CST .9810
FDE 3.5921 FRA 5.4561 FC3-9.2015 BSP 4489 SGB 2625.5 R23 -.2666 R13 .9394 LSA 97.8 MSA 11.2 SSA 1.4
BDE .5902 BRA 1.4990 BC3 1.3208 FSP 1731 SG1 2545.4 SG2 643.4 THA 145.21 EL1 50.9 EL2 4.9 ALF 156.30

LAUNCH DATE JUL 5 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 473.307 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.999 GAL -3.83 AZL 88.22 HCA 152.67 SMA 202.26 ECC .25629 INC 1.7781 V1 29.290
RP 229.67 LAP .82 LOP 75.52 VP 22.351 GAP 12.68 AZP 91.58 TAL 341.06 TAP 133.74 RCA 150.42 APO 254.10 V2 23.947
RC 142.641 GL 13.56 GP -20.00 ZAL 120.34 ZAP 138.00 ETS 205.77 ZAE 158.30 ETE 273.26 ZAC 64.65 ETC 284.40 LVI 1.05

PLANETOCENTRIC CONIC

C3 18.984 VHL 4.357 DLA 28.98 RAL 37.12 RAD 6642.4 VEL 11.790 PTH 6.81 VHP 3.604 DPA -5.00 RAP 42.53 ECC 1.3124

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 53 9	3724.17	-47.47	149.50	281.72	86.30	13 55 13	2724.2	-43.34	115.32
60.00	12 51 23	3728.87	-39.43	148.68	280.48	80.91	13 53 32	2728.9	-38.85	117.54
70.00	12 47 59	3738.94	-31.36	147.45	278.44	75.73	13 50 17	2738.9	-34.10	119.06
80.00	12 36 22	3775.47	-22.74	147.24	275.47	70.11	13 39 18	2775.5	-28.88	121.50
83.40	12 2 16	3885.13	-17.22	152.98	273.12	66.32	13 7 1	2885.1	-25.49	128.85
100.00	15 19 14	3249.94	-22.74	108.61	275.47	70.11	16 13 24	2249.9	-28.88	82.87
110.00	17 47 25	2785.76	-31.36	76.37	278.44	75.73	18 33 51	1785.8	-34.10	47.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5537 TRA-1.2626 TC3 .5401 BAU .3544 SGT 2086.6 SGR 1660.2 SG3 1106.3 ST 46.2 SR 24.1 SS 87.4
RDE .2470 RRA .7847 RC3-1.2878 FAU .20926 RRT -.8670 RRF .9786 RTF -.8759 CRT -.9851 CRS -.9337 CST .9794
FDE 3.8188 FRA 5.5492 FC3-9.5427 BSP 4550 SGB 2666.5 R23 -.2603 R13 .9450 LSA 101.2 MSA 11.1 SSA 1.4
BDE .6063 BRA 1.4866 BC3 1.3965 FSP 1801 SG1 2581.3 SG2 668.7 THA 142.45 EL1 52.0 EL2 3.7 ALF 152.69

LAUNCH DATE JUL 5 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 477.046 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.978 GAL -3.80 AZL 88.09 HCA 153.70 SMA 201.85 ECC .25469 INC 1.9089 V1 29.290
RP 230.05 LAP .85 LOP 76.55 VP 22.277 GAP 12.42 AZP 91.71 TAL 341.12 TAP 134.81 RCA 150.44 APO 253.26 V2 23.907
RC 145.456 GL 14.60 GP -21.06 ZAL 120.13 ZAP 136.44 ETS 205.83 ZAE 157.23 ETE 270.24 ZAC 63.67 ETC 284.55 LVI 2.01

PLANETOCENTRIC CONIC

C3 18.906 VHL 4.348 DLA 29.94 RAL 36.66 RAD 6642.3 VEL 11.787 PTH 6.81 VHP 3.545 DPA -6.09 RAP 42.64 ECC 1.3111

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 45 54	3745.58	-47.35	151.56	282.05	84.72	13 48 20	2745.6	-43.86	117.10
60.00	12 41 32	3757.22	-39.10	151.02	280.47	79.36	13 44 10	2757.2	-39.21	119.86
70.00	12 32 38	3783.52	-30.57	150.68	278.01	73.97	13 35 41	2783.5	-34.15	122.54
79.73	11 31 43	3976.25	-17.78	159.99	272.85	65.50	12 37 59	2976.3	-26.33	135.83
79.73	11 31 43	3976.25	-17.78	159.99	272.85	65.50	12 37 59	2976.3	-26.33	135.83
79.73	11 31 43	3976.25	-17.78	159.99	272.85	65.50	12 37 59	2976.3	-26.33	135.83
110.00	17 32 4	2930.34	-30.57	79.60	278.01	73.97	18 19 15	1830.3	-34.15	51.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5480 TRA-1.2229 TC3 .5155 BAU .3738 SGT 2044.7 SGR 1784.3 SG3 1143.8 ST 45.6 SR 27.7 SS 90.9
RDE .3072 RRA .8232 RC3-1.3860 FAU .21542 RRT -.8663 RRF .9824 RTF -.8721 CRT -.9947 CRS -.9551 CST .9776
FDE 4.0560 FRA 5.6227 FC3-9.8644 BSP 4616 SGB 2713.8 R23 -.2507 R13 .9508 LSA 104.8 MSA 10.9 SSA 1.3
BDE .6283 BRA 1.4742 BC3 1.4788 FSP 1867 SG1 2623.3 SG2 694.6 THA 139.48 EL1 53.3 EL2 2.4 ALF 148.83

LAUNCH DATE JUL 5 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 17 1974

DISTANCE 480.791

EARTH TO MARS

HELIOCENTRIC CONIC
RL 152.10 LAL .00 LOL 282.84 VL 32.959 GAL -3.77 AZL 87.95 HCA 154.72 SMA 201.47 ECC .25318 INC 2.0492 V1 29.290
RP 230.44 LAP .87 LOP 77.57 VP 22.206 GAP 12.16 AZP 91.85 TAL 341.17 TAP 135.88 RCA 150.46 APO 252.47 V2 23.867
RC 148.289 GL 15.71 GP -22.19 ZAL 119.90 ZAP 134.84 ETS 205.89 ZAE 156.05 ETE 267.36 ZAC 62.63 ETC 284.72 LVI 3.03

PLANETOCENTRIC CONIC
C3 18.863 VHL 4.343 DLA 30.97 RAL 36.17 RAD 6642.3 VEL 11.785 PTH 6.81 VHP 3.492 DPA -7.26 RAP 42.75 ECC 1.3104

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 38 0	3769.30	-47.18	153.83	282.44	82.98	13 40 49	2769.3	-44.42	119.12
60.00	12 30 35	3789.10	-38.67	153.62	280.45	77.64	13 33 44	2789.1	-39.56	122.50
70.00	12 14 21	3837.03	-29.50	154.48	277.45	71.96	13 18 18	2837.0	-34.07	126.72
76.82	11 8 21	4043.77	-18.37	165.32	272.61	64.62	12 15 45	3043.8	-27.23	141.15
76.82	11 8 21	4043.77	-18.37	165.32	272.61	64.62	12 15 45	3043.8	-27.23	141.15
76.82	11 8 21	4043.77	-18.37	165.32	272.61	64.62	12 15 45	3043.8	-27.23	141.15
110.00	17 13 48	2883.85	-29.50	83.40	277.45	71.96	18 1 51	1883.9	-34.07	55.63

DIFFERENTIAL CORRECTIONS
TDE -.5408 TRA-1.1816 TC3 .4843 BAU .3947
RDE .3741 RRA .8634 RC3-1.4882 FAU .22109
FDE 4.3052 FRA 5.6781 FC-10.1469 BSP 4695
BDE .6576 BRA 1.4635 BC3 1.5650 FSP 1930

MID-COURSE EXECUTION ACCURACY
SGT 1997.8 SGR 1918.1 SG3 1179.2
RRT -.8640 RRF .9856 RTF -.8671
SGB 2769.5 R23 -.2386 R13 .9568
SG1 2673.9 SG2 721.5 THA 136.35

ORBIT DETERMINATION ACCURACY
ST 44.9 SR 31.8 SS 94.4
CRT -.9985 CRS -.9696 CST .9754
LSA 108.7 MSA 10.9 SSA 1.3
EL1 55.0 EL2 1.4 ALF 144.73

LAUNCH DATE JUL 5 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 19 1974

DISTANCE 484.542

EARTH TO MARS

HELIOCENTRIC CONIC
RL 152.10 LAL .00 LOL 282.84 VL 32.941 GAL -3.75 AZL 87.80 HCA 155.74 SMA 201.10 ECC .25176 INC 2.1998 V1 29.290
RP 230.82 LAP .90 LOP 78.59 VP 22.136 GAP 11.89 AZP 92.01 TAL 341.21 TAP 136.95 RCA 150.47 APO 251.73 V2 23.827
RC 151.140 GL 16.89 GP -23.39 ZAL 119.66 ZAP 133.18 ETS 205.93 ZAE 154.74 ETE 264.65 ZAC 61.54 ETC 284.91 LVI 4.11

PLANETOCENTRIC CONIC
C3 18.859 VHL 4.343 DLA 32.07 RAL 35.66 RAD 6642.3 VEL 11.785 PTH 6.81 VHP 3.445 DPA -8.50 RAP 42.86 ECC 1.3104

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 18	3795.64	-46.93	156.32	282.86	81.08	13 32 34	2795.6	-44.98	121.40
60.00	12 18 14	3825.17	-38.11	156.52	280.41	75.75	13 22 0	2825.2	-39.88	125.51
70.00	11 51 25	3904.52	-27.99	159.15	276.65	69.58	12 56 30	2904.5	-33.75	131.96
74.21	10 48 15	4100.41	-18.97	169.92	272.40	63.65	11 56 36	3100.4	-28.17	145.73
74.21	10 48 15	4100.41	-18.97	169.92	272.40	63.65	11 56 36	3100.4	-28.17	145.73
74.21	10 48 15	4100.41	-18.97	169.92	272.40	63.65	11 56 36	3100.4	-28.17	145.73
110.00	16 50 51	2951.34	-27.99	88.07	276.65	69.58	17 40 3	1951.3	-33.75	60.87

DIFFERENTIAL CORRECTIONS
TDE -.5297 TRA-1.1360 TC3 .4533 BAU .4184
RDE .4478 RRA .9042 RC3-1.5962 FAU .22648
FDE 4.5601 FRA 5.7053 FC-10.3967 BSP 4770
BDE .6936 BRA 1.4519 BC3 1.6593 FSP 1986

MID-COURSE EXECUTION ACCURACY
SGT 1942.0 SGR 2062.3 SG3 1211.6
RRT -.8611 RRF .9882 RTF -.8618
SGB 2832.7 R23 -.2228 R13 .9630
SG1 2733.0 SG2 745.1 THA 133.00

ORBIT DETERMINATION ACCURACY
ST 43.9 SR 36.4 SS 98.0
CRT -.9986 CRS -.9793 CST .9728
LSA 112.8 MSA 10.9 SSA 1.2
EL1 57.0 EL2 1.5 ALF 140.35

LAUNCH DATE JUL 5 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 21 1974

DISTANCE 488.299

EARTH TO MARS

HELIOCENTRIC CONIC
RL 152.10 LAL .00 LOL 282.84 VL 32.924 GAL -3.72 AZL 87.64 HCA 156.75 SMA 200.76 ECC .25042 INC 2.3622 V1 29.290
RP 231.20 LAP .93 LOP 79.60 VP 22.068 GAP 11.63 AZP 92.17 TAL 341.25 TAP 138.00 RCA 150.49 APO 251.04 V2 23.787
RC 154.008 GL 18.15 GP -24.67 ZAL 119.41 ZAP 131.48 ETS 205.95 ZAE 153.31 ETE 262.09 ZAC 60.37 ETC 285.12 LVI 5.25

PLANETOCENTRIC CONIC
C3 18.898 VHL 4.347 DLA 33.24 RAL 35.12 RAD 6642.3 VEL 11.786 PTH 6.81 VHP 3.404 DPA -9.83 RAP 42.97 ECC 1.3110

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 19 40	3824.96	-46.59	159.07	283.32	78.99	13 23 25	2825.0	-45.55	124.00
60.00	12 4 9	3866.40	-37.36	159.77	280.30	73.65	13 8 36	2866.4	-40.13	128.99
70.00	11 18 55	4000.55	-25.54	165.54	275.29	66.51	12 25 36	3000.6	-32.87	139.31
71.75	10 30 6	4150.43	-19.60	174.09	272.23	62.60	11 39 17	3150.4	-29.16	149.90
71.75	10 30 6	4150.43	-19.60	174.09	272.23	62.60	11 39 17	3150.4	-29.16	149.90
71.75	10 30 6	4150.43	-19.60	174.09	272.23	62.60	11 39 17	3150.4	-29.16	149.90
110.00	16 18 22	3047.37	-25.54	94.46	275.29	66.51	17 9 9	2047.4	-32.87	68.23

DIFFERENTIAL CORRECTIONS
TDE -.5103 TRA-1.0825 TC3 .4290 BAU .4460
RDE .5276 RRA .9437 RC3-1.7125 FAU .23187
FDE 4.8078 FRA 5.6907 FC-10.6223 BSP 4790
BDE .7340 BRA 1.4362 BC3 1.7654 FSP 2019

MID-COURSE EXECUTION ACCURACY
SGT 1871.3 SGR 2216.3 SG3 1239.7
RRT -.8584 RRF .9904 RTF -.8668
SGB 2900.7 R23 -.2028 R13 .9695
SG1 2799.3 SG2 760.0 THA 129.40

ORBIT DETERMINATION ACCURACY
ST 42.3 SR 41.4 SS 101.3
CRT -.9960 CRS -.9857 CST .9688
LSA 116.8 MSA 10.9 SSA 1.1
EL1 59.1 EL2 2.7 ALF 135.62

LAUNCH DATE JUL 5 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 23 1974

DISTANCE 492.059

EARTH TO MARS

HELIOCENTRIC CONIC
RL 152.10 LAL .00 LOL 282.84 VL 32.908 GAL -3.70 AZL 87.46 HCA 157.76 SMA 200.48 ECC .24917 INC 2.5381 V1 29.290
RP 231.58 LAP .98 LOP 80.62 VP 22.002 GAP 11.38 AZP 92.35 TAL 341.28 TAP 139.04 RCA 150.50 APO 250.39 V2 23.748
RC 156.890 GL 19.50 GP -26.03 ZAL 119.13 ZAP 129.74 ETS 205.96 ZAE 151.75 ETE 259.71 ZAC 59.14 ETC 285.36 LVI 6.47

PLANETOCENTRIC CONIC
C3 18.986 VHL 4.357 DLA 34.50 RAL 34.54 RAD 6642.4 VEL 11.790 PTH 6.81 VHP 3.370 DPA -11.23 RAP 43.09 ECC 1.3125

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 8 56	3857.76	-46.11	162.09	283.79	76.70	13 13 14	2857.8	-46.11	126.96
60.00	11 47 47	3914.29	-36.38	163.46	280.09	71.32	12 53 2	2914.3	-40.28	133.05
69.36	10 13 14	4196.07	-20.24	178.01	272.11	61.45	11 23 10	3196.1	-30.20	153.82
69.36	10 13 14	4196.07	-20.24	178.01	272.11	61.45	11 23 10	3196.1	-30.20	153.82
69.36	10 13 14	4196.07	-20.24	178.01	272.11	61.45	11 23 10	3196.1	-30.20	153.82
69.36	10 13 14	4196.07	-20.24	178.01	272.11	61.45	11 23 10	3196.1	-30.20	153.82
69.36	10 13 14	4196.07	-20.24	178.01	272.11	61.45	11 23 10	3196.1	-30.20	153.82

DIFFERENTIAL CORRECTIONS
TDE -.5117 TRA-1.0498 TC3 .3510 BAU .4696
RDE .6251 RRA .9914 RC3-1.8166 FAU .23450
FDE 5.1102 FRA 5.6912 FC-10.6927 BSP 5088
BDE .8078 BRA 1.4440 BC3 1.8502 FSP 2095

MID-COURSE EXECUTION ACCURACY
SGT 1830.9 SGR 2384.2 SG3 1265.2
RRT -.8447 RRF .9922 RTF -.8423
SGB 3006.0 R23 -.1907 R13 .9737
SG1 2895.7 SG2 806.9 THA 126.22

ORBIT DETERMINATION ACCURACY
ST 42.0 SR 47.5 SS 105.6
CRT -.9923 CRS -.9904 CST .9670
LSA 122.7 MSA 10.9 SSA 1.0
EL1 63.3 EL2 3.9 ALF 131.44

LAUNCH DATE JUL 5 1973 FLIGHT TIME 204.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 495.823 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.893 GAL -3.68 AZL 87.27 HCA 158.77 SMA 200.15 ECC .24800 INC 2.7292 V1 29.290
RP 231.95 LAP .99 LOP 81.63 VP 21.937 GAP 11.12 AZP 92.54 TAL 341.31 TAP 140.08 RCA 150.51 APO 249.78 V2 23.708
RC 159.785 GL 20.94 GP -27.47 ZAL 116.83 ZAP 127.94 ETS 205.95 ZAE 150.07 ETE 257.48 ZAC 57.84 ETC 285.63 LVI 7.76

PLANETOCENTRIC CONIC

C3 19.128 VHL 4.374 DLA 35.85 RAL 33.91 RAD 6642.4 VEL 11.796 PTH 6.82 VHP 3.343 DPA -12.73 RAP 43.22 ECC 1.3148

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 56 49	3894.60	-45.48	165.42	284.24	74.20	13 1 44	2894.6	-46.63	130.36
60.00	11 28 11	3971.20	-35.06	167.70	279.66	68.70	12 34 22	2971.2	-40.26	137.89
66.99	9 57 13	4238.54	-20.90	181.76	272.02	60.19	11 7 51	3238.5	-31.31	157.60
66.99	9 57 13	4238.54	-20.90	181.76	272.02	60.19	11 7 51	3238.5	-31.31	157.60
66.99	9 57 13	4238.54	-20.90	181.76	272.02	60.19	11 7 51	3238.5	-31.31	157.60
66.99	9 57 13	4238.54	-20.90	181.76	272.02	60.19	11 7 51	3238.5	-31.31	157.60
66.99	9 57 13	4238.54	-20.90	181.76	272.02	60.19	11 7 51	3238.5	-31.31	157.60

DIFFERENTIAL CORRECTIONS
TDE -.4958 TRA-1.0011 TC3 .2984 BAU .4999
RDE .7293 RRA 1.0346 RC3-1.9319 FAU .23748
FDE 5.3868 FRA 5.6274 FC-10.7478 BSP .5242
BDE .8819 BRA 1.4396 BC3 1.9548 FSP .2129

MID-COURSE EXECUTION ACCURACY
SGT 1762.9 SGR 2562.1 SG3 1284.2
RRT -.8340 RRF .9936 RTF -.8302
SGB 3110.0 R23 -.1714 R13 .9787
SG1 2996.8 SG2 831.6 THA 122.68

ORBIT DETERMINATION ACCURACY
ST 40.5 SR 54.0 SS 109.4
CRT -.9868 CRS -.9934 CST .9627
LSA 128.0 MSA 11.1 SSA 1.0
EL1 67.3 EL2 5.3 ALF 126.79

LAUNCH DATE JUL 5 1973 FLIGHT TIME 206.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 499.592 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.879 GAL -3.66 AZL 87.06 HCA 159.77 SMA 199.87 ECC .24690 INC 2.9375 V1 29.290
RP 232.33 LAP 1.02 LOP 82.63 VP 21.874 GAP 10.86 AZP 92.76 TAL 341.33 TAP 141.10 RCA 150.52 APO 249.22 V2 23.670
RC 162.693 GL 22.49 GP -29.00 ZAL 118.50 ZAP 126.10 ETS 205.90 ZAE 148.26 ETE 255.41 ZAC 56.46 ETC 285.93 LVI 9.13

PLANETOCENTRIC CONIC

C3 19.332 VHL 4.397 DLA 37.30 RAL 33.24 RAD 6642.5 VEL 11.805 PTH 6.83 VHP 3.325 DPA -14.32 RAP 43.36 ECC 1.3182

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 42 59	3936.31	-44.65	169.09	284.61	71.48	12 48 35	2936.3	-47.09	134.29
60.00	11 3 35	4041.86	-33.19	172.77	278.85	65.69	12 10 57	3041.9	-39.92	143.87
64.60	9 41 47	4278.69	-21.57	185.42	271.98	58.81	10 53 6	3278.7	-32.46	161.30
64.60	9 41 47	4278.69	-21.57	185.42	271.98	58.81	10 53 6	3278.7	-32.46	161.30
64.60	9 41 47	4278.69	-21.57	185.42	271.98	58.81	10 53 6	3278.7	-32.46	161.30
64.60	9 41 47	4278.69	-21.57	185.42	271.98	58.81	10 53 6	3278.7	-32.46	161.30
64.60	9 41 47	4278.69	-21.57	185.42	271.98	58.81	10 53 6	3278.7	-32.46	161.30

DIFFERENTIAL CORRECTIONS
TDE .4774 TRA -.9515 TC3 .2390 BAU .5325
RDE .8474 RRA 1.0776 RC3-2.0466 FAU .23924
FDE 5.6663 FRA 5.5262 FC-10.7138 BSP .5436
BDE .9726 BRA 1.4376 BC3 2.0605 FSP .2155

MID-COURSE EXECUTION ACCURACY
SGT 1691.4 SGR 2752.1 SG3 1296.7
RRT -.8199 RRF .9948 RTF -.8149
SGB 3230.3 R23 -.1520 R13 .9831
SG1 3114.9 SG2 855.5 THA 119.15

ORBIT DETERMINATION ACCURACY
ST 38.9 SR 61.3 SS 113.1
CRT -.9800 CRS -.9955 CST .9573
LSA 133.9 MSA 11.2 SSA .9
EL1 72.3 EL2 6.6 ALF 122.19

LAUNCH DATE JUL 5 1973 FLIGHT TIME 208.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 503.363 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.866 GAL -3.65 AZL 86.83 HCA 160.77 SMA 199.61 ECC .24588 INC 3.1662 V1 29.290
RP 232.70 LAP 1.04 LOP 83.63 VP 21.812 GAP 10.61 AZP 92.99 TAL 341.35 TAP 142.12 RCA 150.53 APO 248.69 V2 23.651
RC 165.610 GL 24.15 GP -30.62 ZAL 118.14 ZAP 124.22 ETS 205.82 ZAE 146.33 ETE 253.49 ZAC 55.00 ETC 286.27 LVI 10.59

PLANETOCENTRIC CONIC

C3 19.609 VHL 4.428 DLA 38.85 RAL 32.49 RAD 6642.7 VEL 11.816 PTH 6.84 VHP 3.316 DPA -16.00 RAP 43.52 ECC 1.3227

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 26 53	3984.06	-43.53	173.14	284.83	68.52	12 33 18	2984.1	-47.43	138.85
60.00	10 29 17	4136.66	-30.26	179.33	277.22	62.02	11 38 15	3138.9	-38.92	151.92
62.17	9 26 44	4317.13	-22.25	189.04	271.99	57.29	10 38 41	3317.1	-33.68	164.99
62.17	9 26 44	4317.13	-22.25	189.04	271.99	57.29	10 38 41	3317.1	-33.68	164.99
62.17	9 26 44	4317.13	-22.25	189.04	271.99	57.29	10 38 41	3317.1	-33.68	164.99
62.17	9 26 44	4317.13	-22.25	189.04	271.99	57.29	10 38 41	3317.1	-33.68	164.99
62.17	9 26 44	4317.13	-22.25	189.04	271.99	57.29	10 38 41	3317.1	-33.68	164.99

DIFFERENTIAL CORRECTIONS
TDE -.4538 TRA -.8992 TC3 .1780 BAU .5682
RDE .9809 RRA 1.1191 RC3-2.1600 FAU .23978
FDE 5.9420 FRA 5.3813 FC-10.5863 BSP .5653
BDE 1.0808 BRA 1.4356 BC3 2.1673 FSP .2170

MID-COURSE EXECUTION ACCURACY
SGT 1612.9 SGR 2954.2 SG3 1301.6
RRT -.8026 RRF .9958 RTF -.[illegible]63
SGB 3365.8 R23 -.1325 R13 .9869
SG1 3250.2 SG2 874.4 THA 115.65

ORBIT DETERMINATION ACCURACY
ST 36.9 SR 69.4 SS 116.7
CRT -.9712 CRS -.9969 CST .9550
LSA 140.2 MSA 11.4 SSA .8
EL1 78.2 EL2 7.8 ALF 117.64

LAUNCH DATE JUL 5 1973 FLIGHT TIME 210.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 507.136 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.854 GAL -3.63 AZL 86.58 HCA 161.77 SMA 199.36 ECC .24492 INC 3.4178 V1 29.290
RP 233.07 LAP 1.07 LOP 84.63 VP 21.752 GAP 10.36 AZP 93.25 TAL 341.36 TAP 143.13 RCA 150.54 APO 248.19 V2 23.593
RC 168.537 GL 25.94 GP -32.34 ZAL 117.73 ZAP 122.28 ETS 205.70 ZAE 144.28 ETE 251.70 ZAC 53.46 ETC 286.65 LVI 12.13

PLANETOCENTRIC CONIC

C3 19.973 VHL 4.469 DLA 40.53 RAL 31.67 RAD 6642.8 VEL 11.831 PTH 6.85 VHP 3.317 DPA -17.78 RAP 43.70 ECC 1.3287

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 7 47	4039.60	-42.05	177.65	284.78	65.30	12 15 6	3039.6	-47.58	144.22
59.67	9 11 52	4354.33	-22.92	192.66	272.04	55.62	10 24 27	3354.3	-34.95	168.73
59.67	9 11 52	4354.33	-22.92	192.66	272.04	55.62	10 24 27	3354.3	-34.95	168.73
59.67	9 11 52	4354.33	-22.92	192.66	272.04	55.62	10 24 27	3354.3	-34.95	168.73
59.67	9 11 52	4354.33	-22.92	192.66	272.04	55.62	10 24 27	3354.3	-34.95	168.73
59.67	9 11 52	4354.33	-22.92	192.66	272.04	55.62	10 24 27	3354.3	-34.95	168.73
59.67	9 11 52	4354.33	-22.92	192.66	272.04	55.62	10 24 27	3354.3	-34.95	168.73

DIFFERENTIAL CORRECTIONS
TDE -.4242 TRA -.8430 TC3 .1167 BAU .6074
RDE 1.1318 RRA 1.1562 RC3-2.2718 FAU .23911
FDE 6.2046 FRA 5.1807 FC-10.3645 BSP .5862
BDE 1.2087 BRA 1.4308 BC3 2.2748 FSP .2159

MID-COURSE EXECUTION ACCURACY
SGT 1525.8 SGR 3167.3 SG3 1297.3
RRT -.7808 RRF .9966 RTF -.7733
SGB 3515.6 R23 -.1133 R13 .9901
SG1 3401.7 SG2 887.5 THA 112.21

ORBIT DETERMINATION ACCURACY
ST 34.6 SR 78.3 SS 120.1
CRT -.9600 CRS -.9979 CST .9401
LSA 147.0 MSA 11.7 SSA .7
EL1 85.1 EL2 8.9 ALF 113.23

LAUNCH DATE JUL 5 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 510.914 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.842 GAL -3.62 AZL 86.30 HCA 162.76 SMA 199.14 ECC .24403 INC 3.6964 V1 29.290
RP 233.44 LAP 1.09 LOP 85.63 VP 21.693 GAP 10.11 AZP 93.53 TAL 341.37 TAP 144.13 RCA 150.54 APO 247.73 V2 25.554
RC 171.472 GL 27.86 GP -34.15 ZAL 117.28 ZAP 120.31 ETS 205.53 ZAE 142.12 ETE 250.03 ZAC 51.84 ETC 287.09 LVI 13.77

PLANETOCENTRIC CONIC

C3 20.443 VHL 4.521 DLA 42.33 RAL 30.76 RAD 6643.0 VEL 11.851 PTH 6.87 VHP 3.330 DPA -19.66 RAP 43.91 ECC 1.3364

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 44 18	4105.99	-40.03	182.74	284.26	61.77	11 52 44	3106.0	-47.39	150.62
57.09	8 57 4	4390.75	-23.58	196.32	272.14	53.77	10 10 14	3390.7	-36.26	172.56
57.09	8 57 4	4390.75	-23.58	196.32	272.14	53.77	10 10 14	3390.7	-36.26	172.56
57.09	8 57 4	4390.75	-23.58	196.32	272.14	53.77	10 10 14	3390.7	-36.26	172.56
57.09	8 57 4	4390.75	-23.58	196.32	272.14	53.77	10 10 14	3390.7	-36.26	172.56
57.09	8 57 4	4390.75	-23.58	196.32	272.14	53.77	10 10 14	3390.7	-36.26	172.56
57.09	8 57 4	4390.75	-23.58	196.32	272.14	53.77	10 10 14	3390.7	-36.26	172.56

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3950 TRA -.7922 TC3 .0402 BAU .6487 SGT 1447.7 SGR 3393.4 SG3 1283.6 ST 32.3 SR 88.3 SS 123.4
RDE 1.3061 RRA 1.1912 RC3-2.3734 FAU .23649 RRT -.7489 RRF .9972 RTF -.7404 CRT -.9459 CRS -.9986 CST .9274
FDE 6.4598 FRA 4.9392 FC-10.0154 BSP 6167 SGB 3689.3 R23 -.0969 R13 .9926 LSA 154.6 MSA 11.9 SSA .6
BDE 1.3645 BRA 1.4306 BC3 2.3738 FSP 2144 SG1 3575.2 SG2 910.5 THA 109.00 EL1 93.5 EL2 9.9 ALF 109.29

LAUNCH DATE JUL 5 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 514.693 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.831 GAL -3.61 AZL 85.99 HCA 163.75 SMA 198.92 ECC .24320 INC 4.0071 V1 29.290
RP 233.80 LAP 1.12 LOP 86.62 VP 21.636 GAP 9.86 AZP 93.85 TAL 341.37 TAP 145.12 RCA 150.55 APO 247.30 V2 25.517
RC 174.413 GL 29.95 GP -36.07 ZAL 116.76 ZAP 118.31 ETS 205.31 ZAE 139.84 ETE 248.46 ZAC 50.13 ETC 287.58 LVI 15.50

PLANETOCENTRIC CONIC

C3 21.041 VHL 4.587 DLA 44.27 RAL 29.74 RAD 6643.3 VEL 11.876 PTH 6.89 VHP 3.357 DPA -21.64 RAP 44.17 ECC 1.3463

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 13 40	4189.50	-37.17	188.68	282.87	57.85	11 23 29	3189.5	-46.62	153.54
54.39	8 42 9	4426.65	-24.21	200.05	272.28	51.73	9 55 55	3426.7	-37.62	176.54
54.39	8 42 9	4426.65	-24.21	200.05	272.28	51.73	9 55 55	3426.7	-37.62	176.54
54.39	8 42 9	4426.65	-24.21	200.05	272.28	51.73	9 55 55	3426.7	-37.62	176.54
54.39	8 42 9	4426.65	-24.21	200.05	272.28	51.73	9 55 55	3426.7	-37.62	176.54
54.39	8 42 9	4426.65	-24.21	200.05	272.28	51.73	9 55 55	3426.7	-37.62	176.54
54.39	8 42 9	4426.65	-24.21	200.05	272.28	51.73	9 55 55	3426.7	-37.62	176.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3573 TRA -.7380 TC3 -.0350 BAU .6927 SGT 1363.0 SGR 3630.2 SG3 1258.6 ST 29.5 SR 99.4 SS 126.3
RDE 1.5069 RRA 1.2204 RC3-2.4624 FAU .23183 RRT -.7091 RRF .9978 RTF -.6994 CRT -.9258 CRS -.9990 CST .9083
FDE 6.6958 FRA 4.6457 FC3-9.5388 BSP 6491 SGB 3877.7 R23 -.0813 R13 .9945 LSA 163.0 MSA 12.2 SSA .5
BDE 1.5487 BRA 1.4262 BC3 2.4626 FSP 2110 SG1 3765.4 SG2 926.6 THA 105.90 EL1 103.2 EL2 10.8 ALF 105.54

LAUNCH DATE JUL 5 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 518.473 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.821 GAL -3.60 AZL 85.64 HCA 164.73 SMA 198.73 ECC .24243 INC 4.3560 V1 29.290
RP 234.17 LAP 1.15 LOP 87.61 VP 21.580 GAP 9.61 AZP 94.20 TAL 341.37 TAP 146.10 RCA 150.55 APO 246.91 V2 25.479
RC 177.360 GL 32.20 GP -38.09 ZAL 116.18 ZAP 116.27 ETS 205.02 ZAE 137.45 ETE 246.99 ZAC 48.34 ETC 288.15 LVI 17.33

PLANETOCENTRIC CONIC

C3 21.801 VHL 4.669 DLA 46.37 RAL 28.56 RAD 6643.6 VEL 11.908 PTH 6.92 VHP 3.399 DPA -23.73 RAP 44.46 ECC 1.3588

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 27 10	4310.52	-32.49	196.44	279.48	53.11	10 39 1	3310.5	-44.49	169.41
51.58	8 26 57	4462.46	-24.79	203.89	272.46	49.46	9 41 19	3462.5	-39.00	180.73
51.58	8 26 57	4462.46	-24.79	203.89	272.46	49.46	9 41 19	3462.5	-39.00	180.73
51.58	8 26 57	4462.46	-24.79	203.89	272.46	49.46	9 41 19	3462.5	-39.00	180.73
51.58	8 26 57	4462.46	-24.79	203.89	272.46	49.46	9 41 19	3462.5	-39.00	180.73
51.58	8 26 57	4462.46	-24.79	203.89	272.46	49.46	9 41 19	3462.5	-39.00	180.73
51.58	8 26 57	4462.46	-24.79	203.89	272.46	49.46	9 41 19	3462.5	-39.00	180.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3097 TRA -.6815 TC3 -.1060 BAU .7404 SGT 1274.1 SGR 3878.1 SG3 1221.7 ST 26.3 SR 111.7 SS 128.8
RDE 1.7385 RRA 1.2409 RC3-2.5382 FAU .22535 RRT -.6580 RRF .9982 RTF -.7469 CRT -.8943 CRS -.9993 CST .8776
FDE 6.8997 FRA 4.2976 FC3-8.9491 BSP 6831 SGB 4082.1 R23 -.0670 R13 .9960 LSA 172.1 MSA 12.5 SSA .5
BDE 1.7659 BRA 1.4157 BC3 2.5404 FSP 2055 SG1 3973.2 SG2 936.5 THA 102.93 EL1 114.2 EL2 11.5 ALF 102.01

LAUNCH DATE JUL 5 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 522.254 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.812 GAL -3.60 AZL 85.25 HCA 165.72 SMA 198.54 ECC .24173 INC 4.7502 V1 29.290
RP 234.53 LAP 1.17 LOP 88.60 VP 21.525 GAP 9.36 AZP 94.60 TAL 341.36 TAP 147.07 RCA 150.55 APO 246.54 V2 25.442
RC 180.313 GL 34.64 GP -40.21 ZAL 115.52 ZAP 114.20 ETS 204.65 ZAE 134.96 ETE 245.58 ZAC 46.47 ETC 288.79 LVI 19.25

PLANETOCENTRIC CONIC

C3 22.765 VHL 4.771 DLA 48.64 RAL 27.21 RAD 6644.0 VEL 11.948 PTH 6.95 VHP 3.459 DPA -25.90 RAP 44.82 ECC 1.3747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.63	8 11 16	4498.54	-25.28	207.86	272.65	46.96	9 26 14	3498.5	-40.38	185.19
48.63	8 11 16	4498.54	-25.28	207.86	272.65	46.96	9 26 14	3498.5	-40.38	185.19
48.63	8 11 16	4498.54	-25.28	207.86	272.65	46.96	9 26 14	3498.5	-40.38	185.19
48.63	8 11 16	4498.54	-25.28	207.86	272.65	46.96	9 26 14	3498.5	-40.38	185.19
48.63	8 11 16	4498.54	-25.28	207.86	272.65	46.96	9 26 14	3498.5	-40.38	185.19
48.63	8 11 16	4498.54	-25.28	207.86	272.65	46.96	9 26 14	3498.5	-40.38	185.19
48.63	8 11 16	4498.54	-25.28	207.86	272.65	46.96	9 26 14	3498.5	-40.38	185.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2532 TRA -.6259 TC3 -.1780 BAU .7921 SGT 1189.4 SGR 4133.9 SG3 1171.4 ST 22.9 SR 125.2 SS 130.6
RDE 2.0062 RRA 1.2485 RC3-2.5964 FAU .21695 RRT -.5881 RRF .9986 RTF -.5757 CRT -.8425 CRS -.9995 CST .8261
FDE 7.0568 FRA 3.8924 FC3-8.2502 BSP 7184 SGB 4301.6 R23 -.0546 R13 .9972 LSA 181.9 MSA 12.8 SSA .4
BDE 2.0221 BRA 1.3966 BC3 2.6025 FSP 1971 SG1 4195.9 SG2 947.8 THA 100.13 EL1 126.7 EL2 12.2 ALF 98.82

LAUNCH DATE JUL 5 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 526.035 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.803 GAL -3.59 AZL 84.80 HCA 166.69 SMA 198.37 ECC .24107 INC 5.1999 V1 29.290
RP 234.89 LAP 1.20 LOP 89.58 VP 21.471 GAP 9.11 AZP 95.06 TAL 341.34 TAP 148.04 RCA 150.55 APO 246.20 V2 23.405
RC 183.270 GL 37.28 GP -42.44 ZAL 114.77 ZAP 112.12 ETS 204.21 ZAE 132.37 ETE 244.23 ZAC 44.51 ETC 289.53 LVI 25.28

PLANETOCENTRIC CONIC

C3 23.996 VHL 4.899 DLA 51.08 RAL 25.62 RAD 6644.6 VEL 11.999 PTH 6.99 VHP 3.542 DPA -28.18 RAP 45.23 ECC 1.3949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.51	7 54 50	4535.33	-25.65	211.99	272.82	44.18	9 10 26	3535.3	-41.72	190.00
45.51	7 54 50	4535.33	-25.65	211.99	272.82	44.18	9 10 26	3535.3	-41.72	190.00
45.51	7 54 50	4535.33	-25.65	211.99	272.82	44.18	9 10 26	3535.3	-41.72	190.00
45.51	7 54 50	4535.33	-25.65	211.99	272.82	44.18	9 10 26	3535.3	-41.72	190.00
45.51	7 54 50	4535.33	-25.65	211.99	272.82	44.18	9 10 26	3535.3	-41.72	190.00
45.51	7 54 50	4535.33	-25.65	211.99	272.82	44.18	9 10 26	3535.3	-41.72	190.00
45.51	7 54 50	4535.33	-25.65	211.99	272.82	44.18	9 10 26	3535.3	-41.72	190.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1854 TRA -.5715 TC3 -.2481 BAU .8466 SGT 1112.8 SGR 4398.4 SG3 1108.0 ST 19.3 SR 140.2 SS 131.6
RDE 2.3216 RRA 1.2420 RC3-2.6273 FAU .20613 RRT -.4951 RRF .9989 RTF -.4812 CRT -.7482 CRS -.9997 CST .1317
FDE 7.1665 FRA 3.4432 FC3-7.4371 BSP 7582 SGB 4537.0 R23 -.0438 R13 .9980 LSA 192.8 MSA 13.1 SSA .3
BDE 2.3290 BRA 1.3672 BC3 2.6390 FSP 1869 SG1 4434.5 SG2 959.0 THA 97.49 EL1 140.9 EL2 12.7 ALF 95.93

LAUNCH DATE JUL 5 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 529.817 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.795 GAL -3.59 AZL 84.28 HCA 167.67 SMA 198.22 ECC .24047 INC 5.7179 V1 29.290
RP 235.24 LAP 1.22 LOP 90.57 VP 21.419 GAP 8.87 AZP 95.59 TAL 341.33 TAP 149.00 RCA 150.55 APO 245.88 V2 23.369
RC 186.232 GL 40.15 GP -44.75 ZAL 113.90 ZAP 110.03 ETS 203.66 ZAE 129.70 ETE 242.92 ZAC 42.49 ETC 290.38 LVI 25.39

PLANETOCENTRIC CONIC

C3 25.577 VHL 5.057 DLA 53.71 RAL 23.72 RAD 6645.2 VEL 12.064 PTH 7.05 VHP 3.652 DPA -30.54 RAP 45.73 ECC 1.4209

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.23	7 37 22	4573.29	-25.84	216.29	272.90	41.12	8 53 35	3573.3	-42.97	195.22
42.23	7 37 22	4573.29	-25.84	216.29	272.90	41.12	8 53 35	3573.3	-42.97	195.22
42.23	7 37 22	4573.29	-25.84	216.29	272.90	41.12	8 53 35	3573.3	-42.97	195.22
42.23	7 37 22	4573.29	-25.84	216.29	272.90	41.12	8 53 35	3573.3	-42.97	195.22
42.23	7 37 22	4573.29	-25.84	216.29	272.90	41.12	8 53 35	3573.3	-42.97	195.22
42.23	7 37 22	4573.29	-25.84	216.29	272.90	41.12	8 53 35	3573.3	-42.97	195.22
42.23	7 37 22	4573.29	-25.84	216.29	272.90	41.12	8 53 35	3573.3	-42.97	195.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1026 TRA -.5187 TC3 -.3136 BAU .9046 SGT 1048.8 SGR 4668.7 SG3 1031.0 ST 16.0 SR 156.7 SS 131.7
RDE 2.6953 RRA 1.2155 RC3-2.6269 FAU .19304 RRT -.3722 RRF .9991 RTF -.3568 CRT -.5609 CRS -.9998 CST .5442
FDE 7.2122 FRA 2.9525 FC3-6.5341 BSP 8009 SGB 4785.1 R23 -.0343 R13 .9987 LSA 204.8 MSA 13.5 SSA .3
BDE 2.6972 BRA 1.3215 BC3 2.6455 FSP 1746 SG1 4685.7 SG2 969.9 THA 94.99 EL1 156.9 EL2 13.2 ALF 93.30

LAUNCH DATE JUL 5 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 533.598 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.788 GAL -3.59 AZL 83.68 HCA 168.64 SMA 198.07 ECC .23992 INC 6.3212 V1 29.290
RP 235.59 LAP 1.24 LOP 91.54 VP 21.368 GAP 8.62 AZP 96.20 TAL 341.30 TAP 149.94 RCA 150.55 APO 245.59 V2 23.332
RC 189.197 GL 43.27 GP -47.15 ZAL 112.92 ZAP 107.95 ETS 203.01 ZAE 126.96 ETE 241.61 ZAC 40.41 ETC 291.36 LVI 25.58

PLANETOCENTRIC CONIC

C3 27.634 VHL 5.257 DLA 56.54 RAL 21.40 RAD 6646.1 VEL 12.148 PTH 7.12 VHP 3.796 DPA -32.97 RAP 46.31 ECC 1.4548

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.76	7 18 22	4612.99	-25.79	220.78	272.79	37.76	8 35 15	3613.0	-44.04	200.93
38.76	7 18 22	4612.99	-25.79	220.78	272.79	37.76	8 35 15	3613.0	-44.04	200.93
38.76	7 18 22	4612.99	-25.79	220.78	272.79	37.76	8 35 15	3613.0	-44.04	200.93
38.76	7 18 22	4612.99	-25.79	220.78	272.79	37.76	8 35 15	3613.0	-44.04	200.93
38.76	7 18 22	4612.99	-25.79	220.78	272.79	37.76	8 35 15	3613.0	-44.04	200.93
38.76	7 18 22	4612.99	-25.79	220.78	272.79	37.76	8 35 15	3613.0	-44.04	200.93
38.76	7 18 22	4612.99	-25.79	220.78	272.79	37.76	8 35 15	3613.0	-44.04	200.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0003 TRA -.4677 TC3 -.3689 BAU .9682 SGT 1002.6 SGR 4939.3 SG3 940.2 ST 13.9 SR 174.9 SS 133.3
RDE 3.1386 RRA 1.1592 RC3-2.5948 FAU .17810 RRT -.2139 RRF .9993 RTF -.2071 CRT -.1946 CRS -.9999 CST .1765
FDE 7.1698 FRA 2.4231 FC3-5.5797 BSP 8415 SGB 5040.1 R23 -.0260 R13 .9991 LSA 217.8 MSA 13.7 SSA .2
BDE 3.1386 BRA 1.2500 BC3 2.6209 FSP 1594 SG1 4944.2 SG2 978.4 THA 92.59 EL1 174.5 EL2 13.6 ALF 90.89

LAUNCH DATE JUL 5 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 537.377 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.781 GAL -3.58 AZL 82.97 HCA 169.61 SMA 197.94 ECC .23942 INC 7.0333 V1 29.290
RP 235.94 LAP 1.27 LOP 92.52 VP 21.319 GAP 8.38 AZP 96.92 TAL 341.28 TAP 150.88 RCA 150.55 APO 245.33 V2 23.297
RC 192.165 GL 46.65 GP -49.63 ZAL 111.81 ZAP 105.88 ETS 202.24 ZAE 124.17 ETE 240.30 ZAC 38.29 ETC 292.49 LVI 27.85

PLANETOCENTRIC CONIC

C3 30.349 VHL 5.509 DLA 59.57 RAL 18.49 RAD 6647.1 VEL 12.259 PTH 7.20 VHP 3.981 DPA -35.47 RAP 46.98 ECC 1.4995

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.11	6 57 12	4655.11	-25.40	225.43	272.31	34.10	8 14 47	3655.1	-44.82	207.17
35.11	6 57 12	4655.11	-25.40	225.43	272.31	34.10	8 14 47	3655.1	-44.82	207.17
35.11	6 57 12	4655.11	-25.40	225.43	272.31	34.10	8 14 47	3655.1	-44.82	207.17
35.11	6 57 12	4655.11	-25.40	225.43	272.31	34.10	8 14 47	3655.1	-44.82	207.17
35.11	6 57 12	4655.11	-25.40	225.43	272.31	34.10	8 14 47	3655.1	-44.82	207.17
35.11	6 57 12	4655.11	-25.40	225.43	272.31	34.10	8 14 47	3655.1	-44.82	207.17
35.11	6 57 12	4655.11	-25.40	225.43	272.31	34.10	8 14 47	3655.1	-44.82	207.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1264 TRA -.4225 TC3 -.4169 BAU 1.0351 SGT 990.4 SGR 5211.8 SG3 837.8 ST 14.6 SR 194.2 SS 127.4
RDE 3.6784 RRA 1.0710 RC3-2.5168 FAU .16078 RRT -.0254 RRF .9995 RTF -.0075 CRT .2932 CRS -.9999 CST -.3061
FDE 7.0356 FRA 1.8831 FC3-4.5862 BSP 8878 SGB 5305.0 R23 -.0189 R13 .9994 LSA 232.3 MSA 14.0 SSA .2
BDE 3.6806 BRA 1.1513 BC3 2.5511 FSP 1429 SG1 5211.8 SG2 990.1 THA 90.29 EL1 194.2 EL2 14.0 ALF 88.73

LAUNCH DATE JUL 5 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 18 1974

DISTANCE 541.155 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 282.84 VL 32.774 GAL -3.58 AZL 82.11 HCA 170.57 SMA 197.82 ECC .23696 INC 7.8865 V1 29.290
RP 236.29 LAP 1.29 LOP 93.49 VP 21.270 GAP 8.14 AZP 97.78 TAL 341.25 TAP 151.82 RCA 150.55 APO 245.09 V2 23.261
RC 195.134 GL 50.32 GP -52.15 ZAL 110.54 ZAP 103.85 ETS 201.33 ZAE 121.36 ETE 238.95 ZAC 36.15 ETC 293.79 LVI 30.16

PLANETOCENTRIC CONIC

C3 34.006 VHL 5.831 DLA 62.79 RAL 14.74 RAD 6648.5 VEL 12.406 PTH 7.32 VHP 4.221 DPA -38.00 RAP 47.76 ECC 1.5597

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.28	6 32 47	4700.54	-24.58	230.21	271.16	30.18	7 51 8	3700.5	-45.17	213.92
31.28	6 32 47	4700.54	-24.58	230.21	271.16	30.18	7 51 8	3700.5	-45.17	213.92
31.28	6 32 47	4700.54	-24.58	230.21	271.16	30.18	7 51 8	3700.5	-45.17	213.92
31.28	6 32 47	4700.54	-24.58	230.21	271.16	30.18	7 51 8	3700.5	-45.17	213.92
31.28	6 32 47	4700.54	-24.58	230.21	271.16	30.18	7 51 8	3700.5	-45.17	213.92
31.28	6 32 47	4700.54	-24.58	230.21	271.16	30.18	7 51 8	3700.5	-45.17	213.92
31.28	6 32 47	4700.54	-24.58	230.21	271.16	30.18	7 51 8	3700.5	-45.17	213.92

DIFFERENTIAL CORRECTIONS

TDE .2848 TRA -.3824 TC3 -.4496 BAU 1.1099
RDE 4.3361 RRA .9322 RC3-2.3995 FAU .14200
FDE 6.7753 FRA 1.3367 FC3-3.6151 BSP 9320
BDE 4.3454 BRA 1.0076 BC3 2.4413 FSP 1241

MID-COURSE EXECUTION ACCURACY

SGT 1014.2 SGR 5476.8 SG3 724.6
RRT .1825 RRF .9996 RTF .2015
SGB 5569.9 R23 -.0130 R13 .9997
SG1 5480.0 SG2 996.6 THA 88.00

ORBIT DETERMINATION ACCURACY

ST 18.7 SR 215.2 SS 122.4
CRT .6508 CRS -.9999 CST -.6594
LSA 247.9 MSA 14.2 SSA .1
EL1 215.5 EL2 14.1 ALF 86.75

LAUNCH DATE JUL 5 1973 FLIGHT TIME 230.00 ARRIVAL DATE FEB 20 1974

DISTANCE 544.929 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 282.84 VL 32.769 GAL -3.59 AZL 81.07 HCA 171.52 SMA 197.71 ECC .23854 INC 8.9276 V1 29.290
RP 236.63 LAP 1.31 LOP 94.46 VP 21.223 GAP 7.89 AZP 98.83 TAL 341.22 TAP 152.74 RCA 150.54 APO 244.87 V2 23.226
RC 198.104 GL 54.31 GP -54.70 ZAL 109.11 ZAP 101.88 ETS 200.27 ZAE 118.54 ETE 237.54 ZAC 34.03 ETC 295.26 LVI 32.50

PLANETOCENTRIC CONIC

C3 39.055 VHL 6.249 DLA 66.18 RAL 9.72 RAD 6650.3 VEL 12.607 PTH 7.46 VHP 4.534 DPA -40.55 RAP 48.64 ECC 1.6427

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.30	6 3 31	4750.17	-23.20	235.00	268.82	26.07	7 22 41	3750.2	-44.90	221.06
27.30	6 3 31	4750.17	-23.20	235.00	268.82	26.07	7 22 41	3750.2	-44.90	221.06
27.30	6 3 31	4750.17	-23.20	235.00	268.82	26.07	7 22 41	3750.2	-44.90	221.06
27.30	6 3 31	4750.17	-23.20	235.00	268.82	26.07	7 22 41	3750.2	-44.90	221.06
27.30	6 3 31	4750.17	-23.20	235.00	268.82	26.07	7 22 41	3750.2	-44.90	221.06
27.30	6 3 31	4750.17	-23.20	235.00	268.82	26.07	7 22 41	3750.2	-44.90	221.06
27.30	6 3 31	4750.17	-23.20	235.00	268.82	26.07	7 22 41	3750.2	-44.90	221.06

DIFFERENTIAL CORRECTIONS

TDE .4797 TRA -.3545 TC3 -.4696 BAU 1.1954
RDE 5.1455 RRA .7271 RC3-2.2408 FAU .12201
FDE 6.3595 FRA .8098 FC3-2.7047 BSP 9713
BDE 5.1679 BRA .8089 BC3 2.2895 FSP 1036

MID-COURSE EXECUTION ACCURACY

SGT 1088.8 SGR 5729.1 SG3 603.6
RRT .3833 RRF .9996 RTF .4036
SGB 5831.7 R23 -.0090 R13 .9998
SG1 5744.8 SG2 1002.9 THA 85.70

ORBIT DETERMINATION ACCURACY

ST 25.1 SR 237.2 SS 114.7
CRT .8216 CRS -.9999 CST -.8274
LSA 264.3 MSA 14.3 SSA .1
EL1 238.1 EL2 14.3 ALF 85.01

LAUNCH DATE JUL 5 1973 FLIGHT TIME 272.00 ARRIVAL DATE APR 3 1974

DISTANCE 624.873 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 282.84 VL 32.737 GAL -4.09 AZL 98.41 HCA 191.53 SMA 197.10 ECC .23862 INC 8.4131 V1 29.290
RP 242.99 LAP 1.68 LOP 114.24 VP 20.470 GAP 3.08 AZP 81.75 TAL 338.53 TAP 170.05 RCA 150.07 APO 244.13 V2 22.586
RC 258.972 GL -51.44 GP 49.05 ZAL 112.43 ZAP 83.58 ETS 189.72 ZAE 106.36 ETE 163.56 ZAC 136.64 ETC 290.87 LVI -71.04

PLANETOCENTRIC CONIC

C3 37.334 VHL 6.110 DLA -31.72 RAL 62.26 RAD 6649.7 VEL 12.539 PTH 7.41 VHP 3.514 DPA 47.75 RAP 346.22 ECC 1.6144

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 51 57	2621.27	-13.40	71.68	289.24	136.09	19 35 39	1621.3	4.94	55.82
60.00	20 20 59	2384.35	-6.03	57.32	296.21	129.92	21 0 44	1384.4	10.05	39.35
70.00	22 28 31	2008.90	3.23	33.87	303.16	124.02	23 2 0	1008.9	16.69	13.67
74.99	0 41 25	1608.88	13.45	9.53	309.48	119.00	1 8 14	608.9	24.21	346.87
74.99	0 41 25	1608.88	13.45	9.53	309.48	119.00	1 8 14	608.9	24.21	346.87
74.99	0 41 25	1608.88	13.45	9.53	309.48	119.00	1 8 14	608.9	24.21	346.87
110.00	3 31 54	1055.72	3.23	322.78	303.16	124.02	3 49 29	55.7	16.69	302.59

DIFFERENTIAL CORRECTIONS

TDE-1.5971 TRA 3.5315 TC3-2.3005 BAU 1.5874
RDE .7511 RRA 4.4036 RC3 2.1962 FAU .22343
FDE-1.2679 FRA 9.3389 FC3-5.1812 BSP 12760
BDE 1.7649 BRA 5.6448 BC3 3.1805 FSP 1888

MID-COURSE EXECUTION ACCURACY

SGT 5030.2 SGR 5591.7 SG3 1049.3
RRT -.9777 RRF -.9985 RTF .2166
SGB 7521.3 R23 .0926 R13 -.9942
SG1 7479.7 SG2 789.8 THA 131.91

ORBIT DETERMINATION ACCURACY

ST 95.1 SR 81.0 SS 50.3
CRT -.8972 CRS .9985 CST -.8575
LSA 130.7 MSA 32.2 SSA .3
EL1 121.7 EL2 27.9 ALF 140.08

LAUNCH DATE JUL 5 1973 FLIGHT TIME 274.00 ARRIVAL DATE APR 5 1974

DISTANCE 628.639 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 282.84 VL 32.739 GAL -4.12 AZL 97.86 HCA 192.44 SMA 197.13 ECC .23889 INC 7.8600 V1 29.290
RP 243.24 LAP 1.69 LOP 115.16 VP 20.445 GAP 2.86 AZP 82.32 TAL 338.37 TAP 170.81 RCA 150.04 APO 244.23 V2 22.560
RC 261.736 GL -49.19 GP 47.09 ZAL 113.47 ZAP 82.34 ETS 190.48 ZAE 105.84 ETE 165.35 ZAC 134.90 ETC 290.19 LVI -69.31

PLANETOCENTRIC CONIC

C3 34.809 VHL 5.900 DLA -29.61 RAL 61.36 RAD 6648.8 VEL 12.438 PTH 7.34 VHP 3.359 DPA 45.96 RAP 347.51 ECC 1.5729

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 35 58	2653.57	-14.98	73.12	286.81	135.71	19 20 12	1653.6	3.32	57.16
60.00	19 58 35	2433.79	-8.18	59.72	293.20	129.60	20 39 9	1433.8	7.92	41.78
70.00	21 49 58	2106.16	-.48	38.94	298.98	124.15	22 25 4	1106.2	13.27	19.14
80.00	0 42 3	1578.89	10.03	5.37	305.35	118.27	1 8 22	578.9	20.79	343.16
80.83	1 20 27	1456.03	13.17	357.92	307.02	116.76	1 44 43	456.0	23.07	334.96
100.00	3 24 55	1053.36	10.03	326.74	305.35	118.27	3 42 28	53.4	20.79	304.53
110.00	2 53 20	1152.98	-.48	327.86	298.98	124.15	3 12 33	153.0	13.27	308.66

DIFFERENTIAL CORRECTIONS

TDE-1.5342 TRA 3.5898 TC3-2.5321 BAU 1.5744
RDE .6941 RRA-4.1714 RC3 2.2438 FAU .24385
FDE-1.2943 FRA10.1657 FC3-6.0647 BSP 12701
BDE 1.6839 BRA 5.5034 BC3 3.3832 FSP 2088

MID-COURSE EXECUTION ACCURACY

SGT 5217.9 SGR 5401.5 SG3 1164.8
RRT -.9792 RRF -.9985 RTF .9779
SGB 7510.1 R23 .0973 R13 -.9937
SG1 7471.1 SG2 764.5 THA 133.99

ORBIT DETERMINATION ACCURACY

ST 95.9 SR 77.7 SS 52.8
CRT -.9040 CRS .9954 CST -.8590
LSA 130.4 MSA 31.6 SSA .3
EL1 120.5 EL2 26.4 ALF 141.58

LAUNCH DATE JUL 5 1973 FLIGHT TIME 276.00 ARRIVAL DATE APR 7 1974

HELIOCENTRIC CONIC DISTANCE 632.407 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.741 GAL -4.15 AZL 97.38 HCA 193.34 SMA 197.17 ECC .23918 INC 7.3822 V1 29.290
RP 243.50 LAP 1.70 LOP 116.07 VP 20.420 GAP 2.63 AZP 82.81 TAL 338.21 TAP 171.56 RCA 150.01 APO 244.33 V2 22.535
RC 264.483 GL -47.12 GP 45.21 ZAL 114.44 ZAP 81.08 ETS 191.18 ZAE 105.20 ETE 167.06 ZAC 133.21 ETC 289.59 LVI -67.61

PLANETOCENTRIC CONIC

C3 32.787 VHL 5.726 DLA -27.65 RAL 60.60 RAD 6648.1 VEL 12.357 PTH 7.28 VHP 3.231 DPA 44.22 RAP 348.65 ECC 1.5396

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 22 13	2683.61	-16.44	74.48	284.85	135.30	19 6 56	1683.6	1.81	58.43
60.00	19 39 52	2477.06	-10.05	61.84	290.81	129.24	20 21 9	1477.1	6.03	43.88
70.00	21 21 34	2177.98	-3.22	42.70	295.91	124.02	21 57 52	1178.0	10.67	23.07
80.00	23 30 57	1772.96	3.61	16.20	300.15	119.66	24 0 30	773.0	15.41	355.06
90.00	1 40 4	1369.22	7.90	348.83	302.49	117.24	2 2 53	369.2	18.43	326.75
100.00	2 17 44	1247.43	3.61	337.56	300.15	119.66	2 38 32	247.4	15.41	316.42
110.00	2 24 56	1224.80	-3.22	331.61	295.91	124.02	2 45 21	224.8	10.67	311.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.4762 TRA 3.6525 TC3-2.7634 BAU 1.5718 SGT 5405.5 SGR 5208.7 SG3 1272.1 ST 96.5 SR 74.4 SS 54.8
RDE .6488 RRA-3.9451 RC3 2.2853 FAU .26430 RRT -.9813 RRF -.9984 RTF .9796 CRT -.9128 CRS .9941 CST -.8631
FDE-1.3169 FRA10.8846 FC3-6.9789 BSP 12543 SGB 7506.7 R23 .1003 R13 -.9933 LSA 130.0 MSA 30.7 SSA .4
BDE 1.6125 BRA 5.3763 BC3 3.5860 FSP 2239 SG1 7471.5 SG2 726.3 THA 136.08 EL1 119.3 EL2 24.6 ALF 143.02

LAUNCH DATE JUL 5 1973 FLIGHT TIME 278.00 ARRIVAL DATE APR 9 1974

HELIOCENTRIC CONIC DISTANCE 636.168 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.742 GAL -4.19 AZL 96.97 HCA 194.25 SMA 197.20 ECC .23950 INC 6.9652 V1 29.290
RP 243.74 LAP 1.71 LOP 116.99 VP 20.396 GAP 2.41 AZP 83.25 TAL 338.04 TAP 172.30 RCA 149.97 APO 244.43 V2 22.511
RC 267.212 GL -45.20 GP 43.40 ZAL 115.35 ZAP 79.79 ETS 191.81 ZAE 104.47 ETE 168.66 ZAC 131.59 ETC 289.06 LVI -65.95

PLANETOCENTRIC CONIC

C3 31.149 VHL 5.581 DLA -25.81 RAL 59.96 RAD 6647.4 VEL 12.291 PTH 7.23 VHP 3.125 DPA 42.53 RAP 349.67 ECC 1.5126

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 10 14	2711.87	-17.80	75.79	283.26	134.88	18 55 25	1711.9	.39	59.61
60.00	19 23 52	2516.00	-11.72	63.77	288.90	128.84	20 5 48	1516.0	4.33	45.75
70.00	20 58 48	2236.88	-5.46	45.79	293.54	123.77	21 36 5	1236.9	8.49	26.23
80.00	22 54 43	1874.10	.19	21.75	297.05	119.86	23 25 57	874.1	12.32	.97
90.00	0 46 29	1526.33	2.92	357.69	298.56	118.14	1 11 55	526.3	14.19	336.33
100.00	1 41 30	1348.57	.19	343.12	297.05	119.86	2 3 59	348.6	12.32	322.34
110.00	2 2 10	1283.70	-5.46	334.70	293.54	123.77	2 23 34	283.7	8.49	315.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.4135 TRA 3.7333 TC3-2.9825 BAU 1.5601 SGT 5595.9 SGR 5018.9 SG3 1371.1 ST 96.8 SR 70.9 SS 56.3
RDE .5738 RRA-3.7653 RC3 2.2674 FAU .27862 RRT -.9813 RRF -.9982 RTF .9796 CRT -.9133 CRS .9921 CST -.8552
FDE-1.2123 FRA11.6187 FC3-7.7440 BSP 12775 SGB 7516.9 R23 .1067 R13 -.9925 LSA 128.9 MSA 31.1 SSA .4
BDE 1.5256 BRA 5.3023 BC3 3.7465 FSP 2478 SG1 7482.1 SG2 721.9 THA 138.17 EL1 117.6 EL2 23.8 ALF 144.54

LAUNCH DATE JUL 5 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 11 1974

HELIOCENTRIC CONIC DISTANCE 639.930 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.745 GAL -4.23 AZL 96.60 HCA 195.16 SMA 197.24 ECC .23984 INC 6.5977 V1 29.290
RP 243.98 LAP 1.72 LOP 117.90 VP 20.373 GAP 2.19 AZP 83.63 TAL 337.87 TAP 173.03 RCA 149.94 APO 244.55 V2 22.487
RC 269.924 GL -43.41 GP 41.67 ZAL 116.20 ZAP 78.50 ETS 192.38 ZAE 103.65 ETE 170.16 ZAC 130.03 ETC 288.60 LVI -64.36

PLANETOCENTRIC CONIC

C3 29.806 VHL 5.459 DLA -24.10 RAL 59.43 RAD 6646.9 VEL 12.237 PTH 7.19 VHP 3.038 DPA 40.90 RAP 350.57 ECC .4905

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 59 41	2738.53	-19.08	77.03	281.98	134.45	18 45 19	1738.5	-.95	60.73
60.00	19 9 59	2551.55	-13.23	65.56	287.35	128.42	19 52 31	1551.6	2.76	47.46
70.00	20 39 47	2287.56	-7.37	48.47	291.66	123.44	21 17 54	1287.6	6.59	28.93
80.00	22 27 42	1949.78	-2.37	25.91	294.75	119.77	23 0 12	949.8	9.91	5.30
90.00	0 13 14	1622.09	-.17	3.03	295.97	118.28	0 40 16	622.1	11.40	341.97
100.00	1 14 30	1424.25	-2.37	347.28	294.75	119.77	1 38 14	424.3	9.91	316.67
110.00	1 43 9	1334.38	-7.37	337.38	291.66	123.44	2 5 23	334.4	6.59	317.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3570 TRA 3.8138 TC3-3.2008 BAU 1.5583 SGT 5785.0 SGR 4829.6 SG3 1460.7 ST 97.1 SR 67.6 SS 57.6
RDE .5144 RRA-3.5880 RC3 2.2468 FAU .29253 RRT -.9817 RRF -.9980 RTF .9799 CRT -.9159 CRS .9899 CST -.8497
FDE-1.1093 FRA12.2520 FC3-8.4966 BSP 12882 SGB 7536.0 R23 .1119 R13 -.9917 LSA 127.8 MSA 31.2 SSA .4
BDE 1.4512 BRA 5.2363 BC3 3.9106 FSP 2670 SG1 7502.6 SG2 708.8 THA 140.24 EL1 116.1 EL2 22.7 ALF 145.99

LAUNCH DATE JUL 5 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 13 1974

HELIOCENTRIC CONIC DISTANCE 643.695 EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.747 GAL -4.27 AZL 96.27 HCA 196.07 SMA 197.29 ECC .24019 INC 6.2715 V1 29.290
RP 244.22 LAP 1.73 LOP 118.81 VP 20.351 GAP 1.96 AZP 83.97 TAL 337.70 TAP 173.76 RCA 149.90 APO 244.68 V2 22.464
RC 272.618 GL -41.76 GP 40.02 ZAL 117.01 ZAP 77.19 ETS 192.89 ZAE 102.74 ETE 171.57 ZAC 128.54 ETC 288.18 LVI -62.82

PLANETOCENTRIC CONIC

C3 28.695 VHL 5.357 DLA -22.49 RAL 58.98 RAD 6646.5 VEL 12.192 PTH 7.15 VHP 2.965 DPA 39.34 RAP 351.38 ECC 1.4723

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 50 20	2763.77	-20.28	78.24	280.94	134.01	18 36 23	1763.8	-2.22	61.78
60.00	18 57 47	2584.36	-14.61	67.23	286.10	127.99	19 40 51	1584.4	1.32	49.02
70.00	20 23 29	2332.43	-9.05	50.86	290.16	123.08	21 2 21	1332.4	4.89	31.29
80.00	22 5 52	2011.99	-4.47	29.33	292.96	119.55	22 39 24	1012.0	7.88	8.80
90.00	23 43 54	1695.83	-2.54	7.15	294.03	118.17	24 12 9	695.8	9.16	346.23
100.00	0 52 40	1486.46	-4.47	350.70	292.96	119.55	1 17 26	486.5	7.88	330.17
110.00	1 26 51	1379.24	-9.05	339.78	290.16	123.08	1 49 51	379.2	4.89	323.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3065 TRA 3.8919 TC3-3.4183 BAU 1.5668 SGT 5971.9 SGR 4641.8 SG3 1540.8 ST 97.4 SR 64.5 SS 58.6
RDE .4759 RRA-3.4067 RC3 2.2351 FAU .30743 RRT -.9830 RRF -.9978 RTF .9810 CRT -.9229 CRS .9873 CST -.8503
FDE-1.0435 FRA12.7551 FC3-9.2752 BSP 12827 SGB 7563.7 R23 .1138 R13 -.9913 LSA 127.0 MSA 30.7 SSA .4
BDE 1.3905 BRA 5.1723 BC3 4.0842 FSP 2785 SG1 7533.5 SG2 675.7 THA 142.26 EL1 114.9 EL2 21.0 ALF 147.33

LAUNCH DATE JUL 5 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 15 1974

DISTANCE 647.457

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.749 GAL -4.30 AZL 95.98 HCA 196.97 SMA 197.34 ECC .24057 INC 5.9798 V1 29.290
RP 244.45 LAP 1.74 LOP 118.72 VP 20.330 GAP 1.74 AZP 84.28 TAL 337.52 TAP 174.49 RCA 149.86 APO 244.81 V2 22.441
RC 275.292 GL -40.21 GP 38.45 ZAL 117.76 ZAP 75.89 ETS 193.35 ZAE 101.77 ETE 172.87 ZAC 127.11 ETC 287.82 LVI -61.34

PLANETOCENTRIC CONIC

C3 27.771 VHL 5.270 DLA -20.98 RAL 58.59 RAD 6646.1 VEL 12.154 PTH 7.12 VHP 2.905 DPA 37.84 RAP 352.10 ECC 1.4970

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 41 58	2787.80	-21.41	79.40	280.11	133.56	18 28 26	1787.8	-3.42	62.79
60.00	18 46 57	2614.97	-15.89	68.81	285.09	127.54	19 30 32	1615.0	-.03	50.49
70.00	20 9 16	2373.00	-10.55	53.04	288.95	122.67	20 48 49	1373.0	3.35	33.42
80.00	21 47 28	2065.67	-6.26	32.31	291.54	119.25	22 21 54	1065.7	6.11	11.79
90.00	23 23 3	1757.33	-4.51	10.59	292.50	117.95	23 52 21	757.3	7.25	349.74
100.00	0 34 16	1540.14	-6.26	353.68	291.54	119.25	0 59 56	540.1	6.11	333.16
110.00	1 12 38	1419.82	-10.55	341.96	288.95	122.67	1 36 18	419.8	3.35	322.34

DIFFERENTIAL CORRECTIONS

TDE-1.2560 TRA 3.9765 TC3-3.6276 BAU 1.5756
RDE .4347 RRA-3.2445 RC3 2.2019 FAU .31946
FDE -.9355 FRA13.2158 FC3-9.9587 BSP 12803
BDE 1.3291 BRA 5.1321 BC3 4.2436 FSP 2912

MID-COURSE EXECUTION ACCURACY

SGT 6158.3 SGR 4459.1 SG3 1611.9
RRT -.9837 RRF -.9975 RTF .9817
SGB 7603.1 R23 .1162 R13 -.9907
SG1 7575.2 SG2 651.6 THA 144.23

ORBIT DETERMINATION ACCURACY

ST 97.6 SR 61.5 SS 59.5
CRT -.9282 CRS .9842 CST -.8478
LSA 126.1 MSA 30.6 SSA .5
EL1 113.6 EL2 19.6 ALF 148.62

LAUNCH DATE JUL 5 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 17 1974

DISTANCE 651.218

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.752 GAL -4.34 AZL 95.72 HCA 197.87 SMA 197.39 ECC .24096 INC 5.7173 V1 29.290
RP 244.68 LAP 1.75 LOP 120.63 VP 20.309 GAP 1.52 AZP 84.56 TAL 337.33 TAP 175.20 RCA 149.82 APO 244.95 V2 22.418
RC 277.948 GL -38.77 GP 36.95 ZAL 118.48 ZAP 74.60 ETS 193.75 ZAE 100.75 ETE 174.08 ZAC 125.75 ETC 287.49 LVI -59.93

PLANETOCENTRIC CONIC

C3 26.999 VHL 5.196 DLA -19.57 RAL 58.27 RAD 6645.8 VEL 12.122 PTH 7.09 VHP 2.855 DPA 36.41 RAP 352.76 ECC 1.4443

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 34 27	2810.72	-22.48	80.53	279.45	133.11	18 21 18	1810.7	-4.57	63.75
60.00	18 37 16	2643.69	-17.07	70.31	284.29	127.08	19 21 20	1643.7	-1.29	51.86
70.00	19 56 42	2410.17	-11.90	55.07	287.98	122.25	20 36 52	1410.2	1.93	35.37
80.00	21 31 34	2113.28	-7.84	34.96	290.41	118.90	22 6 47	1113.3	4.52	14.43
90.00	23 5 21	1810.77	-6.21	13.60	291.30	117.65	23 35 31	810.8	5.56	352.76
100.00	0 18 22	1587.76	-7.84	356.33	290.41	118.90	0 44 49	587.8	4.52	335.80
110.00	1 0 4	1456.99	-11.90	343.98	287.98	122.25	1 24 21	457.0	1.93	324.28

DIFFERENTIAL CORRECTIONS

TDE-1.2047 TRA 4.0659 TC3-3.8271 BAU 1.5854
RDE .3962 RRA-3.0937 RC3 2.1552 FAU .32926
FDE -.8067 FRA13.6156 FC-10.5581 BSP 13000
BDE 1.2682 BRA 5.1090 BC3 4.3922 FSP 3035

MID-COURSE EXECUTION ACCURACY

SGT 6342.2 SGR 4279.6 SG3 1673.3
RRT -.9843 RRF -.9972 RTF .9822
SGB 7651.0 R23 .1181 R13 -.9902
SG1 7625.1 SG2 628.8 THA 146.15

ORBIT DETERMINATION ACCURACY

ST 97.7 SR 58.6 SS 60.1
CRT -.9336 CRS .9804 CST -.8449
LSA 125.1 MSA 30.5 SSA .5
EL1 112.5 EL2 18.2 ALF 149.86

LAUNCH DATE JUL 5 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 19 1974

DISTANCE 654.977

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.755 GAL -4.39 AZL 95.48 HCA 198.77 SMA 197.44 ECC .24138 INC 5.4796 V1 29.290
RP 244.90 LAP 1.76 LOP 121.53 VP 20.289 GAP 1.30 AZP 84.81 TAL 337.14 TAP 175.92 RCA 149.78 APO 245.10 V2 22.397
RC 280.584 GL -37.41 GP 35.53 ZAL 119.17 ZAP 73.32 ETS 194.11 ZAE 99.68 ETE 175.20 ZAC 124.46 ETC 287.20 LVI -58.57

PLANETOCENTRIC CONIC

C3 26.350 VHL 5.133 DLA -18.23 RAL 58.01 RAD 6645.5 VEL 12.096 PTH 7.07 VHP 2.814 DPA 35.04 RAP 353.36 ECC 1.4337

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 27 40	2832.65	-23.50	81.62	278.94	132.64	18 14 53	1832.6	-5.67	64.67
60.00	18 28 32	2670.78	-18.18	71.75	283.65	126.61	19 13 3	1670.8	-2.48	53.15
70.00	19 45 29	2444.59	-13.15	56.96	287.20	121.81	20 26 14	1444.6	.62	37.16
80.00	21 17 35	2156.32	-9.25	37.38	289.51	118.52	21 53 32	1156.3	3.07	16.80
90.00	22 49 56	1858.40	-7.71	16.30	290.33	117.29	23 20 55	858.4	4.04	355.44
100.00	0 4 23	1630.79	-9.25	356.75	289.51	118.52	0 31 34	630.8	3.07	338.17
110.00	0 48 51	1491.40	-13.15	345.87	287.20	121.81	1 13 43	491.4	.62	326.08

DIFFERENTIAL CORRECTIONS

TDE-1.1579 TRA 4.1545 TC3-4.0245 BAU 1.6002
RDE .3649 RRA-2.9502 RC3 2.1066 FAU .33830
FDE -.6818 FRA13.9439 FC-11.1149 BSP 13080
BDE 1.2140 BRA 5.0954 BC3 4.3425 FSP 3128

MID-COURSE EXECUTION ACCURACY

SGT 6525.2 SGR 4106.5 SG3 1726.5
RRT -.9848 RRF -.9969 RTF .9827
SGB 7709.8 R23 .1190 R13 -.9897
SG1 7686.1 SG2 605.0 THA 147.99

ORBIT DETERMINATION ACCURACY

ST 97.9 SR 55.9 SS 60.6
CRT -.9397 CRS .9760 CST -.8429
LSA 124.3 MSA 30.3 SSA .5
EL1 111.5 EL2 16.8 ALF 151.04

LAUNCH DATE JUL 5 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 21 1974

DISTANCE 658.735

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.758 GAL -4.43 AZL 95.26 HCA 199.68 SMA 197.49 ECC .24181 INC 5.2634 V1 29.290
RP 245.11 LAP 1.77 LOP 122.44 VP 20.270 GAP 1.08 AZP 85.04 TAL 336.95 TAP 176.62 RCA 149.74 APO 245.25 V2 22.375
RC 283.198 GL -36.14 GP 34.18 ZAL 119.83 ZAP 72.05 ETS 194.43 ZAE 98.58 ETE 176.23 ZAC 123.22 ETC 286.93 LVI -57.28

PLANETOCENTRIC CONIC

C3 25.805 VHL 5.080 DLA -16.97 RAL 57.79 RAD 6645.3 VEL 12.074 PTH 7.05 VHP 2.780 DPA 33.75 RAP 353.92 ECC 1.4247

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 21 31	2853.66	-24.46	82.69	278.55	132.17	18 9 5	1853.7	-6.72	65.56
60.00	18 20 38	2696.45	-19.22	73.13	283.15	126.13	19 5 34	1696.4	-3.61	54.38
70.00	19 35 23	2476.70	-14.29	58.74	286.58	121.35	20 16 40	1476.7	-.61	38.64
80.00	21 5 9	2195.75	-10.52	39.62	288.79	118.10	21 41 45	1195.7	1.73	18.97
90.00	22 36 20	1901.60	-9.04	18.77	289.57	116.91	23 8 2	901.6	2.66	357.85
100.00	23 48 1	1670.22	-10.52	.98	288.79	118.10	24 15 51	670.2	1.73	340.34
110.00	0 38 45	1523.52	-14.29	347.66	286.58	121.35	1 4 9	523.5	-.61	327.75

DIFFERENTIAL CORRECTIONS

TDE-1.1104 TRA 4.2472 TC3-4.2123 BAU 1.6159
RDE .3358 RRA-2.8168 RC3 2.0484 FAU .34532
FDE -.5417 FRA14.2216 FC-11.5854 BSP 13209
BDE 1.1600 BRA 5.0964 BC3 4.6839 FSP 3215

MID-COURSE EXECUTION ACCURACY

SGT 6705.9 SGR 3938.2 SG3 1771.1
RRT -.9852 RRF -.9964 RTF .9831
SGB 7776.8 R23 .1194 R13 -.9893
SG1 7754.9 SG2 583.5 THA 149.76

ORBIT DETERMINATION ACCURACY

ST 98.0 SR 53.4 SS 61.0
CRT -.9457 CRS .9708 CST -.8405
LSA 123.5 MSA 30.3 SSA .6
EL1 110.6 EL2 15.4 ALF 152.16

LAUNCH DATE JUL 5 1973 FLIGHT TIME 292.00 ARRIVAL DATE APR 23 1974

HELIOCENTRIC CONIC DISTANCE 662.491 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	32.761	GAL	-4.47	AZL	95.07	HCA	200.57	SMA	197.55	ECC	.24225	INC	5.0656	V1	29.290
RP	245.32	LAP	1.78	LOP	123.34	VP	20.252	GAP	.86	AZP	85.26	TAL	336.75	TAP	177.32	RCA	149.70	APO	245.41	V2	22.354
RC	285.791	GL	-34.95	GP	32.89	ZAL	120.45	ZAP	70.81	ETS	194.70	ZAE	97.45	ETE	177.18	ZAC	122.04	ETC	286.70	LVI	-56.05

PLANETOCENTRIC CONIC

	25.346	VHL	5.034	DLA	-15.78	RAL	57.61	RAD	6645.1	VEL	12.055	PTH	7.04	VHP	2.753	DPA	32.52	RAP	354.44	ECC	1.4171

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 15 55	2873.84	-25.38	83.74	278.27	131.70	18 3 48	1873.8	-7.73	66.42
60.00	18 13 26	2720.86	-20.19	74.46	282.78	125.65	18 58 47	1720.9	-4.68	55.55
70.00	19 26 14	2506.86	-15.35	60.43	286.11	120.89	20 8 1	1506.9	-1.76	40.41
80.00	20 53 58	2232.25	-11.68	41.70	288.22	117.67	21 31 10	1232.2	.50	20.97
90.00	22 24 10	1941.28	-10.26	21.05	288.96	116.50	22 56 31	941.3	1.38	.07
100.00	23 36 50	1706.72	-11.68	3.07	288.22	117.67	24 5 17	706.7	.50	342.34
110.00	0 29 36	1553.67	-15.35	349.35	286.11	120.89	0 55 30	553.7	-1.76	329.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.0646	TRA	4.3404	TC3	-4.3952	BAU	1.6345	SGT	6884.9	SGR	3776.2	SG3	1808.1	ST	98.2	SR	51.0	SS	61.3
RDE	.3111	RRA	-2.6911	RC3	1.9876	FAU	.35126	RRT	-.9855	RRF	-.9959	RTF	.9835	CRT	-.9520	CRS	.9648	CST	-.8384
FDE	-.4007	FRA	14.4438	FC	-11.9980	BSP	13339	SGB	7852.5	R23	.1190	R13	-.9889	LSA	122.8	MSA	30.2	SSA	.6
BDE	1.1091	BRA	5.1070	BC3	4.8237	FSP	3283	SG1	7832.4	SG2	562.7	THA	151.45	EL1	109.8	EL2	14.0	ALF	153.22

LAUNCH DATE JUL 5 1973 FLIGHT TIME 294.00 ARRIVAL DATE APR 25 1974

HELIOCENTRIC CONIC DISTANCE 666.246 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	32.764	GAL	-4.52	AZL	94.88	HCA	201.47	SMA	197.61	ECC	.24272	INC	4.8841	V1	29.290
RP	245.53	LAP	1.79	LOP	124.24	VP	20.235	GAP	.64	AZP	85.45	TAL	336.55	TAP	178.02	RCA	149.65	APO	245.58	V2	22.334
RC	288.361	GL	-33.82	GP	31.67	ZAL	121.06	ZAP	69.58	ETS	194.94	ZAE	96.31	ETE	178.05	ZAC	120.92	ETC	286.49	LVI	-54.67

PLANETOCENTRIC CONIC

C3	24.961	VHL	4.996	DLA	-14.65	RAL	57.47	RAD	6645.0	VEL	12.039	PTH	7.03	VHP	2.731	DPA	31.35	RAP	354.92	ECC	1.4108

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 10 47	2893.26	-26.26	84.76	278.09	131.22	17 59 0	1893.3	-8.70	67.25
60.00	18 6 51	2744.16	-21.11	75.74	282.51	125.16	18 52 35	1744.2	-5.70	56.68
70.00	19 17 53	2535.33	-16.34	62.05	285.75	120.42	20 0 8	1535.3	-2.85	41.90
80.00	20 43 50	2266.30	-12.75	43.66	287.79	117.23	21 21 36	1266.3	-.66	22.84
90.00	22 13 10	1978.08	-11.37	23.18	288.50	116.07	22 46 9	978.1	.20	2.12
100.00	23 26 42	1740.77	-12.75	5.03	287.79	117.23	23 55 43	740.8	-.66	344.21
110.00	0 21 15	1582.15	-16.34	350.96	285.75	120.42	0 47 37	582.1	-2.85	330.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.0206	TRA	4.4344	TC3	-4.5711	BAU	1.6549	SGT	7061.3	SGR	3619.9	SG3	1837.6	ST	98.4	SR	48.8	SS	61.6
RDE	.2909	RRA	-2.5724	RC3	1.9234	FAU	.35593	RRT	-.9858	RRF	-.9954	RTF	.9838	CRT	-.9587	CRS	.9579	CST	-.8371
FDE	-.2642	FRA	14.6146	FC	-12.3448	BSP	13482	SGB	7935.1	R23	.1176	R13	-.9885	LSA	122.3	MSA	30.2	SSA	.6
BDE	1.0613	BRA	5.1266	BC3	4.9593	FSP	3339	SG1	7916.5	SG2	542.7	THA	153.05	EL1	109.1	EL2	12.5	ALF	154.23

LAUNCH DATE JUL 5 1973 FLIGHT TIME 296.00 ARRIVAL DATE APR 27 1974

HELIOCENTRIC CONIC DISTANCE 669.999 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	32.767	GAL	-4.56	AZL	94.72	HCA	202.37	SMA	197.68	ECC	.24320	INC	4.7167	V1	29.290
RP	245.73	LAP	1.79	LOP	125.14	VP	20.219	GAP	.42	AZP	85.64	TAL	336.34	TAP	178.71	RCA	149.60	APO	245.75	V2	22.314
RC	290.907	GL	-32.76	GP	30.51	ZAL	121.64	ZAP	68.38	ETS	195.14	ZAE	95.14	ETE	178.85	ZAC	119.85	ETC	286.30	LVI	-53.75

PLANETOCENTRIC CONIC

C3	24.639	VHL	4.964	DLA	-13.58	RAL	57.36	RAD	6644.8	VEL	12.025	PTH	7.02	VHP	2.714	DPA	30.24	RAP	355.38	ECC	1.4055

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 6 5	2911.98	-27.09	85.75	277.99	130.73	17 54 37	1912.0	-9.63	68.05
60.00	18 0 46	2766.45	-21.98	76.98	282.33	124.67	18 46 55	1766.5	-6.68	57.75
70.00	19 10 14	2562.33	-17.27	63.59	285.49	119.94	19 52 56	1562.3	-3.88	43.31
80.00	20 34 35	2298.29	-13.74	45.52	287.46	116.77	21 12 54	1298.3	-1.74	24.60
90.00	22 3 11	2012.49	-12.39	25.19	288.15	115.63	22 36 43	1012.5	-.91	4.04
100.00	23 17 27	1772.77	-13.74	6.89	287.46	116.77	23 47 0	772.8	-1.74	345.97
110.00	0 13 36	1609.15	-17.27	352.51	285.49	119.94	0 40 26	609.1	-3.88	332.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.9766	TRA	4.5305	TC3	-4.7391	BAU	1.6764	SGT	7235.3	SGR	3469.4	SG3	1860.3	ST	98.7	SR	46.7	SS	61.8
RDE	.2726	RRA	-2.4618	RC3	1.8550	FAU	.35905	RRT	-.9858	RRF	-.9947	RTF	.9841	CRT	-.9651	CRS	.9500	CST	-.8356
FDE	-.1207	FRA	14.7479	FC	-12.6160	BSP	13641	SGB	8024.1	R23	.1160	R13	-.9882	LSA	121.8	MSA	30.2	SSA	.7
BDE	1.0140	BRA	5.1561	BC3	5.0893	FSP	3385	SG1	8006.8	SG2	525.8	THA	154.58	EL1	108.6	EL2	11.1	ALF	155.19

LAUNCH DATE JUL 5 1973 FLIGHT TIME 298.00 ARRIVAL DATE APR 29 1974

HELIOCENTRIC CONIC DISTANCE 673.750 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	32.770	GAL	-4.61	AZL	94.56	HCA	203.26	SMA	197.74	ECC	.24369	INC	4.5619	V1	29.290
RP	245.93	LAP	1.80	LOP	126.03	VP	20.203	GAP	.20	AZP	85.81	TAL	336.13	TAP	179.39	RCA	149.55	APO	245.93	V2	22.295
RC	293.430	GL	-31.75	GP	29.41	ZAL	122.21	ZAP	67.21	ETS	195.32	ZAE	93.97	ETE	179.58	ZAC	118.82	ETC	286.12	LVI	-52.68

PLANETOCENTRIC CONIC

C3	24.371	VHL	4.937	DLA	-12.56	RAL	57.28	RAD	6644.7	VEL	12.014	PTH	7.01	VHP	2.702	DPA	29.20	RAP	355.82	ECC	1.4011

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 1 45	2930.06	-27.89	86.73	277.96	130.25	17 50 35	1930.1	-10.52	68.83
60.00	17 55 14	2787.84	-22.80	78.19	282.23	124.18	18 41 42	1787.8	-7.61	58.79
70.00	19 3 12	2588.04	-18.13	65.08	285.32	119.45	19 46 20	1588.0	-4.85	44.66
80.00	20 26 7	2328.50	-14.66	47.30	287.24	116.31	21 4 55	1328.5	-2.76	26.26
90.00	21 54 2	2044.84	-13.33	27.10	287.89	115.17	22 28 7	1044.8	-1.96	5.85
100.00	23 8 58	1802.98	-14.66	8.66	287.24	116.31	23 39 1	803.0	-2.76	347.63
110.00	0 6 34	1634.85	-18.13	354.00	285.32	119.45	0 33 49	634.9	-4.85	333.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.9328	TRA	4.6279	TC3	-4.9004	BAU	1.6995	SGT	7407.0	SGR	3325.3	SG3	1876.9	ST	99.0	SR	44.7	SS	61.9
RDE	.2575	RRA	-2.3573	RC3	1.7867	FAU	.36135	RRT	-.9859	RRF	-.9940	RTF	.9843	CRT	-.9716	CRS	.9410	CST	-.8347
FDE	.0197	FRA	14.8383	FC	-12.8361	BSP	13824	SGB	8119.2	R23	.1132	R13	-.9879	LSA	121.3	MSA	30.1	SSA	.7
BDE	.9676	BRA	5.1937	BC3	5.2159	FSP	3421	SG1	8103.3	SG2	508.9	THA	156.03	EL1	108.2	EL2	9.7	ALF	156.11

LAUNCH DATE JUL 5 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 1 1974

HELIOCENTRIC CONIC — DISTANCE 677.497 — EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.774 GAL -4.66 AZL 94.42 HCA 204.16 SMA 197.81 ECC .24420 INC 4.4181 V1 29.290
RP 246.12 LAP 1.81 LOP 126.93 VP 20.188 GAP -.02 AZP 85.97 TAL 335.91 TAP 180.07 RCA 149.50 APO 246.12 V2 22.276
RC 295.928 GL -30.80 GP 28.37 ZAL 122.76 ZAP 66.06 ETS 195.47 ZAE 92.79 ETE 180.25 ZAC 117.85 ETC 285.97 LVI -51.67

PLANETOCENTRIC CONIC

C3 24.151 VHL 4.914 DLA -11.59 RAL 57.23 RAD 6644.6 VEL 12.005 PTH 7.00 VHP 2.693 DPA 28.21 RAP 356.24 ECC 1.3975

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 57 46	2947.54	-28.65	87.70	278.00	129.76	17 46 54	1947.5	-11.39	69.59
60.00	17 50 5	2808.41	-23.58	79.37	282.21	123.68	18 36 54	1808.4	-8.50	59.80
70.00	18 56 42	2612.59	-18.95	66.52	285.23	118.96	19 40 14	1612.6	-5.78	45.95
80.00	20 18 18	2357.16	-15.52	48.99	287.09	115.83	20 57 35	1357.2	-3.73	27.84
90.00	21 45 37	2075.44	-14.21	28.91	287.73	114.71	22 20 12	1075.4	-2.94	7.56
100.00	23 1 9	1831.64	-15.52	10.36	287.09	115.83	23 31 41	831.6	-3.73	349.20
110.00	0 0 4	1659.41	-18.95	355.44	285.23	118.96	0 27 43	659.4	-5.78	334.87

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.8907 TRA 4.7256 TC3-5.0560 BAU 1.7242 — SGT 7576.6 SGR 3187.4 SG3 1888.0 — ST 99.3 SR 42.9 SS 62.1
RDE .2459 RRA-2.2585 RC3 1.7183 FAU .36278 — RRT -.9858 RRF -.9932 RTF .9846 — CRT -.9780 CRS .9308 CST -.8347
FDE .1513 FRA14.8915 FC-13.0045 BSP 13997 — SGB 8219.8 R23 .1096 R13 -.9876 — LSA 121.0 MSA 30.1 SSA .7
BDE .9241 BRA 5.2375 BC3 5.3400 FSP 3441 — SG1 8205.0 SG2 493.5 THA 157.39 — EL1 107.9 EL2 8.2 ALF 156.98

LAUNCH DATE JUL 5 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 3 1974

HELIOCENTRIC CONIC — DISTANCE 681.248 — EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.778 GAL -4.71 AZL 94.28 HCA 205.05 SMA 197.88 ECC .24473 INC 4.2842 V1 29.290
RP 246.30 LAP 1.81 LOP 127.83 VP 20.174 GAP -.24 AZP 86.12 TAL 335.69 TAP 180.74 RCA 149.45 APO 246.31 V2 22.258
RC 298.401 GL -29.90 GP 27.38 ZAL 123.29 ZAP 64.93 ETS 195.60 ZAE 91.62 ETE 180.87 ZAC 116.92 ETC 285.83 LVI -50.70

PLANETOCENTRIC CONIC

C3 23.972 VHL 4.896 DLA -10.66 RAL 57.20 RAD 6644.6 VEL 11.998 PTH 6.99 VHP 2.688 DPA 27.28 RAP 356.64 ECC 1.3945

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 5	2964.47	-29.39	88.64	278.09	129.26	17 43 30	1964.5	-12.22	70.34
60.00	17 45 19	2828.24	-24.33	80.52	282.24	123.18	18 32 27	1828.2	-9.36	60.77
70.00	18 50 40	2636.12	-19.72	67.91	285.21	118.47	19 34 36	1636.1	-6.67	47.20
80.00	20 11 3	2384.46	-16.32	50.62	287.02	115.35	20 50 48	1384.5	-4.65	29.34
90.00	21 37 50	2104.51	-15.03	30.65	287.64	114.24	22 12 54	1104.5	-3.87	9.19
100.00	22 53 55	1858.94	-16.32	11.99	287.02	115.35	23 24 54	858.9	-4.65	350.71
110.00	23 50 6	1682.94	-19.72	356.83	285.21	118.47	24 18 9	682.9	-6.67	336.11

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.8486 TRA 4.8249 TC3-5.2042 BAU 1.7496 — SGT 7743.8 SGR 3055.3 SG3 1893.8 — ST 99.8 SR 41.1 SS 62.2
RDE .2358 RRA-2.1659 RC3 1.6486 FAU .36308 — RRT -.9856 RRF -.9922 RTF .9848 — CRT -.9837 CRS .9193 CST -.8345
FDE .2848 FRA14.9159 FC-13.1123 BSP 14196 — SGB 8324.7 R23 .1056 R13 -.9874 — LSA 120.8 MSA 30.1 SSA .7
BDE .8807 BRA 5.2888 BC3 5.4591 FSP 3458 — SG1 8310.8 SG2 480.6 THA 158.68 — EL1 107.7 EL2 6.8 ALF 157.82

LAUNCH DATE JUL 5 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 5 1974

HELIOCENTRIC CONIC — DISTANCE 684.994 — EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.781 GAL -4.76 AZL 94.16 HCA 205.94 SMA 197.95 ECC .24527 INC 4.1591 V1 29.290
RP 246.48 LAP 1.82 LOP 128.72 VP 20.161 GAP -.46 AZP 86.26 TAL 335.47 TAP 181.41 RCA 149.40 APO 246.50 V2 22.241
RC 300.850 GL -29.04 GP 26.44 ZAL 123.81 ZAP 63.84 ETS 195.70 ZAE 90.44 ETE 181.44 ZAC 116.03 ETC 285.70 LVI -49.77

PLANETOCENTRIC CONIC

C3 23.831 VHL 4.882 DLA -9.78 RAL 57.20 RAD 6644.5 VEL 11.992 PTH 6.99 VHP 2.685 DPA 26.40 RAP 357.03 ECC 1.3922

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 50 41	2980.91	-30.09	89.57	278.24	128.77	17 40 22	1980.9	-13.03	71.06
60.00	17 40 53	2847.39	-25.04	81.65	282.34	122.68	18 28 21	1847.4	-10.18	61.71
70.00	18 45 3	2658.73	-20.45	69.26	285.25	117.97	19 29 22	1658.7	-7.52	48.40
80.00	20 4 20	2410.56	-17.07	52.19	287.02	114.87	20 44 31	1410.6	-5.52	30.79
90.00	21 30 36	2132.23	-15.80	32.33	287.62	113.76	22 6 8	1132.2	-4.76	10.74
100.00	22 47 12	1885.03	-17.07	13.56	287.02	114.87	23 18 37	885.0	-5.52	352.16
110.00	23 44 30	1705.55	-20.45	358.18	285.25	117.97	24 12 55	705.5	-7.52	337.31

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .8068 TRA 4.9260 TC3-5.3453 BAU 1.7758 — SGT 7909.0 SGR 2929.3 SG3 1895.2 — ST 100.2 SR 39.5 SS 62.2
RDE .2279 RRA-2.0792 RC3 1.5792 FAU .36252 — RRT -.9853 RRF -.9911 RTF .9849 — CRT -.9889 CRS .9065 CST -.8349
FDE .4142 FRA14.9156 FC-13.1699 BSP 14405 — SGB 8434.0 R23 .1011 R13 -.9872 — LSA 120.7 MSA 30.1 SSA .8
BDE .8383 BRA 5.3468 BC3 5.5737 FSP 3467 — SG1 8420.9 SG2 469.7 THA 159.89 — EL1 107.6 EL2 5.5 ALF 158.63

LAUNCH DATE JUL 5 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 7 1974

HELIOCENTRIC CONIC — DISTANCE 688.738 — EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.785 GAL -4.81 AZL 94.04 HCA 206.83 SMA 198.03 ECC .24583 INC 4.0419 V1 29.290
RP 246.65 LAP 1.82 LOP 129.61 VP 20.148 GAP -.68 AZP 86.39 TAL 335.25 TAP 182.08 RCA 149.35 APO 246.71 V2 22.224
RC 303.274 GL -28.22 GP 25.54 ZAL 124.32 ZAP 62.77 ETS 195.79 ZAE 89.27 ETE 181.96 ZAC 115.18 ETC 285.59 LVI -48.89

PLANETOCENTRIC CONIC

C3 23.722 VHL 4.871 DLA -8.93 RAL 57.21 RAD 6644.5 VEL 11.988 PTH 6.98 VHP 2.686 DPA 25.57 RAP 357.42 ECC 1.3904

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 47 32	2996.87	-30.77	90.49	278.43	128.27	17 37 28	1996.9	-13.81	71.77
60.00	17 36 46	2865.92	-25.71	82.75	282.48	122.17	18 24 32	1865.9	-10.98	62.63
70.00	18 39 50	2680.50	-21.14	70.57	285.34	117.47	19 24 30	1680.5	-8.33	49.55
80.00	19 58 4	2435.58	-17.78	53.71	287.07	114.39	20 38 40	1435.6	-6.35	32.18
90.00	21 23 52	2158.75	-16.52	33.94	287.65	113.28	21 59 51	1158.7	-5.60	12.23
100.00	22 40 56	1910.05	-17.78	15.08	287.07	114.39	23 12 46	910.1	-6.35	353.54
110.00	23 39 16	1727.31	-21.14	359.49	285.34	117.47	24 8 3	727.3	-8.33	338.47

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.7658 TRA 5.0272 TC3-5.4800 BAU 1.8028 — SGT 8071.2 SGR 2808.6 SG3 1892.1 — ST 100.8 SR 38.1 SS 62.3
RDE .2224 RRA-1.9967 RC3 1.5109 FAU .36130 — RRT -.9849 RRF -.9899 RTF .9851 — CRT -.9934 CRS .8922 CST -.8359
FDE .5346 FRA14.8860 FC-13.1856 BSP 14617 — SGB 8545.9 R23 .0958 R13 -.9870 — LSA 120.7 MSA 30.1 SSA .8
BDE .7974 BRA 5.4092 BC3 5.6844 FSP 3467 — SG1 8533.5 SG2 460.0 THA 161.03 — EL1 107.6 EL2 4.1 ALF 159.41

LAUNCH DATE JUL 5 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 9 1974

HELIOCENTRIC CONIC DISTANCE 692.481 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	32.789	GAL	-4.86	AZL	93.93	HCA	207.72	SMA	198.10	ECC	.24640	INC	3.9318	V1	29.290
RP	246.82	LAP	1.83	LOP	130.50	VP	20.136	GAP	-.89	AZP	86.52	TAL	335.02	TAP	182.74	RCA	149.29	APO	246.91	V2	22.207
RC	305.673	GL	-27.43	GP	24.69	ZAL	124.82	ZAP	61.72	ETS	195.86	ZAE	88.10	ETE	182.43	ZAC	114.36	ETC	285.48	LVI	-48.05

PLANETOCENTRIC CONIC

C3	23.643	VHL	4.862	DLA	-8.12	RAL	57.24	RAD	6644.4	VEL	11.984	PTH	6.98	VHP	2.688	DPA	24.79	RAP	357.80	ECC	1.3891

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 44 36	3012.40	-31.42	91.40	278.67	127.76	17 34 48	2012.4	-14.57	72.46
60.00	17 32 55	2883.88	-26.36	83.83	282.67	121.66	18 20 59	1883.9	-11.75	63.53
70.00	18 34 57	2701.51	-21.79	71.85	285.48	116.97	19 19 58	1701.5	-9.12	50.68
80.00	19 52 12	2459.64	-18.45	55.18	287.17	113.90	20 33 12	1459.6	-7.15	35.52
90.00	21 17 34	2184.20	-17.20	35.50	287.74	112.80	21 53 59	1184.2	-6.40	15.67
100.00	22 35 4	1934.11	-18.45	16.55	287.17	113.90	23 7 18	934.1	-7.15	354.88
110.00	23 34 23	1748.33	-21.79	.77	285.48	116.97	24 3 31	748.3	-9.12	339.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.7265	TRA	5.1278	TC3	-5.6109	BAU	1.8314	SGT	8231.5	SGR	2693.5	SG3	1885.4	ST	101.4	SR	36.7	SS	62.3
RDE	.2191	RRA	-1.9185	RC3	1.4448	FAU	.35965	RRT	-.9843	RRF	-.9886	RTF	.9852	CRT	-.9968	CRS	.8764	CST	-.8373
FDE	.5468	FRA	14.8304	FC	-13.1696	BSP	14817	SGB	8661.0	R23	.0900	R13	-.9869	LSA	120.8	MSA	30.1	SSA	.8
BDE	.7588	BRA	5.4749	BC3	5.7940	FSP	3455	SG1	8649.2	SG2	451.9	THA	162.10	EL1	107.8	EL2	2.8	ALF	160.16

LAUNCH DATE JUL 5 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 11 1974

HELIOCENTRIC CONIC DISTANCE 696.221 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	32.793	GAL	-4.92	AZL	93.83	HCA	208.61	SMA	198.18	ECC	.24698	INC	3.8283	V1	29.290
RP	246.98	LAP	1.83	LOP	131.39	VP	20.125	GAP	-1.11	AZP	86.64	TAL	334.78	TAP	183.39	RCA	149.23	APO	247.13	V2	22.191
RC	308.046	GL	-26.69	GP	23.88	ZAL	125.31	ZAP	60.71	ETS	195.91	ZAE	86.95	ETE	182.87	ZAC	113.58	ETC	285.38	LVI	-47.25

PLANETOCENTRIC CONIC

C3	23.590	VHL	4.857	DLA	-7.33	RAL	57.29	RAD	6644.4	VEL	11.982	PTH	6.98	VHP	2.693	DPA	24.05	RAP	358.18	ECC	1.3882

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 52	3027.52	-32.05	92.30	278.95	127.26	17 32 20	2027.5	-15.31	73.14
60.00	17 29 19	2901.31	-26.98	84.89	282.91	121.15	18 17 41	1901.3	-12.49	64.40
70.00	18 30 22	2721.83	-22.41	73.10	285.67	116.47	19 15 44	1721.8	-9.87	51.77
80.00	19 46 43	2482.82	-19.09	56.61	287.32	113.41	20 28 6	1482.8	-7.92	34.81
90.00	21 11 40	2208.70	-17.84	37.01	287.87	112.31	21 48 29	1208.7	-7.18	15.06
100.00	22 29 35	1957.29	-19.09	17.98	287.32	113.41	23 2 12	957.3	-7.92	356.18
110.00	23 29 48	1768.65	-22.41	2.02	285.67	116.47	23 59 17	768.7	-9.87	340.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.6860	TRA	5.2310	TC3	-5.7328	BAU	1.8595	SGT	8389.1	SGR	2583.7	SG3	1875.3	ST	102.1	SR	35.4	SS	62.3
RDE	.2165	RRA	-1.8453	RC3	1.3786	FAU	.35709	RRT	-.9836	RRF	-.9870	RTF	.9853	CRT	-.9989	CRS	.8589	CST	-.8387
FDE	.7593	FRA	14.7610	FC	-13.1049	BSP	15045	SGB	8777.9	R23	.0841	R13	-.9867	LSA	121.0	MSA	30.1	SSA	.8
BDE	.7193	BRA	5.5469	BC3	5.8963	FSP	3444	SG1	8766.6	SG2	445.9	THA	163.10	EL1	108.0	EL2	1.5	ALF	160.90

LAUNCH DATE JUL 5 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 13 1974

HELIOCENTRIC CONIC DISTANCE 699.960 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	32.797	GAL	-4.97	AZL	93.73	HCA	209.50	SMA	198.26	ECC	.24758	INC	3.7306	V1	29.290
RP	247.14	LAP	1.84	LOP	132.28	VP	20.115	GAP	-1.33	AZP	86.75	TAL	334.55	TAP	184.04	RCA	149.17	APO	247.34	V2	22.176
RC	310.395	GL	-25.97	GP	23.11	ZAL	125.79	ZAP	59.72	ETS	195.95	ZAE	85.80	ETE	183.27	ZAC	112.84	ETC	285.30	LVI	-46.49

PLANETOCENTRIC CONIC

C3	23.562	VHL	4.854	DLA	-6.58	RAL	57.36	RAD	6644.4	VEL	11.981	PTH	6.98	VHP	2.699	DPA	23.36	RAP	358.55	ECC	1.3878

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 39 20	3042.28	-32.65	93.19	279.26	126.75	17 30 2	2042.3	-16.03	73.81
60.00	17 25 58	2918.26	-27.57	85.93	283.16	120.64	18 14 36	1918.3	-13.21	65.25
70.00	18 26 4	2741.53	-23.00	74.32	285.89	115.97	19 11 46	1741.5	-10.59	52.83
80.00	19 41 33	2505.22	-19.69	58.00	287.51	112.91	20 23 18	1505.2	-8.65	36.07
90.00	21 6 8	2232.32	-18.44	38.48	288.05	111.82	21 43 20	1232.3	-7.91	16.40
100.00	22 24 25	1979.69	-19.69	19.37	287.51	112.91	22 57 25	979.7	-8.65	357.44
110.00	23 25 30	1788.35	-23.00	3.24	285.89	115.97	23 55 19	788.3	-10.59	341.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.6459	TRA	5.3352	TC3	-5.8488	BAU	1.8883	SGT	8544.5	SGR	2479.2	SG3	1862.3	ST	102.8	SR	34.2	SS	62.3
RDE	.2157	RRA	-1.7761	RC3	1.3143	FAU	.35408	RRT	-.9827	RRF	-.9853	RTF	.9853	CRT	-.9996	CRS	.8398	CST	-.8407
FDE	.8642	FRA	14.6748	FC	-13.0101	BSP	15279	SGB	8896.9	R23	.0779	R13	-.9865	LSA	121.3	MSA	30.1	SSA	.9
BDE	.6809	BRA	5.6230	BC3	5.9947	FSP	3428	SG1	8885.9	SG2	441.4	THA	164.04	EL1	108.3	EL2	.9	ALF	161.62

LAUNCH DATE JUL 5 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC DISTANCE 703.697 EARTH TO MARS

RL	152.10	LAL	.00	LOL	282.84	VL	32.801	GAL	-5.03	AZL	93.64	HCA	210.38	SMA	198.34	ECC	.24819	INC	3.6381	V1	29.290
RP	247.29	LAP	1.84	LOP	133.17	VP	20.105	GAP	-1.54	AZP	86.86	TAL	334.31	TAP	184.69	RCA	149.11	APO	247.57	V2	22.161
RC	312.717	GL	-25.29	GP	22.38	ZAL	126.26	ZAP	58.75	ETS	195.98	ZAE	84.67	ETE	183.64	ZAC	112.12	ETC	285.22	LVI	-45.76

PLANETOCENTRIC CONIC

C3	23.555	VHL	4.853	DLA	-5.86	RAL	57.44	RAD	6644.4	VEL	11.981	PTH	6.98	VHP	2.708	DPA	22.71	RAP	358.92	ECC	1.3877

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 58	3056.68	-33.24	94.07	279.61	126.24	17 27 55	2056.7	-16.72	74.47
60.00	17 22 48	2934.77	-28.14	86.96	283.48	120.13	18 11 43	1934.8	-13.91	66.09
70.00	18 22 2	2760.65	-23.57	75.52	286.16	115.46	19 8 2	1760.6	-11.29	53.87
80.00	19 36 41	2526.90	-20.26	59.36	287.74	112.42	20 18 48	1526.9	-9.36	37.29
90.00	21 0 54	2255.17	-19.02	39.91	288.27	111.33	21 38 29	1255.2	-8.62	17.70
100.00	22 19 33	2001.37	-20.26	20.73	287.74	112.42	22 52 54	1001.4	-9.36	358.66
110.00	23 21 28	1807.46	-23.57	4.43	286.16	115.46	23 51 35	807.5	-11.29	342.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.6081	TRA	5.4388	TC3	-5.9621	BAU	1.9185	SGT	8698.6	SGR	2379.8	SG3	1846.9	ST	103.6	SR	33.1	SS	62.3
RDE	.2165	RRA	-1.7103	RC3	1.2528	FAU	.35085	RRT	-.9816	RRF	-.9834	RTF	.9854	CRT	-.9987	CRS	.8189	CST	-.8428
FDE	.9588	FRA	14.5703	FC	-12.8948	BSP	15490	SGB	9018.3	R23	.0714	R13	-.9864	LSA	121.6	MSA	30.2	SSA	.9
BDE	.6455	BRA	5.7013	BC3	6.0923	FSP	3401	SG1	9007.6	SG2	438.4	THA	164.93	EL1	108.8	EL2	1.6	ALF	162.32

LAUNCH DATE JUL 5 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 17 1974

HELIOCENTRIC CONIC — DISTANCE 707.432 — EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.806 GAL -5.08 AZL 93.55 HCA 211.27 SMA 198.42 ECC .24882 INC 3.5505 V1 29.290
RP 247.44 LAP 1.84 LOP 134.05 VP 20.096 GAP -1.76 AZP 86.96 TAL 334.06 TAP 185.33 RCA 149.05 APO 247.79 V2 22.147
RC 315.013 GL -24.63 GP 21.68 ZAL 126.72 ZAP 57.82 ETS 195.99 ZAE 83.54 ETE 183.98 ZAC 111.44 ETC 285.14 LVI -45.06

PLANETOCENTRIC CONIC

C3 23.569 VHL 4.855 DLA -5.16 RAL 57.93 RAD 6644.4 VEL 11.981 PTH 6.98 VHP 2.716 DPA 22.11 RAP 359.29 ECC 1.3879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 34 46	3070.77	-33.80	84.94	279.99	125.73	17 25 57	2070.8	-17.40	75.12
60.00	17 19 51	2930.86	-28.68	87.97	283.82	119.62	18 9 2	1950.9	-14.58	66.91
70.00	18 18 13	2779.23	-24.11	76.69	286.45	114.96	19 4 32	1779.2	-11.97	54.89
80.00	19 32 6	2547.93	-20.80	60.69	288.01	111.92	20 14 34	1547.9	-10.04	38.48
90.00	20 55 58	2277.30	-19.56	41.31	288.52	110.84	21 33 56	1277.3	-9.31	18.97
100.00	22 14 58	2022.40	-20.80	22.06	288.01	111.92	22 48 40	1022.4	-10.04	359.85
110.00	23 17 39	1826.05	-24.11	5.61	286.45	114.96	23 48 5	826.1	-11.97	343.80

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.5701 TRA 5.5435 TC3-6.0687 BAU 1.9488 — SGT 8850.2 SGR 2285.1 SG3 1829.0 — ST 104.5 SR 32.1 SS 62.2
RDE .2184 RRA-1.6482 RC3 1.1926 FAU .34708 — RRT -.9804 RRF -.9818 RTF .9854 — CRT -.9959 CRS .7962 CST -.8451
FDE 1.0494 FRA14.4545 FC-12.7488 BSP 15710 — SGB 9140.5 R23 .0650 R13 -.9863 — LSA 122.1 MSA 30.2 SSA .9
BDE .6105 BRA 5.7834 BC3 6.1848 FSP 3371 — SG1 9130.0 SG2 436.9 THA 165.76 — EL1 109.3 EL2 2.8 ALF 163.00

LAUNCH DATE JUL 5 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC — DISTANCE 711.165 — EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.810 GAL -5.14 AZL 93.47 HCA 212.15 SMA 198.51 ECC .24946 INC 3.4674 V1 29.290
RP 247.58 LAP 1.84 LOP 134.94 VP 20.088 GAP -1.97 AZP 87.06 TAL 333.81 TAP 185.96 RCA 148.99 APO 248.03 V2 22.133
RC 317.282 GL -24.00 GP 21.02 ZAL 127.18 ZAP 56.91 ETS 196.00 ZAE 82.43 ETE 184.29 ZAC 110.78 ETC 285.08 LVI -44.40

PLANETOCENTRIC CONIC

C3 23.602 VHL 4.858 DLA -4.49 RAL 57.64 RAD 6644.4 VEL 11.983 PTH 6.98 VHP 2.729 DPA 21.54 RAP 359.66 ECC 1.3884

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 32 43	3084.55	-34.34	95.80	280.39	125.21	17 24 7	2084.5	-18.07	75.76
60.00	17 17 4	2966.57	-29.21	88.97	284.19	119.10	18 6 31	1966.6	-15.24	67.72
70.00	18 14 37	2797.33	-24.68	77.84	286.78	114.45	19 1 15	1797.3	-12.63	55.98
80.00	19 27 46	2568.36	-21.31	61.99	288.30	111.42	20 10 34	1568.4	-10.69	39.64
90.00	20 51 18	2298.78	-20.07	42.68	288.81	110.35	21 29 37	1298.8	-9.96	20.21
100.00	22 10 37	2042.83	-21.31	23.36	288.30	111.42	22 44 40	1042.8	-10.69	1.01
110.00	23 14 4	1844.15	-24.68	6.76	286.78	114.45	23 44 48	844.1	-12.63	344.80

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.5322 TRA 5.6494 TC3-6.1692 BAU 1.9703 — SGT 8999.5 SGR 2194.8 SG3 1809.2 — ST 105.4 SR 31.1 SS 62.1
RDE .2212 RRA-1.5893 RC3 1.1342 FAU .34297 — RRT -.9789 RRF -.9789 RTF .9855 — CRT -.9911 CRS .7717 CST -.8477
FDE 1.1343 FRA14.3270 FC-12.5800 BSP 15939 — SGB 9263.3 R23 .0585 R13 -.9862 — LSA 122.6 MSA 30.3 SSA .9
BDE .5763 BRA 5.8687 BC3 6.2726 FSP 3338 — SG1 9253.0 SG2 436.6 THA 166.54 — EL1 109.9 EL2 4.0 ALF 163.67

LAUNCH DATE JUL 5 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC — DISTANCE 714.896 — EARTH TO MARS

RL 152.10 LAL .00 LOL 282.84 VL 32.814 GAL -5.20 AZL 93.39 HCA 213.03 SMA 198.59 ECC .25011 INC 3.3883 V1 29.290
RP 247.71 LAP 1.85 LOP 135.82 VP 20.081 GAP -2.19 AZP 87.16 TAL 333.56 TAP 186.60 RCA 148.92 APO 248.26 V2 22.120
RC 319.522 GL -23.40 GP 20.38 ZAL 127.64 ZAP 56.02 ETS 196.00 ZAE 81.33 ETE 184.58 ZAC 110.15 ETC 285.02 LVI -43.76

PLANETOCENTRIC CONIC

C3 23.653 VHL 4.863 DLA -3.84 RAL 57.76 RAD 6644.4 VEL 11.985 PTH 6.98 VHP 2.742 DPA 21.00 RAP .04 ECC 1.3893

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 30 48	3098.05	-34.87	96.66	280.83	124.69	17 22 26	2098.0	-18.71	76.39
60.00	17 14 27	2981.93	-29.71	89.96	284.58	118.59	18 4 9	1981.9	-15.88	68.52
70.00	18 11 14	2814.98	-25.12	78.98	287.14	113.94	18 58 9	1815.0	-13.26	56.85
80.00	19 23 39	2588.23	-21.80	63.26	288.63	110.92	20 6 47	1588.2	-11.33	40.78
90.00	20 46 53	2319.67	-20.56	44.01	289.12	109.85	21 25 33	1319.7	-10.60	21.41
100.00	22 6 31	2062.71	-21.80	24.63	288.63	110.92	22 40 54	1062.7	-11.33	2.14
110.00	23 10 40	1861.80	-25.12	7.90	287.14	113.94	23 41 42	861.8	-13.26	345.77

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4940 TRA 5.7570 TC3-6.2637 BAU 2.0098 — SGT 9146.8 SGR 2109.2 SG3 1787.7 — ST 106.4 SR 30.3 SS 62.1
RDE .2248 RRA-1.5338 RC3 1.0777 FAU .33848 — RRT -.9771 RRF -.9762 RTF .9855 — CRT -.9841 CRS .7453 CST -.8505
FDE 1.2148 FRA14.1928 FC-12.3890 BSP 16177 — SGB 9386.9 R23 .0521 R13 -.9861 — LSA 123.2 MSA 30.3 SSA 1.0
BDE .5428 BRA 5.9578 BC3 6.3557 FSP 3305 — SG1 9376.7 SG2 437.6 THA 167.27 — EL1 110.5 EL2 5.2 ALF 164.33

LAUNCH DATE JUL 6 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 366.285 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	34.640	GAL	-5.87	AZL	90.25	HCA	118.70	SMA	243.46	ECC	.38706	INC	.2814	V1	29.291
RP	217.98	LAP	-.22	LOP	42.49	VP	25.933	GAP	22.01	AZP	89.88	TAL	338.79	TAP	97.49	RCA	149.23	APO	337.70	V2	25.208
RC	74.281	GL	-1.39	GP	-5.33	ZAL	124.36	ZAP	170.30	ETS	214.90	ZAE	170.40	ETE	327.77	ZAC	79.69	ETC	283.57	LVI	-13.98

PLANETOCENTRIC CONIC

C3	39.220	VHL	6.263	DLA	15.91	RAL	46.10	RAD	6650.4	VEL	12.613	PTH	7.47	VHP	7.746	DPA	7.56	RAP	34.25	ECC	1.6455

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 26 6	3621.15	-47.45	139.55	295.63	93.96	15 26 28	2621.1	-40.39	107.20
60.00	14 47 35	3563.98	-40.30	134.77	296.00	90.30	15 46 59	2564.0	-35.77	104.64
70.00	15 19 3	3471.34	-34.07	127.12	295.84	87.43	16 16 55	2471.3	-31.56	98.67
80.00	16 7 41	3318.94	-29.54	115.23	295.51	85.44	17 3 0	2318.9	-28.43	87.86
90.00	17 20 16	3084.69	-27.82	97.85	295.34	84.70	18 11 40	2084.7	-27.22	70.86
100.00	18 50 33	2793.41	-29.54	76.60	295.51	85.44	19 37 7	1793.4	-28.43	49.23
110.00	20 18 30	2518.15	-34.07	56.03	295.84	87.43	21 0 28	1518.2	-31.56	27.59

DIFFERENTIAL CORRECTIONS

TDE	-.5162	TRA	-1.7473	TC3	.1163	BAU	.0740												
RDE	-.5439	RRA	.2874	RC3	-.0799	FAU	.06190												
FDE	.6395	FRA	1.9518	FC3	-1.3664	BSP	2801												
BDE	.7498	BRA	1.7708	BC3	.1411	FSP	304												

MID-COURSE EXECUTION ACCURACY

SGT	1734.2	SGR	576.5	SG3	224.0						
RRT	-.2342	RRF	.2595	RTF	-.8035						
SGB	1827.5	R23	-.0509	R13	.8053						
SG1	1740.0	SG2	558.6	THA	175.04						

ORBIT DETERMINATION ACCURACY

ST	34.3	SR	25.2	SS	27.1						
CRT	.5603	CRS	.6009	CST	.9670						
LSA	46.6	NSA	19.4	SSA	1.2						
EL1	38.3	EL2	18.7	ALF	30.37						

LAUNCH DATE JUL 6 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 369.047 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	34.537	GAL	-5.76	AZL	90.21	HCA	119.84	SMA	240.30	ECC	.37873	INC	.2124	V1	29.291
RP	218.35	LAP	-.18	LOP	43.63	VP	25.756	GAP	21.66	AZP	89.89	TAL	338.87	TAP	98.70	RCA	149.29	APO	331.31	V2	25.168
RC	75.647	GL	-1.19	GP	-5.52	ZAL	124.26	ZAP	169.58	ETS	213.51	ZAE	169.63	ETE	328.59	ZAC	79.42	ETC	283.55	LVI	-13.69

PLANETOCENTRIC CONIC

C3	37.681	VHL	6.139	DLA	16.07	RAL	45.95	RAD	6649.9	VEL	12.552	PTH	7.43	VHP	7.531	DPA	7.53	RAP	34.69	ECC	1.6201

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 24 50	3614.37	-47.42	138.90	294.63	94.46	15 25 4	2614.4	-40.17	106.69
60.00	14 46 6	3557.77	-40.30	134.25	295.07	90.66	15 45 23	2557.8	-35.62	104.18
70.00	15 17 19	3465.89	-34.08	126.69	294.96	87.68	16 15 4	2465.9	-31.47	98.27
80.00	16 5 40	3314.33	-29.56	114.89	294.65	85.62	17 0 55	2314.3	-28.37	87.53
90.00	17 18 7	3080.50	-27.85	97.54	294.48	84.85	18 9 27	2080.5	-27.18	70.56
100.00	18 48 32	2788.80	-29.56	76.26	294.65	85.62	19 35 1	1788.8	-28.37	48.50
110.00	20 16 45	2512.71	-34.08	55.61	294.96	87.68	20 58 38	1512.7	-31.47	27.19

DIFFERENTIAL CORRECTIONS

TDE	-.5195	TRA	-1.7470	TC3	.1329	BAU	.0807												
RDE	-.5260	RRA	.2899	RC3	-.0893	FAU	.06433												
FDE	.6708	FRA	2.0268	FC3	-1.4781	BSP	2906												
BDE	.7393	BRA	1.7709	BC3	.1601	FSP	324												

MID-COURSE EXECUTION ACCURACY

SGT	1772.4	SGR	576.5	SG3	237.6						
RRT	-.2521	RRF	.2812	RTF	-.8086						
SGB	1863.8	R23	-.0570	R13	.8105						
SG1	1779.0	SG2	555.8	THA	174.80						

ORBIT DETERMINATION ACCURACY

ST	35.2	SR	24.9	SS	28.1						
CRT	.5569	CRS	.5990	CST	.9970						
LSA	47.6	NSA	19.3	SSA	1.3						
EL1	38.8	EL2	18.8	ALF	28.88						

LAUNCH DATE JUL 6 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 371.899 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	34.438	GAL	-5.65	AZL	90.17	HCA	120.97	SMA	237.38	ECC	.37083	INC	.1716	V1	29.291
RP	218.71	LAP	-.15	LOP	44.76	VP	25.584	GAP	21.32	AZP	89.91	TAL	338.95	TAP	99.92	RCA	149.36	APO	325.41	V2	25.127
RC	77.098	GL	-.98	GP	-5.72	ZAL	124.16	ZAP	168.84	ETS	212.31	ZAE	168.91	ETE	329.11	ZAC	79.15	ETC	283.53	LVI	-13.41

PLANETOCENTRIC CONIC

C3	36.240	VHL	6.020	DLA	16.24	RAL	45.78	RAD	6649.3	VEL	12.495	PTH	7.38	VHP	7.323	DPA	7.48	RAP	35.12	ECC	1.5964

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 23 28	3608.03	-47.38	138.29	293.65	94.93	15 23 36	2608.0	-39.97	106.22
60.00	14 44 30	3552.03	-40.29	133.76	294.16	90.99	15 43 42	2552.0	-35.49	103.73
70.00	15 15 27	3460.96	-34.10	126.31	294.09	87.90	16 13 8	2461.0	-31.39	97.91
80.00	16 3 31	3310.29	-29.58	114.59	293.79	85.78	16 58 42	2310.3	-28.33	87.24
90.00	17 15 50	3076.91	-27.87	97.28	293.63	84.98	18 7 6	2076.9	-27.15	70.30
100.00	18 46 23	2784.76	-29.58	75.96	293.79	85.78	19 32 48	1784.8	-28.33	48.60
110.00	20 14 53	2507.78	-34.10	55.23	294.09	87.90	20 56 41	1507.8	-31.39	26.83

DIFFERENTIAL CORRECTIONS

TDE	.5217	TRA	-1.7443	TC3	.1521	BAU	.0801												
RDE	-.5083	RRA	.2928	RC3	-.0996	FAU	.06689												
FDE	.7039	FRA	2.1044	FC3	-1.5980	BSP	2995												
BDE	.7284	BRA	1.7687	BC3	.1818	FSP	346												

MID-COURSE EXECUTION ACCURACY

SGT	1808.3	SGR	576.8	SG3	251.9						
RRT	-.2719	RRF	.3044	RTF	-.8140						
SGB	1898.1	R23	-.0626	R13	.8162						
SG1	1815.8	SG2	552.8	THA	174.54						

ORBIT DETERMINATION ACCURACY

ST	35.9	SR	24.6	SS	29.1						
CRT	.5525	CRS	.5967	CST	.9969						
LSA	48.7	NSA	19.2	SSA	1.3						
EL1	39.3	EL2	18.7	ALF	27.46						

LAUNCH DATE JUL 6 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 374.831 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	34.345	GAL	-5.54	AZL	90.13	HCA	122.10	SMA	234.68	ECC	.36332	INC	.1305	V1	29.291
RP	219.08	LAP	-.11	LOP	45.89	VP	25.418	GAP	20.98	AZP	89.93	TAL	339.03	TAP	101.13	RCA	149.42	APO	319.95	V2	25.087
RC	78.631	GL	-.76	GP	-5.93	ZAL	124.05	ZAP	168.08	ETS	211.28	ZAE	168.25	ETE	329.36	ZAC	78.87	ETC	283.51	LVI	-13.11

PLANETOCENTRIC CONIC

C3	34.890	VHL	5.907	DLA	16.42	RAL	45.60	RAD	6648.9	VEL	12.442	PTH	7.34	VHP	7.122	DPA	7.42	RAP	35.55	ECC	1.5742

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 22 1	3602.15	-47.35	137.72	292.70	95.36	15 22 3	2602.2	-39.78	105.78
60.00	14 42 49	3546.79	-40.28	133.31	293.27	91.29	15 41 55	2546.8	-35.36	103.36
70.00	15 13 27	3456.59	-34.11	125.97	293.23	88.11	16 11 4	2456.6	-31.32	97.59
80.00	16 1 14	3306.87	-29.60	114.34	292.95	85.91	16 56 21	2306.9	-28.29	86.99
90.00	17 13 23	3073.97	-27.88	97.07	292.80	85.09	18 4 37	2074.0	-27.12	70.09
100.00	18 44 6	2781.34	-29.60	75.71	292.95	85.91	19 30 27	1781.3	-28.29	48.36
110.00	20 12 54	2503.40	-34.11	54.88	293.23	88.11	20 54 37	1503.4	-31.32	26.51

DIFFERENTIAL CORRECTIONS

TDE	-.5235	TRA	-1.7407	TC3	.1726	BAU	.0957												
RDE	-.4907	RRA	.2963	RC3	-.1108	FAU	.06954												
FDE	.7401	FRA	2.1855	FC3	-1.7255	BSP	3081												
BDE	.7175	BRA	1.7657	BC3	.2051	FSP	370												

MID-COURSE EXECUTION ACCURACY

SGT	1843.3	SGR	577.5	SG3	267.1						
RRT	-.2935	RRF	.3290	RTF	-.8197						
SGB	1931.7	R23	-.0680	R13	.8221						
SG1	1851.9	SG2	549.5	THA	174.24						

ORBIT DETERMINATION ACCURACY

ST	36.6	SR	24.2	SS	30.1						
CRT	.5472	CRS	.5943	CST	.9968						
LSA	49.7	NSA	19.1	SSA	1.3						
EL1	39.7	EL2	18.7	ALF	26.06						

LAUNCH DATE JUL 6 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 377.037 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	34.256	GAL	-5.44	AZL	90.09	HCA	123.23	SMA	232.18	ECC	.38620	INC	.0890	V1	29.291
RP	219.48	LAP	-.08	LOP	47.02	VP	25.258	GAP	20.66	AZP	89.95	TAL	339.18	TAP	102.35	RCA	149.48	APO	314.88	V2	25.046
RC	80.245	GL	-.53	GP	-6.15	ZAL	123.93	ZAP	167.30	ETS	210.38	ZAE	167.63	ETE	329.41	ZAC	78.58	ETC	283.49	LVI	-12.81

PLANETOCENTRIC CONIC

C3	33.624	VHL	5.799	DLA	16.61	RAL	45.41	RAD	6648.4	VEL	12.391	PTH	7.30	VHP	6.027	DPA	7.34	RAP	38.96	ECC	1.5534

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 20 28	3598.75	-47.31	137.21	291.77	93.76	15 20 25	2596.8	-38.60	105.39
60.00	14 41 1	3542.07	-40.28	132.91	292.40	91.56	15 40 3	2542.1	-33.25	103.01
70.00	15 11 21	3452.79	-34.12	125.67	292.39	88.26	16 8 53	2452.8	-31.25	97.31
80.00	15 58 48	3304.09	-29.62	114.13	292.12	86.02	16 53 52	2304.1	-28.26	86.79
90.00	17 10 47	3071.70	-27.90	96.90	291.97	85.17	18 1 59	2071.7	-27.10	69.93
100.00	18 41 39	2778.56	-29.62	75.50	292.12	86.02	19 27 50	1778.6	-28.26	48.16
110.00	20 10 47	2499.60	-34.12	54.59	292.39	88.26	20 52 27	1499.6	-31.25	28.23

DIFFERENTIAL CORRECTIONS

TDE	-.5247	TRA	-1.7361	TC3	.1945	BAU	.1035
RDE	-.4732	RRA	.3004	RC3	-.1231	FAU	.07235
FDE	.7782	FRA	2.2700	FC3	-1.0628	BSP	3157
BDE	.7065	BRA	1.7619	BC3	.2302	FSP	395

MID-COURSE EXECUTION ACCURACY

SGT	1877.3	SGR	578.7	SG3	283.1
RRT	-.3169	RRF	.3853	RTF	-.8252
SGB	1964.4	R23	-.0754	R13	.8279
SG1	1887.0	SG2	546.0	THA	173.91

ORBIT DETERMINATION ACCURACY

ST	37.3	SR	23.8	SS	31.2
CRT	.5408	CRS	.5911	CST	.9966
LSA	50.7	NSA	18.9	SSA	1.3
EL1	40.2	EL2	18.6	ALF	24.70

LAUNCH DATE JUL 6 1973 FLIGHT TIME 140.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 380.909 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	34.172	GAL	-5.34	AZL	90.05	HCA	124.35	SMA	229.86	ECC	.34943	INC	.0437	V1	29.291
RP	219.82	LAP	-.04	LOP	48.14	VP	25.102	GAP	20.31	AZP	89.97	TAL	339.22	TAP	103.57	RCA	149.54	APO	310.18	V2	25.005
RC	81.936	GL	-.28	GP	-6.38	ZAL	123.80	ZAP	166.51	ETS	209.61	ZAE	167.07	ETE	329.27	ZAC	78.28	ETC	283.47	LVI	-12.50

PLANETOCENTRIC CONIC

C3	32.438	VHL	5.695	DLA	16.81	RAL	45.21	RAD	6647.9	VEL	12.343	PTH	7.27	VHP	6.738	DPA	7.24	RAP	36.37	ECC	1.5338

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 18 50	3591.85	-47.28	136.74	290.87	96.12	15 18 42	2591.9	-39.44	105.03
60.00	14 39 6	3537.89	-40.27	132.56	291.55	91.80	15 38 4	2537.9	-35.14	102.71
70.00	15 9 6	3449.59	-34.12	125.42	291.56	88.43	16 6 36	2449.6	-31.20	97.08
80.00	15 56 12	3301.98	-29.62	113.98	291.31	86.10	16 51 14	2302.0	-28.23	86.64
90.00	17 8 1	3070.14	-27.91	96.79	291.16	85.23	17 59 12	2070.1	-27.08	69.81
100.00	18 39 4	2776.45	-29.62	75.34	291.31	86.10	19 25 20	1776.5	-28.23	48.01
110.00	20 8 32	2496.41	-34.12	54.34	291.56	88.43	20 50 9	1496.4	-31.20	28.00

DIFFERENTIAL CORRECTIONS

TDE	-.5260	TRA	-1.7304	TC3	.2174	BAU	.1113
RDE	-.4556	RRA	.3050	RC3	-.1365	FAU	.07528
FDE	.8193	FRA	2.3573	FC3	-2.0093	BSP	3228
BDE	.6959	BRA	1.7571	BC3	.2567	FSP	422

MID-COURSE EXECUTION ACCURACY

SGT	1910.0	SGR	580.5	SG3	300.0
RRT	-.3417	RRF	.3830	RTF	-.8306
SGB	1996.3	R23	-.0791	R13	.8335
SG1	1921.2	SG2	542.4	THA	173.56

ORBIT DETERMINATION ACCURACY

ST	38.0	SR	23.4	SS	32.4
CRT	.5339	CRS	.5876	CST	.9984
LSA	51.8	NSA	18.8	SSA	1.3
EL1	40.6	EL2	18.5	ALF	23.54

LAUNCH DATE JUL 6 1973 FLIGHT TIME 142.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 384.043 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	34.091	GAL	-5.24	AZL	90.00	HCA	125.47	SMA	227.70	ECC	.34301	INC	.0000	V1	29.291
RP	220.19	LAP	-.00	LOP	49.26	VP	24.992	GAP	19.97	AZP	90.00	TAL	339.32	TAP	104.79	RCA	149.60	APO	305.81	V2	24.964
RC	83.701	GL	-.02	GP	-6.62	ZAL	123.66	ZAP	165.71	ETS	208.94	ZAE	166.56	ETE	328.95	ZAC	77.98	ETC	283.45	LVI	-12.18

PLANETOCENTRIC CONIC

C3	31.325	VHL	5.597	DLA	17.02	RAL	44.99	RAD	6647.5	VEL	12.298	PTH	7.23	VHP	6.555	DPA	7.13	RAP	36.77	ECC	1.5155

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 17 6	3587.47	-47.24	136.32	290.00	96.44	15 16 54	2587.5	-39.29	104.71
60.00	14 37 5	3534.27	-40.26	132.25	290.72	92.01	15 35 59	2534.3	-35.06	102.44
70.00	15 6 43	3447.02	-34.13	125.22	290.75	88.55	16 4 10	2447.0	-31.15	96.89
80.00	15 53 27	3300.59	-29.63	113.87	290.51	86.15	16 48 27	2300.6	-28.21	86.34
90.00	17 5 5	3069.34	-27.91	96.73	290.36	85.25	17 56 15	2069.3	-27.07	69.76
100.00	18 36 19	2775.06	-29.63	75.24	290.51	86.15	19 22 34	1775.1	-28.21	47.91
110.00	20 6 10	2493.84	-34.13	54.14	290.75	88.55	20 47 44	1493.8	-31.15	25.81

DIFFERENTIAL CORRECTIONS

TDE	-.5273	TRA	-1.7242	TC3	.2411	BAU	.1191
RDE	-.4381	RRA	.3103	RC3	-.1510	FAU	.07836
FDE	.8637	FRA	2.4483	FC3	-2.1657	BSP	3299
BDE	.6856	BRA	1.7519	BC3	.2645	FSP	452

MID-COURSE EXECUTION ACCURACY

SGT	1942.1	SGR	583.2	SG3	317.8
RRT	-.3680	RRF	.4122	RTF	-.8387
SGB	2027.7	R23	-.0849	R13	.8390
SG1	1954.9	SG2	538.7	THA	173.17

ORBIT DETERMINATION ACCURACY

ST	38.7	SR	23.0	SS	33.8
CRT	.5259	CRS	.5834	CST	.9982
LSA	52.9	NSA	18.8	SSA	1.3
EL1	41.0	EL2	18.4	ALF	22.00

LAUNCH DATE JUL 6 1973 FLIGHT TIME 144.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 387.232 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	34.018	GAL	-5.14	AZL	89.98	HCA	126.89	SMA	226.69	ECC	.33690	INC	.0408	V1	29.291
RP	220.57	LAP	.03	LOP	50.38	VP	24.807	GAP	19.65	AZP	90.02	TAL	339.42	TAP	106.01	RCA	149.66	APO	301.73	V2	24.923
RC	85.936	GL	.26	GP	-6.88	ZAL	123.52	ZAP	164.88	ETS	208.35	ZAE	166.11	ETE	328.48	ZAC	77.66	ETC	283.44	LVI	-11.85

PLANETOCENTRIC CONIC

C3	30.283	VHL	5.503	DLA	17.25	RAL	44.77	RAD	6647.1	VEL	12.256	PTH	7.20	VHP	6.377	DPA	7.00	RAP	37.15	ECC	1.4984

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 15 17	3583.62	-47.21	135.95	289.16	96.72	15 15 0	2583.6	-39.16	104.43
60.00	14 34 57	3531.24	-40.25	131.99	289.91	92.19	15 33 40	2531.2	-34.98	102.22
70.00	15 4 12	3445.11	-34.13	125.07	289.97	88.63	16 1 38	2445.1	-31.12	96.75
80.00	15 50 32	3299.94	-29.63	113.83	289.73	86.18	16 45 32	2299.9	-28.21	86.49
90.00	17 1 58	3069.33	-27.91	96.73	289.58	85.25	17 53 8	2069.3	-27.07	69.76
100.00	18 33 24	2774.41	-29.63	75.19	289.73	86.18	19 19 38	1774.4	-28.21	47.86
110.00	20 3 39	2491.93	-34.13	53.99	289.97	88.63	20 45 11	1491.9	-31.12	25.67

DIFFERENTIAL CORRECTIONS

TDE	-.5287	TRA	-1.7171	TC3	.2657	BAU	.1270
RDE	-.4205	RRA	.3163	RC3	-.1669	FAU	.08160
FDE	.9109	FRA	2.5428	FC3	-2.3329	BSP	3368
BDE	.6755	BRA	1.7460	BC3	.3138	FSP	482

MID-COURSE EXECUTION ACCURACY

SGT	1973.1	SGR	586.8	SG3	336.6
RRT	-.3957	RRF	.4428	RTF	-.8408
SGB	2058.5	R23	-.0911	R13	.8444
SG1	1987.8	SG2	534.9	THA	172.76

ORBIT DETERMINATION ACCURACY

ST	39.3	SR	22.9	SS	34.8
CRT	.5168	CRS	.5783	CST	.9959
LSA	54.1	NSA	18.4	SSA	1.4
EL1	41.5	EL2	18.3	ALF	20.66

LAUNCH DATE JUL 6 1973 FLIGHT TIME 146.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 390.471 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	33.943	GAL	-5.05	AZL	89.91	HCA	127.70	SMA	223.82	ECC	.33111	INC	.0868	V1	29.291
RP	220.95	LAP	.07	LOP	51.49	VP	24.666	GAP	19.32	AZP	90.05	TAL	339.52	TAP	107.22	RCA	149.71	APO	297.93	V2	24.882
RC	87.440	GL	.55	GP	-7.15	ZAL	123.37	ZAP	164.04	ETS	207.85	ZAE	165.71	ETE	327.86	ZAC	77.34	ETC	283.42	LVI	-11.51

PLANETOCENTRIC CONIC

C3	29.305	VHL	5.413	DLA	17.49	RAL	44.53	RAD	6646.7	VEL	12.217	PTH	7.17	VHP	6.206	DPA	6.85	RAP	37.53	ECC	1.4823

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 13 21	3580.33	-47.19	135.64	288.35	96.96	15 13 1	2580.3	-39.05	104.20
60.00	14 32 42	3528.82	-40.25	131.78	289.13	92.33	15 31 31	2528.8	-34.92	102.04
70.00	15 1 33	3443.89	-34.13	124.98	289.20	88.69	15 58 57	2443.9	-31.10	96.66
80.00	15 47 26	3300.07	-29.63	113.83	288.96	86.17	16 42 26	2300.1	-28.21	86.50
90.00	16 58 40	3070.16	-27.91	96.79	288.81	85.22	17 49 50	2070.2	-27.08	69.82
100.00	18 30 18	2774.54	-29.63	75.20	288.96	86.17	19 16 33	1774.5	-28.21	47.87
110.00	20 0 59	2490.71	-34.13	53.89	289.20	88.69	20 42 30	1490.7	-31.10	25.58

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.5300	TRA-1.7090	TC3 .2911	BAU .1350		SGT 2002.6	SGR 591.6	SG3 356.3		ST 40.0	SR 22.0	SS 36.1	
RDE	-.4029	RRA .3228	RC3 -.1843	FAU .08502		RRT -.4246	RRF .4746	RTF -.8454		CRT .5065	CRS .5721	CST .9956	
FDE	.9611	FRA 2.6398	FC3-2.5116	BSP 3432		SGB 2088.2	R23 -.0977	R13 .8494		LSA 55.2	MSA 18.2	SSA 1.4	
BDE	.6657	BRA 1.7392	BC3 .3445	FSP 514		SG1 2019.5	SG2 531.1	THA 172.32		EL1 41.9	EL2 18.1	ALF 19.33	

LAUNCH DATE JUL 6 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 393.757 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	33.874	GAL	-4.96	AZL	89.87	HCA	128.81	SMA	222.08	ECC	.32561	INC	.1338	V1	29.291
RP	221.33	LAP	.10	LOP	52.60	VP	24.529	GAP	19.00	AZP	90.08	TAL	339.63	TAP	108.44	RCA	149.77	APO	294.39	V2	24.840
RC	89.407	GL	.85	GP	-7.44	ZAL	123.22	ZAP	163.18	ETS	207.41	ZAE	165.36	ETE	327.09	ZAC	77.00	ETC	283.41	LVI	-11.16

PLANETOCENTRIC CONIC

C3	28.388	VHL	5.328	DLA	17.74	RAL	44.29	RAD	6646.4	VEL	12.179	PTH	7.14	VHP	6.040	DPA	6.68	RAP	37.90	ECC	1.4672

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 11 20	3577.61	-47.16	135.38	287.57	97.16	15 10 57	2577.6	-38.96	104.00
60.00	14 30 19	3527.03	-40.24	131.63	288.38	92.43	15 29 7	2527.0	-34.88	101.91
70.00	14 58 44	3443.38	-34.13	124.94	288.45	88.71	15 56 8	2443.4	-31.09	96.63
80.00	15 44 10	3301.02	-29.63	113.91	288.22	86.13	16 39 11	2301.0	-28.22	86.57
90.00	16 55 9	3071.86	-27.90	96.92	288.06	85.16	17 46 21	2071.9	-27.10	69.94
100.00	18 27 1	2775.49	-29.63	75.27	288.22	86.13	19 13 17	1775.5	-28.22	47.94
110.00	19 58 11	2490.20	-34.13	53.85	288.45	88.71	20 39 41	1490.2	-31.09	25.54

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.5316	TRA-1.6997	TC3 .3171	BAU .1429		SGT 2030.7	SGR 597.7	SG3 377.2		ST 40.6	SR 21.5	SS 37.5	
RDE	-.3851	RRA .3300	RC3 -.2031	FAU .08862		RRT -.4544	RRF .5075	RTF -.8499		CRT .4950	CRS .5648	CST .9953	
FDE	1.0152	FRA 2.7401	FC3-2.7025	BSP 3490		SGB 2116.8	R23 -.1047	R13 .8544		LSA 56.4	MSA 18.0	SSA 1.4	
BDE	.6564	BRA 1.7315	BC3 .3766	FSP 548		SG1 2050.1	SG2 527.4	THA 171.84		EL1 42.3	EL2 17.9	ALF 18.00	

LAUNCH DATE JUL 6 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 397.086 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	33.809	GAL	-4.88	AZL	89.82	HCA	129.91	SMA	220.45	ECC	.32039	INC	.1827	V1	29.291
RP	221.71	LAP	.14	LOP	53.70	VP	24.396	GAP	18.68	AZP	90.12	TAL	339.74	TAP	109.65	RCA	149.82	APO	291.08	V2	24.799
RC	91.436	GL	1.18	GP	-7.74	ZAL	123.06	ZAP	162.30	ETS	207.02	ZAE	165.05	ETE	326.18	ZAC	76.66	ETC	283.41	LVI	-10.80

PLANETOCENTRIC CONIC

C3	27.528	VHL	5.247	DLA	18.00	RAL	44.04	RAD	6646.0	VEL	12.144	PTH	7.11	VHP	5.879	DPA	6.49	RAP	38.25	ECC	1.4530

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 9 12	3575.48	-47.14	135.18	286.83	97.32	15 8 48	2575.5	-38.89	103.85
60.00	14 27 50	3525.90	-40.24	131.54	287.65	92.50	15 26 35	2525.9	-34.85	101.83
70.00	14 55 46	3443.63	-34.13	124.96	287.73	88.70	15 53 10	2443.6	-31.09	96.64
80.00	15 40 41	3302.84	-29.62	114.04	287.49	86.06	16 35 44	2302.8	-28.24	86.70
90.00	16 51 26	3074.50	-27.88	97.11	287.33	85.07	17 42 40	2074.5	-27.13	70.13
100.00	18 23 33	2777.32	-29.62	75.41	287.49	86.06	19 9 50	1777.3	-28.24	48.07
110.00	19 55 13	2490.45	-34.13	53.87	287.73	88.70	20 36 43	1490.4	-31.09	25.56

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.5329	TRA-1.6903	TC3 .3432	BAU .1508		SGT 2058.0	SGR 605.5	SG3 399.1		ST 41.2	SR 20.9	SS 38.8	
RDE	-.3672	RRA .3381	RC3 -.2236	FAU .09238		RRT -.4852	RRF .5413	RTF -.8641		CRT .4812	CRS .5554	CST .9950	
FDE	1.0724	FRA 2.8448	FC3-2.9053	BSP 3553		SGB 2145.2	R23 -.1122	R13 .8591		LSA 57.7	MSA 17.7	SSA 1.4	
BDE	.6471	BRA 1.7238	BC3 .4097	FSP 584		SG1 2080.3	SG2 523.7	THA 171.32		EL1 42.6	EL2 17.7	ALF 16.66	

LAUNCH DATE JUL 6 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 400.453 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	33.747	GAL	-4.79	AZL	89.77	HCA	131.01	SMA	218.92	ECC	.31542	INC	.2329	V1	29.291
RP	222.09	LAP	.18	LOP	54.80	VP	24.268	GAP	18.37	AZP	90.15	TAL	339.85	TAP	110.86	RCA	149.87	APO	287.98	V2	24.757
RC	93.523	GL	1.52	GP	-8.05	ZAL	122.90	ZAP	161.40	ETS	206.70	ZAE	164.79	ETE	325.11	ZAC	76.30	ETC	283.40	LVI	-10.43

PLANETOCENTRIC CONIC

C3	26.723	VHL	5.169	DLA	18.28	RAL	43.78	RAD	6645.7	VEL	12.111	PTH	7.09	VHP	5.723	DPA	6.28	RAP	38.60	ECC	1.4398

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 6 58	3573.97	-47.13	135.03	286.12	97.43	15 6 32	2574.0	-38.84	103.74
60.00	14 25 12	3525.45	-40.24	131.50	286.95	92.52	15 23 57	2525.4	-34.84	101.79
70.00	14 52 38	3444.66	-34.13	125.04	287.03	88.66	15 50 3	2444.7	-31.11	96.72
80.00	15 37 1	3305.58	-29.61	114.24	286.78	85.96	16 32 6	2305.6	-28.27	86.90
90.00	16 47 28	3078.12	-27.86	97.37	286.62	84.94	17 38 47	2078.1	-27.16	70.38
100.00	18 19 53	2780.05	-29.61	75.61	286.78	85.96	19 6 13	1780.0	-28.27	48.27
110.00	19 52 5	2491.48	-34.13	53.95	287.03	88.66	20 33 36	1491.5	-31.11	25.64

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.5346	TRA-1.6797	TC3 .3692	BAU .1585		SGT 2083.5	SGR 615.0	SG3 422.1		ST 41.8	SR 20.3	SS 40.3	
RDE	-.3491	RRA .3468	RC3 -.2459	FAU .09632		RRT -.5163	RRF .5755	RTF -.8580		CRT .4657	CRS .5445	CST .9946	
FDE	1.1342	FRA 2.9522	FC3-3.1206	BSP 3609		SGB 2172.4	R23 -.1202	R13 .8635		LSA 58.9	MSA 17.4	SSA 1.4	
BDE	.6385	BRA 1.7151	BC3 .4436	FSP 622		SG1 2109.2	SG2 520.3	THA 170.77		EL1 43.0	EL2 17.4	ALF 15.31	

LAUNCH DATE JUL 6 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 7 1973

DISTANCE 403.856

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.688 GAL -4.71 AZL 89.72 HCA 132.11 SMA 217.50 ECC .31071 INC .2843 V1 29.291
RP 222.48 LAP .21 LOP 55.90 VP 24.143 GAP 18.06 AZP 90.19 TAL 339.96 TAP 112.07 RCA 149.92 APO 285.08 V2 24.715
RC 95.665 GL 1.88 GP -8.38 ZAL 122.73 ZAP 160.49 ETS 206.42 ZAE 164.57 ETE 323.90 ZAC 75.92 ETC 283.40 LVI -10.05

PLANETOCENTRIC CONIC

C3 25.968 VHL 5.096 DLA 18.58 RAL 43.51 RAD 6645.4 VEL 12.080 PTH 7.06 VHP 5.572 DPA 6.05 RAP 38.93 ECC 1.4274

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	IN. 2 LONG
50.00	14 4 38	3573.09	-47.12	134.95	285.45	97.49	15 4 11	2573.1	-38.81	103.68
60.00	14 22 26	3525.70	-40.24	131.52	286.28	92.51	15 21 12	2525.7	-34.84	101.81
70.00	14 49 20	3446.50	-34.13	125.18	286.35	88.57	15 46 46	2446.5	-31.14	96.85
80.00	15 33 7	3309.27	-29.59	114.52	286.09	85.82	16 28 16	2309.3	-28.32	87.16
90.00	16 43 17	3082.78	-27.83	97.71	285.93	84.77	17 34 39	2082.8	-27.21	70.72
100.00	18 15 59	2783.74	-29.59	75.88	286.09	85.82	19 2 22	1783.7	-28.32	48.53
110.00	19 48 46	2493.32	-34.13	54.10	286.35	88.57	20 30 20	1493.3	-31.14	25.77

DIFFERENTIAL CORRECTIONS

TDE -.5365 TRA-1.6685 TC3 .3951 BAU .1661
RDE -.3306 RRA .3564 RC3 -.2701 FAU .10046
FDE 1.2003 FRA 3.0634 FC3-3.3492 BSP 3667
BDE .6302 BRA 1.7061 BC3 .4786 FSP 662

MID-COURSE EXECUTION ACCURACY

SGT 2107.9 SGR 626.7 SG3 446.3
RRT -.5477 RRF .6100 RTF -.8616
SGB 2199.0 R23 -.1288 R13 .8678
SG1 2137.4 SG2 517.1 THA 170.17

ORBIT DETERMINATION ACCURACY

ST 42.3 SR 19.6 SS 41.8
CRT .4475 CRS .5310 CST .9942
LSA 60.3 MSA 17.1 SSA 1.4
EL1 43.4 EL2 17.1 ALF 13.95

LAUNCH DATE JUL 6 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 9 1973

DISTANCE 407.293

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.632 GAL -4.63 AZL 89.66 HCA 133.20 SMA 216.16 ECC .30623 INC .3373 V1 29.291
RP 222.86 LAP .25 LOP 56.99 VP 24.022 GAP 17.75 AZP 90.23 TAL 340.08 TAP 113.28 RCA 149.97 APO 282.36 V2 24.673
RC 97.860 GL 2.25 GP -8.74 ZAL 122.56 ZAP 159.55 ETS 206.17 ZAE 164.38 ETE 322.52 ZAC 75.54 ETC 283.40 LVI -9.66

PLANETOCENTRIC CONIC

C3 25.258 VHL 5.026 DLA 18.90 RAL 43.23 RAD 6645.1 VEL 12.051 PTH 7.04 VHP 5.426 DPA 5.79 RAP 39.25 ECC 1.4157

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 2 11	3572.84	-47.12	134.93	284.81	97.51	15 1 43	2572.8	-38.80	103.66
60.00	14 19 31	3526.66	-40.24	131.60	285.63	92.45	15 18 18	2526.7	-34.87	101.88
70.00	14 45 50	3449.17	-34.12	125.39	285.70	88.45	15 43 19	2449.2	-31.19	97.05
80.00	15 28 59	3313.94	-29.57	114.86	285.42	85.64	16 24 13	2313.9	-28.37	87.50
90.00	16 38 49	3088.51	-27.80	98.12	285.25	84.57	17 30 17	2088.5	-27.26	71.13
100.00	18 11 51	2788.41	-29.57	76.23	285.42	85.64	18 58 19	1788.4	-28.37	48.87
110.00	19 45 17	2495.99	-34.12	54.31	285.70	88.45	20 26 53	1496.0	-31.19	25.96

DIFFERENTIAL CORRECTIONS

TDE -.5223 TRA-1.6401 TC3 .4467 BAU .1810
RDE -.3119 RRA .3668 RC3 -.2965 FAU .10484
FDE 1.2703 FRA 3.1769 FC3-3.5933 BSP 3527
BDE .6083 BRA 1.6806 BC3 .5362 FSP 704

MID-COURSE EXECUTION ACCURACY

SGT 2112.3 SGR 640.8 SG3 471.6
RRT -.5878 RRF .6443 RTF -.8716
SGB 2207.4 R23 -.1238 R13 .8780
SG1 2147.7 SG2 509.8 THA 169.28

ORBIT DETERMINATION ACCURACY

ST 42.0 SR 19.0 SS 43.4
CRT .4168 CRS .5146 CST .9927
LSA 61.0 MSA 16.9 SSA 1.4
EL1 42.9 EL2 16.9 ALF 12.66

LAUNCH DATE JUL 6 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 11 1973

DISTANCE 410.759

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.579 GAL -4.56 AZL 89.61 HCA 134.29 SMA 214.92 ECC .30199 INC .3924 V1 29.291
RP 223.25 LAP .28 LOP 58.08 VP 23.904 GAP 17.44 AZP 90.27 TAL 340.19 TAP 114.48 RCA 150.01 APO 279.82 V2 24.631
RC 100.104 GL 2.65 GP -9.11 ZAL 122.39 ZAP 158.59 ETS 205.97 ZAE 164.21 ETE 320.99 ZAC 75.13 ETC 283.40 LVI -9.25

PLANETOCENTRIC CONIC

C3 24.597 VHL 4.960 DLA 19.23 RAL 42.95 RAD 6644.8 VEL 12.024 PTH 7.01 VHP 5.286 DPA 5.51 RAP 39.55 ECC 1.4048

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 59 37	3573.31	-47.13	134.97	284.21	97.47	14 59 10	2573.3	-38.81	103.69
60.00	14 16 28	3528.43	-40.24	131.75	285.03	92.35	15 15 16	2528.4	-34.91	102.01
70.00	14 42 9	3452.79	-34.12	125.67	285.07	88.28	15 39 42	2452.8	-31.25	97.31
80.00	15 24 36	3319.74	-29.54	115.29	284.77	85.41	16 19 56	2319.7	-28.44	87.92
90.00	16 34 4	3095.49	-27.75	98.63	284.59	84.32	17 25 39	2095.5	-27.32	71.63
100.00	18 7 28	2794.21	-29.54	76.66	284.77	85.41	18 54 2	1794.2	-28.44	49.29
110.00	19 41 36	2499.61	-34.12	54.59	285.07	88.28	20 23 15	1499.6	-31.25	26.23

DIFFERENTIAL CORRECTIONS

TDE -.5308 TRA-1.6340 TC3 .4619 BAU .1857
RDE -.2926 RRA .3782 RC3 -.3249 FAU .10938
FDE 1.3458 FRA 3.2955 FC3-3.8498 BSP 3662
BDE .6061 BRA 1.6772 BC3 .5647 FSP 748

MID-COURSE EXECUTION ACCURACY

SGT 2140.8 SGR 657.5 SG3 498.3
RRT -.6149 RRF .6781 RTF -.[illegible]19
SGB 2239.5 R23 -.1391 R13 .8793
SG1 2180.9 SG2 509.0 THA 168.68

ORBIT DETERMINATION ACCURACY

ST 42.9 SR 18.3 SS 45.1
CRT .3951 CRS .4943 CST .9927
LSA 62.7 MSA 16.6 SSA 1.4
EL1 43.6 EL2 16.5 ALF 11.18

LAUNCH DATE JUL 6 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 13 1973

DISTANCE 414.254

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.529 GAL -4.49 AZL 89.55 HCA 135.38 SMA 213.75 ECC .29796 INC .4491 V1 29.291
RP 223.64 LAP .32 LOP 59.17 VP 23.790 GAP 17.14 AZP 90.32 TAL 340.30 TAP 115.67 RCA 150.06 APO 277.43 V2 24.590
RC 102.397 GL 3.07 GP -9.50 ZAL 122.22 ZAP 157.60 ETS 205.81 ZAE 164.08 ETE 319.30 ZAC 74.72 ETC 283.41 LVI -8.82

PLANETOCENTRIC CONIC

C3 23.979 VHL 4.897 DLA 19.58 RAL 42.66 RAD 6644.6 VEL 11.998 PTH 6.99 VHP 5.148 DPA 5.19 RAP 39.85 ECC 1.3946

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 56 55	3574.48	-47.14	135.08	283.65	97.39	14 56 30	2574.5	-38.85	103.78
60.00	14 13 15	3531.00	-40.25	131.97	284.45	92.20	15 12 6	2531.0	-34.97	102.20
70.00	14 38 16	3457.35	-34.11	126.03	284.47	88.07	15 35 53	2457.4	-31.33	97.64
80.00	15 19 57	3326.69	-29.50	115.80	284.15	85.15	16 15 23	2326.7	-28.51	88.42
90.00	16 29 1	3103.72	-27.69	99.22	283.95	84.03	17 20 44	2103.7	-27.40	72.22
100.00	18 2 49	2801.16	-29.50	77.17	284.15	85.15	18 49 30	1801.2	-28.51	49.79
110.00	19 37 42	2504.17	-34.11	54.94	284.47	88.07	20 19 26	1504.2	-31.33	26.56

DIFFERENTIAL CORRECTIONS

TDE -.5373 TRA-1.6242 TC3 .4794 BAU .1914
RDE -.2728 RRA .3906 RC3 -.3556 FAU .11409
FDE 1.4276 FRA 3.4169 FC3-[illegible].1191 BSP 3772
BDE .6026 BRA 1.6705 BC3 .5969 FSP 796

MID-COURSE EXECUTION ACCURACY

SGT 2164.3 SGR 677.1 SG3 526.1
RRT -.6423 RRF .7107 RTF -.8730
SGB 2267.7 R23 -.1529 R13 .8815
SG1 2210.1 SG2 508.2 THA 167.99

ORBIT DETERMINATION ACCURACY

ST 43.6 SR 17.5 SS 46.8
CRT .3672 CRS .4695 CST .9925
LSA 64.3 MSA 16.2 SSA 1.5
EL1 44.2 EL2 16.1 ALF 9.70

LAUNCH DATE JUL 6 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 417.774 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	33.481	GAL	-4.42	AZL	89.49	HCA	136.46	SMA	212.65	ECC	.29413	INC	.5079
RP	224.03	LAP	.35	LOP	60.25	VP	23.679	GAP	16.84	AZP	90.37	TAL	340.41	TAP	116.86	RCA	150.10	APO	275.19
RC	104.735	GL	3.51	GP	-9.91	ZAL	122.05	ZAP	156.60	ETS	205.67	ZAE	163.96	ETE	317.44	ZAC	74.28	ETC	283.42

V1	29.291																		
V2	24.548																		
LVI	-8.38																		

PLANETOCENTRIC CONIC

C3	23.401	VHL	4.837	DLA	19.96	RAL	42.36	RAD	6644.3	VEL	11.974	PTH	6.97	VHP	5.018	DPA	4.86	RAP	40.13	ECC	1.3851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 54 6	3576.38	-47.15	135.26	283.13	97.25	14 53 43	2576.4	-38.92	103.91
60.00	14 9 52	3534.39	-40.26	132.26	283.91	92.01	15 8 47	2534.4	-35.06	102.45
70.00	14 34 9	3462.90	-34.09	126.46	283.89	87.81	15 31 52	2462.9	-31.42	98.05
80.00	15 15 0	3334.85	-29.45	116.40	283.54	84.83	16 10 35	2334.9	-28.60	89.01
90.00	16 23 38	3113.32	-27.62	99.91	283.33	83.68	17 15 31	2113.3	-27.48	72.91
100.00	17 57 52	2809.33	-29.45	77.77	283.54	84.83	18 44 41	1809.3	-28.60	50.38
110.00	19 33 35	2509.72	-34.09	55.38	283.89	87.81	20 15 25	1509.7	-31.42	26.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5415	TRA	-1.6110	TC3	.4999	BAU	.1981	SGT	2183.2	SGR	700.0	SG3	555.2	ST	44.2	SR	16.8	SS	48.6
RDE	-.2524	RRA	.4039	RC3	-.3890	FAU	.11905	RRT	-.6697	RRF	.7422	RTF	-.8746	CRT	.3318	CRS	.4389	CST	.9922
FDE	-.5146	FRA	3.5411	FC3	-4.4045	BSP	3845	SGB	2292.7	R23	-.1654	R13	.8843	LSA	65.9	MSA	15.8	SSA	1.5
BDE	.5974	BRA	1.6609	BC3	.6334	FSP	844	SG1	2235.8	SG2	507.7	THA	167.21	EL1	44.6	EL2	15.7	ALF	8.20

LAUNCH DATE JUL 6 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 421.317 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	33.435	GAL	-4.35	AZL	89.43	HCA	137.53	SMA	211.62	ECC	.29050	INC	.5687
RP	224.42	LAP	.38	LOP	61.33	VP	23.572	GAP	16.54	AZP	90.42	TAL	340.52	TAP	118.05	RCA	150.14	APO	273.09
RC	107.119	GL	3.97	GP	-10.35	ZAL	121.87	ZAP	155.56	ETS	205.56	ZAE	163.84	ETE	315.40	ZAC	73.83	ETC	283.43

V1	29.291																		
V2	24.506																		
LVI	-7.93																		

PLANETOCENTRIC CONIC

C3	22.860	VHL	4.781	DLA	20.35	RAL	42.05	RAD	6644.1	VEL	11.952	PTH	6.95	VHP	4.891	DPA	4.49	RAP	40.40	ECC	1.3762

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 51 9	3579.04	-47.18	135.52	282.66	97.06	14 50 48	2579.0	-39.01	104.10
60.00	14 6 19	3538.66	-40.27	132.62	283.39	91.76	15 5 18	2538.7	-35.16	102.76
70.00	14 29 48	3469.51	-34.07	126.97	283.35	87.51	15 27 37	2469.5	-31.53	98.53
80.00	15 9 44	3344.33	-29.39	117.10	282.96	84.47	16 5 28	2344.3	-28.70	89.70
90.00	16 17 51	3124.39	-27.54	100.72	282.73	83.29	17 9 56	2124.4	-27.57	73.71
100.00	17 52 35	2818.80	-29.39	78.47	282.96	84.47	18 39 34	1818.8	-28.70	51.07
110.00	19 29 14	2516.33	-34.07	55.89	283.35	87.51	20 11 10	1516.3	-31.53	27.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5447	TRA	-1.5961	TC3	.5207	BAU	.2054	SGT	2199.0	SGR	726.6	SG3	585.5	ST	44.7	SR	16.0	SS	50.5
RDE	-.2313	RRA	.4184	RC3	-.4250	FAU	.12420	RRT	-.6962	RRF	.7720	RTF	-.8765	CRT	.2878	CRS	.4006	CST	.9917
FDE	1.6079	FRA	3.6687	FC3	-4.7035	BSP	3907	SGB	2316.0	R23	-.1772	R13	.8875	LSA	67.6	MSA	15.5	SSA	1.5
BDE	.5917	BRA	1.6500	BC3	.6721	FSP	895	SG1	2259.6	SG2	507.6	THA	166.34	EL1	45.0	EL2	15.3	ALF	6.65

LAUNCH DATE JUL 6 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 424.883 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	33.392	GAL	-4.29	AZL	89.37	HCA	138.61	SMA	210.65	ECC	.28706	INC	.6320
RP	224.81	LAP	.42	LOP	62.40	VP	23.467	GAP	16.24	AZP	90.47	TAL	340.62	TAP	119.23	RCA	150.18	APO	271.12
RC	109.544	GL	4.46	GP	-10.82	ZAL	121.69	ZAP	154.51	ETS	205.48	ZAE	163.74	ETE	313.17	ZAC	73.35	ETC	283.46

V1	29.291																		
V2	24.464																		
LVI	-7.45																		

PLANETOCENTRIC CONIC

C3	22.357	VHL	4.728	DLA	20.77	RAL	41.74	RAD	6643.9	VEL	11.931	PTH	6.94	VHP	4.769	DPA	4.09	RAP	40.66	ECC	1.3679

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 48 3	3582.49	-47.20	135.85	282.23	96.80	14 47 46	2582.5	-39.12	104.35
60.00	14 2 34	3543.84	-40.28	133.06	282.92	91.46	15 1 38	2543.9	-35.28	103.14
70.00	14 25 11	3477.23	-34.05	127.58	282.82	87.16	15 23 8	2477.2	-31.66	99.10
80.00	15 4 6	3355.22	-29.31	117.90	282.40	84.06	16 0 1	2355.2	-28.81	90.49
90.00	16 11 40	3137.07	-27.43	101.63	282.15	82.85	17 3 58	2137.1	-27.66	74.62
100.00	17 46 58	2829.69	-29.31	79.27	282.40	84.06	18 34 8	1829.7	-28.81	51.86
110.00	19 24 37	2524.05	-34.05	56.49	282.82	87.16	20 6 42	1524.1	-31.66	28.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5471	TRA	-1.5794	TC3	.5411	BAU	.2130	SGT	2211.5	SGR	757.0	SG3	617.2	ST	45.2	SR	15.2	SS	52.5
RDE	-.2093	RRA	.4340	RC3	-.4639	FAU	.12956	RRT	-.7212	RRF	.7999	RTF	-.[illegible]84	CRT	.2335	CRS	.3526	CST	.9912
FDE	1.7076	FRA	3.7992	FC3	-5.0169	BSP	3958	SGB	2337.5	R23	-.1888	R13	.8908	LSA	69.2	MSA	15.1	SSA	1.5
BDE	.5857	BRA	1.6379	BC3	.7128	FSP	949	SG1	2281.6	SG2	508.3	THA	165.39	EL1	45.3	EL2	14.8	ALF	5.04

LAUNCH DATE JUL 6 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 428.468 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	33.351	GAL	-4.22	AZL	89.30	HCA	139.68	SMA	209.74	ECC	.28379	INC	.6977
RP	225.20	LAP	.45	LOP	63.47	VP	23.365	GAP	15.95	AZP	90.53	TAL	340.73	TAP	120.41	RCA	150.22	APO	269.26
RC	112.011	GL	4.97	GP	-11.31	ZAL	121.52	ZAP	153.42	ETS	205.42	ZAE	163.62	ETE	310.77	ZAC	72.85	ETC	283.48

V1	29.291																		
V2	24.422																		
LVI	-6.96																		

PLANETOCENTRIC CONIC

C3	21.889	VHL	4.679	DLA	21.21	RAL	41.42	RAD	6643.7	VEL	11.911	PTH	6.92	VHP	4.651	DPA	3.65	RAP	40.90	ECC	1.3602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 44 49	3586.76	-47.24	136.25	281.84	96.49	14 44 35	2586.8	-39.27	104.66
60.00	13 58 37	3549.98	-40.29	133.58	282.48	91.11	14 57 47	2550.0	-35.44	103.60
70.00	14 20 18	3486.15	-34.02	128.27	282.33	86.75	15 18 24	2486.1	-31.80	99.76
80.00	14 58 5	3367.65	-29.22	118.81	281.85	83.58	15 54 13	2367.7	-28.93	91.39
90.00	16 5 2	3151.52	-27.31	102.67	281.58	82.34	16 57 33	2151.5	-27.76	75.67
100.00	17 40 57	2842.12	-29.22	80.18	281.85	83.58	18 28 19	1842.1	-28.93	52.76
110.00	19 19 44	2532.96	-34.02	57.19	282.33	86.75	20 1 57	1533.0	-31.80	28.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5494	TRA	-1.5612	TC3	.5603	BAU	.2209	SGT	2221.2	SGR	791.7	SG3	650.1	ST	45.6	SR	14.5	SS	54.5
RDE	-.1863	RRA	.4507	RC3	-.5059	FAU	.13511	RRT	-.7444	RRF	.8256	RTF	-.8801	CRT	.1668	CRS	.2926	CST	.9906
FDE	1.8151	FRA	3.9318	FC3	-5.3440	BSP	4004	SGB	2358.1	R23	-.2003	R13	.8942	LSA	71.0	MSA	14.7	SSA	1.5
BDE	.5801	BRA	1.6250	BC3	.7549	FSP	1005	SG1	2302.2	SG2	510.1	THA	164.35	EL1	45.7	EL2	14.3	ALF	3.36

LAUNCH DATE JUL 6 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 25 1973

DISTANCE 432.073

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.313 GAL -4.17 AZL 89.23 HCA 140.75 SMA 208.89 ECC .28069 INC .7662 V1 29.291
RP 225.59 LAP .48 LOP 64.54 VP 23.265 GAP 15.66 AZP 90.59 TAL 340.83 TAP 121.58 RCA 150.25 APO 267.52 V2 24.380
RC 114.516 GL 5.51 GP -11.83 ZAL 121.34 ZAP 152.31 ETS 205.37 ZAE 163.49 ETE 308.19 ZAC 72.33 ETC 283.51 LVI -6.44

PLANETOCENTRIC CONIC

C3 21.454 VHL 4.632 DLA 21.68 RAL 41.10 RAD 6643.5 VEL 11.893 PTH 6.90 VHP 4.537 DPA 3.18 RAP 41.13 ECC 1.3531

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 41 24	3551.91	-47.28	136.74	281.49	96.12	14 41 16	2591.9	-39.44	105.03
60.00	13 54 27	3557.14	-40.30	134.19	282.07	90.69	14 53 44	2557.1	-35.61	104.13
70.00	14 15 6	3496.33	-33.98	129.06	281.86	86.28	15 13 22	2496.3	-31.95	100.51
80.00	14 51 38	3381.76	-29.11	119.85	281.33	83.05	15 48 0	2381.8	-29.05	92.42
90.00	15 57 52	3167.93	-27.15	103.84	281.03	81.77	16 50 40	2167.9	-27.87	76.86
100.00	17 34 30	2856.23	-29.11	81.22	281.33	83.05	18 22 6	1856.2	-29.05	53.79
110.00	19 14 32	2543.15	-33.98	57.98	281.86	86.28	19 56 55	1543.2	-31.95	29.43

DIFFERENTIAL CORRECTIONS

TDE -.5507 TRA-1.5413 TC3 .5784 BAU .2292
RDE -.1623 RRA .4687 RC3 -.5514 FAU .14090
FDE 1.9289 FRA 4.0663 FC3-5.6858 BSP 4043
BDE .5742 BRA 1.6110 BC3 .7991 FSP 1063

MID-COURSE EXECUTION ACCURACY

SGT 2227.3 SGR 831.0 SG3 684.3
RRT -.7656 RRF .8491 RTF -.8817
SGB 2377.2 R23 -.2113 R13 .8977
SG1 2321.2 SG2 512.9 THA 163.21

ORBIT DETERMINATION ACCURACY

ST 45.9 SR 13.7 SS 56.7
CRT .0845 CRS .2174 CST .9899
LSA 72.8 MSA 14.4 SSA 1.5
EL1 45.9 EL2 13.7 ALF 1.59

LAUNCH DATE JUL 6 1973 FLIGHT TIME 172.00 ARRIVAL DATE DEC 25 1973

DISTANCE 435.694

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.276 GAL -4.11 AZL 89.16 HCA 141.81 SMA 208.08 ECC .27775 INC .8376 V1 29.291
RP 225.98 LAP .52 LOP 65.60 VP 23.169 GAP 15.37 AZP 90.66 TAL 340.93 TAP 122.74 RCA 150.29 APO 265.88 V2 24.338
RC 117.057 GL 6.07 GP -12.38 ZAL 121.16 ZAP 151.16 ETS 205.35 ZAE 163.34 ETE 305.43 ZAC 71.79 ETC 283.55 LVI -5.91

PLANETOCENTRIC CONIC

C3 21.051 VHL 4.588 DLA 22.18 RAL 40.76 RAD 6643.3 VEL 11.877 PTH 6.89 VHP 4.428 DPA 2.68 RAP 41.34 ECC 1.3464

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 37 49	3597.96	-47.32	137.32	281.20	95.67	14 37 47	2598.0	-39.64	105.48
60.00	13 50 3	3565.37	-40.30	134.89	281.70	90.22	14 49 28	2565.4	-35.80	104.74
70.00	14 9 34	3507.89	-33.92	129.96	281.42	85.75	15 8 1	2507.9	-32.12	101.37
80.00	14 44 41	3397.72	-28.97	121.01	280.82	82.45	15 41 19	2397.7	-29.18	93.59
90.00	15 50 6	3186.54	-26.96	105.17	280.49	81.13	16 43 12	2186.5	-27.97	78.21
100.00	17 27 33	2872.19	-28.97	82.38	280.82	82.45	18 15 25	1872.2	-29.18	54.96
110.00	19 9 0	2554.71	-33.92	58.88	281.42	85.75	19 51 35	1554.7	-32.12	30.29

DIFFERENTIAL CORRECTIONS

TDE -.5529 TRA-1.5208 TC3 .5934 BAU .2375
RDE -.1369 RRA .4881 RC3 -.6001 FAU .14683
FDE 2.0528 FRA 4.2028 FC3-6.0384 BSP 4087
BDE .5696 BRA 1.5972 BC3 .8439 FSP 1124

MID-COURSE EXECUTION ACCURACY

SGT 2231.4 SGR 875.1 SG3 719.7
RRT -.7845 RRF .8703 RTF -.8828
SGB 2396.8 R23 -.2225 R13 .9011
SG1 2340.3 SG2 517.4 THA 161.99

ORBIT DETERMINATION ACCURACY

ST 46.2 SR 13.1 SS 58.9
CRT -.0156 CRS .1235 CST .9893
LSA 74.7 MSA 14.0 SSA 1.5
EL1 46.2 EL2 13.1 ALF 179.73

LAUNCH DATE JUL 6 1973 FLIGHT TIME 174.00 ARRIVAL DATE DEC 27 1973

DISTANCE 439.331

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.241 GAL -4.06 AZL 89.09 HCA 142.87 SMA 207.33 ECC .27497 INC .9122 V1 29.291
RP 226.37 LAP .55 LOP 66.66 VP 23.075 GAP 15.09 AZP 90.73 TAL 341.03 TAP 123.90 RCA 150.32 APO 264.34 V2 24.297
RC 119.633 GL 6.67 GP -12.96 ZAL 120.98 ZAP 149.99 ETS 205.35 ZAE 163.15 ETE 302.50 ZAC 71.22 ETC 283.59 LVI -5.34

PLANETOCENTRIC CONIC

C3 20.679 VHL 4.547 DLA 22.70 RAL 40.42 RAD 6643.1 VEL 11.861 PTH 6.88 VHP 4.323 DPA 2.13 RAP 41.54 ECC 1.3403

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 34 2	3604.96	-47.36	137.99	280.95	95.16	14 34 7	2605.0	-39.87	105.99
60.00	13 45 23	3574.75	-40.30	135.69	281.37	89.68	14 44 58	2574.7	-36.02	105.45
70.00	14 3 39	3520.93	-33.85	130.97	281.00	85.16	15 2 20	2520.9	-32.31	102.34
80.00	14 37 11	3415.75	-28.81	122.33	280.33	81.78	15 34 7	2415.7	-29.32	94.91
90.00	15 41 38	3207.67	-26.73	106.67	279.96	80.41	16 35 6	2207.7	-28.07	79.75
100.00	17 20 3	2890.22	-28.81	83.70	280.33	81.78	18 8 13	1890.2	-29.32	56.28
110.00	19 3 5	2567.75	-33.85	59.89	281.00	85.16	19 45 53	1567.7	-32.31	31.26

DIFFERENTIAL CORRECTIONS

TDE -.5550 TRA-1.4990 TC3 .6057 BAU .2461
RDE -.1099 RRA .5090 RC3 -.6525 FAU .15293
FDE 2.1855 FRA 4.3411 FC3-6.4022 BSP 4130
BDE .5657 BRA 1.5831 BC3 .8903 FSP 1188

MID-COURSE EXECUTION ACCURACY

SGT 2232.4 SGR 924.5 SG3 756.4
RRT -.8011 RRF .8892 RTF -.9037
SGB 2416.3 R23 -.2331 R13 .9046
SG1 2358.9 SG2 523.6 THA 160.65

ORBIT DETERMINATION ACCURACY

ST 46.5 SR 12.5 SS 61.3
CRT -.1352 CRS .0086 CST .9886
LSA 76.8 MSA 13.6 SSA 1.5
EL1 46.6 EL2 12.4 ALF 177.75

LAUNCH DATE JUL 6 1973 FLIGHT TIME 176.00 ARRIVAL DATE DEC 29 1973

DISTANCE 442.983

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.208 GAL -4.01 AZL 89.01 HCA 143.92 SMA 206.62 ECC .27232 INC .9902 V1 29.291
RP 226.76 LAP .58 LOP 67.72 VP 22.983 GAP 14.80 AZP 90.80 TAL 341.13 TAP 125.05 RCA 150.35 APO 262.89 V2 24.255
RC 122.240 GL 7.29 GP -13.57 ZAL 120.80 ZAP 148.78 ETS 205.35 ZAE 162.92 ETE 299.42 ZAC 70.62 ETC 283.64 LVI -4.75

PLANETOCENTRIC CONIC

C3 20.337 VHL 4.510 DLA 23.26 RAL 40.08 RAD 6643.0 VEL 11.847 PTH 6.86 VHP 4.222 DPA 1.54 RAP 41.73 ECC 1.3347

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 30 3	3612.96	-47.41	138.76	280.76	94.57	14 30 16	2613.0	-40.12	106.58
60.00	13 40 26	3585.32	-40.29	136.59	281.07	89.07	14 40 11	2585.3	-36.25	106.24
70.00	13 57 19	3535.55	-33.76	132.10	280.61	84.49	14 56 15	2535.6	-32.50	103.44
80.00	14 29 2	3436.07	-28.60	123.80	279.84	81.03	15 26 18	2436.1	-29.45	96.41
90.00	15 32 20	3231.67	-26.45	108.37	279.43	79.61	16 26 12	2231.7	-28.16	81.50
100.00	17 11 54	2910.55	-28.60	85.17	279.84	81.03	18 0 24	1910.5	-29.45	57.78
110.00	18 56 45	2582.37	-33.76	61.02	280.61	84.49	19 39 48	1582.4	-32.50	32.35

DIFFERENTIAL CORRECTIONS

TDE -.5447 TRA-1.4640 TC3 .6384 BAU .2597
RDE -.0821 RRA .5304 RC3 -.7107 FAU .15957
FDE 2.3183 FRA 4.4699 FC3-6.7930 BSP 4031
BDE .5509 BRA 1.5571 BC3 .9553 FSP 1245

MID-COURSE EXECUTION ACCURACY

SGT 2215.7 SGR 979.6 SG3 793.9
RRT -.8209 RRF .9058 RTF -.8881
SGB 2422.6 R23 -.2331 R13 .9112
SG1 2365.2 SG2 524.1 THA 158.97

ORBIT DETERMINATION ACCURACY

ST 46.0 SR 12.2 SS 63.6
CRT -.2744 CRS -.1223 CST .9869
LSA 78.3 MSA 13.4 SSA 1.5
EL1 46.2 EL2 11.7 ALF 175.55

LAUNCH DATE JUL 6 1973 FLIGHT TIME 178.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 446.648 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.177 GAL -3.96 AZL 88.93 HCA 144.97 SMA 205.95 ECC .26983 INC 1.0719 V1 29.291
RP 227.15 LAP .62 LOP 68.77 VP 22.894 GAP 14.52 AZP 90.88 TAL 341.22 TAP 126.19 RCA 150.38 APO 261.53 V2 24.214
RC 124.878 GL 7.95 GP -14.23 ZAL 120.62 ZAP 147.54 ETS 205.38 ZAE 162.63 ETE 296.23 ZAC 69.99 ETC 283.70 LVI -4.14

PLANETOCENTRIC CONIC

C3 20.026 VHL 4.475 DLA 23.85 RAL 39.72 RAD 6642.8 VEL 11.834 PTH 6.85 VHP 4.126 DPA .91 RAP 41.91 ECC 1.3296

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 25 51	3622.07	-47.45	139.64	280.62	93.89	14 26 13	2622.1	-40.41	107.26
60.00	13 35 10	3597.24	-40.27	137.60	280.81	88.38	14 35 7	2597.2	-36.51	107.15
70.00	13 50 32	3551.99	-33.65	133.37	280.24	83.75	14 49 44	2552.0	-32.71	104.67
80.00	14 20 8	3459.11	-28.34	125.47	279.37	80.19	15 17 47	2459.1	-29.58	98.11
90.00	15 22 3	3259.16	-26.10	110.31	278.90	78.70	16 16 22	2259.2	-28.23	83.50
100.00	17 3 0	2933.58	-28.34	86.83	279.37	80.19	17 51 53	1933.6	-29.58	59.48
110.00	18 49 58	2598.81	-33.65	62.29	280.24	83.75	19 33 17	1598.8	-32.71	33.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5545 TRA-1.4478 TC3 .6280 BAU .2661 SGT 2219.8 SGR 1040.4 SG3 832.5 ST 46.7 SR 12.1 SS 66.2
RDE -.0511 RRA .5546 RC3 -.7703 FAU .16581 RRT -.8290 RRF .9204 RTF -.8853 CRT -.4207 CRS -.2745 CST .9868
FDE 2.4733 FRA 4.6109 FC3-7.1681 BSP 4174 SGB 2451.5 R23 -.2499 R13 .9124 LSA 80.9 MSA 13.0 SSA 1.5
BDE .5569 BRA 1.5504 BC3 .9938 FSP 1317 SG1 2391.2 SG2 540.1 THA 157.56 EL1 47.0 EL2 10.9 ALF 173.41

LAUNCH DATE JUL 6 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 450.325 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.147 GAL -3.91 AZL 88.84 HCA 146.02 SMA 205.33 ECC .26747 INC 1.1578 V1 29.291
RP 227.54 LAP .65 LOP 69.82 VP 22.807 GAP 14.24 AZP 90.96 TAL 341.30 TAP 127.32 RCA 150.41 APO 260.25 V2 24.172
RC 127.544 GL 8.65 GP -14.92 ZAL 120.44 ZAP 146.27 ETS 205.41 ZAE 162.28 ETE 292.92 ZAC 69.32 ETC 283.77 LVI -3.49

PLANETOCENTRIC CONIC

C3 19.743 VHL 4.443 DLA 24.47 RAL 39.36 RAD 6642.7 VEL 11.822 PTH 6.84 VHP 4.034 DPA .23 RAP 42.07 ECC 1.3249

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 21 24	3632.30	-47.50	140.62	280.53	93.14	14 21 57	2632.3	-40.73	108.04
60.00	13 29 34	3610.55	-40.24	138.73	280.60	87.61	14 29 44	2610.6	-36.79	108.17
70.00	13 43 12	3570.37	-33.50	134.79	279.90	82.93	14 42 42	2570.4	-32.93	106.06
80.00	14 10 20	3485.24	-28.03	127.34	278.90	79.26	15 8 25	2485.2	-29.70	100.04
90.00	15 10 32	3290.83	-25.66	112.52	278.36	77.68	16 5 23	2290.8	-28.27	85.82
100.00	16 53 12	2959.71	-28.03	88.71	278.90	79.26	17 42 32	1959.7	-29.70	61.41
110.00	18 42 38	2617.19	-33.50	63.71	279.90	82.93	19 26 16	1617.2	-32.93	34.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5571 TRA-1.4234 TC3 .6283 BAU .2758 SGT 2212.3 SGR 1107.7 SG3 872.1 ST 47.0 SR 12.4 SS 69.0
RDE -.0182 RRA .5802 RC3 -.8351 FAU .17234 RRT -.8386 RRF .9331 RTF -.8846 CRT -.5680 CRS -.4291 CST .9860
FDE 2.6353 FRA 4.7479 FC3-7.5568 BSP 4231 SGB 2474.1 R23 -.2587 R13 .9159 LSA 83.4 MSA 12.6 SSA 1.5
BDE .5574 BRA 1.5371 BC3 1.0450 FSP 1387 SG1 2411.4 SG2 553.5 THA 155.87 EL1 47.5 EL2 10.1 ALF 171.04

LAUNCH DATE JUL 6 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 454.014 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.119 GAL -3.87 AZL 88.75 HCA 147.07 SMA 204.74 ECC .26523 INC 1.2483 V1 29.291
RP 227.93 LAP .68 LOP 70.86 VP 22.723 GAP 13.97 AZP 91.05 TAL 341.39 TAP 128.45 RCA 150.44 APO 259.04 V2 24.131
RC 130.237 GL 9.38 GP -15.66 ZAL 120.25 ZAP 144.95 ETS 205.45 ZAE 161.84 ETE 289.55 ZAC 68.63 ETC 283.84 LVI -2.81

PLANETOCENTRIC CONIC

C3 19.488 VHL 4.415 DLA 25.13 RAL 38.98 RAD 6642.6 VEL 11.811 PTH 6.83 VHP 3.947 DPA -.49 RAP 42.23 ECC 1.3207

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 16 41	3643.73	-47.53	141.73	280.50	92.29	14 17 25	2643.7	-41.09	108.91
60.00	13 23 34	3625.38	-40.19	139.99	280.41	86.76	14 23 59	2625.4	-37.10	109 31
70.00	13 35 15	3590.92	-33.32	136.36	279.57	82.01	14 35 6	2590.9	-33.15	107.62
80.00	13 59 26	3515.05	-27.63	129.47	278.42	78.21	14 58 1	2515.0	-29.79	102.25
90.00	14 57 24	3327.81	-25.09	115.08	277.78	76.51	15 52 52	2327.8	-28.27	88.52
100.00	16 42 18	2989.52	-27.63	90.84	278.42	78.21	17 32 7	1989.5	-29.79	63.62
110.00	18 34 42	2637.73	-33.32	65.28	279.57	82.01	19 18 40	1637.7	-33.15	36.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5498 TRA-1.3878 TC3 .6438 BAU .2896 SGT 2188.7 SGR 1181.6 SG3 912.1 ST 46.5 SR 13.1 SS 7[illegible].6
RDE .0164 RRA .6064 RC3 -.9060 FAU .17926 RRT -.8505 RRF .9440 RTF -.[illegible]67 CRT -.7006 CRS -.5698 CST .9845
FDE 2.6012 FRA 4.8728 FC3-7.9634 BSP 4178 SGB 2487.3 R23 -.2582 R13 .9218 LSA 85.5 MSA 12.3 SSA 1.5
BDE .5501 BRA 1.5145 BC3 1.1115 FSP 1451 SG1 2423.1 SG2 561.4 THA 153.83 EL1 47.5 EL2 9.2 ALF 168.37

LAUNCH DATE JUL 6 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 457.713 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 33.092 GAL -3.83 AZL 88.66 HCA 148.11 SMA 204.18 ECC .26312 INC 1.3434 V1 29.29[illegible]
RP 228.32 LAP .71 LOP 71.90 VP 22.640 GAP 13.69 AZP 91.14 TAL 341.47 TAP 129.57 RCA 150.46 APO 257.91 V2 24.09[illegible]
RC 132.954 GL 10.16 GP -16.44 ZAL 120.07 ZAP 143.61 ETS 205.49 ZAE 161.33 ETE 286.15 ZAC 67.89 ETC 283.93 LVI -2.09

PLANETOCENTRIC CONIC

C3 19.263 VHL 4.389 DLA 25.83 RAL 38.60 RAD 6642.5 VEL 11.802 PTH 6.82 VHP 3.864 DPA -1.27 RAP 42.37 ECC 1.3170

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 11 40	3656.49	-47.56	142.96	280.53	91.34	14 12 36	2656.5	-41.47	109.89
60.00	13 17 8	3641.90	-40.12	141.39	280.27	85.81	14 17 50	2641.9	-37.42	110.59
70.00	13 26 37	3613.97	-33.09	138.12	279.26	80.99	14 26 51	2614.0	-33.38	109.38
80.00	13 47 10	3549.47	-27.13	131.90	277.92	77.02	14 46 19	2549.5	-29.85	104.81
90.00	14 42 5	3372.05	-24.36	118.11	277.16	75.17	15 38 17	2372.0	-28.19	91.75
100.00	16 30 2	3023.94	-27.13	93.27	277.92	77.02	17 20 25	2023.9	-29.85	66.18
110.00	18 26 3	2660.79	-33.09	67.04	279.26	80.99	19 10 24	1660.8	-33.38	38.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5566 TRA-1.3656 TC3 .6243 BAU .2990 SGT 2179.7 SGR 1262.5 SG3 952.8 ST 46.9 SR 14.4 SS 74.7
RDE .0553 RRA .6358 RC3 -.9788 FAU .18570 RRT -.8539 RRF .9533 RTF -.8832 CRT -.8060 CRS -.6927 CST .9840
FDE 2.9891 FRA 5.0060 FC3-8.3459 BSP 4304 SGB 2518.9 R23 -.2681 R13 .9244 LSA 88.6 MSA 12.0 SSA 1.5
BDE .5594 BRA 1.5063 BC3 1.1609 FSP 1528 SG1 2450.1 SG2 584.5 THA 151.95 EL1 48.4 EL2 8.2 ALF 165.73

LAUNCH DATE JUL 6 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 8 1974

DISTANCE 461.422

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 283.79 VL 33.067 GAL -3.79 AZL 88.56 HCA 149.14 SMA 203.66 ECC .26112 INC 1.4440 V1 29.291
RP 228.70 LAP .74 LOP 72.94 VP 22.560 GAP 13.42 AZP 91.24 TAL 341.54 TAP 130.68 RCA 150.48 APO 256.84 V2 24.049
RC 135.694 GL 10.98 GP -17.27 ZAL 119.88 ZAP 142.22 ETS 205.54 ZAE 160.71 ETE 282.76 ZAC 67.11 ETC 284.02 LVI -1.33

PLANETOCENTRIC CONIC

C3 19.066 VHL 4.366 DLA 26.58 RAL 38.20 RAD 6642.4 VEL 11.793 PTH 6.82 VHP 3.786 DPA -2.11 RAP 42.50 ECC 1.3138

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 6 18	3670.64	-47.58	144.33	280.61	90.28	14 7 29	2670.6	-41.88	111.00
60.00	13 10 13	3660.22	-40.02	142.94	280.16	84.77	14 11 13	2660.2	-37.76	112.03
70.00	13 17 8	3639.84	-32.79	140.08	278.95	79.87	14 17 47	2639.8	-33.60	111.37
80.00	13 33 5	3589.76	-26.48	134.72	277.38	75.67	14 32 54	2589.8	-29.85	107.80
90.00	14 23 27	3426.98	-23.35	121.82	276.43	73.58	15 20 34	2427.0	-27.96	95.76
100.00	16 15 56	3064.23	-26.48	96.09	277.38	75.67	17 7 1	2064.2	-29.85	69.17
110.00	18 16 34	2686.66	-32.79	69.00	278.95	79.87	19 1 21	1686.7	-33.60	40.29

DIFFERENTIAL CORRECTIONS

TDE -.5509 TRA-1.3300 TC3 .6257 BAU .3136
RDE .0960 RRA .6656 RC3-1.0593 FAU .19268
FDE 3.1769 FRA 5.1212 FC3-8.7494 BSP 4297
BDE .5592 BRA 1.4872 BC3 1.2303 FSP 1595

MID-COURSE EXECUTION ACCURACY

SGT 2151.5 SGR 1351.0 SG3 993.5
RRT -.8608 RRF .9611 RTF -.8833
SGB 2540.5 R23 -.2663 R13 .9300
SG1 2468.8 SG2 599.2 THA 149.63

ORBIT DETERMINATION ACCURACY

ST 46.5 SR 16.0 SS 77.6
CRT -.8832 CRS -.7848 CST .9825
LSA 91.1 MSA 11.8 SSA 1.5
EL1 48.7 EL2 7.2 ALF 142.71

LAUNCH DATE JUL 6 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 10 1974

DISTANCE 465.139

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 283.79 VL 33.043 GAL -3.76 AZL 88.45 HCA 150.18 SMA 203.17 ECC .25923 INC 1.5505 V1 29.291
RP 229.09 LAP .77 LOP 73.98 VP 22.481 GAP 13.15 AZP 91.35 TAL 341.61 TAP 131.79 RCA 150.50 APO 255.84 V2 24.008
RC 138.457 GL 11.84 GP -18.14 ZAL 119.69 ZAP 140.79 ETS 205.60 ZAE 159.99 ETE 279.41 ZAC 66.29 ETC 284.13 LVI -.53

PLANETOCENTRIC CONIC

C3 18.898 VHL 4.347 DLA 27.37 RAL 37.79 RAD 6642.3 VEL 11.786 PTH 6.81 VHP 3.712 DPA -3.00 RAP 42.62 ECC 1.3110

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 35	3686.34	-47.57	145.85	280.76	89.11	14 2 1	2686.3	-42.33	112.24
60.00	13 2 44	3680.59	-39.88	144.66	280.08	83.61	14 4 4	2680.6	-38.11	113.65
70.00	13 6 38	3669.06	-32.42	142.28	278.64	78.62	14 7 48	2669.1	-33.80	113.63
80.00	13 16 27	3638.23	-25.62	138.06	276.75	74.12	14 17 6	2638.2	-29.75	111.40
90.00	13 58 47	3501.39	-21.83	126.75	275.48	71.56	14 57 9	2501.4	-27.46	101.14
100.00	15 59 19	3112.70	-25.62	99.43	276.75	74.12	16 51 12	2112.7	-29.75	72.77
110.00	18 6 5	2715.88	-32.42	71.20	278.64	78.62	18 51 21	1715.9	-33.80	42.55

DIFFERENTIAL CORRECTIONS

TDE -.5540 TRA-1.3016 TC3 .6021 BAU .3262
RDE .1418 RRA .6982 RC3-1.1421 FAU .19914
FDE 3.3873 FRA 5.2378 FC3-9.1228 BSP 4404
BDE .5719 BRA 1.4771 BC3 1.2911 FSP 1673

MID-COURSE EXECUTION ACCURACY

SGT 2130.5 SGR 1447.3 SG3 1034.2
RRT -.8620 RRF .9678 RTF -.8795
SGB 2575.6 R23 -.2690 R13 .9339
SG1 2498.5 SG2 625.6 THA 147.35

ORBIT DETERMINATION ACCURACY

ST 46.6 SR 18.2 SS 80.9
CRT -.9345 CRS -.8536 CST .9817
LSA 94.4 MSA 11.5 SSA 1.5
EL1 49.7 EL2 6.1 ALF 139.64

LAUNCH DATE JUL 6 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 12 1974

DISTANCE 468.865

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 283.79 VL 33.021 GAL -3.72 AZL 88.34 HCA 151.21 SMA 202.71 ECC .25745 INC 1.6636 V1 29.291
RP 229.48 LAP .80 LOP 75.01 VP 22.405 GAP 12.88 AZP 91.46 TAL 341.67 TAP 132.88 RCA 150.52 APO 254.90 V2 23.967
RC 141.241 GL 12.76 GP -19.08 ZAL 119.49 ZAP 139.32 ETS 205.65 ZAE 159.17 ETE 276.14 ZAC 65.43 ETC 284.25 LVI .31

PLANETOCENTRIC CONIC

C3 18.760 VHL 4.331 DLA 28.21 RAL 37.37 RAD 6642.3 VEL 11.780 PTH 6.81 VHP 3.644 DPA -3.95 RAP 42.73 ECC 1.3087

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 54 25	3703.69	-47.54	147.52	280.96	87.82	13 56 9	2703.7	-42.80	113.64
60.00	12 54 35	3703.23	-39.69	146.55	280.03	82.34	13 56 19	2703.2	-38.47	115.46
70.00	12 54 55	3702.26	-31.95	144.75	278.31	77.23	13 56 37	2702.3	-33.98	116.20
80.00	12 55 51	3699.33	-24.41	142.20	275.98	72.26	13 57 30	2699.3	-29.46	115.92
90.00	13 11 43	3647.94	-18.38	136.11	273.65	68.13	14 12 31	2647.9	-25.80	111.54
100.00	15 38 43	3173.81	-24.41	103.57	275.98	72.26	16 31 37	2173.8	-29.46	77.29
110.00	17 54 21	2749.08	-31.95	73.67	278.31	77.23	18 40 11	1749.1	-33.98	45.12

DIFFERENTIAL CORRECTIONS

TDE -.5514 TRA-1.2679 TC3 .5840 BAU .3418
RDE .1915 RRA .7323 RC3-1.2312 FAU .20571
FDE 3.6047 FRA 5.3421 FC3-9.4928 BSP 4459
BDE .5836 BRA 1.4642 BC3 1.3627 FSP 1745

MID-COURSE EXECUTION ACCURACY

SGT 2100.1 SGR 1552.4 SG3 1074.5
RRT -.8639 RRF .9734 RTF -.8768
SGB 2611.6 R23 -.2655 R13 .9392
SG1 2529.6 SG2 649.2 THA 144.78

ORBIT DETERMINATION ACCURACY

ST 46.3 SR 20.8 SS 84.2
CRT -.9667 CRS -.9009 CST .9802
LSA 97.6 MSA 11.3 SSA 1.4
EL1 50.6 EL2 4.9 ALF 136.25

LAUNCH DATE JUL 6 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 14 1974

DISTANCE 472.598

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 283.79 VL 33.000 GAL -3.69 AZL 88.22 HCA 152.23 SMA 202.28 ECC .25577 INC 1.7840 V1 29.291
RP 229.86 LAP .83 LOP 76.03 VP 22.330 GAP 12.62 AZP 91.58 TAL 341.73 TAP 133.97 RCA 150.54 APO 254.02 V2 23.927
RC 144.046 GL 13.73 GP -20.07 ZAL 119.29 ZAP 137.80 ETS 205.70 ZAE 158.23 ETE 272.97 ZAC 64.51 ETC 284.38 LVI 1.20

PLANETOCENTRIC CONIC

C3 18.653 VHL 4.319 DLA 29.10 RAL 36.93 RAD 6642.2 VEL 11.776 PTH 6.80 VHP 3.580 DPA -4.96 RAP 42.84 ECC 1.3070

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 47 46	3722.88	-47.47	149.38	281.23	86.40	13 49 49	2722.9	-43.30	115.21
60.00	12 45 41	3728.43	-39.44	148.65	280.00	80.94	13 47 50	2728.4	-38.84	117.50
70.00	12 41 38	3740.41	-31.34	147.56	277.95	75.67	13 43 58	2740.4	-34.10	119.17
80.00	12 27 16	3785.65	-22.50	147.90	274.88	69.84	13 30 21	2785.7	-28.78	122.24
82.83	11 53 2	3895.57	-17.40	153.84	272.69	66.30	12 57 58	2895.6	-25.67	124.66
100.00	15 10 7	3260.12	-22.50	109.27	274.88	69.84	16 4 28	2260.1	-28.78	93.61
110.00	17 41 4	2787.22	-31.34	76.48	277.95	75.67	18 27 31	1787.2	-34.10	68.09

DIFFERENTIAL CORRECTIONS

TDE -.5477 TRA-1.2312 TC3 .5609 BAU .3588
RDE .2458 RRA .7676 RC3-1.3251 FAU .21208
FDE 3.8339 FRA 5.4299 FC3-9.8432 BSP 4524
BDE .6003 BRA 1.4509 BC3 1.4389 FSP 1816

MID-COURSE EXECUTION ACCURACY

SGT 2063.3 SGR 1665.8 SG3 1113.6
RRT -.8642 RRF .9780 RTF -.8734
SGB 2651.8 R23 -.2590 R13 .9448
SG1 2564.6 SG2 674.3 THA 142.01

ORBIT DETERMINATION ACCURACY

ST 45.9 SR 24.0 SS 87.6
CRT -.9852 CRS -.9330 CST .9787
LSA 101.1 MSA 11.1 SSA 1.4
EL1 51.6 EL2 3.6 ALF 132.63

LAUNCH DATE JUL 6 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 476.338 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.980 GAL -3.66 AZL 88.09 HCA 153.26 SMA 201.87 ECC .25419 INC 1.9124 V1 29.291
RP 230.25 LAP .86 LOP 77.06 VP 22.257 GAP 12.35 AZP 91.71 TAL 341.79 TAP 135.04 RCA 150.56 APO 253.19 V2 25.887
RC 146.870 GL 14.76 GP -21.12 ZAL 119.07 ZAP 136.25 ETS 205.74 ZAE 157.17 ETE 269.93 ZAC 63.55 ETC 284.53 LVI 2.15

PLANETOCENTRIC CONIC

C3 18.578 VHL 4.310 DLA 30.05 RAL 36.47 RAD 6642.2 VEL 11.773 PTH 6.80 VHP 3.521 DPA -6.05 RAP 42.94 ECC 1.3058

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 40 34	3744.08	-47.36	151.41	281.55	84.83	13 42 58	2744.1	-43.83	116.97
60.00	12 35 53	3756.57	-39.11	150.97	279.98	79.39	13 38 30	2756.6	-39.20	119.81
70.00	12 26 16	3784.97	-30.54	150.79	277.51	73.92	13 29 21	2785.0	-34.15	122.65
79.38	11 24 22	3980.56	-17.96	160.39	272.42	65.49	12 30 43	2980.6	-26.50	136.20
79.38	11 24 22	3980.56	-17.96	160.39	272.42	65.49	12 30 43	2980.6	-26.50	136.20
79.38	11 24 22	3980.56	-17.96	160.39	272.42	65.49	12 30 43	2980.6	-26.50	136.20
110.00	17 25 43	2831.78	-30.54	79.70	277.51	73.92	18 12 54	1831.8	-34.15	51.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5421 TRA-1.1929 TC3 .5324 BAU .3776 SGT 2021.5 SGR 1788.5 SG3 1151.3 ST 45.3 SR 27.6 SS 91.0
RDE .3056 RRA .8047 RC3-1.4238 FAU .21817 RRT -.8630 RRF .9819 RTF -.8690 CRT -.9948 CRS -.9547 CST .9769
FDE 4.0733 FRA 5.5032 FC-10.1666 BSP 4598 SGB 2699.2 R23 -.2497 R13 .9506 LSA 104.8 MSA 11.0 SSA 1.3
BDE .6224 BRA 1.4390 BC3 1.5201 FSP 1885 SG1 2606.6 SG2 700.7 THA 139.05 EL1 53.0 EL2 2.4 ALF 148.76

LAUNCH DATE JUL 6 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 480.084 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.961 GAL -3.63 AZL 87.95 HCA 154.27 SMA 201.49 ECC .25270 INC 2.0495 V1 29.291
RP 230.63 LAP .89 LOP 78.08 VP 22.186 GAP 12.09 AZP 91.85 TAL 341.84 TAP 136.11 RCA 150.57 APO 252.41 V2 23.847
RC 149.713 GL 15.86 GP -22.24 ZAL 118.85 ZAP 134.65 ETS 205.78 ZAE 155.99 ETE 267.04 ZAC 62.52 ETC 284.70 LVI 3.15

PLANETOCENTRIC CONIC

C3 18.539 VHL 4.306 DLA 31.07 RAL 35.98 RAD 6642.2 VEL 11.771 PTH 6.80 VHP 3.468 DPA -7.20 RAP 43.04 ECC 1.3051

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 43	3767.54	-47.19	153.66	281.92	83.11	13 35 30	2767.5	-44.38	118.97
60.00	12 25 0	3788.15	-38.68	153.54	279.96	77.69	13 28 8	2788.2	-39.55	122.42
70.00	12 7 58	3838.46	-29.47	154.58	276.94	71.91	13 11 57	2838.5	-34.07	126.83
76.57	11 1 53	4045.25	-18.54	165.52	272.18	64.61	12 9 19	3045.3	-27.38	141.31
76.57	11 1 53	4045.25	-18.54	165.52	272.18	64.61	12 9 19	3045.3	-27.38	141.31
76.57	11 1 53	4045.25	-18.54	165.52	272.18	64.61	12 9 19	3045.3	-27.38	141.31
110.00	17 7 25	2885.27	-29.47	83.50	276.94	71.91	17 55 30	1885.3	-34.07	55.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5343 TRA-1.1518 TC3 .5015 BAU .3987 SGT 1973.3 SGR 1920.9 SG3 1186.8 ST 44.5 SR 31.6 SS 94.6
RDE .3714 RRA .8425 RC3-1.5285 FAU .22410 RRT -.8605 RRF .9851 RTF -.8638 CRT -.9985 CRS -.9692 CST .9747
FDE 4.3203 FRA 5.5526 FC-10.4655 BSP 4665 SGB 2753.9 R23 -.2373 R13 .9567 LSA 108.6 MSA 11.0 SSA 1.3
BDE .6507 BRA 1.4271 BC3 1.6087 FSP 1945 SG1 2656.2 SG2 726.9 THA 135.89 EL1 54.6 EL2 1.4 ALF 144.64

LAUNCH DATE JUL 6 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 483.836 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.943 GAL -3.61 AZL 87.80 HCA 155.29 SMA 201.13 ECC .25130 INC 2.1968 V1 29.291
RP 231.01 LAP .92 LOP 79.10 VP 22.117 GAP 11.83 AZP 92.00 TAL 341.88 TAP 137.17 RCA 150.59 APO 251.68 V2 23.807
RC 152.572 GL 17.02 GP -23.42 ZAL 118.62 ZAP 133.00 ETS 205.80 ZAE 154.70 ETE 264.31 ZAC 61.44 ETC 284.89 LVI 4.21

PLANETOCENTRIC CONIC

C3 18.536 VHL 4.305 DLA 32.15 RAL 35.47 RAD 6642.2 VEL 11.771 PTH 6.80 VHP 3.421 DPA -8.43 RAP 43.13 ECC 1.3051

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 24 6	3793.54	-46.95	156.12	282.34	81.23	13 27 20	2793.5	-44.94	121.22
60.00	12 12 46	3823.83	-38.15	156.41	279.91	75.82	13 16 20	2823.8	-39.87	125.40
70.00	11 44 59	3906.02	-27.95	159.25	276.13	69.53	12 50 5	2906.0	-33.74	132.07
74.03	10 42 22	4100.06	-19.14	169.98	271.97	63.66	11 50 42	3100.1	-28.31	145.75
74.03	10 42 22	4100.06	-19.14	169.98	271.97	63.66	11 50 42	3100.1	-28.31	145.75
74.03	10 42 22	4100.06	-19.14	169.98	271.97	63.66	11 50 42	3100.1	-28.31	145.75
110.00	16 44 25	2952.83	-27.95	88.17	276.13	69.53	17 33 38	1952.8	-33.74	60.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5236 TRA-1.1079 TC3 .4678 BAU .4220 SGT 1918.3 SGR 2063.8 SG3 1219.8 ST 43.5 SR 36.2 SS 98.2
RDE .4445 RRA .8818 RC3-1.6376 FAU .22956 RRT -.8572 RRF .9878 RTF -.8681 CRT -.9985 CRS -.9790 CST .9720
FDE 4.5779 FRA 5.5816 FC-10.7218 BSP 4742 SGB 2817.7 R23 -.2216 R13 .9629 LSA 112.8 MSA 10.9 SSA 1.2
BDE .6868 BRA 1.4159 BC3 1.7031 FSP 2002 SG1 2715.8 SG2 750.7 THA 132.56 EL1 56.6 EL2 1.5 ALF 140.26

LAUNCH DATE JUL 6 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 487.593 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.926 GAL -3.59 AZL 87.64 HCA 156.30 SMA 200.80 ECC .24998 INC 2.3553 V1 29.291
RP 231.39 LAP .95 LOP 80.11 VP 22.050 GAP 11.57 AZP 92.16 TAL 341.92 TAP 138.23 RCA 150.60 APO 250.99 V2 23.767
RC 155.447 GL 18.26 GP -24.68 ZAL 118.37 ZAP 131.30 ETS 205.81 ZAE 153.27 ETE 261.74 ZAC 60.30 ETC 285.10 LVI 5.33

PLANETOCENTRIC CONIC

C3 18.574 VHL 4.310 DLA 33.30 RAL 34.93 RAD 6642.2 VEL 11.773 PTH 6.80 VHP 3.380 DPA -9.74 RAP 43.23 ECC 1.3057

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 36	3822.41	-46.62	158.83	282.78	79.17	13 18 18	2822.4	-45.50	125.77
60.00	11 58 50	3864.52	-37.40	159.62	279.80	73.75	13 3 14	2864.5	-40.12	128.83
70.00	11 12 13	4002.77	-25.48	165.68	274.75	66.45	12 18 56	3002.8	-32.84	139.48
71.63	10 24 40	4148.71	-19.76	174.05	271.80	62.63	11 33 49	3148.7	-29.29	149.81
71.63	10 24 40	4148.71	-19.76	174.05	271.80	62.63	11 33 49	3148.7	-29.29	149.81
71.63	10 24 40	4148.71	-19.76	174.05	271.80	62.63	11 33 49	3148.7	-29.29	149.81
110.00	16 11 40	3049.59	-25.48	94.60	274.75	66.45	17 2 29	2049.6	-32.84	68.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5046 TRA-1.0558 TC3 .4410 BAU .4492 SGT 1847.9 SGR 2216.1 SG3 1248.5 ST 41.9 SR 41.2 SS 101.5
RDE .5236 RRA .9195 RC3-1.7545 FAU .23496 RRT -.8542 RRF .9900 RTF -.8528 CRT -.9958 CRS -.9855 CST .9681
FDE 4.8291 FRA 5.5693 FC-10.9513 BSP 4768 SGB 2885.4 R23 -.2016 R13 .9694 LSA 116.8 MSA 11.0 SSA 1.1
BDE .7271 BRA 1.4001 BC3 1.8091 FSP 2038 SG1 2782.1 SG2 765.3 THA 128.96 EL1 58.7 EL2 2.7 ALF 138.82

LAUNCH DATE JUL 6 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC — DISTANCE 491.353 — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.910 GAL -3.57 AZL 87.47 HCA 157.31 SMA 200.48 ECC .24875 INC 2.5267 V1 29.291
RP 231.77 LAP .97 LOP 81.12 VP 21.984 GAP 11.31 AZP 92.33 TAL 341.96 TAP 139.27 RCA 150.61 APO 250.35 V2 23.728
RC 158.336 GL 19.59 GP -26.02 ZAL 118.11 ZAP 129.57 ETS 205.80 ZAE 151.73 ETE 259.34 ZAC 59.09 ETC 285.34 LVI 6.52

PLANETOCENTRIC CONIC

C3 18.660 VHL 4.320 DLA 34.54 RAL 34.36 RAD 6642.2 VEL 11.776 PTH 6.80 VHP 3.346 DPA -11.13 RAP 43.34 ECC 1.3071

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 1	3854.65	-46.16	161.81	283.25	76.91	13 8 16	2854.6	-46.06	126.68
60.00	11 42 41	3911.67	-36.44	163.26	279.58	71.44	12 47 52	2911.7	-40.28	132.83
69.29	10 8 10	4193.22	-20.39	177.87	271.68	61.50	11 18 3	3193.2	-30.32	153.64
69.29	10 8 10	4193.22	-20.39	177.87	271.68	61.50	11 18 3	3193.2	-30.32	153.64
69.29	10 8 10	4193.22	-20.39	177.87	271.68	61.50	11 18 3	3193.2	-30.32	153.64
69.29	10 8 10	4193.22	-20.39	177.87	271.68	61.50	11 18 3	3193.2	-30.32	153.64
69.29	10 8 10	4193.22	-20.39	177.87	271.68	61.50	11 18 3	3193.2	-30.32	153.64

DIFFERENTIAL CORRECTIONS

TDE -.5040 TRA -1.0228 TC3 .3642 BAU .4731
RDE .6190 RRA .9645 RC3-1.8612 FAU .23789
FDE 5.1284 FRA 5.5686 FC-11.0370 BSP 5044
BDE .7983 BRA 1.4059 BC3 1.8965 FSP 2110

MID-COURSE EXECUTION ACCURACY

SGT 1805.0 SGR 2381.5 SG3 1274.5
RRT -.8404 RRF .9918 RTF -.8381
SGB 2988.3 R23 -.1889 R13 .9737
SG1 2876.4 SG2 810.0 THA 125.76

ORBIT DETERMINATION ACCURACY

ST 41.6 SR 47.3 SS 105.8
CRT -.9920 CRS -.9902 CST .9661
LSA 122.6 MSA 11.0 SSA 1.1
EL1 62.8 EL2 4.0 ALF 131.30

LAUNCH DATE JUL 6 1973 FLIGHT TIME 204.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC — DISTANCE 495.118 — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.896 GAL -3.55 AZL 87.29 HCA 158.32 SMA 200.19 ECC .24760 INC 2.7124 V1 29.291
RP 232.14 LAP 1.00 LOP 82.13 VP 21.919 GAP 11.05 AZP 92.52 TAL 341.99 TAP 140.30 RCA 150.62 APO 249.76 V2 23.689
RC 161.238 GL 21.00 GP -27.43 ZAL 117.82 ZAP 127.79 ETS 205.76 ZAE 150.07 ETE 257.10 ZAC 57.81 ETC 285.60 LVI 7.79

PLANETOCENTRIC CONIC

C3 18.796 VHL 4.335 DLA 35.86 RAL 33.74 RAD 6642.3 VEL 11.782 PTH 6.81 VHP 3.319 DPA -12.60 RAP 43.45 ECC 1.3093

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 52 6	3890.76	-45.56	165.08	283.68	74.46	12 56 57	2890.8	-46.58	130.01
60.00	11 23 25	3967.53	-35.15	167.43	279.16	68.86	12 29 32	2967.5	-40.27	137.58
66.97	9 52 29	4234.71	-21.05	181.54	271.59	60.27	11 3 4	3234.7	-31.40	157.33
66.97	9 52 29	4234.71	-21.05	181.54	271.59	60.27	11 3 4	3234.7	-31.40	157.33
66.97	9 52 29	4234.71	-21.05	181.54	271.59	60.27	11 3 4	3234.7	-31.40	157.33
66.97	9 52 29	4234.71	-21.05	181.54	271.59	60.27	11 3 4	3234.7	-31.40	157.33
66.97	9 52 29	4234.71	-21.05	181.54	271.59	60.27	11 3 4	3234.7	-31.40	157.33

DIFFERENTIAL CORRECTIONS

TDE -.4883 TRA -.9759 TC3 .3084 BAU .5028
RDE .7217 RRA 1.0057 RC3-1.9769 FAU .24091
FDE 5.4077 FRA 5.5100 FC-11.0960 BSP 5213
BDE .8714 BRA 1.4013 BC3 2.0008 FSP 2150

MID-COURSE EXECUTION ACCURACY

SGT 1737.8 SGR 2556.8 SG3 1294.2
RRT -.8290 RRF .9933 RTF -.8252
SGB 3091.5 R23 -.1698 R13 .9787
SG1 2976.6 SG2 834.9 THA 122.24

ORBIT DETERMINATION ACCURACY

ST 40.1 SR 53.7 SS 109.6
CRT -.9864 CRS -.9933 CST .9617
LSA 128.0 MSA 11.1 SSA 1.0
EL1 66.8 EL2 5.3 ALF 126.66

LAUNCH DATE JUL 6 1973 FLIGHT TIME 206.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC — DISTANCE 498.886 — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.882 GAL -3.53 AZL 87.09 HCA 159.32 SMA 199.91 ECC .24652 INC 2.9144 V1 29.291
RP 232.51 LAP 1.03 LOP 83.13 VP 21.856 GAP 10.80 AZP 92.73 TAL 342.01 TAP 141.33 RCA 150.63 APO 249.20 V2 23.650
RC 164.150 GL 22.51 GP -28.93 ZAL 117.51 ZAP 125.96 ETS 205.70 ZAE 148.28 ETE 255.02 ZAC 56.46 ETC 285.90 LVI 9.13

PLANETOCENTRIC CONIC

C3 18.992 VHL 4.358 DLA 37.27 RAL 33.07 RAD 6642.4 VEL 11.790 PTH 6.81 VHP 3.300 DPA -14.16 RAP 43.57 ECC 1.3126

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 38 33	3931.52	-44.75	168.68	284.05	71.79	12 44 5	2931.5	-47.04	133.84
60.00	10 59 21	4036.56	-33.34	172.39	278.38	65.91	12 6 37	3036.6	-39.96	143.43
64.63	9 37 22	4273.98	-21.71	185.12	271.55	58.92	10 48 36	3274.0	-32.54	160.95
64.63	9 37 22	4273.98	-21.71	185.12	271.55	58.92	10 48 36	3274.0	-32.54	160.95
64.63	9 37 22	4273.98	-21.71	185.12	271.55	58.92	10 48 36	3274.0	-32.54	160.95
64.63	9 37 22	4273.98	-21.71	185.12	271.55	58.92	10 48 36	3274.0	-32.54	160.95
64.63	9 37 22	4273.98	-21.71	185.12	271.55	58.92	10 48 36	3274.0	-32.54	160.95

DIFFERENTIAL CORRECTIONS

TDE -.4696 TRA -.9275 TC3 .2482 BAU .5355
RDE .8372 RRA 1.0460 RC3-2.0943 FAU .24303
FDE 5.6873 FRA 5.4125 FC-11.0782 BSP 5397
BDE .9599 BRA 1.3980 BC3 2.1089 FSP 2175

MID-COURSE EXECUTION ACCURACY

SGT 1666.3 SGR 2744.1 SG3 1307.8
RRT -.8142 RRF .9946 RTF -.8302
SGB 3210.4 R23 -.1504 R13 .9831
SG1 3093.6 SG2 858.1 THA 118.72

ORBIT DETERMINATION ACCURACY

ST 38.5 SR 60.9 SS 113.3
CRT -.9794 CRS -.9954 CST .9563
LSA 133.8 MSA 11.3 SSA .8
EL1 71.7 EL2 6.6 ALF 122.06

LAUNCH DATE JUL 6 1973 FLIGHT TIME 208.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC — DISTANCE 502.658 — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.869 GAL -3.51 AZL 86.86 HCA 160.32 SMA 199.66 ECC .24551 INC 3.1354 V1 29.291
RP 232.89 LAP 1.06 LOP 84.13 VP 21.795 GAP 10.55 AZP 92.95 TAL 342.03 TAP 142.34 RCA 150.64 APO 248.67 V2 23.612
RC 167.073 GL 24.14 GP -30.52 ZAL 117.17 ZAP 124.09 ETS 205.60 ZAE 146.38 ETE 253.08 ZAC 55.04 ETC 286.23 LVI 10.55

PLANETOCENTRIC CONIC

C3 19.257 VHL 4.388 DLA 38.79 RAL 32.34 RAD 6642.5 VEL 11.801 PTH 6.82 VHP 3.290 DPA -15.82 RAP 43.71 ECC 1.3189

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 22 52	3978.03	-43.68	172.64	284.28	68.88	12 29 10	2978.0	-47.40	136.27
60.00	10 26 11	4130.33	-30.55	178.77	276.83	62.32	11 35 1	3130.3	-39.03	151.22
62.26	9 22 36	4311.63	-22.38	188.67	271.55	57.45	10 34 28	3311.6	-33.73	164.56
62.26	9 22 36	4311.63	-22.38	188.67	271.55	57.45	10 34 28	3311.6	-33.73	164.56
62.26	9 22 36	4311.63	-22.38	188.67	271.55	57.45	10 34 28	3311.6	-33.73	164.56
62.26	9 22 36	4311.63	-22.38	188.67	271.55	57.45	10 34 28	3311.6	-33.73	164.56
62.26	9 22 36	4311.63	-22.38	188.67	271.55	57.45	10 34 28	3311.6	-33.73	164.56

DIFFERENTIAL CORRECTIONS

TDE -.4460 TRA -.8766 TC3 .1838 BAU .5707
RDE .9674 RRA 1.0846 RC3-2.2091 FAU .24378
FDE 5.9630 FRA 5.2725 FC-10.9598 BSP 5602
BDE 1.0653 BRA 1.3946 BC3 2.2167 FSP 2188

MID-COURSE EXECUTION ACCURACY

SGT 1588.0 SGR 2942.1 SG3 1313.6
RRT -.7955 RRF .9956 RTF -.7893
SGB 3343.3 R23 -.1310 R13 .9869
SG1 3226.0 SG2 877.6 THA 115.23

ORBIT DETERMINATION ACCURACY

ST 36.5 SR 68.8 SS 117.0
CRT -.9707 CRS -.9968 CST .9490
LSA 140.1 MSA 11.5 SSA .8
EL1 77.5 EL2 7.8 ALF 117.54

LAUNCH DATE JUL 6 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 506.433 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.857 GAL -3.50 AZL 86.62 HCA 161.31 SMA 199.42 ECC .24456 INC 3.3783 V1 29.291
RP 233.25 LAP 1.08 LOP 85.13 VP 21.735 GAP 10.29 AZP 93.20 TAL 342.04 TAP 143.35 RCA 150.65 APO 248.18 V2 23.573
RC 170.803 GL 25.88 GP -32.20 ZAL 116.79 ZAP 122.17 ETS 205.46 ZAE 144.36 ETE 251.28 ZAC 53.54 ETC 286.60 LVI 12.09

PLANETOCENTRIC CONIC

C3 19.603 VHL 4.428 DLA 40.42 RAL 31.54 RAD 6642.7 VEL 11.816 PTH 6.84 VHP 3.290 DPA -17.56 RAP 43.88 ECC 1.3226

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 4 20	4031.89	-42.27	177.04	284.26	65.73	12 11 32	3031.9	-47.57	143.47
59.82	9 8 4	4348.00	-23.04	192.20	271.59	55.82	10 20 32	3348.0	-34.98	168.20
59.82	9 8 4	4348.00	-23.04	192.20	271.59	55.82	10 20 32	3348.0	-34.98	168.20
59.82	9 8 4	4348.00	-23.04	192.20	271.59	55.82	10 20 32	3348.0	-34.98	168.20
59.82	9 8 4	4348.00	-23.04	192.20	271.59	55.82	10 20 32	3348.0	-34.98	168.20
59.82	9 8 4	4348.00	-23.04	192.20	271.59	55.82	10 20 32	3348.0	-34.98	168.20
59.82	9 8 4	4348.00	-23.04	192.20	271.59	55.82	10 20 32	3348.0	-34.98	168.20

DIFFERENTIAL CORRECTIONS

TDE -.4157 TRA -.8226 TC3 .1204 BAU .6094
RDE 1.1143 RRA 1.1199 RC3-2.3221 FAU .24333
FDE 6.2271 FRA 5.0839 FC-10.7463 BSP 5816
BDE 1.1693 BRA 1.3895 BC3 2.3282 FSP 2182

MID-COURSE EXECUTION ACCURACY

SGT 1502.0 SGR 3151.4 SG3 1310.8
RRT -.7726 RRF .9964 RTF -.7651
SGB 3491.0 R23 -.1120 R13 .9901
SG1 3375.6 SG2 890.4 THA 111.81

ORBIT DETERMINATION ACCURACY

ST 34.1 SR 77.6 SS 120.4
CRT -.9590 CRS -.9978 CST .9386
LSA 146.8 MSA 11.7 SSA .7
EL1 84.3 EL2 8.9 ALF 113.13

LAUNCH DATE JUL 6 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 510.209 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.845 GAL -3.49 AZL 86.35 HCA 162.30 SMA 199.19 ECC .24369 INC 3.6465 V1 29.291
RP 233.62 LAP 1.11 LOP 86.13 VP 21.677 GAP 10.04 AZP 93.47 TAL 342.04 TAP 144.35 RCA 150.65 APO 247.73 V2 23.536
RC 172.941 GL 27.76 GP -33.97 ZAL 116.36 ZAP 120.23 ETS 205.27 ZAE 142.23 ETE 249.60 ZAC 51.96 ETC 287.03 LVI 13.65

PLANETOCENTRIC CONIC

C3 20.047 VHL 4.477 DLA 42.18 RAL 30.65 RAD 6642.9 VEL 11.835 PTH 6.85 VHP 3.300 DPA -19.40 RAP 44.07 ECC 1.3299

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 41 44	4095.85	-40.36	181.98	283.80	62.29	11 50 0	3095.8	-47.45	149.65
57.30	8 53 35	4383.59	-23.70	195.78	271.69	54.03	10 6 39	3383.6	-36.27	171.93
57.30	8 53 35	4383.59	-23.70	195.78	271.69	54.03	10 6 39	3383.6	-36.27	171.93
57.30	8 53 35	4383.59	-23.70	195.78	271.69	54.03	10 6 39	3383.6	-36.27	171.93
57.30	8 53 35	4383.59	-23.70	195.78	271.69	54.03	10 6 39	3383.6	-36.27	171.93
57.30	8 53 35	4383.59	-23.70	195.78	271.69	54.03	10 6 39	3383.6	-36.27	171.93
57.30	8 53 35	4383.59	-23.70	195.78	271.69	54.03	10 6 39	3383.6	-36.27	171.93

DIFFERENTIAL CORRECTIONS

TDE -.3867 TRA -.7738 TC3 .0397 BAU .6493
RDE 1.2848 RRA 1.1541 RC3-2.4224 FAU .24067
FDE 6.4914 FRA 4.8605 FC-10.3934 BSP 6128
BDE 1.3418 BRA 1.3895 BC3 2.4227 FSP 2175

MID-COURSE EXECUTION ACCURACY

SGT 1425.4 SGR 3373.4 SG3 1299.1
RRT -.7391 RRF .9971 RTF -.7306
SGB 3662.1 R23 -.0956 R13 .9925
SG1 3546.4 SG2 913.3 THA 108.62

ORBIT DETERMINATION ACCURACY

ST 31.8 SR 87.5 SS 123.8
CRT -.9448 CRS -.9985 CST .9258
LSA 154.5 MSA 11.9 SSA .6
EL1 92.6 EL2 9.9 ALF 109.19

LAUNCH DATE JUL 6 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 513.987 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.835 GAL -3.48 AZL 86.06 HCA 163.29 SMA 198.98 ECC .24287 INC 3.9445 V1 29.291
RP 233.99 LAP 1.13 LOP 87.12 VP 21.620 GAP 9.79 AZP 93.78 TAL 342.04 TAP 145.34 RCA 150.66 APO 247.31 V2 23.498
RC 175.886 GL 29.78 GP -35.84 ZAL 115.88 ZAP 118.24 ETS 205.03 ZAE 139.99 ETE 248.02 ZAC 50.30 ETC 287.51 LVI 15.33

PLANETOCENTRIC CONIC

C3 20.611 VHL 4.540 DLA 44.06 RAL 29.65 RAD 6643.1 VEL 11.858 PTH 6.87 VHP 3.324 DPA -21.34 RAP 44.30 ECC 1.3392

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 12 39	4175.38	-37.68	187.71	282.57	58.47	11 22 15	3175.4	-46.79	157.22
54.68	8 39 1	4418.69	-24.32	199.42	271.82	52.05	9 52 39	3418.7	-37.60	175.80
54.68	8 39 1	4418.69	-24.32	199.42	271.82	52.05	9 52 39	3418.7	-37.60	175.80
54.68	8 39 1	4418.69	-24.32	199.42	271.82	52.05	9 52 39	3418.7	-37.60	175.80
54.68	8 39 1	4418.69	-24.32	199.42	271.82	52.05	9 52 39	3418.7	-37.60	175.80
54.68	8 39 1	4418.69	-24.32	199.42	271.82	52.05	9 52 39	3418.7	-37.60	175.80
54.68	8 39 1	4418.69	-24.32	199.42	271.82	52.05	9 52 39	3418.7	-37.60	175.80

DIFFERENTIAL CORRECTIONS

TDE -.3478 TRA -.7212 TC3 -.0354 BAU .6931
RDE 1.4785 RRA 1.1817 RC3-2.5150 FAU .23650
FDE 6.7289 FRA 4.5829 FC3-9.9338 BSP 6436
BDE 1.5188 BRA 1.3844 BC3 2.5152 FSP 2142

MID-COURSE EXECUTION ACCURACY

SGT 1340.9 SGR 3606.0 SG3 1276.4
RRT -.6979 RRF .9976 RTF -.6982
SGB 3847.2 R23 -.0799 R13 .9945
SG1 3733.8 SG2 927.5 THA 105.53

ORBIT DETERMINATION ACCURACY

ST 29.0 SR 98.4 SS 126.8
CRT -.9237 CRS -.9990 CST .9098
LSA 162.7 MSA 12.2 SSA .6
EL1 102.0 EL2 10.7 ALF 105.42

LAUNCH DATE JUL 6 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 517.767 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.825 GAL -3.47 AZL 85.72 HCA 164.28 SMA 198.79 ECC .24212 INC 4.2777 V1 29.291
RP 234.35 LAP 1.16 LOP 88.11 VP 21.564 GAP 9.55 AZP 94.12 TAL 342.04 TAP 146.32 RCA 150.66 APO 246.92 V2 23.461
RC 178.836 GL 31.96 GP -37.80 ZAL 115.35 ZAP 116.23 ETS 204.73 ZAE 137.64 ETE 246.54 ZAC 48.55 ETC 288.05 LVI 17.10

PLANETOCENTRIC CONIC

C3 21.322 VHL 4.618 DLA 46.09 RAL 28.52 RAD 6643.4 VEL 11.888 PTH 6.90 VHP 3.362 DPA -23.37 RAP 44.57 ECC 1.3509

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 30 11	4286.54	-33.46	194.98	279.66	53.96	10 41 38	3286.5	-45.00	167.33
51.95	8 24 11	4453.67	-24.90	203.16	271.99	49.87	9 38 24	3453.7	-38.95	179.86
51.95	8 24 11	4453.67	-24.90	203.16	271.99	49.87	9 38 24	3453.7	-38.95	179.86
51.95	8 24 11	4453.67	-24.90	203.16	271.99	49.87	9 38 24	3453.7	-38.95	179.86
51.95	8 24 11	4453.67	-24.90	203.16	271.99	49.87	9 38 24	3453.7	-38.95	179.86
51.95	8 24 11	4453.67	-24.90	203.16	271.99	49.87	9 38 24	3453.7	-38.95	179.86
51.95	8 24 11	4453.67	-24.90	203.16	271.99	49.87	9 38 24	3453.7	-38.95	179.86

DIFFERENTIAL CORRECTIONS

TDE -.3006 TRA -.6671 TC3 -.1108 BAU .7403
RDE 1.7002 RRA 1.1999 RC3-2.5947 FAU .23052
FDE 6.9337 FRA 4.2482 FC3-9.3596 BSP 6762
BDE 1.7266 BRA 1.3729 BC3 2.5971 FSP 2087

MID-COURSE EXECUTION ACCURACY

SGT 1254.7 SGR 3847.3 SG3 1241.6
RRT -.6431 RRF .9981 RTF -.6321
SGB 4046.7 R23 -.0657 R13 .9960
SG1 3936.2 SG2 939.2 THA 102.57

ORBIT DETERMINATION ACCURACY

ST 25.9 SR 110.3 SS 129.3
CRT -.8914 CRS -.9993 CST .8741
LSA 171.5 MSA 12.5 SSA .5
EL1 112.8 EL2 11.5 ALF 101.92

LAUNCH DATE JUL 6 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 521.548 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.815 GAL -3.47 AZL 85.35 HCA 165.26 SMA 198.61 ECC .24142 INC 4.6529 V1 29.291
RP 234.71 LAP 1.18 LOP 89.09 VP 21.510 GAP 9.30 AZP 94.50 TAL 342.03 TAP 147.29 RCA 150.66 APO 246.56 V2 23.424
RC 181.791 GL 34.31 GP -39.87 ZAL 114.74 ZAP 114.19 ETS 204.35 ZAE 135.20 ETE 245.12 ZAC 46.73 ETC 288.67 LVI 18.97

PLANETOCENTRIC CONIC

C3 22.221 VHL 4.714 DLA 48.28 RAL 27.21 RAD 6643.8 VEL 11.925 PTH 6.93 VHP 3.417 DPA -25.49 RAP 44.89 ECC 1.3657

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.09	8 8 55	4488.83	-25.40	207.03	272.18	47.46	9 23 44	3488.8	-40.31	184.18
49.09	8 8 55	4488.83	-25.40	207.03	272.18	47.46	9 23 44	3488.8	-40.31	184.18
49.09	8 8 55	4488.83	-25.40	207.03	272.18	47.46	9 23 44	3488.8	-40.31	184.18
49.09	8 8 55	4488.83	-25.40	207.03	272.18	47.46	9 23 44	3488.8	-40.31	184.18
49.09	8 8 55	4488.83	-25.40	207.03	272.18	47.46	9 23 44	3488.8	-40.31	184.18
49.09	8 8 55	4488.83	-25.40	207.03	272.18	47.46	9 23 44	3488.8	-40.31	184.18
49.09	8 8 55	4488.83	-25.40	207.03	272.18	47.46	9 23 44	3488.8	-40.31	184.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2440 TRA -.6138 TC3 -.1848 BAU .7911 SGT 1172.5 SGR 4098.1 SG3 1194.5 ST 22.4 SR 123.5 SS 131.2
RDE 1.9567 RRA 1.2078 RC3-2.6565 FAU .22254 RRT -.5705 RRF .9985 RTF -.5582 CRT -.8374 CRS -.9995 CST .8204
FDE 7.0999 FRA 3.8656 FC3-8.6703 BSP 7110 SGB 4262.6 R23 -.0533 R13 .9971 LSA 181.1 MSA 12.8 SSA .4
BDE 1.9719 BRA 1.3548 BC3 2.6629 FSP 2009 SG1 4155.4 SG2 949.7 THA 99.79 EL1 124.9 EL2 12.1 ALF 98.73

LAUNCH DATE JUL 6 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 525.330 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.807 GAL -3.46 AZL 84.92 HCA 166.23 SMA 198.44 ECC .24078 INC 5.0792 V1 29.291
RP 235.06 LAP 1.21 LOP 90.08 VP 21.457 GAP 9.05 AZP 94.93 TAL 342.02 TAP 148.25 RCA 150.66 APO 246.22 V2 23.387
RC 184.750 GL 36.86 GP -42.02 ZAL 114.05 ZAP 112.15 ETS 203.90 ZAE 132.67 ETE 243.77 ZAC 44.84 ETC 289.38 LVI 20.93

PLANETOCENTRIC CONIC

C3 23.358 VHL 4.833 DLA 50.63 RAL 25.69 RAD 6644.3 VEL 11.973 PTH 6.97 VHP 3.493 DPA -27.71 RAP 45.27 ECC 1.3844

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.08	7 53 0	4524.59	-25.80	211.04	272.35	44.79	9 8 24	3524.6	-41.64	188.81
46.08	7 53 0	4524.59	-25.80	211.04	272.35	44.79	9 8 24	3524.6	-41.64	188.81
46.08	7 53 0	4524.59	-25.80	211.04	272.35	44.79	9 8 24	3524.6	-41.64	188.81
46.08	7 53 0	4524.59	-25.80	211.04	272.35	44.79	9 8 24	3524.6	-41.64	188.81
46.08	7 53 0	4524.59	-25.80	211.04	272.35	44.79	9 8 24	3524.6	-41.64	188.81
46.08	7 53 0	4524.59	-25.80	211.04	272.35	44.79	9 8 24	3524.6	-41.64	188.81
46.08	7 53 0	4524.59	-25.80	211.04	272.35	44.79	9 8 24	3524.6	-41.64	188.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1762 TRA -.5612 TC3 -.2578 BAU .8435 SGT 1098.1 SGR 4357.9 SG3 1134.7 ST 18.9 SR 138.1 SS 132.6
RDE 2.2590 RRA 1.2040 RC3-2.6888 FAU .21192 RRT -.4748 RRF .9988 RTF -.4611 CRT -.7390 CRS -.9997 CST .7219
FDE 7.2266 FRA 3.4440 FC3-7.8546 BSP 7522 SGB 4494.1 R23 -.0424 R13 .9980 LSA 192.0 MSA 13.1 SSA .4
BDE 2.2659 BRA 1.3284 BC3 2.7011 FSP 1919 SG1 4390.5 SG2 959.3 THA 97.17 EL1 138.9 EL2 12.7 ALF 95.82

LAUNCH DATE JUL 6 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 529.111 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.799 GAL -3.46 AZL 84.43 HCA 167.21 SMA 198.29 ECC .24019 INC 5.5675 V1 29.291
RP 235.42 LAP 1.23 LOP 91.05 VP 21.405 GAP 8.81 AZP 95.43 TAL 342.00 TAP 149.20 RCA 150.66 APO 245.91 V2 23.351
RC 187.714 GL 39.62 GP -44.27 ZAL 113.26 ZAP 110.09 ETS 203.35 ZAE 130.06 ETE 242.45 ZAC 42.88 ETC 290.20 LVI 22.97

PLANETOCENTRIC CONIC

C3 24.809 VHL 4.981 DLA 53.16 RAL 23.89 RAD 6644.9 VEL 12.033 PTH 7.02 VHP 3.594 DPA -30.00 RAP 45.73 ECC 1.4083

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.91	7 36 7	4561.40	-26.03	215.22	272.45	41.85	8 52 8	3561.4	-42.89	193.84
42.91	7 36 7	4561.40	-26.03	215.22	272.45	41.85	8 52 8	3561.4	-42.89	193.84
42.91	7 36 7	4561.40	-26.03	215.22	272.45	41.85	8 52 8	3561.4	-42.89	193.84
42.91	7 36 7	4561.40	-26.03	215.22	272.45	41.85	8 52 8	3561.4	-42.89	193.84
42.91	7 36 7	4561.40	-26.03	215.22	272.45	41.85	8 52 8	3561.4	-42.89	193.84
42.91	7 36 7	4561.40	-26.03	215.22	272.45	41.85	8 52 8	3561.4	-42.89	193.84
42.91	7 36 7	4561.40	-26.03	215.22	272.45	41.85	8 52 8	3561.4	-42.89	193.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0943 TRA -.5111 TC3 -.3262 BAU .9002 SGT 1038.7 SGR 4622.4 SG3 1061.3 ST 15.7 SR 154.1 SS 132.8
RDE 2.6119 RRA 1.1810 RC3-2.6945 FAU .19936 RRT -.3489 RRF .9990 RTF -.[illegible]38 CRT -.5431 CRS -.9998 CST .5257
FDE 7.2849 FRA 2.9781 FC3-6.9568 BSP 7939 SGB 4737.7 R23 -.0329 R13 .9986 LSA 203.6 MSA 13.4 SSA .3
BDE 2.6136 BRA 1.2868 BC3 2.7142 FSP 1801 SG1 4637.2 SG2 970.3 THA 94.69 EL1 154.3 EL2 13.1 ALF 93.19

LAUNCH DATE JUL 6 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 532.892 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.792 GAL -3.46 AZL 83.87 HCA 168.18 SMA 198.14 ECC .23965 INC 6.1326 V1 29.291
RP 235.77 LAP 1.25 LOP 92.03 VP 21.354 GAP 8.56 AZP 96.00 TAL 341.97 TAP 150.15 RCA 150.66 APO 245.63 V2 23.315
RC 190.680 GL 42.61 GP -46.60 ZAL 112.37 ZAP 108.05 ETS 202.71 ZAE 127.38 ETE 241.15 ZAC 40.86 ETC 291.13 LVI 25.10

PLANETOCENTRIC CONIC

C3 26.680 VHL 5.165 DLA 55.88 RAL 21.71 RAD 6645.7 VEL 12.109 PTH 7.08 VHP 3.725 DPA -32.37 RAP 46.26 ECC 1.4391

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.56	7 17 53	4599.76	-26.04	219.57	272.39	38.63	8 34 33	3599.8	-43.99	199.31
39.56	7 17 53	4599.76	-26.04	219.57	272.39	38.63	8 34 33	3599.8	-43.99	199.31
39.56	7 17 53	4599.76	-26.04	219.57	272.39	38.63	8 34 33	3599.8	-43.99	199.31
39.56	7 17 53	4599.76	-26.04	219.57	272.39	38.63	8 34 33	3599.8	-43.99	199.31
39.56	7 17 53	4599.76	-26.04	219.57	272.39	38.63	8 34 33	3599.8	-43.99	199.31
39.56	7 17 53	4599.76	-26.04	219.57	272.39	38.63	8 34 33	3599.8	-43.99	199.31
39.56	7 17 53	4599.76	-26.04	219.57	272.39	38.63	8 34 33	3599.8	-43.99	199.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0064 TRA -.4628 TC3 -.3853 BAU .9629 SGT 998.0 SGR 4887.0 SG3 974.4 ST 13.7 SR 171.2 SS 131.7
RDE 3.0268 RRA 1.1297 RC3-2.6719 FAU .18511 RRT -.1890 RRF .9992 RTF -.1726 CRT -.1690 CRS -.9999 CST .1523
FDE 7.2590 FRA 2.4700 FC3-6.0066 BSP 8329 SGB 4987.9 R23 -.0246 R13 .9991 LSA 216.0 MSA 13.7 SSA .2
BDE 3.0268 BRA 1.2209 BC3 2.6995 FSP 1652 SG1 4890.8 SG2 979.3 THA 92.30 EL1 171.3 EL2 13.5 ALF 90.78

LAUNCH DATE JUL 6 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 536.672 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.785 GAL -3.46 AZL 83.20 HCA 169.14 SMA 198.01 ECC .23915 INC 6.7951 V1 29.291
RP 236.12 LAP 1.28 LOP 93.01 VP 21.305 GAP 8.32 AZP 96.67 TAL 341.95 TAP 151.09 RCA 150.66 APO 245.37 V2 23.279
RC 193.649 GL 45.85 GP -49.81 ZAL 111.35 ZAP 106.02 ETS 201.95 ZAE 124.65 ETE 239.85 ZAC 38.80 ETC 292.20 LVI 27.30

PLANETOCENTRIC CONIC

C3 29.124 VHL 5.397 DLA 58.79 RAL 19.01 RAD 6646.7 VEL 12.209 PTH 7.16 VHP 3.893 DPA -34.80 RAP 46.89 ECC 1.4793

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.05	6 57 45	4640.23	-25.76	224.09	272.03	35.13	8 15 5	3640.2	-44.84	205.28
36.05	6 57 45	4640.23	-25.76	224.09	272.03	35.13	8 15 5	3640.2	-44.84	205.28
36.05	6 57 45	4640.23	-25.76	224.09	272.03	35.13	8 15 5	3640.2	-44.84	205.28
36.05	6 57 45	4640.23	-25.76	224.09	272.03	35.13	8 15 5	3640.2	-44.84	205.28
36.05	6 57 45	4640.23	-25.76	224.09	272.03	35.13	8 15 5	3640.2	-44.84	205.28
36.05	6 57 45	4640.23	-25.76	224.09	272.03	35.13	8 15 5	3640.2	-44.84	205.28
36.05	6 57 45	4640.23	-25.76	224.09	272.03	35.13	8 15 5	3640.2	-44.84	205.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1294 TRA -.4193 TC3 -.4358 BAU 1.0284 SGT 989.0 SGR 5153.1 SG3 875.8 ST 14.6 SR 190.1 SS 129.3
RDE 3.5275 RRA 1.0494 RC3-2.6050 FAU .16845 RRT -.0019 RRF .9994 RTF .0155 CRT .3145 CRS -.9999 CST -.3277
FDE 7.1483 FRA 1.9487 FC3-5.0072 BSP .8762 SGB 5247.1 R23 -.0175 R13 .9994 LSA 229.9 MSA 13.9 SSA .2
BDE 3.5299 BRA 1.1301 BC3 2.6412 FSP 1490 SG1 5153.1 SG2 988.9 THA 90.02 EL1 190.1 EL2 13.9 ALF 88.61

LAUNCH DATE JUL 6 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 540.450 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.779 GAL -3.46 AZL 82.42 HCA 170.10 SMA 197.89 ECC .23871 INC 7.5826 V1 29.291
RP 236.46 LAP 1.30 LOP 93.98 VP 21.257 GAP 8.08 AZP 97.47 TAL 341.92 TAP 152.02 RCA 150.65 APO 245.13 V2 23.244
RC 196.619 GL 49.36 GP -51.46 ZAL 110.20 ZAP 104.03 ETS 201.07 ZAE 121.90 ETE 238.53 ZAC 36.71 ETC 293.42 LVI 29.55

PLANETOCENTRIC CONIC

C3 32.375 VHL 5.690 DLA 61.88 RAL 15.57 RAD 6647.9 VEL 12.341 PTH 7.27 VHP 4.111 DPA -37.28 RAP 47.61 ECC 1.5328

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.36	6 34 47	4683.67	-25.08	228.73	271.10	31.36	7 52 51	3683.7	-45.32	211.76
32.36	6 34 47	4683.67	-25.08	228.73	271.10	31.36	7 52 51	3683.7	-45.32	211.76
32.36	6 34 47	4683.67	-25.08	228.73	271.10	31.36	7 52 51	3683.7	-45.32	211.76
32.36	6 34 47	4683.67	-25.08	228.73	271.10	31.36	7 52 51	3683.7	-45.32	211.76
32.36	6 34 47	4683.67	-25.08	228.73	271.10	31.36	7 52 51	3683.7	-45.32	211.76
32.36	6 34 47	4683.67	-25.08	228.73	271.10	31.36	7 52 51	3683.7	-45.32	211.76
32.36	6 34 47	4683.67	-25.08	228.73	271.10	31.36	7 52 51	3683.7	-45.32	211.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .2824 TRA -.3813 TC3 -.4726 BAU 1.0994 SGT 1016.8 SGR 5415.1 SG3 766.5 ST 18.8 SR 210.3 SS 124.9
RDE 4.1340 RRA .9276 RC3-2.4958 FAU .15000 RRT .1992 RRF .9995 RTF .2173 CRT .6588 CRS -.9999 CST -.6675
FDE 6.9245 FRA 1.4235 FC3-4.0111 BSP .9211 SGB 5509.7 R23 -.0115 R13 .9996 LSA 244.9 MSA 14.1 SSA .1
BDE 4.1436 BRA 1.0030 BC3 2.5401 FSP 1311 SG1 5419.0 SG2 995.7 THA 87.78 EL1 210.7 EL2 14.1 ALF 86.62

LAUNCH DATE JUL 6 1973 FLIGHT TIME 230.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 544.225 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.773 GAL -3.46 AZL 81.47 HCA 171.06 SMA 197.78 ECC .23830 INC 8.5342 V1 29.291
RP 236.81 LAP 1.32 LOP 94.94 VP 21.210 GAP 7.84 AZP 98.43 TAL 341.88 TAP 152.94 RCA 150.65 APO 244.92 V2 23.209
RC 199.589 GL 53.16 GP -53.95 ZAL 108.90 ZAP 102.09 ETS 200.04 ZAE 119.14 ETE 237.15 ZAC 34.63 ETC 294.81 LVI 31.83

PLANETOCENTRIC CONIC

C3 36.796 VHL 6.066 DLA 65.13 RAL 11.05 RAD 6649.5 VEL 12.517 PTH 7.40 VHP 4.391 DPA -39.76 RAP 48.44 ECC 1.6056

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.53	6 7 41	4730.88	-23.90	233.44	269.20	27.39	7 26 31	3730.9	-45.26	218.66
28.53	6 7 41	4730.88	-23.90	233.44	269.20	27.39	7 26 31	3730.9	-45.26	218.66
28.53	6 7 41	4730.88	-23.90	233.44	269.20	27.39	7 26 31	3730.9	-45.26	218.66
28.53	6 7 41	4730.88	-23.90	233.44	269.20	27.39	7 26 31	3730.9	-45.26	218.66
28.53	6 7 41	4730.88	-23.90	233.44	269.20	27.39	7 26 31	3730.9	-45.26	218.66
28.53	6 7 41	4730.88	-23.90	233.44	269.20	27.39	7 26 31	3730.9	-45.26	218.66
28.53	6 7 41	4730.88	-23.90	233.44	269.20	27.39	7 26 31	3730.9	-45.26	218.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4700 TRA -.3538 TC3 -.4957 BAU 1.1779 SGT 1090.9 SGR 5669.7 SG3 649.1 ST 25.2 SR 231.8 SS 118.2
RDE 4.8771 RRA .7514 RC3-2.3428 FAU .13009 RRT .3901 RRF .9996 RTF .0290 CRT .8240 CRS -.9999 CST -.8298
FDE 6.5632 FRA .9149 FC3-3.0608 BSP .9681 SGB 5773.7 R23 -.0070 R13 .9998 LSA 261.0 MSA 14.2 SSA .1
BDE 4.8997 BRA .8306 BC3 2.3944 FSP 1121 SG1 5686.2 SG2 1001.6 THA 85.57 EL1 232.7 EL2 14.2 ALF 84.86

LAUNCH DATE JUL 6 1973 FLIGHT TIME 272.00 ARRIVAL DATE APR 4 1974

HELIOCENTRIC CONIC DISTANCE 624.161 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.743 GAL -3.97 AZL 98.82 HCA 191.04 SMA 197.21 ECC .23843 INC 8.8160 V1 29.291
RP 243.12 LAP 1.68 LOP 114.70 VP 20.465 GAP 3.04 AZP 81.34 TAL 339.17 TAP 170.20 RCA 150.19 APO 244.23 V2 22.573
RC 260.356 GL -53.22 GP 50.44 ZAL 111.13 ZAP 83.73 ETS 189.99 ZAE 105.79 ETE 163.39 ZAC 137.87 ETC 291.39 LVI -72.24

PLANETOCENTRIC CONIC

C3 39.071 VHL 6.251 DLA -33.38 RAL 63.06 RAD 6650.3 VEL 12.607 PTH 7.46 VHP 3.636 DPA 49.00 RAP 345.25 ECC 1.6430

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	19 1 41	2592.21	-11.97	70.40	291.26	136.40	19 44 53	1592.2	6.39	54.59
60.00	20 36 55	2338.70	-4.03	55.12	298.79	130.13	21 15 54	1338.7	12.01	37.08
70.00	23 9 47	1887.87	7.81	27.49	307.60	123.36	23 41 15	887.9	20.69	6.57
71.48	0 17 46	1691.52	13.69	15.99	311.35	120.74	0 45 58	691.5	25.11	353.60
71.48	0 17 46	1691.52	13.69	15.99	311.35	120.74	0 45 58	691.5	25.11	353.60
71.48	0 17 46	1691.52	13.69	15.99	311.35	120.74	0 45 58	691.5	25.11	353.60
110.00	4 13 9	6222.72	7.81	294.31	307.60	123.36	5 56 52	5222.7	20.69	273.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7235 TRA 3.5609 TC3-2.2285 BAU 1.6263 SGT 5053.3 SGR 5688.9 SG3 960.0 ST 98.5 SR 83.9 SS 48.5
RDE .8584 RRA-4.4960 RC3 2.1742 FAU .20856 RRT -.9777 RRF -.9985 RTF .9766 CRT -.9033 CRS .9972 CST -.8687
FDE-1.3514 FRA 8.5728 FC3-4.6212 BSP .12959 SGB 7609.1 R23 .0913 R13 -.9944 LSA 134.5 MSA 31.8 SSA .3
BDE 1.9254 BRA 5.7353 BC3 3.1135 FSP 1733 SG1 7567.1 SG2 798.1 THA 131.54 EL1 126.3 EL2 28.1 ALF 140.03

LAUNCH DATE JUL 6 1973 FLIGHT TIME 274.00 ARRIVAL DATE APR 6 1974

DISTANCE 627.925

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.745 GAL -4.00 AZL 98.21 HCA 191.95 SMA 197.24 ECC .23870 INC 8.2087 V1 29.291
RP 243.37 LAP 1.69 LOP 115.62 VP 20.440 GAP 2.81 AZP 81.97 TAL 339.01 TAP 170.96 RCA 150.16 APO 244.32 V2 22.548
RC 263.112 GL -50.86 GP 48.45 ZAL 112.20 ZAP 82.51 ETS 190.77 ZAE 105.32 ETE 165.19 ZAC 136.10 ETC 290.65 LVI -70.50

PLANETOCENTRIC CONIC

C3 36.155 VHL 6.013 DLA -31.18 RAL 62.06 RAD 6649.3 VEL 12.492 PTH 7.38 VHP 3.461 DPA 47.21 RAP 346.66 ECC 1.5950

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 43 55	2626.28	-13.65	71.90	288.45	136.04	19 27 42	1626.3	4.69	56.03
60.00	20 11 9	2394.16	-6.45	57.79	295.24	129.87	20 51 4	1394.2	9.63	39.83
70.00	22 13 35	2033.87	2.28	35.17	301.81	124.09	22 47 29	1033.9	15.83	15.09
76.30	0 45 46	1572.26	13.50	6.79	308.66	118.37	1 11 58	572.3	24.01	344.02
76.30	0 45 46	1572.26	13.50	6.79	308.66	118.37	1 11 58	572.3	24.01	344.02
76.30	0 45 46	1572.26	13.50	6.79	308.66	118.37	1 11 58	572.3	24.01	344.02
110.00	3 16 57	1080.69	2.28	324.09	301.81	124.09	3 34 58	80.7	15.83	304.01

DIFFERENTIAL CORRECTIONS

TDE-1.6583 TRA 3.6065 TC3-2.4697 BAU 1.6123
RDE .7997 RRA-4.2510 RC3 2.2421 FAU .23009
FDE-1.4174 FRA 9.4096 FC3-5.5096 BSP 12837
BDE 1.8410 BRA 5.5748 BC3 3.3356 FSP 1927

MID-COURSE EXECUTION ACCURACY

SGT 5239.4 SGR 5501.5 SG3 1077.6
RRT -.9793 RRF -.9985 RTF .9780
SGB 7597.2 R23 .0959 R13 -.9939
SG1 7558.0 SG2 771.2 THA 133.57

ORBIT DETERMINATION ACCURACY

ST 99.5 SR 80.7 SS 51.2
CRT -.9105 CRS .9962 CST -.8713
LSA 134.4 MSA 31.0 SSA .3
EL1 125.3 EL2 26.5 ALF 141.51

LAUNCH DATE JUL 6 1973 FLIGHT TIME 276.00 ARRIVAL DATE APR 8 1974

DISTANCE 631.690

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.746 GAL -4.03 AZL 97.69 HCA 192.85 SMA 197.27 ECC .23899 INC 7.6872 V1 29.291
RP 243.62 LAP 1.71 LOP 116.53 VP 20.415 GAP 2.59 AZP 82.50 TAL 338.85 TAP 171.71 RCA 150.13 APO 244.42 V2 22.523
RC 265.850 GL -48.69 GP 46.52 ZAL 113.20 ZAP 81.25 ETS 191.49 ZAE 104.72 ETE 166.91 ZAC 134.38 ETC 290.00 LVI -68.79

PLANETOCENTRIC CONIC

C3 33.838 VHL 5.817 DLA -29.12 RAL 61.22 RAD 6648.5 VEL 12.399 PTH 7.31 VHP 3.318 DPA 45.45 RAP 347.90 ECC 1.5569

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 28 47	2657.76	-15.19	73.31	286.20	135.65	19 13 4	1657.8	3.11	57.35
60.00	19 50 5	2441.47	-8.51	60.09	292.46	129.54	20 30 46	1441.5	7.58	42.15
70.00	21 38 44	2121.89	-1.08	39.76	298.03	124.14	22 14 6	1121.9	12.71	20.01
80.00	0 14 10	1647.26	7.80	9.22	303.48	118.91	0 41 37	647.3	18.99	347.44
82.73	1 30 57	1400.90	13.19	353.86	306.34	116.21	1 54 18	400.9	22.86	330.81
100.00	2 57 1	1121.73	7.80	330.59	303.48	118.91	3 15 43	121.7	18.99	308.81
110.00	2 42 6	1168.71	-1.08	328.68	298.03	124.14	3 1 35	168.7	12.71	308.92

DIFFERENTIAL CORRECTIONS

TDE-1.5943 TRA 3.6637 TC3-2.7067 BAU 1.6021
RDE .7369 RRA-4.0275 RC3 2.2839 FAU .24986
FDE-1.4368 FRA10.1790 FC3-6.3926 BSP 12791
BDE 1.7563 BRA 5.4446 BC3 3.5416 FSP 2115

MID-COURSE EXECUTION ACCURACY

SGT 5426.5 SGR 5311.2 SG3 1187.9
RRT -.9807 RRF -.9984 RTF .9791
SGB 7593.1 R23 .1003 R13 -.9934
SG1 7556.5 SG2 745.0 THA 135.63

ORBIT DETERMINATION ACCURACY

ST 100.1 SR 77.3 SS 53.4
CRT -.9160 CRS .9950 CST -.8717
LSA 133.9 MSA 30.5 SSA .3
EL1 124.0 EL2 25.0 ALF 142.98

LAUNCH DATE JUL 6 1973 FLIGHT TIME 278.00 ARRIVAL DATE APR 10 1974

DISTANCE 635.452

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.748 GAL -4.07 AZL 97.23 HCA 193.76 SMA 197.31 ECC .23930 INC 7.2343 V1 29.291
RP 243.86 LAP 1.72 LOP 117.44 VP 20.392 GAP 2.36 AZP 82.97 TAL 338.69 TAP 172.45 RCA 150.09 APO 244.53 V2 22.499
RC 268.570 GL -46.68 GP 44.68 ZAL 114.13 ZAP 79.97 ETS 192.13 ZAE 104.03 ETE 168.53 ZAC 132.72 ETC 289.43 LVI -67.11

PLANETOCENTRIC CONIC

C3 31.971 VHL 5.654 DLA -27.21 RAL 60.52 RAD 6647.8 VEL 12.324 PTH 7.25 VHP 3.199 DPA 43.75 RAP 349.01 ECC 1.5262

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 15 40	2687.19	-16.61	74.65	284.37	135.25	19 0 27	1687.2	1.63	58.58
60.00	19 32 19	2483.32	-10.32	62.15	290.24	129.18	20 13 42	1483.3	5.76	44.18
70.00	21 12 15	2189.48	-3.66	43.30	295.21	123.98	21 48 44	1189.5	10.24	23.69
80.00	23 17 38	1796.95	2.80	17.52	299.22	119.74	23 47 35	796.9	14.69	356.48
90.00	1 20 1	1414.97	6.47	351.43	301.23	117.59	1 43 36	415.0	17.25	329.59
100.00	2 4 26	1271.43	2.80	338.88	299.22	119.74	2 25 37	271.4	14.69	317.84
110.00	2 15 37	1236.29	-3.66	332.22	295.21	123.98	2 36 13	236.3	10.24	312.61

DIFFERENTIAL CORRECTIONS

TDE-1.5303 TRA 3.7332 TC3-2.9368 BAU 1.5919
RDE .6642 RRA-3.8321 RC3 2.2906 FAU .26643
FDE-1.3858 FRA10.9088 FC3-7.2146 BSP 12909
BDE 1.6682 BRA 5.3499 BC3 3.7245 FSP 2326

MID-COURSE EXECUTION ACCURACY

SGT 5614.9 SGR 5121.2 SG3 1290.3
RRT -.9813 RRF -.9983 RTF .9796
SGB 7599.6 R23 .1056 R13 -.9927
SG1 7564.4 SG2 731.0 THA 137.68

ORBIT DETERMINATION ACCURACY

ST 100.5 SR 73.7 SS 55.2
CRT -.9183 CRS .9934 CST -.8671
LSA 132.9 MSA 30.5 SSA .4
EL1 122.3 EL2 24.0 ALF 144.47

LAUNCH DATE JUL 6 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 12 1974

DISTANCE 639.213

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.751 GAL -4.10 AZL 96.84 HCA 194.67 SMA 197.35 ECC .23964 INC 6.8371 V1 29.291
RP 244.10 LAP 1.73 LOP 118.36 VP 20.369 GAP 2.14 AZP 83.38 TAL 338.51 TAP 173.18 RCA 150.06 APO 244.65 V2 22.475
RC 271.273 GL -44.81 GP 42.90 ZAL 115.01 ZAP 78.68 ETS 192.72 ZAE 103.24 ETE 170.05 ZAC 131.13 ETC 288.92 LVI -65.49

PLANETOCENTRIC CONIC

C3 30.449 VHL 5.518 DLA -25.42 RAL 59.93 RAD 6647.2 VEL 12.263 PTH 7.21 VHP 3.101 DPA 42.10 RAP 349.99 ECC 1.5011

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 4 12	2714.90	-17.95	75.93	282.89	134.84	18 49 27	1714.9	.24	59.74
60.00	19 17 3	2521.16	-11.94	64.03	288.45	128.78	19 59 4	1521.2	4.10	46.00
70.00	20 50 43	2245.78	-5.80	46.26	293.00	123.72	21 28 8	1245.8	8.15	26.71
80.00	22 44 31	1889.57	-.33	22.60	296.39	119.86	23 16 1	889.6	11.83	1.86
90.00	0 34 29	1547.62	2.23	358.88	297.82	118.20	1 0 16	547.6	13.58	337.60
100.00	1 31 19	1364.05	-.33	343.97	296.39	119.86	1 54 3	364.0	11.83	323.23
110.00	1 54 5	1292.59	-5.80	335.17	293.00	123.72	2 15 37	292.6	8.15	315.63

DIFFERENTIAL CORRECTIONS

TDE-1.4708 TRA 3.8059 TC3-3.1641 BAU 1.5886
RDE .6005 RRA-3.6468 RC3 2.2842 FAU .28171
FDE-1.3143 FRA11.5579 FC3-8.0096 BSP 12983
BDE 1.5887 BRA 5.2711 BC3 3.9024 FSP 2514

MID-COURSE EXECUTION ACCURACY

SGT 5802.5 SGR 4931.5 SG3 1383.9
RRT -.9819 RRF -.9981 RTF .9801
SGB 7615.0 R23 .1103 R13 -.9920
SG1 7581.5 SG2 714.4 THA 139.72

ORBIT DETERMINATION ACCURACY

ST 100.8 SR 70.3 SS 56.6
CRT -.9210 CRS .9915 CST -.8627
LSA 131.8 MSA 30.5 SSA .4
EL1 120.8 EL2 22.9 ALF 145.91

LAUNCH DATE JUL 6 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 14 1974

HELIOCENTRIC CONIC DISTANCE 642.976 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.753 GAL -4.14 AZL 96.49 HCA 195.57 SMA 197.40 ECC .23999 INC 6.4858 V1 29.291
RP 244.34 LAP 1.74 LOP 119.27 VP 20.347 GAP 1.92 AZP 83.75 TAL 338.34 TAP 173.91 RCA 150.02 APO 244.77 V2 22.452
RC 273.957 GL -43.07 GP 41.21 ZAL 115.84 ZAP 77.38 ETS 193.24 ZAE 102.37 ETE 171.47 ZAC 129.60 ETC 288.48 LVI -63.91

PLANETOCENTRIC CONIC

C3 29.195 VHL 5.403 DLA -23.74 RAL 59.44 RAD 6646.7 VEL 12.212 PTH 7.17 VHP 3.020 DPA 40.50 RAP 350.87 ECC 1.4805

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 54 4	2741.10	-19.20	77.16	281.69	134.41	18 39 46	1741.1	-1.08	60.83
60.00	19 3 44	2555.86	-13.41	65.78	287.00	128.37	19 46 19	1555.9	2.58	47.66
70.00	20 32 34	2294.69	-7.64	48.85	291.25	123.39	21 10 48	1294.7	6.32	29.30
80.00	22 19 8	1961.15	-2.76	26.53	294.26	119.74	22 51 49	961.2	9.54	5.94
90.00	0 3 45	1636.43	-.63	3.83	295.44	118.27	0 31 1	636.4	10.97	342.81
100.00	1 5 86	1435.62	-2.76	347.90	294.26	119.74	1 29 51	435.6	9.54	327.31
110.00	1 35 56	1341.51	-7.64	337.76	291.25	123.39	1 58 17	341.5	6.32	318.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.4154 TRA 3.8799 TC3-3.3882 BAU 1.5930 SGT 5988.3 SGR 4742.9 SG3 1468.2 ST 101.0 SR 67.0 SS 57.6
RDE .5506 RRA-3.4646 RC3 2.2754 FAU .29675 RRT -.9830 RRF -.9979 RTF .9810 CRT -.9261 CRS .9892 CST -.8611
FDE-1.2476 FRA12.1033 FC3-8.7995 BSP 12980 SGB 7639.0 R23 .1131 R13 -.9915 LSA 130.8 MSA 30.2 SSA .4
BDE 1.5187 BRA 5.2016 BC3 4.0813 FSP 2654 SG1 7608.1 SG2 686.1 THA 141.73 EL1 119.3 EL2 21.4 ALF 147.25

LAUNCH DATE JUL 6 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 16 1974

HELIOCENTRIC CONIC DISTANCE 646.737 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.755 GAL -4.18 AZL 96.17 HCA 196.47 SMA 197.45 ECC .24036 INC 6.1729 V1 29.291
RP 244.56 LAP 1.75 LOP 120.17 VP 20.326 GAP 1.69 AZP 84.08 TAL 338.16 TAP 174.63 RCA 149.99 APO 244.90 V2 22.430
RC 276.623 GL -41.45 GP 39.59 ZAL 116.62 ZAP 76.08 ETS 193.71 ZAE 101.43 ETE 172.80 ZAC 128.13 ETC 288.08 LVI -62.40

PLANETOCENTRIC CONIC

C3 28.155 VHL 5.306 DLA -22.17 RAL 59.02 RAD 6646.3 VEL 12.170 PTH 7.13 VHP 2.952 DPA 38.97 RAP 351.66 ECC 1.4634

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 45 4	2765.99	-20.38	78.34	280.73	133.97	18 31 10	1766.0	-2.33	61.88
60.00	18 51 59	2588.05	-14.77	67.42	285.83	127.94	19 35 7	1588.0	1.16	49.20
70.00	20 16 55	2338.35	-9.27	51.18	289.84	123.02	20 55 53	1338.4	4.67	31.60
80.00	21 58 20	2020.96	-4.77	29.83	292.59	119.51	22 32 1	1021.0	7.59	9.30
90.00	23 35 46	1706.67	-2.89	7.75	293.63	118.14	24 4 13	706.7	8.82	346.85
100.00	0 45 7	1495.43	-4.77	351.20	292.59	119.51	1 10 3	495.4	7.59	330.67
110.00	1 20 17	1385.17	-9.27	340.10	289.84	123.02	1 43 22	385.2	4.67	320.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3605 TRA 3.9605 TC3-3.6040 BAU 1.5987 SGT 6173.4 SGR 4558.3 SG3 1543.5 ST 101.1 SR 63.8 SS 58.5
RDE .5017 RRA-3.2989 RC3 2.2475 FAU .30937 RRT -.9837 RRF -.9977 RTF .9816 CRT -.9304 CRS .9865 CST -.8579
FDE-1.1475 FRA12.5956 FC3-9.5129 BSP 13057 SGB 7673.9 R23 .1158 R13 -.9909 LSA 129.7 MSA 30.1 SSA .5
BDE 1.4501 BRA 5.1545 BC3 4.2473 FSP 2795 SG1 7645.3 SG2 662.3 THA 143.69 EL1 117.9 EL2 20.1 ALF 148.56

LAUNCH DATE JUL 6 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 18 1974

HELIOCENTRIC CONIC DISTANCE 650.497 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.758 GAL -4.22 AZL 95.89 HCA 197.38 SMA 197.50 ECC .24075 INC 6.5919 V1 29.291
RP 244.79 LAP 1.76 LOP 121.08 VP 20.306 GAP 1.47 AZP 84.38 TAL 337.97 TAP 175.35 RCA 149.95 APO 245.04 V2 22.407
RC 279.268 GL -39.94 GP 38.05 ZAL 117.36 ZAP 74.78 ETS 194.12 ZAE 100.43 ETE 174.03 ZAC 126.73 ETC 287.72 LVI -60.95

PLANETOCENTRIC CONIC

C3 27.286 VHL 5.224 DLA -20.69 RAL 58.66 RAD 6645.9 VEL 12.134 PTH 7.10 VHP 2.896 DPA 37.51 RAP 352.38 ECC 1.4491

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 35 50	2799.72	-21.50	79.49	279.95	133.53	18 23 29	1789.7	-3.52	62.87
60.00	18 41 31	2618.14	-16.02	68.98	284.89	127.49	19 25 9	1618.1	-.17	50.64
70.00	20 3 12	2378.01	-10.73	53.32	288.71	122.62	20 42 50	1378.0	3.16	33.68
80.00	21 40 39	2073.00	-6.51	32.71	291.26	119.20	22 15 12	1073.0	5.86	12.20
90.00	23 15 50	1765.99	-4.79	11.08	292.20	117.90	23 45 16	766.0	6.98	350.23
100.00	0 27 27	1547.47	-6.51	354.08	291.26	119.20	0 53 14	547.5	5.86	333.57
110.00	1 6 34	1424.83	-10.73	342.23	288.71	122.62	1 30 19	424.8	3.16	322.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3110 TRA 4.0402 TC3-3.8184 BAU 1.6099 SGT 6357.7 SGR 4378.0 SG3 1609.9 ST 101.3 SR 60.8 SS 59.2
RDE .4605 RRA-3.1416 RC3 2.2129 FAU .32088 RRT -.9843 RRF -.9974 RTF .9821 CRT -.9352 CRS .9832 CST -.8550
FDE-1.0431 FRA13.0122 FC-10.1809 BSP 13089 SGB 7719.3 R23 .1178 R13 -.9904 LSA 128.7 MSA 29.9 SSA .5
BDE 1.3895 BRA 5.1179 BC3 4.4133 FSP 2907 SG1 7692.8 SG2 638.8 THA 145.60 EL1 116.6 EL2 18.7 ALF 149.81

LAUNCH DATE JUL 6 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 20 1974

HELIOCENTRIC CONIC DISTANCE 654.256 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.761 GAL -4.26 AZL 95.64 HCA 198.28 SMA 197.55 ECC .24116 INC 5.6385 V1 29.291
RP 245.01 LAP 1.77 LOP 121.98 VP 20.287 GAP 1.25 AZP 84.64 TAL 337.78 TAP 176.06 RCA 149.91 APO 245.19 V2 22.386
RC 281.893 GL -38.53 GP 36.59 ZAL 118.06 ZAP 73.50 ETS 194.49 ZAE 99.39 ETE 175.16 ZAC 125.39 ETC 287.41 LVI -59.56

PLANETOCENTRIC CONIC

C3 26.558 VHL 5.153 DLA -19.29 RAL 58.37 RAD 6645.6 VEL 12.104 PTH 7.08 VHP 2.849 DPA 36.12 RAP 353.04 ECC 1.4371

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 29 43	2812.40	-22.56	80.61	279.34	133.07	18 16 36	1812.4	-4.66	63.82
60.00	18 32 8	2646.44	-17.19	70.46	284.14	127.03	19 16 14	1646.4	-1.41	51.99
70.00	19 51 2	2414.48	-12.06	55.30	287.79	122.20	20 31 16	1414.5	1.77	35.59
80.00	21 25 18	2119.44	-8.04	35.31	290.20	118.85	22 0 37	1119.4	4.31	14.77
90.00	22 58 46	1817.94	-6.44	14.01	291.07	117.60	23 29 4	817.9	5.33	353.16
100.00	0 12 6	1593.91	-8.04	356.68	290.20	118.85	0 38 40	593.9	4.31	336.14
110.00	0 54 24	1461.30	-12.06	344.22	287.79	122.20	1 18 45	461.3	1.77	324.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.2581 TRA 4.1275 TC3-4.0193 BAU 1.6207 SGT 6538.9 SGR 4201.6 SG3 1667.1 ST 101.2 SR 58.0 SS 59.7
RDE .4202 RRA-2.9969 RC3 2.1637 FAU .33002 RRT -.9848 RRF -.9970 RTF .9825 CRT -.9399 CRS .9791 CST -.8512
FDE -.9096 FRA13.3783 FC-10.7578 BSP 13223 SGB 7772.4 R23 .1193 R13 -.9899 LSA 127.6 MSA 29.9 SSA .5
BDE 1.3264 BRA 5.1007 BC3 4.5647 FSP 3022 SG1 7747.9 SG2 616.5 THA 147.44 EL1 115.4 EL2 17.4 ALF 150.99

LAUNCH DATE JUL 6 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 22 1974

HELIOCENTRIC CONIC DISTANCE 658.013 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.764 GAL -4.31 AZL 95.41 HCA 199.18 SMA 197.61 ECC .24159 INC 5.4084 V1 29.291
RP 245.22 LAP 1.77 LOP 122.89 VP 20.268 GAP 1.03 AZP 84.89 TAL 337.59 TAP 176.76 RCA 149.87 APO 245.34 V2 22.365
RC 284.497 GL -37.20 GP 35.19 ZAL 118.73 ZAP 72.23 ETS 194.81 ZAE 98.31 ETE 176.21 ZAC 124.11 ETC 287.13 LVI -58.23

PLANETOCENTRIC CONIC

C3 25.945 VHL 5.094 DLA -17.98 RAL 58.13 RAD 6645.4 VEL 12.079 PTH 7.06 VHP 2.811 DPA 34.79 RAP 353.64 ECC 1.4270

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 23 8	2834.11	-23.56	81.70	278.87	132.61	18 10 23	1834.1	-5.74	64.74
60.00	18 23 39	2673.20	-18.28	71.88	283.55	126.57	19 8 12	1673.2	-2.59	53.27
70.00	19 40 8	2448.34	-13.28	57.16	287.07	121.76	20 20 57	1448.3	.47	37.36
80.00	21 11 45	2161.61	-9.42	37.68	289.35	118.46	21 47 47	1161.6	2.89	17.09
90.00	22 43 51	1864.49	-7.89	16.65	290.17	117.24	23 14 56	864.5	3.85	355.78
100.00	23 54 37	1636.08	-9.42	359.05	289.35	118.46	24 21 53	636.1	2.89	338.46
110.00	0 43 31	1495.16	-13.28	346.08	287.07	121.76	1 8 26	495.2	.47	326.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.2095 TRA 4.2138 TC3-4.2174 BAU 1.6359 SGT 6718.8 SGR 4031.0 SG3 1716.2 ST 101.3 SR 55.3 SS 60.0
RDE .3866 RRA-2.8595 RC3 2.1109 FAU .33812 RRT -.9852 RRF -.9966 RTF .9830 CRT -.9451 CRS .9745 CST -.8479
FDE -.7776 FRA13.6785 FC-11.2823 BSP 13326 SGB 7835.3 R23 .1200 R13 -.9894 LSA 126.6 MSA 29.9 SSA .5
BDE 1.2698 BRA 5.0924 BC3 4.7162 FSP 3112 SG1 7812.7 SG2 594.6 THA 149.22 EL1 114.3 EL2 16.0 ALF 152.12

LAUNCH DATE JUL 6 1973 FLIGHT TIME 292.00 ARRIVAL DATE APR 24 1974

HELIOCENTRIC CONIC DISTANCE 661.768 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.767 GAL -4.35 AZL 95.20 HCA 200.07 SMA 197.66 ECC .24203 INC 5.1985 V1 29.291
RP 245.43 LAP 1.78 LOP 123.79 VP 20.251 GAP .81 AZP 85.12 TAL 337.39 TAP 177.46 RCA 149.82 APO 245.51 V2 22.344
RC 287.079 GL -35.95 GP 33.87 ZAL 119.38 ZAP 70.98 ETS 195.09 ZAE 97.20 ETE 177.18 ZAC 122.89 ETC 286.87 LVI -56.96

PLANETOCENTRIC CONIC

C3 25.430 VHL 5.043 DLA -16.74 RAL 57.93 RAD 6645.2 VEL 12.058 PTH 7.04 VHP 2.780 DPA 33.52 RAP 354.20 ECC 1.4185

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 17 10	2854.95	-24.52	82.76	278.52	132.14	18 4 44	1855.0	-6.79	65.62
60.00	18 15 57	2698.60	-19.30	73.24	283.09	126.09	19 0 56	1698.6	-3.70	54.48
70.00	19 30 18	2480.02	-14.41	58.92	286.50	121.31	20 11 38	1480.0	-.74	39.01
80.00	20 59 39	2200.37	-10.67	39.88	288.68	118.05	21 36 20	1200.4	1.58	19.22
90.00	22 30 38	1906.88	-9.21	19.07	289.45	116.86	23 2 25	906.9	2.49	358.15
100.00	23 42 31	1674.84	-10.67	1.25	288.68	118.05	24 10 26	674.8	1.58	340.59
110.00	0 33 41	1526.83	-14.41	347.84	286.50	121.31	0 59 8	526.8	-.74	327.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.1623 TRA 4.3024 TC3-4.4083 BAU 1.6532 SGT 6897.0 SGR 3866.1 SG3 1757.3 ST 101.3 SR 52.8 SS 60.3
RDE .3575 RRA-2.7307 RC3 2.0524 FAU .34477 RRT -.9855 RRF -.9962 RTF .9833 CRT -.9507 CRS .9690 CST -.8450
FDE -.6416 FRA13.9259 FC-11.7376 BSP 13451 SGB 7906.6 R23 .1200 R13 -.9890 LSA 125.7 MSA 29.8 SSA .6
BDE 1.2160 BRA 5.0959 BC3 4.8626 FSP 3189 SG1 7885.8 SG2 573.5 THA 150.91 EL1 113.3 EL2 14.6 ALF 153.18

LAUNCH DATE JUL 6 1973 FLIGHT TIME 294.00 ARRIVAL DATE APR 26 1974

HELIOCENTRIC CONIC DISTANCE 665.523 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.770 GAL -4.39 AZL 95.01 HCA 200.97 SMA 197.73 ECC .24249 INC 5.0063 V1 29.291
RP 245.63 LAP 1.79 LOP 124.69 VP 20.234 GAP .59 AZP 85.32 TAL 337.18 TAP 178.15 RCA 149.78 APO 245.67 V2 22.324
RC 289.637 GL -34.77 GP 32.61 ZAL 120.00 ZAP 69.75 ETS 195.33 ZAE 96.07 ETE 178.07 ZAC 121.73 ETC 286.65 LVI -55.75

PLANETOCENTRIC CONIC

C3 24.995 VHL 5.000 DLA -15.56 RAL 57.77 RAD 6645.0 VEL 12.040 PTH 7.03 VHP 2.755 DPA 32.33 RAP 354.73 ECC 1.4114

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 11 42	2874.99	-25.43	83.80	278.27	131.67	17 59 37	1875.0	-7.79	66.47
60.00	18 8 56	2722.79	-20.27	74.56	282.75	125.61	18 54 19	1722.8	-4.77	55.65
70.00	19 21 23	2509.83	-15.46	60.60	286.06	120.84	20 3 12	1509.8	-1.87	40.57
80.00	20 48 45	2236.35	-11.81	41.94	288.15	117.62	21 26 1	1236.3	.36	21.20
90.00	22 18 46	1945.94	-10.40	21.32	288.89	116.45	22 51 12	945.9	1.23	.33
100.00	23 31 37	1710.82	-11.81	3.30	288.15	117.62	24 0 8	710.8	.36	342.57
110.00	0 24 45	1556.64	-15.46	349.52	286.06	120.84	0 50 42	556.6	-1.87	329.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.1153 TRA 4.3928 TC3-4.5914 BAU 1.6722 SGT 7072.5 SGR 3707.1 SG3 1790.9 ST 101.4 SR 50.4 SS 60.5
RDE .3321 RRA-2.6097 RC3 1.9901 FAU .35015 RRT -.9858 RRF -.9957 RTF .9837 CRT -.9566 CRS .9627 CST -.8424
FDE -.5010 FRA14.1229 FC-12.1280 BSP 13593 SGB 7985.1 R23 .1190 R13 -.9886 LSA 124.9 MSA 29.8 SSA .6
BDE 1.1637 BRA 5.1095 BC3 5.0042 FSP 3253 SG1 7966.0 SG2 553.0 THA 152.53 EL1 112.4 EL2 13.2 ALF 154.18

LAUNCH DATE JUL 6 1973 FLIGHT TIME 296.00 ARRIVAL DATE APR 28 1974

HELIOCENTRIC CONIC DISTANCE 669.275 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.773 GAL -4.44 AZL 94.83 HCA 201.87 SMA 197.79 ECC .24296 INC 4.8294 V1 29.291
RP 245.83 LAP 1.80 LOP 125.59 VP 20.217 GAP .37 AZP 85.52 TAL 336.98 TAP 178.84 RCA 149.73 APO 245.85 V2 22.305
RC 292.172 GL -33.66 GP 31.41 ZAL 120.60 ZAP 68.55 ETS 195.54 ZAE 94.92 ETE 178.88 ZAC 120.62 ETC 286.44 LVI -54.58

PLANETOCENTRIC CONIC

C3 24.630 VHL 4.963 DLA -14.44 RAL 57.65 RAD 6644.8 VEL 12.025 PTH 7.01 VHP 2.735 DPA 31.19 RAP 355.22 ECC 1.4054

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 6 42	2894.30	-26.30	84.81	278.11	131.19	17 54 57	1894.3	-8.75	67.29
60.00	18 2 30	2745.91	-21.18	75.84	282.51	125.13	18 48 16	1745.9	-5.78	56.76
70.00	19 13 13	2538.03	-16.43	62.20	285.73	120.37	19 55 31	1538.0	-2.95	42.04
80.00	20 38 51	2270.01	-12.87	43.88	287.75	117.18	21 16 41	1270.0	-.78	23.05
90.00	22 8 2	1982.27	-11.49	23.43	288.46	116.02	22 41 4	982.3	.06	2.36
100.00	23 21 43	1744.48	-12.87	5.25	287.75	117.18	23 50 47	744.5	-.78	344.41
110.00	0 16 35	1584.84	-16.43	351.12	285.73	120.37	0 43 0	584.8	-2.95	330.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.0689 TRA 4.4856 TC3-4.7662 BAU 1.6923 SGT 7245.7 SGR 3553.7 SG3 1817.4 ST 101.4 SR 48.2 SS 60.7
RDE .3093 RRA-2.4968 RC3 1.9224 FAU .35389 RRT -.9859 RRF -.9951 RTF .9839 CRT -.9624 CRS .9553 CST -.8395
FDE -.3540 FRA14.2809 FC-12.4389 BSP 13759 SGB 8070.2 R23 .1178 R13 -.9882 LSA 124.1 MSA 29.8 SSA .6
BDE 1.1128 BRA 5.1337 BC3 5.1392 FSP 3308 SG1 8052.5 SG2 535.5 THA 154.07 EL1 111.7 EL2 11.9 ALF 155.14

LAUNCH DATE JUL 6 1973 FLIGHT TIME 298.00 ARRIVAL DATE APR 30 1974

HELIOCENTRIC CONIC DISTANCE 673.027 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.777 GAL -4.49 AZL 94.67 HCA 202.76 SMA 197.86 ECC .24345 INC 4.6659 V1 29.291
RP 246.02 LAP 1.60 LOP 126.48 VP 20.202 GAP .15 AZP 85.70 TAL 336.77 TAP 179.53 RCA 149.69 APO 246.02 V2 22.286
RC 294.682 GL -32.61 GP 30.27 ZAL 121.18 ZAP 67.37 ETS 195.72 ZAE 93.76 ETE 179.63 ZAC 119.56 ETC 286.26 LVI -53.49

PLANETOCENTRIC CONIC

C3 24.325 VHL 4.932 DLA -13.38 RAL 57.55 RAD 6644.7 VEL 12.013 PTH 7.00 VHP 2.720 DPA 30.11 RAP 355.69 ECC 1.4003

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 2 7	2912.93	-27.13	85.81	278.04	130.71	17 50 40	1912.9	-9.67	68.09
60.00	17 56 36	2768.07	-22.04	77.08	282.36	124.64	18 42 44	1768.1	-6.75	57.83
70.00	19 5 44	2564.81	-17.35	63.74	285.50	119.89	19 48 29	1564.8	-3.97	43.44
80.00	20 29 48	2301.68	-13.84	45.72	287.46	116.72	21 8 9	1301.7	-1.85	24.78
90.00	21 53 15	2016.30	-12.50	25.42	288.14	115.57	22 31 51	1016.3	-1.04	4.26
100.00	23 12 40	1776.15	-13.84	7.09	287.46	116.72	23 42 16	776.1	-1.85	346.15
110.00	0 9 6	1611.63	-17.35	352.65	285.50	119.89	0 35 58	611.6	-3.97	332.36

DIFFERENTIAL CORRECTIONS
TDE-1.0256 TRA 4.5777 TC3-4.9371 BAU 1.7153
RDE .2916 RRA-2.3894 RC3 1.8559 FAU .35705
FDE -.2186 FRA14.3904 FC-12.7073 BSP 13906
BDE -.0662 BRA 5.1638 BC3 5.2744 FSP 3343

MID-COURSE EXECUTION ACCURACY
SGT 7417.4 SGR 3406.9 SG3 1837.8
RRT -.9860 RRF -.9944 RTF .9842
SGB 8162.4 R23 .1154 R13 -.9879
SG1 8146.0 SG2 517.9 THA 155.53

ORBIT DETERMINATION ACCURACY
ST 101.6 SR 46.1 SS 60.8
CRT -.9686 CRS .9470 CST -.8378
LSA 123.3 MSA 29.8 SSA .7
EL1 111.1 EL2 10.5 ALF 156.05

LAUNCH DATE JUL 6 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 2 1974

HELIOCENTRIC CONIC DISTANCE 676.775 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.780 GAL -4.54 AZL 94.51 HCA 203.65 SMA 197.92 ECC .24396 INC 4.5145 V1 29.291
RP 246.21 LAP 1.81 LOP 127.38 VP 20.187 GAP -.07 AZP 85.86 TAL 336.55 TAP 180.20 RCA 149.64 APO 246.21 V2 22.267
RC 297.167 GL -31.62 GP 29.19 ZAL 121.74 ZAP 68.21 ETS 195.87 ZAE 92.59 ETE 180.32 ZAC 118.56 ETC 286.09 LVI -52.44

PLANETOCENTRIC CONIC

C3 24.072 VHL 4.906 DLA -12.37 RAL 57.49 RAD 6644.6 VEL 12.002 PTH 7.00 VHP 2.709 DPA 29.10 RAP 356.14 ECC 1.3962

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 57 54	2930.94	-27.93	86.78	278.03	130.22	17 46 45	1930.9	-10.57	68.87
60.00	17 51 8	2789.35	-22.86	78.28	282.28	124.14	18 37 38	1789.3	-7.67	58.87
70.00	18 58 50	2590.34	-18.21	65.22	285.36	119.41	19 42 0	1590.3	-4.94	44.78
80.00	20 21 29	2331.64	-14.75	47.48	287.26	116.25	21 0 20	1331.6	-2.87	26.43
90.00	21 49 17	2048.37	-13.44	27.31	287.91	115.12	22 23 25	1048.4	-2.07	6.05
100.00	23 4 21	1806.11	-14.75	8.85	287.26	116.25	23 34 27	806.1	-2.87	347.80
110.00	0 2 12	1637.16	-18.21	354.13	285.36	119.41	0 29 29	637.2	-4.94	333.70

DIFFERENTIAL CORRECTIONS
TDE -.9807 TRA 4.6731 TC3-5.0980 BAU 1.7384
RDE .2756 RRA-2.2893 RC3 1.7857 FAU .35875
FDE -.0771 FRA14.4691 FC-12.9022 BSP 14101
BDE 1.0187 BRA 5.2037 BC3 5.4017 FSP 3378

MID-COURSE EXECUTION ACCURACY
SGT 7586.1 SGR 3265.8 SG3 1852.1
RRT -.9859 RRF -.9936 RTF .9844
SGB 8259.2 R23 .1125 R13 -.9876
SG1 8243.9 SG2 502.6 THA 156.91

ORBIT DETERMINATION ACCURACY
ST 101.8 SR 44.2 SS 60.9
CRT -.9746 CRS .9374 CST -.8362
LSA 123.0 MSA 29.8 SSA .7
EL1 110.6 EL2 9.1 ALF 156.91

LAUNCH DATE JUL 6 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 4 1974

HELIOCENTRIC CONIC DISTANCE 680.523 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.784 GAL -4.58 AZL 94.37 HCA 204.55 SMA 197.99 ECC .24448 INC 4.3737 V1 29.291
RP 246.39 LAP 1.82 LOP 128.27 VP 20.174 GAP -.28 AZP 86.02 TAL 336.33 TAP 180.88 RCA 149.59 APO 246.40 V2 22.249
RC 299.628 GL -30.67 GP 28.17 ZAL 122.28 ZAP 69.09 ETS 196.00 ZAE 91.42 ETE 180.95 ZAC 117.59 ETC 285.94 LVI -51.43

PLANETOCENTRIC CONIC

C3 23.864 VHL 4.885 DLA -11.41 RAL 57.45 RAD 6644.5 VEL 11.993 PTH 6.99 VHP 2.702 DPA 28.14 RAP 356.58 ECC 1.3927

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 0	2948.38	-28.69	87.74	278.09	129.73	17 43 9	1948.4	-11.43	69.63
60.00	17 48 6	2809.84	-23.64	79.45	282.28	123.64	18 32 56	1809.8	-8.56	59.87
70.00	18 52 27	2614.77	-19.02	66.65	285.29	118.92	19 36 2	1614.8	-5.86	46.07
80.00	20 13 48	2360.11	-15.60	49.17	287.14	115.78	20 53 8	1360.1	-3.83	28.00
90.00	21 41 1	2078.75	-14.31	29.11	287.77	114.66	22 15 39	1078.7	-3.05	7.74
100.00	22 56 40	1834.58	-15.60	10.53	287.14	115.78	23 27 15	834.6	-3.83	349.37
110.00	23 51 53	1661.58	-19.02	353.56	285.29	118.92	24 19 35	661.6	-5.86	334.99

DIFFERENTIAL CORRECTIONS
TDE -.9371 TRA 4.7688 TC3-5.2525 BAU 1.7629
RDE .2629 RRA-2.1946 RC3 1.7161 FAU .35969
FDE .0574 FRA14.5115 FC-13.0490 BSP 14292
BDE .9733 BRA 5.2495 BC3 5.5258 FSP 3398

MID-COURSE EXECUTION ACCURACY
SGT 7782.4 SGR 3130.7 SG3 1861.2
RRT -.9858 RRF -.9927 RTF .9848
SGB 8360.7 R23 .1086 R13 -.9874
SG1 8346.4 SG2 488.3 THA 158.21

ORBIT DETERMINATION ACCURACY
ST 102.0 SR 42.4 SS 61.0
CRT -.9805 CRS .9267 CST -.8353
LSA 122.6 MSA 29.8 SSA .7
EL1 110.2 EL2 7.7 ALF 157.73

LAUNCH DATE JUL 6 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 6 1974

HELIOCENTRIC CONIC DISTANCE 684.269 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.788 GAL -4.63 AZL 94.24 HCA 205.44 SMA 198.07 ECC .24501 INC 4.2423 V1 29.291
RP 246.57 LAP 1.82 LOP 129.17 VP 20.161 GAP -.50 AZP 86.17 TAL 336.11 TAP 181.54 RCA 149.54 APO 246.60 V2 22.232
RC 302.065 GL -29.78 GP 27.19 ZAL 122.82 ZAP 63.98 ETS 196.10 ZAE 90.25 ETE 181.53 ZAC 116.67 ETC 285.80 LVI -50.48

PLANETOCENTRIC CONIC

C3 23.696 VHL 4.868 DLA -10.48 RAL 57.44 RAD 6644.4 VEL 11.987 PTH 6.98 VHP 2.697 DPA 27.23 RAP 357.00 ECC 1.3900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 50 24	2965.28	-29.42	88.69	278.20	129.24	17 39 49	1965.3	-12.26	70.37
60.00	17 41 25	2829.60	-24.38	80.60	282.34	123.14	18 28 35	1829.6	-9.42	60.84
70.00	18 46 31	2638.19	-19.79	68.03	285.29	118.42	19 30 30	1638.2	-6.75	47.31
80.00	20 6 41	2387.26	-16.40	50.79	287.09	115.30	20 46 28	1387.3	-4.74	29.50
90.00	21 33 21	2107.64	-15.12	30.84	287.70	114.19	22 8 29	1107.6	-3.97	9.36
100.00	22 49 33	1861.73	-16.40	12.16	287.09	115.30	23 20 35	861.7	-4.74	350.87
110.00	23 45 58	1685.01	-19.79	356.95	285.29	118.42	24 14 3	685.0	-6.75	336.22

DIFFERENTIAL CORRECTIONS
TDE -.8962 TRA 4.8636 TC3-5.4040 BAU 1.7898
RDE .2532 RRA-2.1047 RC3 1.6480 FAU .36007
FDE .1830 FRA14.5209 FC-13.1551 BSP 14464
BDE .9313 BRA 5.2995 BC3 5.6497 FSP 3403

MID-COURSE EXECUTION ACCURACY
SGT 7917.4 SGR 3001.8 SG3 1865.5
RRT -.9856 RRF -.9917 RTF .9848
SGB 8467.4 R23 .1042 R13 -.9872
SG1 8454.0 SG2 475.9 THA 159.44

ORBIT DETERMINATION ACCURACY
ST 102.3 SR 40.7 SS 61.0
CRT -.9859 CRS .9146 CST -.8349
LSA 122.3 MSA 29.8 SSA .6
EL1 109.9 EL2 6.3 ALF 158.52

LAUNCH DATE JUL 6 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 688.013 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.791 GAL -4.69 AZL 94.12 HCA 206.33 SMA 198.14 ECC .24556 INC 4.1195 V1 29.291
RP 246.74 LAP 1.83 LOP 130.06 VP 20.148 GAP -.72 AZP 86.31 TAL 335.88 TAP 182.21 RCA 149.48 APO 246.80 V2 22.215
RC 304.476 GL -28.92 GP 26.26 ZAL 123.34 ZAP 62.91 ETS 196.19 ZAE 89.09 ETE 182.06 ZAC 115.79 ETC 285.68 LVI -49.57

PLANETOCENTRIC CONIC

C3 23.563 VHL 4.854 DLA -9.60 RAL 57.44 RAD 6644.4 VEL 11.981 PTH 6.98 VHP 2.696 DPA 26.38 RAP 357.41 ECC 1.3878

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 47 4	2981.69	-30.13	89.62	278.36	128.74	17 36 46	1981.7	-13.07	71.09
60.00	17 37 4	2848.71	-25.08	81.72	282.45	122.64	18 24 33	1848.7	-10.24	61.78
70.00	18 41 1	2660.73	-20.51	69.38	285.35	117.93	19 25 21	1660.7	-7.59	48.50
80.00	20 0 4	2413.24	-17.15	52.35	287.10	114.82	20 40 17	1413.2	-5.61	30.94
90.00	21 26 14	2135.22	-15.88	32.51	287.70	113.71	22 1 50	1135.2	-4.85	10.91
100.00	22 42 56	1887.71	-17.15	13.72	287.10	114.82	23 14 24	887.7	-5.61	352.30
110.00	23 40 27	1707.54	-20.51	358.30	285.35	117.93	24 8 54	707.5	-7.59	337.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.8534 TRA 4.9625 TC3-5.5442 BAU 1.8159 SGT 8079.4 SGR 2878.4 SG3 1865.4 ST 102.7 SR 39.1 SS 61.0
RDE .2446 RRA-2.0211 RC3 1.5783 FAU .35924 RRT -.9852 RRF -.9906 RTF .9849 CRT -.9906 CRS .9011 CST -.8346
FDE .3122 FRA14.5115 FC-13.1990 BSP 14681 SGB 8576.9 R23 .0993 R13 -.9870 LSA 122.1 MSA 29.8 SSA .8
BDE .8878 BRA 5.3583 BC3 5.7645 FSP 3410 SG1 8564.2 SG2 465.4 THA 160.60 EL1 109.8 EL2 5.0 ALF 159.27

LAUNCH DATE JUL 6 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 691.756 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.795 GAL -4.74 AZL 94.00 HCA 207.21 SMA 198.22 ECC .24613 INC 4.0042 V1 29.291
RP 246.90 LAP 1.83 LOP 130.95 VP 20.137 GAP -.93 AZP 86.44 TAL 335.65 TAP 182.87 RCA 149.43 APO 247.00 V2 22.199
RC 306.863 GL -28.11 GP 25.38 ZAL 123.85 ZAP 61.86 ETS 196.26 ZAE 87.93 ETE 182.55 ZAC 114.95 ETC 285.57 LVI -48.70

PLANETOCENTRIC CONIC

C3 23.462 VHL 4.844 DLA -8.76 RAL 57.47 RAD 6644.3 VEL 11.977 PTH 6.97 VHP 2.697 DPA 25.57 RAP 357.81 ECC 1.3861

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 43 59	2997.65	-30.80	90.54	278.58	128.24	17 33 56	1997.6	-13.85	71.80
60.00	17 33 1	2867.21	-25.76	82.83	282.61	122.13	18 20 48	1867.2	-11.03	62.69
70.00	18 35 52	2682.45	-21.20	70.69	285.46	117.43	19 20 34	1682.4	-8.41	49.66
80.00	19 53 53	2438.18	-17.86	53.87	287.18	114.33	20 34 32	1438.2	-6.44	32.32
90.00	21 19 36	2161.65	-16.60	34.12	287.76	113.23	21 55 38	1161.6	-5.69	12.40
100.00	22 36 45	1912.65	-17.86	15.24	287.18	114.33	23 8 38	912.7	-6.44	353.69
110.00	23 35 18	1729.27	-21.20	359.61	285.46	117.43	24 4 7	729.3	-8.41	338.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.8123 TRA 5.0607 TC3-5.6793 BAU 1.8433 SGT 8238.9 SGR 2760.3 SG3 1861.1 ST 103.1 SR 37.7 SS 61.0
RDE .2386 RRA-1.9417 RC3 1.5098 FAU .35777 RRT -.9847 RRF -.9893 RTF .9850 CRT -.9946 CRS .8861 CST -.8350
FDE .4321 FRA14.4756 FC-13.2016 BSP 14884 SGB 8689.0 R23 .0940 R13 -.9868 LSA 122.0 MSA 29.9 SSA .8
BDE .8466 BRA 5.4204 BC3 5.8766 FSP 3406 SG1 8677.0 SG2 456.9 THA 161.69 EL1 109.7 EL2 3.7 ALF 160.01

LAUNCH DATE JUL 6 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 695.496 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.799 GAL -4.79 AZL 93.90 HCA 208.10 SMA 198.30 ECC .24671 INC 3.8959 V1 29.291
RP 247.06 LAP 1.83 LOP 131.84 VP 20.126 GAP -1.15 AZP 86.56 TAL 335.42 TAP 183.52 RCA 149.37 APO 247.22 V2 22.183
RC 309.224 GL -27.33 GP 24.55 ZAL 124.34 ZAP 60.84 ETS 196.31 ZAE 86.78 ETE 182.99 ZAC 114.14 ETC 285.46 LVI -47.87

PLANETOCENTRIC CONIC

C3 23.389 VHL 4.836 DLA -7.95 RAL 57.51 RAD 6644.3 VEL 11.974 PTH 6.97 VHP 2.700 DPA 24.82 RAP 358.20 ECC 1.3849

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 6	3013.18	-31.45	91.45	278.83	127.74	17 31 19	2013.2	-14.61	72.50
60.00	17 29 14	2885.16	-26.40	83.91	282.82	121.63	18 17 20	1885.2	-11.80	63.59
70.00	18 31 3	2703.43	-21.85	71.97	285.62	116.93	19 16 6	1703.4	-9.19	50.78
80.00	19 48 7	2462.19	-18.52	55.34	287.30	113.84	20 29 9	1462.2	-7.24	33.66
90.00	21 13 23	2187.04	-17.27	35.67	287.86	112.74	21 49 50	1187.0	-6.49	13.83
100.00	22 30 59	1936.66	-18.52	16.71	287.30	113.84	23 3 15	936.7	-7.24	355.03
110.00	23 30 29	1750.25	-21.85	.88	285.62	116.93	23 59 40	750.2	-9.19	339.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.7715 TRA 5.1603 TC3-5.8088 BAU 1.8716 SGT 8396.8 SGR 2648.0 SG3 1853.5 ST 103.6 SR 36.3 SS 61.0
RDE .2341 RRA-1.8670 RC3 1.4427 FAU .35573 RRT -.9840 RRF -.9879 RTF .9851 CRT -.9976 CRS .8696 CST -.8356
FDE .5481 FRA14.4212 FC-13.1670 BSP 15099 SGB 8804.5 R23 .0884 R13 -.9866 LSA 122.0 MSA 29.9 SSA .8
BDE .8063 BRA 5.4877 BC3 5.9853 FSP 3397 SG1 8792.9 SG2 450.2 THA 162.71 EL1 109.8 EL2 2.4 ALF 160.72

LAUNCH DATE JUL 6 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 699.235 EARTH TO MARS

RL 152.10 LAL .00 LOL 283.79 VL 32.803 GAL -4.85 AZL 93.79 HCA 208.99 SMA 198.38 ECC .24730 INC 3.7938 V1 29.291
RP 247.22 LAP 1.84 LOP 132.72 VP 20.116 GAP -1.37 AZP 86.68 TAL 335.18 TAP 184.17 RCA 149.32 APO 247.43 V2 22.168
RC 311.559 GL -26.59 GP 23.75 ZAL 124.83 ZAP 59.85 ETS 196.35 ZAE 85.64 ETE 183.40 ZAC 113.37 ETC 285.37 LVI -47.08

PLANETOCENTRIC CONIC

C3 23.343 VHL 4.831 DLA -7.17 RAL 57.57 RAD 6644.3 VEL 11.972 PTH 6.97 VHP 2.705 DPA 24.10 RAP 358.59 ECC 1.3842

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 38 26	3028.32	-32.08	92.35	279.12	127.23	17 28 54	2028.3	-15.35	73.18
60.00	17 25 42	2902.60	-27.02	84.97	283.07	121.12	18 14 5	1902.6	-12.54	64.46
70.00	18 26 32	2723.74	-22.47	73.22	285.82	116.42	19 11 56	1723.7	-9.94	51.87
80.00	19 42 41	2485.34	-19.16	56.77	287.46	113.35	20 24 7	1485.3	-8.00	34.95
90.00	21 7 34	2211.49	-17.91	37.19	288.01	112.26	21 44 25	1211.5	-7.26	15.22
100.00	22 25 33	1959.81	-19.16	18.13	287.46	113.35	22 58 13	959.8	-8.00	356.32
110.00	23 25 58	1770.56	-22.47	2.13	285.82	116.42	23 55 29	770.6	-9.94	340.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.7310 TRA 5.2613 TC3-5.9308 BAU 1.9001 SGT 8552.2 SGR 2540.9 SG3 1842.8 ST 104.2 SR 35.1 SS 61.0
RDE .2312 RRA-1.7965 RC3 1.3770 FAU .35314 RRT -.9832 RRF -.9863 RTF .9852 CRT -.9993 CRS .8514 CST -.8366
FDE .6594 FRA14.3493 FC-13.0972 BSP 15322 SGB 8921.6 R23 .0823 R13 -.9865 LSA 122.1 MSA 30.0 SSA .9
BDE .7567 BRA 5.5595 BC3 6.0886 FSP 3382 SG1 8910.6 SG2 444.7 THA 163.67 EL1 109.9 EL2 1.3 ALF 161.41

LAUNCH DATE JUL 6 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC DISTANCE 702.972 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	32.808	GAL	-4.90	AZL	93.70	HCA	209.87	SMA	198.46	ECC	.24790	INC	3.6973	V1	29.291
RP	247.37	LAP	1.84	LOP	133.61	VP	20.107	GAP	-1.58	AZP	86.79	TAL	334.94	TAP	184.81	RCA	149.26	APO	247.65	V2	22.154
RC	313.869	GL	-25.88	GP	22.99	ZAL	125.32	ZAP	58.88	ETS	196.37	ZAE	84.50	ETE	183.78	ZAC	112.63	ETC	285.29	LVI	-46.33

PLANETOCENTRIC CONIC

C3	23.319	VHL	4.829	DLA	-6.42	RAL	57.65	RAD	6644.3	VEL	11.971	PTH	6.97	VHP	2.712	DPA	23.44	RAP	358.98	ECC	1.3838

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 35 57	3043.09	-32.69	93.24	279.45	126.72	17 26 40	2043.1	-16.07	73.85
60.00	17 22 24	2919.56	-27.61	86.01	283.35	120.60	18 11 3	1919.6	-13.26	65.32
70.00	18 22 18	2743.43	-23.06	74.44	286.06	115.92	19 8 1	1743.4	-10.66	52.94
80.00	19 37 35	2507.72	-19.75	58.16	287.67	112.86	20 19 23	1507.7	-8.73	36.21
90.00	21 2 5	2235.10	-18.51	38.66	288.21	111.77	21 39 20	1235.1	-8.00	16.56
100.00	22 20 27	1982.19	-19.75	19.53	287.67	112.86	22 53 29	982.2	-8.73	357.58
110.00	23 21 44	1790.25	-23.06	3.36	286.06	115.92	23 51 34	790.3	-10.66	341.86

DIFFERENTIAL CORRECTIONS

TDE	-.6917	TRA	5.3624	TC3	-6.0477	BAU	1.9293												
RDE	.2303	RRA	-1.7296	RC3	1.3132	FAU	.35009												
FDE	.7594	FRA	14.2592	FC	-12.9974	BSP	15543												
BDE	.7290	BRA	5.6344	BC3	6.1886	FSP	3362												

MID-COURSE EXECUTION ACCURACY

SGT	8705.3	SGR	2438.8	SG3	1829.2														
RRT	-.9823	RRF	-.9845	RTF	.9852														
SGB	9040.5	R23	.0759	R13	-.9863														
SG1	9029.7	SG2	440.9	THA	164.58														

ORBIT DETERMINATION ACCURACY

ST	104.8	SR	33.9	SS	60.9														
CRT	-.9996	CRS	.8315	CST	-.8383														
LSA	122.3	MSA	30.0	SSA	.9														
EL1	110.1	EL2	1.0	ALF	162.08														

LAUNCH DATE JUL 6 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 706.707 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	32.812	GAL	-4.96	AZL	93.61	HCA	210.76	SMA	198.54	ECC	.24852	INC	3.6060	V1	29.291
RP	247.51	LAP	1.84	LOP	134.50	VP	20.098	GAP	-1.80	AZP	86.90	TAL	334.69	TAP	185.45	RCA	149.20	APO	247.88	V2	22.140
RC	316.151	GL	-25.20	GP	22.27	ZAL	125.79	ZAP	57.94	ETS	196.39	ZAE	83.38	ETE	184.12	ZAC	111.93	ETC	285.21	LVI	-45.61

PLANETOCENTRIC CONIC

C3	23.317	VHL	4.829	DLA	-5.69	RAL	57.74	RAD	6644.3	VEL	11.971	PTH	6.97	VHP	2.721	DPA	22.81	RAP	359.37	ECC	1.3837

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 33 38	3057.53	-33.27	94.12	279.81	126.21	17 24 36	2057.5	-16.76	74.51
60.00	17 19 17	2936.09	-28.18	87.04	283.67	120.09	18 8 14	1936.1	-13.96	66.16
70.00	18 18 18	2762.56	-23.63	75.64	286.34	115.41	19 4 21	1762.6	-11.36	53.98
80.00	19 32 47	2529.40	-20.32	59.52	287.92	112.36	20 14 56	1529.4	-9.44	37.43
90.00	20 56 55	2257.94	-19.08	40.09	288.44	111.27	21 34 33	1257.9	-8.71	17.86
100.00	22 15 39	2003.88	-20.32	20.89	287.92	112.36	22 49 3	1003.9	-9.44	358.80
110.00	23 17 45	1809.38	-23.63	4.55	286.34	115.41	23 47 54	809.4	-11.36	342.89

DIFFERENTIAL CORRECTIONS

TDE	-.6532	TRA	5.4636	TC3	-6.1603	BAU	1.9596												
RDE	.2305	RRA	-1.6661	RC3	1.2515	FAU	.34672												
FDE	.8553	FRA	14.1539	FC	-12.8732	BSP	15751												
BDE	.6927	BRA	5.7120	BC3	6.2861	FSP	3333												

MID-COURSE EXECUTION ACCURACY

SGT	8856.6	SGR	2341.5	SG3	1813.2														
RRT	-.9811	RRF	-.9825	RTF	.9853														
SGB	9160.9	R23	.0695	R13	-.9862														
SG1	9150.4	SG2	438.5	THA	165.42														

ORBIT DETERMINATION ACCURACY

ST	105.5	SR	32.8	SS	60.9														
CRT	-.9982	CRS	.8098	CST	-.8399														
LSA	122.5	MSA	30.0	SSA	.9														
EL1	110.5	EL2	1.9	ALF	162.74														

LAUNCH DATE JUL 6 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC DISTANCE 710.440 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	32.816	GAL	-5.01	AZL	93.52	HCA	211.64	SMA	198.62	ECC	.24916	INC	3.5194	V1	29.291
RP	247.65	LAP	1.85	LOP	135.38	VP	20.091	GAP	-2.01	AZP	87.00	TAL	334.45	TAP	186.09	RCA	149.14	APO	248.11	V2	22.126
RC	318.406	GL	-24.55	GP	21.59	ZAL	126.26	ZAP	57.02	ETS	196.39	ZAE	82.27	ETE	184.44	ZAC	111.24	ETC	285.14	LVI	-44.92

PLANETOCENTRIC CONIC

C3	23.335	VHL	4.831	DLA	-5.00	RAL	57.85	RAD	6644.3	VEL	11.972	PTH	6.97	VHP	2.732	DPA	22.22	RAP	359.76	ECC	1.3840

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 31 28	3071.64	-33.83	94.99	280.20	125.69	17 22 40	2071.6	-17.45	75.16
60.00	17 16 23	2952.21	-28.73	88.06	284.03	119.57	18 5 35	1952.2	-14.64	66.98
70.00	18 14 33	2781.17	-24.16	76.81	286.65	114.91	19 0 54	1781.2	-12.04	54.99
80.00	19 28 14	2550.45	-20.86	60.85	288.20	111.86	20 10 45	1550.4	-10.12	38.62
90.00	20 52 2	2280.08	-19.63	41.49	288.71	110.78	21 30 2	1280.1	-9.39	19.13
100.00	22 11 6	2024.92	-20.86	22.22	288.20	111.86	22 44 51	1024.9	-10.12	359.99
110.00	23 13 59	1827.99	-24.16	5.73	286.65	114.91	23 44 27	828.0	-12.04	343.91

DIFFERENTIAL CORRECTIONS

TDE	.6141	TRA	5.5674	TC3	-6.2652	BAU	1.9896												
RDE	.2316	RRA	-1.6065	RC3	1.1912	FAU	.34284												
FDE	.9478	FRA	14.0413	FC	-12.7194	BSP	15984												
BDE	.6563	BRA	5.7945	BC3	6.3774	FSP	3306												

MID-COURSE EXECUTION ACCURACY

SGT	9006.0	SGR	2249.1	SG3	1795.3														
RRT	-.9797	RRF	-.9802	RTF	.9853														
SGB	9282.6	R23	.0631	R13	-.9861														
SG1	9272.2	SG2	437.5	THA	166.22														

ORBIT DETERMINATION ACCURACY

ST	106.3	SR	31.9	SS	60.8														
CRT	-.9950	CRS	.7864	CST	-.8419														
LSA	122.9	MSA	30.1	SSA	.9														
EL1	110.9	EL2	3.1	ALF	163.38														

LAUNCH DATE JUL 6 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 714.171 EARTH TO MARS

RL	152.10	LAL	.00	LOL	283.79	VL	32.821	GAL	-5.07	AZL	93.44	HCA	212.52	SMA	198.71	ECC	.24980	INC	3.4371	V1	29.291
RP	247.78	LAP	1.85	LOP	136.27	VP	20.084	GAP	-2.23	AZP	87.10	TAL	334.20	TAP	186.72	RCA	149.07	APO	248.35	V2	22.113
RC	320.632	GL	-23.92	GP	20.93	ZAL	126.72	ZAP	56.13	ETS	196.39	ZAE	81.18	ETE	184.73	ZAC	110.59	ETC	285.07	LVI	-44.26

PLANETOCENTRIC CONIC

C3	23.372	VHL	4.834	DLA	-4.32	RAL	57.96	RAD	6644.3	VEL	11.973	PTH	6.97	VHP	2.743	DPA	21.67	RAP	.15	ECC	1.3846

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 29 28	3085.46	-34.38	95.86	280.63	125.18	17 20 53	2085.5	-18.11	75.80
60.00	17 13 38	2967.96	-29.25	89.06	284.41	119.06	18 3 6	1968.0	-15.30	67.79
70.00	18 11 0	2799.30	-24.68	77.97	286.99	114.40	18 57 39	1799.3	-12.70	55.99
80.00	19 23 57	2570.90	-21.37	62.15	288.51	111.36	20 6 48	1570.9	-10.77	39.79
90.00	20 47 25	2301.58	-20.14	42.85	289.01	110.28	21 25 46	1301.6	-10.05	20.37
100.00	22 6 49	2045.37	-21.37	23.52	288.51	111.36	22 40 54	1045.4	-10.77	1.15
110.00	23 10 26	1846.12	-24.68	6.89	286.99	114.40	23 41 12	846.1	-12.70	344.90

DIFFERENTIAL CORRECTIONS

TDE	-.5758	TRA	5.6718	TC3	-6.3649	BAU	2.0200												
RDE	.2340	RRA	-1.5498	RC3	1.1330	FAU	.33866												
FDE	1.0321	FRA	13.9165	FC	-12.5447	BSP	16210												
BDE	.6215	BRA	5.8797	BC3	6.4649	FSP	3272												

MID-COURSE EXECUTION ACCURACY

SGT	9153.2	SGR	2161.0	SG3	1775.3														
RRT	-.9782	RRF	-.9777	RTF	.9853														
SGB	9404.9	R23	.0566	R13	-.9860														
SG1	9394.7	SG2	437.7	THA	166.97														

ORBIT DETERMINATION ACCURACY

ST	107.1	SR	31.0	SS	60.7														
CRT	-.9897	CRS	.7611	CST	-.8443														
LSA	123.3	MSA	30.2	SSA	1.0														
EL1	111.4	EL2	4.3	ALF	164.01														

LAUNCH DATE JUL 7 1973 — FLIGHT TIME 128.00 — ARRIVAL DATE NOV 12 1973

DISTANCE 362.665

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	34.733	GAL	-5.81	AZL	90.27	HCA	117.17	SMA	246.35	ECC	.39385	INC	.2686	V1	29.291
RP	217.81	LAP	-.24	LOP	41.92	VP	26.076	GAP	22.27	AZP	89.88	TAL	339.30	TAP	96.47	RCA	149.33	APO	343.38	V2	25.227
RC	73.631	GL	-1.47	GP	-5.23	ZAL	123.58	ZAP	170.90	ETS	216.64	ZAE	170.58	ETE	328.28	ZAC	79.77	ETC	283.56	LVI	-14.06

PLANETOCENTRIC CONIC

C3 39.950 VHL 6.321 DLA 15.88 RAL 46.30 RAD 6650.6 VEL 12.642 PTH 7.49 VHP 7.909 DPA 7.69 RAP 34.29 ECC 1.6575

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 23 7	3625.15	-47.47	139.94	296.27	93.67	15 23 32	2625.2	-40.51	107.50
60.00	14 44 38	3567.87	-40.30	135.11	296.59	90.07	15 44 5	2567.9	-35.86	104.93
70.00	15 16 9	3475.08	-34.06	127.41	296.41	87.25	16 14 4	2475.1	-31.62	98.94
80.00	16 4 50	3322.51	-29.52	115.49	296.06	85.31	17 0 13	2322.5	-28.47	88.12
90.00	17 17 26	3088.19	-27.80	98.10	295.89	84.58	18 8 54	2088.2	-27.26	71.11
100.00	18 47 42	2796.98	-29.52	76.86	296.06	85.31	19 34 19	1797.0	-28.47	49.49
110.00	20 15 36	2521.89	-34.06	56.33	296.41	87.25	20 57 37	1521.9	-31.62	27.86

DIFFERENTIAL CORRECTIONS

TDE	-.5020	TRA	-1.7164	TC3	.1141	BAU	.0729
RDE	-.5578	RRA	.2837	RC3	-.0750	FAU	.06011
FDE	.6070	FRA	1.8566	FC3	-1.3027	BSP	2662
BDE	.7504	BRA	1.7397	BC3	.1366	FSP	288

MID-COURSE EXECUTION ACCURACY

SGT	1686.5	SGR	579.8	SG3	213.0		
RRT	-.2210	RRF	.2419	RTF	-.7982		
SGB	1783.4	R23	-.0445	R13	.7998		
SG1	1692.0	SG2	563.6	THA	175.11		

ORBIT DETERMINATION ACCURACY

ST	33.3	SR	25.6	SS	26.0
CRT	.5613	CRS	.6048	CST	.9968
LSA	45.4	MSA	19.5	SSA	1.2
EL1	37.5	EL2	18.8	ALF	32.37

LAUNCH DATE JUL 7 1973 — FLIGHT TIME 130.00 — ARRIVAL DATE NOV 14 1973

DISTANCE 365.352

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	34.625	GAL	-5.70	AZL	90.23	HCA	118.31	SMA	242.97	ECC	.38515	INC	.2297	V1	29.291
RP	218.16	LAP	-.20	LOP	43.06	VP	25.893	GAP	21.92	AZP	89.89	TAL	339.37	TAP	97.69	RCA	149.39	APO	336.55	V2	25.188
RC	74.953	GL	-1.28	GP	-5.41	ZAL	123.49	ZAP	170.19	ETS	215.02	ZAE	169.78	ETE	329.20	ZAC	79.51	ETC	283.54	LVI	-13.78

PLANETOCENTRIC CONIC

C3 38.445 VHL 6.192 DLA 16.03 RAL 46.15 RAD 6650.1 VEL 12.579 PTH 7.44 VHP 7.688 DPA 7.66 RAP 34.73 ECC 1.6311

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 21 52	3617.99	-47.44	139.25	295.24	94.19	15 22 10	2618.0	-40.29	106.96
60.00	14 43 11	3561.26	-40.30	134.54	295.64	90.46	15 42 32	2561.3	-35.70	104.44
70.00	15 14 28	3469.20	-34.07	126.95	295.50	87.53	16 12 17	2469.2	-31.53	98.51
80.00	16 2 53	3317.43	-29.55	115.12	295.18	85.50	16 58 11	2317.4	-28.41	87.75
90.00	17 15 22	3083.51	-27.83	97.76	295.01	84.75	18 6 45	2083.5	-27.21	70.77
100.00	18 45 45	2791.90	-29.55	76.49	295.18	85.50	19 32 17	1791.9	-28.41	49.12
110.00	20 13 54	2516.01	-34.07	55.87	295.50	87.53	20 55 50	1516.0	-31.53	27.43

DIFFERENTIAL CORRECTIONS

TDE	-.5067	TRA	-1.7173	TC3	.1295	BAU	.0791
RDE	-.5401	RRA	.2856	RC3	-.0840	FAU	.06251
FDE	.6353	FRA	1.9264	FC3	-1.4113	BSP	2790
BDE	.7496	BRA	1.7409	BC3	.1544	FSP	307

MID-COURSE EXECUTION ACCURACY

SGT	1726.0	SGR	579.8	SG3	226.0		
RRT	-.2368	RRF	.2625	RTF	-.8024		
SGB	1820.7	R23	-.0515	R13	.8042		
SG1	1732.1	SG2	561.3	THA	174.92		

ORBIT DETERMINATION ACCURACY

ST	34.1	SR	25.3	SS	26.9
CRT	.5594	CRS	.6030	CST	.9968
LSA	46.4	MSA	19.4	SSA	1.2
EL1	38.1	EL2	18.8	ALF	30.79

LAUNCH DATE JUL 7 1973 — FLIGHT TIME 132.00 — ARRIVAL DATE NOV 16 1973

DISTANCE 368.135

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	34.522	GAL	-5.58	AZL	90.19	HCA	119.45	SMA	239.85	ECC	.37690	INC	.1904	V1	29.291
RP	218.53	LAP	-.17	LOP	44.19	VP	25.716	GAP	21.58	AZP	89.91	TAL	339.45	TAP	98.90	RCA	149.45	APO	330.25	V2	25.148
RC	76.362	GL	-1.08	GP	-5.60	ZAL	123.38	ZAP	169.46	ETS	213.63	ZAE	169.04	ETE	329.79	ZAC	79.24	ETC	283.51	LVI	-13.50

PLANETOCENTRIC CONIC

C3 36.843 VHL 6.070 DLA 16.19 RAL 45.98 RAD 6649.6 VEL 12.519 PTH 7.40 VHP 7.475 DPA 7.62 RAP 35.17 ECC 1.6063

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 20 32	3611.26	-47.40	138.60	294.23	94.69	15 20 44	2611.3	-40.07	106.46
60.00	14 41 38	3555.11	-40.29	134.02	294.70	90.81	15 40 53	2555.1	-35.56	103.98
70.00	15 12 39	3463.82	-34.09	126.53	294.61	87.77	16 10 23	2463.8	-31.44	98.12
80.00	16 0 48	3312.91	-29.57	114.78	294.30	85.68	16 56 1	2312.9	-28.36	87.43
90.00	17 13 9	3079.41	-27.85	97.46	294.14	84.89	18 4 28	2079.4	-27.17	70.48
100.00	18 43 40	2787.38	-29.57	76.15	294.30	85.68	19 30 7	1787.4	-28.36	48.79
110.00	20 12 5	2510.64	-34.09	55.45	294.61	87.77	20 53 56	1510.6	-31.44	27.03

DIFFERENTIAL CORRECTIONS

TDE	-.5101	TRA	-1.7162	TC3	.1474	BAU	.0860
RDE	-.5225	RRA	.2880	RC3	-.0938	FAU	.06498
FDE	.6662	FRA	1.9997	FC3	-1.5269	BSP	2891
BDE	.7302	BRA	1.7402	BC3	.1747	FSP	327

MID-COURSE EXECUTION ACCURACY

SGT	1763.4	SGR	580.0	SG3	239.7		
RRT	-.2547	RRF	.2644	RTF	-.[illegible]76		
SGB	1858.3	R23	-.0576	R13	.8096		
SG1	1770.3	SG2	558.6	THA	174.66		

ORBIT DETERMINATION ACCURACY

ST	34.9	SR	25.0	SS	27.9
CRT	.5562	CRS	.6011	CST	.9968
LSA	47.4	MSA	19.3	SSA	1.3
EL1	38.6	EL2	18.8	ALF	29.29

LAUNCH DATE JUL 7 1973 — FLIGHT TIME 134.00 — ARRIVAL DATE NOV 18 1973

DISTANCE 371.006

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	34.425	GAL	-5.48	AZL	90.15	HCA	120.58	SMA	236.97	ECC	.36907	INC	.1502	V1	29.291
RP	218.69	LAP	-.13	LOP	45.33	VP	25.545	GAP	21.23	AZP	89.92	TAL	339.54	TAP	100.12	RCA	149.51	APO	324.43	V2	25.107
RC	77.855	GL	-.87	GP	-5.80	ZAL	123.27	ZAP	168.72	ETS	212.43	ZAE	168.34	ETE	330.13	ZAC	78.97	ETC	283.49	LVI	-13.21

PLANETOCENTRIC CONIC

C3 35.436 VHL 5.953 DLA 16.37 RAL 45.80 RAD 6649.0 VEL 12.463 PTH 7.36 VHP 7.269 DPA 7.57 RAP 35.60 ECC 1.5832

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 19 7	3604.98	-47.36	138.00	293.24	95.16	15 19 12	2605.0	-39.87	105.99
60.00	14 39 59	3549.43	-40.29	133.54	293.78	91.14	15 39 9	2549.4	-35.42	103.56
70.00	15 10 43	3458.97	-34.10	126.15	293.72	88.00	16 8 22	2459.0	-31.36	97.76
80.00	15 58 35	3308.97	-29.59	114.49	293.44	85.83	16 53 44	2309.0	-28.31	87.14
90.00	17 10 47	3075.93	-27.87	97.21	293.28	85.02	18 2 3	2075.9	-27.14	70.23
100.00	18 41 27	2783.44	-29.59	75.86	293.44	85.83	19 27 50	1783.4	-28.31	48.51
110.00	20 10 9	2505.79	-34.10	55.07	293.72	88.00	20 51 55	1505.8	-31.36	26.68

DIFFERENTIAL CORRECTIONS

TDE	-.5124	TRA	-1.7136	TC3	.1673	BAU	.0935
RDE	-.5049	RRA	.2910	RC3	-.1046	FAU	.06757
FDE	.6398	FRA	2.0760	FC3	-1.6509	BSP	2980
BDE	.7193	BRA	1.7381	BC3	.1973	FSP	350

MID-COURSE EXECUTION ACCURACY

SGT	1799.3	SGR	580.4	SG3	254.2		
RRT	-.2747	RRF	.3076	RTF	-.8130		
SGB	1890.6	R23	-.0632	R13	.8153		
SG1	1807.1	SG2	555.7	THA	174.41		

ORBIT DETERMINATION ACCURACY

ST	35.7	SR	24.7	SS	28.9
CRT	.5519	CRS	.5992	CST	.9967
LSA	48.4	MSA	19.2	SSA	1.3
EL1	39.1	EL2	18.8	ALF	27.85

LAUNCH DATE JUL 7 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 373.955 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	34.332	GAL	-5.37	AZL	90.11	HCA	121.71	SMA	234.31	ECC	.36163	INC	.1088
V1	29.291	RP	219.26	LAP	-.09	LOP	46.46	VP	25.380	GAP	20.89	AZP	89.94	TAL	339.63	TAP	101.34	RCA	149.57
APO	319.04	V2	25.067	RC	79.428	GL	-.64	GP	-6.01	ZAL	123.14	ZAP	167.96	ETS	211.40	ZAE	167.70	ETE	330.25
ZAC	78.69	ETC	283.47	LVI	-12.91														

PLANETOCENTRIC CONIC

C3	34.118	VHL	5.841	DLA	16.85	RAL	45.61	RAD	6648.6	VEL	12.411	PTH	7.32	VHP	7.068	DPA	7.50	RAP	36.02
ECC	1.5618																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 17 37	3599.17	-47.33	137.44	292.28	95.58	15 17 36	2599.2	-39.68	105.56
60.00	14 38 14	3544.26	-40.28	133.10	292.88	91.44	15 37 18	2544.3	-35.30	103.17
70.00	15 8 40	3454.68	-34.11	125.82	292.86	88.19	16 6 15	2454.7	-31.29	97.45
80.00	15 56 13	3305.65	-29.61	114.25	292.59	85.95	16 51 19	2305.7	-28.27	86.90
90.00	17 8 16	3073.10	-27.89	97.01	292.43	85.12	17 59 29	2073.1	-27.11	70.03
100.00	18 39 5	2780.13	-29.61	75.62	292.59	85.95	19 25 25	1780.1	-28.27	48.27
110.00	20 8 6	2501.50	-34.11	54.74	292.86	88.19	20 49 48	1501.5	-31.29	26.37

DIFFERENTIAL CORRECTIONS

TDE	-.5141	TRA	-1.7094	TC3	.1888	BAU	.1011												
RDE	-.4875	RRA	.2944	RC3	-.1163	FAU	.07028												
FDE	.7358	FRA	2.1556	FC3	-1.7833	BSP	3063												
BDE	.7085	BRA	1.7345	BC3	.2217	FSP	373												

MID-COURSE EXECUTION ACCURACY

SGT	1833.8	SGR	581.3	SG3	269.5						
RRT	-.2963	RRF	.3323	RTF	-.8186						
SGB	1923.7	R23	-.0686	R13	.8212						
SG1	1842.6	SG2	552.5	THA	174.10						

ORBIT DETERMINATION ACCURACY

ST	36.4	SR	24.3	SS	30.0						
CRT	.5468	CRS	.5970	CST	.9965						
LSA	49.5	MSA	19.1	SSA	1.3						
EL1	39.6	EL2	18.7	ALF	26.48						

LAUNCH DATE JUL 7 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 376.977 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	34.244	GAL	-5.27	AZL	90.07	HCA	122.84	SMA	231.84	ECC	.35458	INC	.0656
V1	29.291	RP	219.63	LAP	-.06	LOP	47.58	VP	25.221	GAP	20.56	AZP	89.96	TAL	339.73	TAP	102.56	RCA	149.63
APO	314.04	V2	25.026	RC	81.081	GL	-.40	GP	-6.24	ZAL	123.01	ZAP	167.18	ETS	210.51	ZAE	167.11	ETE	330.18
ZAC	78.40	ETC	283.45	LVI	-12.61														

PLANETOCENTRIC CONIC

C3	32.883	VHL	5.734	DLA	16.74	RAL	45.41	RAD	6648.1	VEL	12.361	PTH	7.28	VHP	6.875	DPA	7.42	RAP	36.43
ECC	1.5412																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 16 1	3593.84	-47.29	136.93	291.35	95.97	15 15 54	2593.8	-39.50	105.18
60.00	14 36 22	3539.62	-40.27	132.70	292.00	91.70	15 35 22	2539.6	-35.19	102.83
70.00	15 6 29	3450.98	-34.12	125.53	292.01	88.36	16 4 0	2451.0	-31.22	97.18
80.00	15 53 43	3302.99	-29.62	114.05	291.75	86.06	16 48 45	2303.0	-28.24	86.71
90.00	17 5 36	3070.96	-27.90	96.85	291.60	85.20	17 56 47	2071.0	-27.09	69.87
100.00	18 36 34	2777.46	-29.62	75.42	291.75	86.06	19 22 52	1777.5	-28.24	48.08
110.00	20 5 56	2497.80	-34.12	54.45	292.01	88.36	20 47 33	1497.8	-31.22	26.10

DIFFERENTIAL CORRECTIONS

TDE	-.5158	TRA	-1.7047	TC3	.2114	BAU	.1089												
RDE	-.4701	RRA	.2985	RC3	-.1290	FAU	.07312												
FDE	.7745	FRA	2.2362	FC3	-1.9250	BSP	3139												
BDE	.6979	BRA	1.7306	BC3	.2476	FSP	399												

MID-COURSE EXECUTION ACCURACY

SGT	1867.6	SGR	582.7	SG3	285.6						
RRT	-.3195	RRF	.3585	RTF	-.8241						
SGB	1956.4	R23	-.0741	R13	.8269						
SG1	1877.7	SG2	549.1	THA	173.77						

ORBIT DETERMINATION ACCURACY

ST	37.1	SR	23.9	SS	31.1						
CRT	.5409	CRS	.5943	CST	.9963						
LSA	50.5	MSA	19.0	SSA	1.3						
EL1	40.0	EL2	18.7	ALF	25.07						

LAUNCH DATE JUL 7 1973 FLIGHT TIME 140.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 380.064 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	34.160	GAL	-5.17	AZL	90.03	HCA	123.96	SMA	229.55	ECC	.34788	INC	.0210
V1	29.291	RP	220.00	LAP	-.02	LOP	48.70	VP	25.066	GAP	20.22	AZP	89.99	TAL	339.83	TAP	103.79	RCA	149.69
APO	309.40	V2	24.985	RC	82.809	GL	-.15	GP	-6.47	ZAL	122.87	ZAP	166.39	ETS	209.74	ZAE	166.58	ETE	329.94
ZAC	78.10	ETC	283.43	LVI	-12.29														

PLANETOCENTRIC CONIC

C3	31.725	VHL	5.633	DLA	16.94	RAL	45.20	RAD	6647.7	VEL	12.315	PTH	7.25	VHP	6.687	DPA	7.32	RAP	36.83
ECC	1.5221																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 14 19	3589.01	-47.25	136.47	290.44	96.33	15 14 8	2589.0	-39.34	104.82
60.00	14 34 24	3535.53	-40.26	132.35	291.14	91.94	15 33 20	2535.5	-35.09	102.53
70.00	15 4 11	3447.88	-34.13	125.29	291.17	88.51	16 1 39	2447.9	-31.17	96.95
80.00	15 51 3	3301.01	-29.63	113.90	290.92	86.13	16 46 4	2301.0	-28.22	86.57
90.00	17 2 45	3069.54	-27.91	96.75	290.78	85.25	17 53 55	2069.5	-27.08	69.77
100.00	18 33 54	2775.48	-29.63	75.27	290.92	86.13	19 20 10	1775.5	-28.22	47.94
110.00	20 3 37	2494.70	-34.13	54.20	291.17	88.51	20 45 12	1494.7	-31.17	25.87

DIFFERENTIAL CORRECTIONS

TDE	-.5171	TRA	-1.6988	TC3	.2355	BAU	.1169												
RDE	-.4527	RRA	.3031	RC3	-.1430	FAU	.07611												
FDE	.8159	FRA	2.3240	FC3	-2.0770	BSP	3210												
BDE	.6873	BRA	1.7256	BC3	.2755	FSP	427												

MID-COURSE EXECUTION ACCURACY

SGT	1900.1	SGR	584.7	SG3	302.7						
RRT	-.3445	RRF	.3862	RTF	-.8496						
SGB	1988.1	R23	-.0796	R13	.8327						
SG1	1911.7	SG2	545.6	THA	173.41						

ORBIT DETERMINATION ACCURACY

ST	37.8	SR	23.5	SS	32.2						
CRT	.5340	CRS	.5911	CST	.9961						
LSA	51.6	MSA	18.8	SSA	1.3						
EL1	40.4	EL2	18.6	ALF	23.70						

LAUNCH DATE JUL 7 1973 FLIGHT TIME 142.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 383.210 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	34.081	GAL	-5.07	AZL	89.98	HCA	125.08	SMA	227.42	ECC	.34152	INC	.0140
V1	29.291	RP	220.38	LAP	.02	LOP	49.82	VP	24.917	GAP	19.89	AZP	90.01	TAL	339.93	TAP	105.01	RCA	149.75
APO	305.08	V2	24.944	RC	84.610	GL	.11	GP	-6.71	ZAL	122.73	ZAP	165.58	ETS	209.06	ZAE	166.10	ETE	329.55
ZAC	77.80	ETC	283.42	LVI	-11.97														

PLANETOCENTRIC CONIC

C3	30.641	VHL	5.535	DLA	17.16	RAL	44.97	RAD	6647.3	VEL	12.271	PTH	7.21	VHP	6.506	DPA	7.21	RAP	37.23
ECC	1.5043																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 12 32	3584.71	-47.22	136.06	289.57	96.64	15 12 16	2584.7	-39.20	104.51
60.00	14 32 19	3532.00	-40.25	132.06	290.31	92.14	15 31 11	2532.0	-35.00	102.27
70.00	15 1 44	3443.42	-34.13	125.09	290.36	88.62	15 59 9	2445.4	-31.13	96.77
80.00	15 48 13	3299.74	-29.64	113.81	290.12	86.18	16 43 13	2299.7	-28.20	86.48
90.00	16 59 44	3068.88	-27.91	96.70	289.97	85.27	17 50 53	2068.9	-27.07	69.72
100.00	18 31 5	2774.21	-29.64	75.18	290.12	86.18	19 17 19	1774.2	-28.20	47.85
110.00	20 1 10	2492.24	-34.13	54.01	290.36	88.62	20 42 43	1492.2	-31.13	25.69

DIFFERENTIAL CORRECTIONS

TDE	-.5183	TRA	-1.6918	TC3	.2604	BAU	.1248												
RDE	-.4354	RRA	.3083	RC3	-.1581	FAU	.07924												
FDE	.8601	FRA	2.4128	FC3	-2.2389	BSP	3278												
BDE	.6769	BRA	1.7197	BC3	.3047	FSP	456												

MID-COURSE EXECUTION ACCURACY

SGT	1931.3	SGR	587.6	SG3	320.6						
RRT	-.3708	RRF	.4154	RTF	-.8348						
SGB	2018.7	R23	-.0854	R13	.8382						
SG1	1944.6	SG2	542.0	THA	173.02						

ORBIT DETERMINATION ACCURACY

ST	38.4	SR	23.1	SS	33.4						
CRT	.5262	CRS	.5872	CST	.9958						
LSA	52.7	MSA	18.7	SSA	1.4						
EL1	40.8	EL2	18.5	ALF	22.36						

LAUNCH DATE JUL 7 1973 FLIGHT TIME 144.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 386.411 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 34.006 GAL -4.98 AZL 89.94 HCA 126.19 SMA 225.43 ECC .33548 INC .0618 V1 29.291
RP 220.76 LAP .05 LOP 50.93 VP 24.772 GAP 19.57 AZP 90.04 TAL 340.04 TAP 106.23 RCA 149.80 APO 301.06 V2 24.902
RC 86.480 GL .40 GP -6.97 ZAL 122.57 ZAP 164.75 ETS 208.48 ZAE 165.68 ETE 329.01 ZAC 77.48 ETC 283.40 LVI -11.64

PLANETOCENTRIC CONIC

C3 29.624 VHL 5.443 DLA 17.38 RAL 44.74 RAD 6646.9 VEL 12.230 PTH 7.18 VHP 6.330 DPA 7.07 RAP 37.61 ECC 1.4875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 10 39	3580.95	-47.19	135.70	288.72	96.92	15 10 20	2580.9	-39.07	104.24
60.00	14 30 8	3529.07	-40.25	131.81	289.50	92.31	15 28 57	2529.1	-34.93	102.06
70.00	14 59 9	3443.63	-34.13	124.95	289.56	88.70	15 56 33	2443.6	-31.09	96.64
80.00	15 45 14	3299.23	-29.64	113.77	289.33	86.20	16 40 13	2299.2	-28.20	86.44
90.00	16 56 33	3069.02	-27.91	96.71	289.18	85.27	17 47 42	2069.0	-27.07	69.73
100.00	18 28 5	2773.70	-29.64	75.14	289.33	86.20	19 14 19	1773.7	-28.20	47.81
110.00	19 58 35	2490.45	-34.13	53.87	289.56	88.70	20 40 6	1490.4	-31.09	25.56

DIFFERENTIAL CORRECTIONS
TDE -.5198 TRA-1.6842 TC3 .2860 BAU .1327
RDE -.4180 RRA .3141 RC3 -.1747 FAU .08255
FDE .9074 FRA 2.5047 FC3-2.4125 BSP 3346
BDE .6670 BRA 1.7133 BC3 .3352 FSP 487

MID-COURSE EXECUTION ACCURACY
SGT 1961.6 SGR 591.5 SG3 339.5
RRT -.3983 RRF .4459 RTF -.8398
SGB 2048.8 R23 -.0917 R13 .8435
SG1 1976.8 SG2 538.3 THA 172.60

ORBIT DETERMINATION ACCURACY
ST 39.1 SR 22.6 SS 34.6
CRT .5175 CRS .5824 CST .9956
LSA 53.8 MSA 18.5 SSA 1.4
EL1 41.2 EL2 18.3 ALF 21.01

LAUNCH DATE JUL 7 1973 FLIGHT TIME 146.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 389.661 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.934 GAL -4.89 AZL 89.89 HCA 127.30 SMA 223.58 ECC .32974 INC .1090 V1 29.291
RP 221.14 LAP .09 LOP 52.04 VP 24.632 GAP 19.24 AZP 90.07 TAL 340.15 TAP 107.45 RCA 149.86 APO 297.31 V2 24.861
RC 88.416 GL .69 GP -7.25 ZAL 122.42 ZAP 163.90 ETS 207.97 ZAE 165.31 ETE 328.33 ZAC 77.16 ETC 283.39 LVI -11.30

PLANETOCENTRIC CONIC

C3 28.671 VHL 5.354 DLA 17.62 RAL 44.49 RAD 6646.5 VEL 12.191 PTH 7.15 VHP 6.159 DPA 6.92 RAP 37.98 ECC 1.4718

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 8 40	3577.75	-47.16	135.39	287.91	97.15	15 8 18	2577.7	-38.96	104.01
60.00	14 27 49	3526.75	-40.24	131.61	288.71	92.45	15 26 36	2526.8	-34.87	101.89
70.00	14 56 25	3442.53	-34.13	124.87	288.79	88.75	15 53 48	2442.5	-31.08	96.56
80.00	15 42 3	3299.51	-29.64	113.79	288.56	86.19	16 37 3	2299.5	-28.20	86.46
90.00	16 53 9	3070.01	-27.91	96.78	288.41	85.23	17 44 19	2070.0	-27.08	69.80
100.00	18 24 55	2773.98	-29.64	75.16	288.56	86.19	19 11 9	1774.0	-28.20	47.83
110.00	19 55 52	2489.35	-34.13	53.79	288.79	88.75	20 37 21	1489.3	-31.08	25.48

DIFFERENTIAL CORRECTIONS
TDE -.5213 TRA-1.6762 TC3 .3117 BAU .1404
RDE -.4005 RRA .3206 RC3 -.1927 FAU .08601
FDE .9580 FRA 2.6000 FC3-2.5972 BSP 3410
BDE .6574 BRA 1.7066 BC3 .3664 FSP 519

MID-COURSE EXECUTION ACCURACY
SGT 1991.0 SGR 596.5 SG3 359.5
RRT -.4270 RRF .4776 RTF -.8443
SGB 2078.5 R23 -.0984 R13 .8485
SG1 2008.5 SG2 534.7 THA 172.15

ORBIT DETERMINATION ACCURACY
ST 39.7 SR 22.1 SS 35.9
CRT .5075 CRS .5766 CST .9952
LSA 55.0 MSA 18.2 SSA 1.4
EL1 41.6 EL2 18.1 ALF 19.66

LAUNCH DATE JUL 7 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 392.957 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.866 GAL -4.80 AZL 89.84 HCA 128.41 SMA 221.86 ECC .32429 INC .1559 V1 29.291
RP 221.52 LAP .12 LOP 53.15 VP 24.496 GAP 18.92 AZP 90.10 TAL 340.26 TAP 108.67 RCA 149.91 APO 293.81 V2 24.819
RC 90.414 GL 1.00 GP -7.53 ZAL 122.25 ZAP 163.04 ETS 207.52 ZAE 164.98 ETE 327.50 ZAC 76.82 ETC 283.38 LVI -10.95

PLANETOCENTRIC CONIC

C3 27.777 VHL 5.270 DLA 17.88 RAL 44.24 RAD 6646.1 VEL 12.154 PTH 7.12 VHP 5.994 DPA 6.74 RAP 38.34 ECC 1.4571

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 6 35	3575.12	-47.14	135.14	287.12	97.34	15 6 10	2575.1	-38.88	103.82
60.00	14 25 23	3525.07	-40.23	131.47	287.95	92.54	15 24 8	2525.1	-34.83	101.77
70.00	14 53 33	3442.15	-34.13	124.84	288.04	88.77	15 50 55	2442.1	-31.07	96.54
80.00	15 38 42	3300.62	-29.63	113.88	287.80	86.15	16 33 43	2300.6	-28.21	86.54
90.00	16 49 34	3071.89	-27.90	96.92	287.65	85.16	17 40 46	2071.9	-27.10	69.94
100.00	18 21 34	2775.09	-29.63	75.24	287.80	86.15	19 7 49	1775.1	-28.21	47.91
110.00	19 52 59	2488.97	-34.13	53.76	288.04	88.77	20 34 28	1489.0	-31.07	25.45

DIFFERENTIAL CORRECTIONS
TDE -.5228 TRA-1.6669 TC3 .3385 BAU .1484
RDE -.3830 RRA .3277 RC3 -.2123 FAU .08967
FDE 1.0120 FRA 2.6985 FC3-2.7947 BSP 3469
BDE .6481 BRA 1.6988 BC3 .3996 FSP 553

MID-COURSE EXECUTION ACCURACY
SGT 2018.9 SGR 602.9 SG3 380.5
RRT -.4568 RRF .5104 RTF -.[illegible]88
SGB 2107.0 R23 -.1054 R13 .8534
SG1 2038.9 SG2 531.1 THA 171.66

ORBIT DETERMINATION ACCURACY
ST 40.3 SR 21.6 SS 37.3
CRT .4961 CRS .5694 CST .9949
LSA 56.1 MSA 18.0 SSA 1.4
EL1 42.0 EL2 17.9 ALF 18.32

LAUNCH DATE JUL 7 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 396.294 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.801 GAL -4.71 AZL 89.79 HCA 129.51 SMA 220.25 ECC .31912 INC .2043 V1 29.291
RP 221.90 LAP .16 LOP 54.25 VP 24.364 GAP 18.61 AZP 90.13 TAL 340.37 TAP 109.88 RCA 149.96 APO 290.54 V2 24.778
RC 92.473 GL 1.33 GP -7.83 ZAL 122.08 ZAP 162.16 ETS 207.14 ZAE 164.70 ETE 326.54 ZAC 76.47 ETC 283.37 LVI -10.59

PLANETOCENTRIC CONIC

C3 26.940 VHL 5.190 DLA 18.15 RAL 43.97 RAD 6645.8 VEL 12.120 PTH 7.09 VHP 5.835 DPA 6.55 RAP 38.70 ECC 1.4434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 4 24	3573.09	-47.12	134.95	286.38	97.49	15 3 57	2573.1	-38.81	103.68
60.00	14 22 49	3524.04	-40.23	131.38	287.22	92.60	15 21 33	2524.0	-34.80	101.69
70.00	14 50 31	3442.53	-34.13	124.87	287.31	88.75	15 47 53	2442.5	-31.08	96.56
80.00	15 35 9	3302.60	-29.62	114.02	287.07	86.07	16 30 12	2302.6	-28.24	86.68
90.00	16 45 45	3074.71	-27.88	97.12	286.91	85.06	17 37 0	2074.7	-27.13	70.14
100.00	18 18 1	2777.07	-29.62	75.39	287.07	86.07	19 4 18	1777.1	-28.24	48.05
110.00	19 49 57	2489.34	-34.13	53.79	287.31	88.75	20 31 26	1489.3	-31.08	25.48

DIFFERENTIAL CORRECTIONS
TDE -.5247 TRA-1.6569 TC3 .3655 BAU .1562
RDE -.3652 RRA .3356 RC3 -.2335 FAU .09350
FDE 1.0698 FRA 2.8001 FC3-3.0047 BSP 3529
BDE .6393 BRA 1.6905 BC3 .4337 FSP 590

MID-COURSE EXECUTION ACCURACY
SGT 2045.5 SGR 610.9 SG3 402.5
RRT -.4871 RRF .5439 RTF -.8530
SGB 2134.7 R23 -.1130 R13 .8581
SG1 2068.5 SG2 527.6 THA 171.14

ORBIT DETERMINATION ACCURACY
ST 40.9 SR 21.0 SS 38.7
CRT .4831 CRS .5607 CST .9946
LSA 57.4 MSA 17.7 SSA 1.4
EL1 42.4 EL2 17.7 ALF 16.98

LAUNCH DATE JUL 7 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 399.670 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	33.740	GAL	-4.63	AZL	89.75	HCA	130.61	SMA	218.74	ECC	.31421	INC	.2543	V1	29.291
RP	222.28	LAP	.19	LOP	55.35	VP	24.236	GAP	18.29	AZP	90.17	TAL	340.49	TAP	111.09	RCA	150.01	APO	287.48	V2	24.736
RC	94.587	GL	1.68	GP	-8.15	ZAL	121.91	ZAP	161.26	ETS	206.80	ZAE	164.46	ETE	325.43	ZAC	76.11	ETC	283.37	LVI	-10.22

PLANETOCENTRIC CONIC

C3	26.155	VHL	5.114	DLA	18.43	RAL	43.70	RAD	6645.5	VEL	12.088	PTH	7.07	VHP	5.680	DPA	6.34	RAP	39.03	ECC	1.4305

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 2 7	3571.68	-47.11	134.82	285.66	97.59	15 1 39	2571.7	-38.76	103.58
60.00	14 20 8	3523.70	-40.23	131.35	286.51	92.62	15 18 52	2523.7	-34.79	101.67
70.00	14 47 19	3443.69	-34.13	124.96	286.60	88.70	15 44 42	2443.7	-31.10	96.65
80.00	15 31 24	3305.50	-29.61	114.24	286.35	85.96	16 26 30	2305.5	-28.27	86.89
90.00	16 41 43	3078.51	-27.86	97.40	286.19	84.93	17 33 2	2078.5	-27.16	70.41
100.00	18 14 16	2779.97	-29.61	75.60	286.35	85.96	19 0 36	1780.0	-28.27	48.26
110.00	19 46 45	2490.51	-34.13	53.88	286.60	88.70	20 28 16	1490.5	-31.10	25.57

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5261	TRA	-1.6461	TC3	.3930	BAU	.1641	SGT	2070.6	SGR	620.8	SG3	425.7	ST	41.5	SR	20.4	SS	40.1
RDE	-.3472	RRA	.3441	RC3	-.2567	FAU	.09753	RRT	-.5182	RRF	.5780	RTF	-.8569	CRT	.4676	CRS	.5500	CST	.9941
FDE	1.1314	FRA	2.9049	FC3	-3.2284	BSP	3584	SGB	2161.7	R23	-.1209	R13	.8627	LSA	58.6	MSA	17.5	SSA	1.4
BDE	.6304	BRA	1.6817	BC3	.4694	FSP	627	SG1	2097.1	SG2	524.2	THA	170.57	EL1	42.8	EL2	17.5	ALF	15.62

LAUNCH DATE JUL 7 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 403.081 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	33.682	GAL	-4.55	AZL	89.69	HCA	131.70	SMA	217.34	ECC	.30955	INC	.3061	V1	29.291
RP	222.67	LAP	.23	LOP	56.45	VP	24.112	GAP	17.98	AZP	90.20	TAL	340.60	TAP	112.30	RCA	150.06	APO	284.61	V2	24.694
RC	96.756	GL	2.04	GP	-8.49	ZAL	121.74	ZAP	160.33	ETS	206.52	ZAE	164.26	ETE	324.17	ZAC	75.74	ETC	283.36	LVI	-9.84

PLANETOCENTRIC CONIC

C3	25.420	VHL	5.042	DLA	18.73	RAL	43.42	RAD	6645.2	VEL	12.058	PTH	7.04	VHP	5.531	DPA	6.10	RAP	39.36	ECC	1.4184

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 59 43	3570.90	-47.10	134.74	284.99	97.65	14 59 14	2570.9	-38.73	103.52
60.00	14 17 19	3524.08	-40.23	131.38	285.84	92.60	15 16 3	2524.1	-34.80	101.70
70.00	14 43 56	3445.67	-34.13	125.11	285.92	88.61	15 41 22	2445.7	-31.13	96.79
80.00	15 27 26	3309.37	-29.59	114.52	285.66	85.81	16 22 35	2309.4	-28.32	87.17
90.00	16 37 26	3083.37	-27.83	97.75	285.49	84.75	17 28 49	2083.4	-27.21	70.76
100.00	18 10 17	2783.84	-29.59	75.89	285.66	85.81	18 56 41	1783.8	-28.32	48.54
110.00	19 43 23	2492.49	-34.13	54.03	285.92	88.61	20 24 55	1492.5	-31.13	25.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5281	TRA	-1.6344	TC3	.4199	BAU	.1718	SGT	2094.1	SGR	632.7	SG3	450.1	ST	42.0	SR	19.7	SS	41.7
RDE	-.3289	RRA	.3535	RC3	-.2817	FAU	.10172	RRT	-.5494	RRF	.6121	RTF	-.8606	CRT	.4498	CRS	.5371	CST	.9937
FDE	1.1982	FRA	3.0135	FC3	-3.4643	BSP	3644	SGB	2187.6	R23	-.1293	R13	.8670	LSA	60.0	MSA	17.2	SSA	1.4
BDE	.6221	BRA	1.6722	BC3	.5056	FSP	669	SG1	2124.7	SG2	521.1	THA	169.97	EL1	43.1	EL2	17.2	ALF	14.24

LAUNCH DATE JUL 7 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 406.524 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	33.626	GAL	-4.47	AZL	89.64	HCA	132.79	SMA	216.02	ECC	.30512	INC	.3590	V1	29.291
RP	223.06	LAP	.26	LOP	57.54	VP	23.992	GAP	17.67	AZP	90.24	TAL	340.72	TAP	113.51	RCA	150.11	APO	281.93	V2	24.652
RC	98.976	GL	2.42	GP	-8.84	ZAL	121.56	ZAP	159.39	ETS	206.27	ZAE	164.10	ETE	322.76	ZAC	75.35	ETC	283.36	LVI	-9.45

PLANETOCENTRIC CONIC

C3	24.730	VHL	4.973	DLA	19.05	RAL	43.13	RAD	6644.9	VEL	12.029	PTH	7.02	VHP	5.386	DPA	5.83	RAP	39.67	ECC	1.4070

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 57 13	3570.75	-47.10	134.73	284.34	97.66	14 56 44	2570.9	-38.73	103.51
60.00	14 14 20	3525.15	-40.23	131.47	285.19	92.54	15 13 6	2525.1	-34.83	101.77
70.00	14 40 23	3448.48	-34.12	125.33	285.26	88.48	15 37 51	2448.5	-31.18	97.00
80.00	15 23 13	3314.21	-29.56	114.88	284.98	85.63	16 18 27	2314.2	-28.37	87.52
90.00	16 32 53	3089.31	-27.79	98.18	284.81	84.54	17 24 22	2089.3	-27.27	71.19
100.00	18 6 5	2788.69	-29.56	76.25	284.98	85.63	18 52 33	1788.7	-28.37	48.89
110.00	19 39 49	2495.30	-34.12	54.25	285.26	88.48	20 21 24	1495.3	-31.18	25.91

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5147	TRA	-1.6064	TC3	.4710	BAU	.1863	SGT	2098.8	SGR	647.1	SG3	475.6	ST	41.7	SR	19.1	SS	43.3
RDE	-.3103	RRA	.3637	RC3	-.3090	FAU	.10614	RRT	-.5890	RRF	.6460	RTF	-.8704	CRT	.4199	CRS	.5214	CST	.9922
FDE	1.2691	FRA	3.1245	FC3	-3.7158	BSP	3510	SGB	2196.3	R23	-.1245	R13	.8771	LSA	60.7	MSA	17.0	SSA	1.4
BDE	.6010	BRA	1.6471	BC3	.5634	FSP	711	SG1	2135.3	SG2	514.0	THA	169.07	EL1	42.7	EL2	16.9	ALF	12.94

LAUNCH DATE JUL 7 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 409.997 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	33.574	GAL	-4.40	AZL	89.59	HCA	133.88	SMA	214.78	ECC	.30092	INC	.4135	V1	29.291
RP	223.44	LAP	.30	LOP	58.62	VP	23.875	GAP	17.36	AZP	90.29	TAL	340.83	TAP	114.71	RCA	150.15	APO	279.41	V2	24.611
RC	101.244	GL	2.82	GP	-9.21	ZAL	121.38	ZAP	158.43	ETS	206.07	ZAE	163.96	ETE	321.19	ZAC	74.95	ETC	283.37	LVI	-9.04

PLANETOCENTRIC CONIC

C3	24.087	VHL	4.908	DLA	19.38	RAL	42.84	RAD	6644.6	VEL	12.003	PTH	7.00	VHP	5.246	DPA	5.55	RAP	39.98	ECC	1.3964

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 54 36	3571.33	-47.11	134.78	283.74	97.62	14 54 7	2571.3	-38.75	103.55
60.00	14 11 14	3527.04	-40.24	131.63	284.58	92.43	15 10 1	2527.0	-34.88	101.91
70.00	14 36 38	3452.25	-34.12	125.63	284.63	88.31	15 34 10	2452.2	-31.24	97.27
80.00	15 18 45	3320.21	-29.53	115.32	284.33	85.39	16 14 5	2320.2	-28.44	87.95
90.00	16 28 3	3096.49	-27.74	98.70	284.14	84.28	17 19 40	2096.5	-27.33	71.70
100.00	18 1 37	2794.68	-29.53	76.69	284.33	85.39	18 48 12	1794.7	-28.44	49.32
110.00	19 36 4	2499.06	-34.12	54.55	284.63	88.31	20 17 43	1499.1	-31.24	26.19

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5234	TRA	-1.5998	TC3	.4868	BAU	.1909	SGT	2126.4	SGR	664.1	SG3	502.3	ST	42.6	SR	18.4	SS	44.9
RDE	-.2912	RRA	.3747	RC3	-.3384	FAU	.11076	RRT	-.6155	RRF	.6795	RTF	-.8706	CRT	.3989	CRS	.5017	CST	.9922
FDE	1.3446	FRA	3.2392	FC3	-3.9809	BSP	3641	SGB	2227.7	R23	-.1400	R13	.8784	LSA	62.4	MSA	16.6	SSA	1.5
BDE	.5989	BRA	1.6431	BC3	.5928	FSP	755	SG1	2167.7	SG2	513.4	THA	168.46	EL1	43.3	EL2	16.6	ALF	11.45

LAUNCH DATE JUL 7 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 14 1973

DISTANCE 413.497 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 33.524 GAL -4.33 AZL 89.53 HCA 134.96 SMA 213.63 ECC .29693 INC .4702 V1 29.291
RP 223.83 LAP .33 LOP 59.71 VP 23.761 GAP 17.06 AZP 90.33 TAL 340.95 TAP 115.91 RCA 150.19 APO 277.06 V2 24.569
RC 103.560 GL 3.25 GP -9.61 ZAL 121.20 ZAP 157.44 ETS 205.89 ZAE 163.84 ETE 319.46 ZAC 74.53 ETC 283.38 LVI -8.61

PLANETOCENTRIC CONIC

C3 23.486 VHL 4.846 DLA 19.74 RAL 42.54 RAD 6644.4 VEL 11.978 PTH 6.98 VHP 5.111 DPA 5.23 RAP 40.27 ECC 1.3865

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 51 52	3572.60	-47.12	134.90	283.18	97.52	14 51 24	2572.6	-38.79	103.64
60.00	14 7 58	3529.72	-40.25	131.86	284.00	92.27	15 6 47	2529.7	-34.94	102.11
70.00	14 32 40	3456.95	-34.11	125.99	284.02	88.09	15 30 17	2457.0	-31.32	97.61
80.00	15 14 1	3327.34	-29.49	115.85	283.70	85.12	16 9 29	2327.3	-28.52	88.47
90.00	16 22 54	3104.95	-27.68	99.31	283.50	83.98	17 14 39	2105.0	-27.41	72.31
100.00	17 56 53	2801.81	-29.49	77.22	283.70	85.12	18 43 35	1801.8	-28.52	49.83
110.00	19 32 7	2503.77	-34.11	54.91	284.02	88.09	20 13 51	1503.8	-31.32	26.53

DIFFERENTIAL CORRECTIONS

TDE -.5297 TRA-1.5898 TC3 .5054 BAU .1967
RDE -.2715 RRA .3868 RC3 -.3702 FAU .11556
FDE 1.4271 FRA 3.3580 FC3-4.2599 BSP 3743
BDE .5952 BRA 1.6362 BC3 .6265 FSP 802

MID-COURSE EXECUTION ACCURACY

SGT 2149.3 SGR 684.0 SG3 530.4
RRT -.6428 RRF .7119 RTF -.8717
SGB 2255.5 R23 -.1536 R13 .8806
SG1 2196.5 SG2 512.7 THA 167.76

ORBIT DETERMINATION ACCURACY

ST 43.3 SR 17.6 SS 46.6
CRT .3714 CRS .4775 CST .9920
LSA 64.0 MSA 16.2 SSA 1.5
EL1 43.9 EL2 16.2 ALF 9.96

LAUNCH DATE JUL 7 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 16 1973

DISTANCE 417.022 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 33.476 GAL -4.26 AZL 89.47 HCA 136.04 SMA 212.54 ECC .29315 INC .5287 V1 29.291
RP 224.22 LAP .37 LOP 60.79 VP 23.651 GAP 16.76 AZP 90.38 TAL 341.06 TAP 117.10 RCA 150.23 APO 274.85 V2 24.527
RC 105.921 GL 3.69 GP -10.02 ZAL 121.02 ZAP 156.43 ETS 205.75 ZAE 163.74 ETE 317.56 ZAC 74.10 ETC 283.39 LVI -8.17

PLANETOCENTRIC CONIC

C3 22.924 VHL 4.788 DLA 20.11 RAL 42.23 RAD 6644.1 VEL 11.955 PTH 6.96 VHP 4.981 DPA 4.89 RAP 40.54 ECC 1.3773

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 49 0	3574.61	-47.14	135.09	282.66	97.38	14 48 34	2574.6	-38.86	103.79
60.00	14 4 32	3533.24	-40.26	132.16	283.45	92.07	15 3 25	2533.2	-35.03	102.36
70.00	14 28 30	3462.65	-34.09	126.44	283.44	87.83	15 26 12	2462.7	-31.42	98.03
80.00	15 8 59	3335.70	-29.44	116.47	283.09	84.80	16 4 35	2335.7	-28.61	89.07
90.00	16 17 26	3114.78	-27.61	100.02	282.88	83.63	17 9 20	2114.8	-27.49	73.02
100.00	17 51 51	2810.17	-29.44	77.83	283.09	84.80	18 38 41	1810.2	-28.61	50.44
110.00	19 27 56	2509.47	-34.09	55.36	283.44	87.83	20 9 46	1509.5	-31.42	26.95

DIFFERENTIAL CORRECTIONS

TDE -.5341 TRA-1.5769 TC3 .5259 BAU .2034
RDE -.2512 RRA .3999 RC3 -.4046 FAU .12058
FDE 1.5147 FRA 3.4796 FC3-4.5536 BSP 3823
BDE .5902 BRA 1.6268 BC3 .6635 FSP 852

MID-COURSE EXECUTION ACCURACY

SGT 2168.1 SGR 707.2 SG3 559.7
RRT -.6698 RRF .7430 RTF -.8733
SGB 2280.5 R23 -.1660 R13 .8834
SG1 2222.2 SG2 512.3 THA 166.97

ORBIT DETERMINATION ACCURACY

ST 43.9 SR 16.9 SS 48.5
CRT .3365 CRS .4474 CST .9916
LSA 65.6 MSA 15.9 SSA 1.5
EL1 44.4 EL2 15.7 ALF 8.43

LAUNCH DATE JUL 7 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 18 1973

DISTANCE 420.570 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 33.432 GAL -4.20 AZL 89.41 HCA 137.12 SMA 211.52 ECC .28956 INC .5893 V1 29.291
RP 224.61 LAP .40 LOP 61.86 VP 23.544 GAP 16.46 AZP 90.43 TAL 341.17 TAP 118.29 RCA 150.27 APO 272.77 V2 24.485
RC 108.326 GL 4.16 GP -10.46 ZAL 120.84 ZAP 155.39 ETS 205.63 ZAE 163.65 ETE 315.49 ZAC 73.64 ETC 283.40 LVI -7.72

PLANETOCENTRIC CONIC

C3 22.399 VHL 4.733 DLA 20.51 RAL 41.92 RAD 6643.9 VEL 11.933 PTH 6.94 VHP 4.855 DPA 4.52 RAP 40.81 ECC 1.3686

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 46 0	3577.36	-47.16	135.36	282.18	97.18	14 45 37	2577.4	-38.95	103.98
60.00	14 0 5[illegible]	3537.62	-40.27	132.53	282.93	91.82	14 59 53	2537.6	-35.14	102.69
70.00	14 24 5	3469.40	-34.07	126.97	282.89	87.52	15 21 54	2469.4	-31.53	98.53
80.00	15 3 38	3345.38	-29.38	117.18	282.50	84.43	15 59 24	2345.4	-28.71	89.77
90.00	16 11 34	3126.08	-27.52	100.84	282.27	83.23	17 3 40	2126.1	-27.58	73.83
100.00	17 46 30	2819.85	-29.38	78.55	282.50	84.43	18 33 30	1819.8	-28.71	51.14
110.00	19 23 31	2516.22	-34.07	55.88	282.89	87.52	20 5 27	1516.2	-31.53	27.44

DIFFERENTIAL CORRECTIONS

TDE -.5372 TRA-1.5615 TC3 .5478 BAU .2107
RDE -.2302 RRA .4139 RC3 -.4418 FAU .12581
FDE 1.6089 FRA 3.6036 FC3-4.8625 BSP 3878
BDE .5845 BRA 1.6154 BC3 .7037 FSP 903

MID-COURSE EXECUTION ACCURACY

SGT 2182.9 SGR 734.0 SG3 590.3
RRT -.6961 RRF .7725 RTF -.[illegible]53
SGB 2303.0 R23 -.1776 R13 .8867
SG1 2245.3 SG2 512.3 THA 166.09

ORBIT DETERMINATION ACCURACY

ST 44.4 SR 16.1 SS 50.4
CRT .2932 CRS .4100 CST .9911
LSA 67.3 MSA 15.5 SSA 1.5
EL1 44.7 EL2 15.3 ALF 6.87

LAUNCH DATE JUL 7 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 20 1973

DISTANCE 424.140 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 33.389 GAL -4.13 AZL 89.35 HCA 138.19 SMA 210.56 ECC .28615 INC .6520 V1 29.291
RP 225.00 LAP .43 LOP 62.94 VP 23.439 GAP 16.17 AZP 90.49 TAL 341.28 TAP 119.47 RCA 150.31 APO 270.82 V2 24.443
RC 110.773 GL 4.65 GP -10.93 ZAL 120.65 ZAP 154.33 ETS 205.54 ZAE 163.56 ETE 313.23 ZAC 73.17 ETC 283.43 LVI -7.24

PLANETOCENTRIC CONIC

C3 21.911 VHL 4.681 DLA 20.93 RAL 41.60 RAD 6643.7 VEL 11.912 PTH 6.92 VHP 4.734 DPA 4.11 RAP 41.06 ECC 1.3606

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 42 51	3580.91	-47.19	135.69	281.75	96.92	14 42 32	2580.9	-39.07	104.24
60.00	13 57 7	3542.91	-40.28	132.98	282.45	91.52	14 56 10	2542.9	-35.27	103.07
70.00	14 19 24	3477.27	-34.05	127.58	282.36	87.15	15 17 22	2477.3	-31.66	99.10
80.00	14 57 56	3356.47	-29.30	117.99	281.93	84.01	15 53 53	2356.5	-28.82	90.58
90.00	16 5 18	3139.02	-27.42	101.77	281.68	82.78	16 57 37	2139.0	-27.68	74.76
100.00	17 40 48	2830.95	-29.30	79.36	281.93	84.01	18 27 59	1830.9	-28.82	51.95
110.00	19 18 51	2524.09	-34.05	56.50	282.36	87.15	20 0 55	1524.1	-31.66	28.02

DIFFERENTIAL CORRECTIONS

TDE -.5403 TRA-1.5452 TC3 .5678 BAU .2182
RDE -.2083 RRA .4291 RC3 -.4820 FAU .13126
FDE 1.7036 FRA 3.7308 FC3-5.1862 BSP 3939
BDE .5791 BRA 1.6037 BC3 .7448 FSP 958

MID-COURSE EXECUTION ACCURACY

SGT 2195.6 SGR 764.7 SG3 622.2
RRT -.7206 RRF .8001 RTF -.8770
SGB 2324.9 R23 -.1895 R13 .8899
SG1 2267.5 SG2 513.4 THA 165.13

ORBIT DETERMINATION ACCURACY

ST 44.9 SR 15.3 SS 52.3
CRT .2399 CRS .3628 CST .9906
LSA 69.0 MSA 15.2 SSA 1.5
EL1 45.1 EL2 14.8 ALF 5.24

LAUNCH DATE JUL 7 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 427.730 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.348 GAL -4.07 AZL 89.28 HCA 139.26 SMA 209.67 ECC .28292 INC .7173 V1 29.291
RP 225.39 LAP .47 LOP 64.00 VP 23.338 GAP 15.88 AZP 90.54 TAL 341.39 TAP 120.65 RCA 150.35 APO 268.99 V2 24.401
RC 113.259 GL 5.16 GP -11.42 ZAL 120.47 ZAP 153.24 ETS 205.47 ZAE 163.46 ETE 310.79 ZAC 72.67 ETC 283.45 LVI -6.75

PLANETOCENTRIC CONIC

C3 21.456 VHL 4.632 DLA 21.37 RAL 41.27 RAD 6643.5 VEL 11.893 PTH 6.90 VHP 4.617 DPA 3.67 RAP 41.29 ECC 1.3531

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 39 34	3585.28	-47.23	136.11	281.36	96.60	14 39 19	2585.3	-39.22	104.55
60.00	13 53 7	3549.16	-40.29	133.51	282.01	91.15	14 52 16	2549.2	-35.42	103.54
70.00	14 14 27	3486.32	-34.02	128.28	281.86	86.74	15 12 34	2486.3	-31.80	99.77
80.00	14 51 50	3369.11	-29.21	118.92	281.38	83.53	15 47 59	2369.1	-28.94	91.50
90.00	15 58 33	3153.73	-27.29	102.83	281.11	82.27	16 51 7	2153.7	-27.78	75.83
100.00	17 34 42	2843.58	-29.21	80.29	281.38	83.53	18 22 6	1843.6	-28.94	52.87
110.00	19 13 54	2533.14	-34.02	57.20	281.86	86.74	19 56 7	1533.1	-31.80	28.69

DIFFERENTIAL CORRECTIONS

TDE -.5427 TRA-1.5269 TC3 .5869 BAU .2259
RDE -.1855 RRA .4454 RC3 -.5252 FAU .13687
FDE 1.8177 FRA 3.8593 FC3-5.5224 BSP 3979
BDE .5735 BRA 1.5905 BC3 .7875 FSP 1014

MID-COURSE EXECUTION ACCURACY

SGT 2204.4 SGR 799.5 SG3 655.2
RRT -.7434 RRF .8256 RTF -.8786
SGB 2344.9 R23 -.2009 R13 .8933
SG1 2287.6 SG2 515.3 THA 164.08

ORBIT DETERMINATION ACCURACY

ST 45.3 SR 14.5 SS 54.4
CRT .1740 CRS .3038 CST .9900
LSA 70.7 MSA 14.8 SSA 1.5
EL1 45.4 EL2 14.3 ALF 3.54

LAUNCH DATE JUL 7 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 431.338 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.310 GAL -4.02 AZL 89.21 HCA 140.32 SMA 208.82 ECC .27986 INC .7852 V1 29.291
RP 225.78 LAP .50 LOP 65.07 VP 23.239 GAP 15.59 AZP 90.60 TAL 341.50 TAP 121.82 RCA 150.38 APO 267.26 V2 24.359
RC 115.782 GL 5.70 GP -11.94 ZAL 120.28 ZAP 152.12 ETS 205.43 ZAE 163.35 ETE 308.17 ZAC 72.15 ETC 283.48 LVI -6.24

PLANETOCENTRIC CONIC

C3 21.034 VHL 4.586 DLA 21.84 RAL 40.94 RAD 6643.3 VEL 11.876 PTH 6.89 VHP 4.504 DPA 3.20 RAP 41.51 ECC 1.3462

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 36 7	3590.50	-47.27	136.61	281.01	96.22	14 35 57	2590.5	-39.39	104.93
60.00	13 48 54	3556.42	-40.30	134.13	281.60	90.74	14 48 11	2556.4	-35.59	104.07
70.00	14 9 12	3496.65	-33.97	129.09	281.39	86.26	15 7 28	2496.6	-31.96	100.53
80.00	14 45 18	3383.44	-29.10	119.97	280.85	82.99	15 41 41	2383.4	-29.07	92.55
90.00	15 51 17	3170.42	-27.13	104.02	280.55	81.69	16 44 7	2170.4	-27.88	77.04
100.00	17 28 10	2857.91	-29.10	81.34	280.85	82.99	18 15 48	1857.9	-29.07	53.91
110.00	19 8 38	2543.47	-33.97	58.00	281.39	86.26	19 51 2	1543.5	-31.96	29.45

DIFFERENTIAL CORRECTIONS

TDE -.5447 TRA-1.5072 TC3 .6052 BAU .2342
RDE -.1615 RRA .4628 RC3 -.5720 FAU .14275
FDE 1.9334 FRA 3.9901 FC3-5.8753 BSP 4022
BDE .5682 BRA 1.5767 BC3 .8327 FSP 1073

MID-COURSE EXECUTION ACCURACY

SGT 2210.4 SGR 839.0 SG3 689.7
RRT -.7643 RRF .8489 RTF -.8801
SGB 2364.3 R23 -.2120 R13 .8968
SG1 2306.8 SG2 518.4 THA 162.93

ORBIT DETERMINATION ACCURACY

ST 45.7 SR 13.8 SS 56.6
CRT .0927 CRS .2293 CST .9893
LSA 72.6 MSA 14.4 SSA 1.6
EL1 45.7 EL2 13.7 ALF 1.76

LAUNCH DATE JUL 7 1973 FLIGHT TIME 172.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 434.962 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.274 GAL -3.96 AZL 89.14 HCA 141.38 SMA 208.03 ECC .27696 INC .8561 V1 29.291
RP 226.17 LAP .53 LOP 66.13 VP 23.143 GAP 15.30 AZP 90.67 TAL 341.60 TAP 122.98 RCA 150.41 APO 265.64 V2 24.318
RC 116.341 GL 6.27 GP -12.49 ZAL 120.10 ZAP 150.98 ETS 205.39 ZAE 163.21 ETE 305.38 ZAC 71.61 ETC 283.52 LVI -5.70

PLANETOCENTRIC CONIC

C3 20.644 VHL 4.544 DLA 22.33 RAL 40.60 RAD 6643.1 VEL 11.860 PTH 6.87 VHP 4.396 DPA 2.69 RAP 41.72 ECC 1.3397

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 32 29	3596.63	-47.31	137.20	280.72	95.77	14 32 20	2596.6	-39.50	105.38
60.00	13 44 27	3564.75	-40.30	134.84	281.23	90.25	14 43 52	2564.7	-35.79	104.70
70.00	14 3 36	3508.34	-33.92	129.99	280.95	85.73	15 2 5	2508.3	-32.13	101.40
80.00	14 38 16	3399.62	-28.96	121.15	280.34	82.38	15 34 56	2399.6	-29.20	93.73
90.00	15 43 24	3189.33	-26.93	105.37	280.01	81.04	16 36 33	2189.3	-27.98	78.41
100.00	17 21 8	2874.09	-28.96	82.52	280.34	82.38	18 9 2	1874.1	-29.20	55.10
110.00	19 3 3	2555.16	-33.92	58.91	280.95	85.73	19 45 38	1555.2	-32.13	30.32

DIFFERENTIAL CORRECTIONS

TDE -.5469 TRA-1.4865 TC3 .6207 BAU .2425
RDE -.1361 RRA .4816 RC3 -.6221 FAU .14877
FDE 2.0580 FRA 4.1227 FC3-6.2390 BSP 4062
BDE .5636 BRA 1.5626 BC3 .8788 FSP 1134

MID-COURSE EXECUTION ACCURACY

SGT 2213.7 SGR 883.3 SG3 725.3
RRT -.7830 RRF .8699 RTF -.8813
SGB 2383.4 R23 -.2228 R13 .9003
SG1 2325.3 SG2 523.0 THA 161.69

ORBIT DETERMINATION ACCURACY

ST 46.0 SR 13.1 SS 58.9
CRT -.0069 CRS .1362 CST .9887
LSA 74.5 MSA 14.1 SSA 1.6
EL1 46.0 EL2 13.1 ALF 179.88

LAUNCH DATE JUL 7 1973 FLIGHT TIME 174.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 438.602 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.239 GAL -3.91 AZL 89.07 HCA 142.44 SMA 207.28 ECC .27421 INC .9300 V1 29.291
RP 226.56 LAP .57 LOP 67.19 VP 23.050 GAP 15.02 AZP 90.74 TAL 341.70 TAP 124.14 RCA 150.44 APO 264.12 V2 24.276
RC 120.933 GL 6.86 GP -13.07 ZAL 119.91 ZAP 149.80 ETS 205.38 ZAE 163.03 ETE 302.41 ZAC 71.04 ETC 283.57 LVI -5.14

PLANETOCENTRIC CONIC

C3 20.284 VHL 4.504 DLA 22.86 RAL 40.25 RAD 6643.0 VEL 11.844 PTH 6.86 VHP 4.292 DPA 2.15 RAP 41.92 ECC 1.3338

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 28 40	3603.71	-47.36	137.87	280.47	95.25	14 28 44	2603.7	-39.83	105.90
60.00	13 39 45	3574.21	-40.30	135.64	280.89	89.71	14 39 19	2574.2	-36.00	105.40
70.00	13 57 38	3521.51	-33.85	131.02	280.53	85.13	14 56 20	2521.5	-32.32	102.38
80.00	14 30 41	3417.88	-28.78	122.48	279.85	81.70	15 27 39	2417.9	-29.33	95.07
90.00	15 34 49	3210.78	-26.70	106.90	279.47	80.31	16 28 20	2210.8	-28.08	79.97
100.00	17 13 33	2892.35	-28.78	83.85	279.85	81.70	18 1 45	1892.4	-29.33	56.44
110.00	18 57 5	2568.32	-33.85	59.93	280.53	85.13	19 39 53	1568.3	-32.32	31.30

DIFFERENTIAL CORRECTIONS

TDE -.5483 TRA-1.4644 TC3 .6340 BAU .2514
RDE -.1094 RRA .5018 RC3 -.6762 FAU .15502
FDE 2.1901 FRA 4.2559 FC3-6.6162 BSP 4099
BDE .5591 BRA 1.5479 BC3 .9270 FSP 1198

MID-COURSE EXECUTION ACCURACY

SGT 2213.5 SGR 932.9 SG3 762.1
RRT -.7996 RRF .8887 RTF -.8822
SGB 2402.1 R23 -.2331 R13 .9039
SG1 2343.1 SG2 529.2 THA 160.33

ORBIT DETERMINATION ACCURACY

ST 46.2 SR 12.5 SS 61.2
CRT -.1263 CRS .0220 CST .9879
LSA 76.5 MSA 13.7 SSA 1.6
EL1 46.3 EL2 12.4 ALF 177.89

LAUNCH DATE JUL 7 1973 FLIGHT TIME 176.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 442.257 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.206 GAL -3.86 AZL 88.99 HCA 143.49 SMA 206.58 ECC .27160 INC 1.0073 V1 29.291
RP 226.95 LAP .60 LOP 68.24 VP 22.959 GAP 14.73 AZP 90.81 TAL 341.80 TAP 125.29 RCA 150.47 APO 262.69 V2 24.234
RC 123.556 GL 7.49 GP -13.68 ZAL 119.73 ZAP 148.59 ETS 205.38 ZAE 162.81 ETE 299.30 ZAC 70.44 ETC 283.62 LVI -4.56

PLANETOCENTRIC CONIC

C3 19.953 VHL 4.467 DLA 23.41 RAL 39.89 RAD 6642.8 VEL 11.831 PTH 6.85 VHP 4.192 DPA 1.56 RAP 42.10 ECC 1.3284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 24 39	3611.77	-47.40	138.65	280.27	94.65	14 24 51	2611.8	-40.09	106.50
60.00	13 34 46	3584.85	-40.29	136.55	280.59	89.09	14 34 30	2584.9	-36.24	106.21
70.00	13 51 15	3536.25	-33.76	132.16	280.13	84.46	14 50 12	2536.3	-32.51	103.49
80.00	14 22 26	3438.45	-28.57	123.97	279.36	80.95	15 19 45	2438.4	-29.46	96.58
90.00	15 25 24	3235.15	-26.41	108.62	278.94	79.49	16 19 19	2235.1	-28.17	81.75
100.00	17 5 18	2912.92	-28.57	85.34	279.36	80.95	17 53 51	1912.9	-29.46	57.95
110.00	18 50 42	2583.07	-33.76	61.07	280.13	84.46	19 33 45	1583.1	-32.51	32.41

DIFFERENTIAL CORRECTIONS

TDE -.5390 TRA-1.4303 TC3 .6644 BAU .2644
RDE -.0817 RRA .5225 RC3 -.7355 FAU .16167
FDE 2.3251 FRA 4.3819 FC3-7.0148 BSP 4010
BDE .5452 BRA 1.5228 BC3 .9912 FSP 1256

MID-COURSE EXECUTION ACCURACY

SGT 2197.1 SGR 988.0 SG3 799.7
RRT -.8189 RRF .9052 RTF -.8864
SGB 2409.1 R23 -.2334 R13 .9104
SG1 2350.0 SG2 530.1 THA 158.64

ORBIT DETERMINATION ACCURACY

ST 45.8 SR 12.2 SS 63.5
CRT -.2660 CRS -.1098 CST .9863
LSA 78.1 MSA 13.4 SSA 1.5
EL1 45.9 EL2 11.7 ALF 178.67

LAUNCH DATE JUL 7 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 445.924 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.175 GAL -3.81 AZL 88.91 HCA 144.54 SMA 205.92 ECC .26913 INC 1.0862 V1 29.291
RP 227.34 LAP .63 LOP 69.29 VP 22.870 GAP 14.45 AZP 90.89 TAL 341.89 TAP 126.43 RCA 150.50 APO 261.34 V2 24.193
RC 126.208 GL 8.15 GP -14.34 ZAL 119.54 ZAP 147.35 ETS 205.39 ZAE 162.53 ETE 296.07 ZAC 69.81 ETC 283.68 LVI -3.94

PLANETOCENTRIC CONIC

C3 19.652 VHL 4.433 DLA 24.00 RAL 39.53 RAD 6642.7 VEL 11.818 PTH 6.84 VHP 4.097 DPA .92 RAP 42.27 ECC 1.3234

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 20 26	3620.92	-47.45	139.53	280.13	93.98	14 20 47	2620.9	-40.38	107.18
60.00	13 29 28	3596.84	-40.27	137.57	280.34	88.40	14 29 25	2596.8	-36.50	107.12
70.00	13 44 25	3552.80	-33.64	133.44	279.76	83.71	14 43 38	2552.8	-32.72	104.73
80.00	14 13 26	3461.74	-28.31	125.66	278.88	80.10	15 11 8	2461.7	-29.59	98.30
90.00	15 14 58	3263.06	-26.05	110.58	278.40	78.57	16 9 21	2263.1	-28.24	83.79
100.00	16 56 18	2936.21	-28.31	87.02	278.88	80.10	17 45 14	1936.2	-29.59	59.67
110.00	18 43 51	2599.62	-33.64	62.35	279.76	83.71	19 27 11	1599.6	-32.72	33.65

DIFFERENTIAL CORRECTIONS

TDE -.5489 TRA-1.4146 TC3 .6539 BAU .2708
RDE -.0506 RRA .5461 RC3 -.7966 FAU .16798
FDE 2.4823 FRA 4.5203 FC3-7.4001 BSP 4151
BDE .5513 BRA 1.5163 BC3 1.0306 FSP 1330

MID-COURSE EXECUTION ACCURACY

SGT 2201.0 SGR 1048.8 SG3 838.7
RRT -.8271 RRF .9198 RTF -.8835
SGB 2438.2 R23 -.2499 R13 .9118
SG1 2376.2 SG2 546.1 THA 157.22

ORBIT DETERMINATION ACCURACY

ST 46.5 SR 12.1 SS 66.3
CRT -.4142 CRS -.2639 CST .9861
LSA 80.8 MSA 13.0 SSA 1.6
EL1 46.8 EL2 10.9 ALF 173.49

LAUNCH DATE JUL 7 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 449.603 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.146 GAL -3.77 AZL 88.83 HCA 145.59 SMA 205.30 ECC .26680 INC 1.1730 V1 29.291
RP 227.73 LAP .66 LOP 70.34 VP 22.784 GAP 14.17 AZP 90.97 TAL 341.98 TAP 127.57 RCA 150.53 APO 260.08 V2 24.152
RC 128.887 GL 8.85 GP -15.03 ZAL 119.36 ZAP 146.07 ETS 205.41 ZAE 162.18 ETE 292.74 ZAC 69.15 ETC 283.74 LVI -3.30

PLANETOCENTRIC CONIC

C3 19.379 VHL 4.402 DLA 24.62 RAL 39.16 RAD 6642.6 VEL 11.807 PTH 6.83 VHP 4.006 DPA .25 RAP 42.43 ECC 1.3189

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 15 58	3631.18	-47.49	140.52	280.04	93.22	14 16 29	2631.2	-40.70	107.95
60.00	13 23 50	3610.19	-40.24	138.70	280.11	87.63	14 24 0	2610.2	-36.79	108.14
70.00	13 37 2	3571.28	-33.49	134.86	279.41	82.88	14 36 34	2571.3	-32.94	106.13
80.00	14 3 32	3488.15	-27.99	127.55	278.40	79.15	15 1 40	2488.1	-29.71	100.26
90.00	15 3 16	3295.24	-25.59	112.63	277.85	77.54	15 58 11	2295.2	-28.28	86.14
100.00	16 46 24	2962.62	-27.99	88.92	278.40	79.15	17 35 46	1962.6	-29.71	61.63
110.00	18 36 29	2618.10	-33.49	63.77	279.41	82.88	19 20 7	1618.1	-32.94	35.05

DIFFERENTIAL CORRECTIONS

TDE -.5511 TRA-1.3900 TC3 .6536 BAU .2805
RDE -.0180 RRA .5706 RC3 -.8630 FAU .17460
FDE 2.6441 FRA 4.6512 FC3-7.7999 BSP 4207
BDE .5514 BRA 1.5026 BC3 1.0825 FSP 1400

MID-COURSE EXECUTION ACCURACY

SGT 2192.2 SGR 1115.9 SG3 878.3
RRT -.8364 RRF .9324 RTF -.8827
SGB 2459.9 R23 -.2587 R13 .9152
SG1 2395.4 SG2 559.7 THA 155.51

ORBIT DETERMINATION ACCURACY

ST 46.7 SR 12.4 SS 69.0
CRT -.5629 CRS -.4199 CST .9854
LSA 83.2 MSA 12.7 SSA 1.6
EL1 47.2 EL2 10.1 ALF 171.11

LAUNCH DATE JUL 7 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 453.294 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.118 GAL -3.72 AZL 88.74 HCA 146.63 SMA 204.72 ECC .26459 INC 1.2622 V1 29.291
RP 228.12 LAP .69 LOP 71.38 VP 22.700 GAP 13.90 AZP 91.05 TAL 342.06 TAP 128.69 RCA 150.55 APO 258.89 V2 24.110
RC 131.592 GL 9.58 GP -15.76 ZAL 119.17 ZAP 144.75 ETS 205.44 ZAE 161.75 ETE 289.33 ZAC 68.46 ETC 283.82 LVI -2.62

PLANETOCENTRIC CONIC

C3 19.133 VHL 4.374 DLA 25.28 RAL 38.78 RAD 6642.4 VEL 11.796 PTH 6.82 VHP 3.919 DPA -.48 RAP 42.57 ECC 1.3149

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 11 13	3642.62	-47.53	141.62	280.00	92.37	14 11 56	2642.6	-41.05	108.82
60.00	13 17 49	3625.04	-40.19	139.96	279.93	86.78	14 18 14	2625.0	-37.09	109.28
70.00	13 29 3	3591.91	-33.31	136.44	279.08	81.97	14 28 55	2591.9	-33.16	107.70
80.00	13 52 31	3518.27	-27.58	129.70	277.91	78.09	14 51 9	2518.3	-29.80	102.49
90.00	14 49 55	3332.87	-25.01	115.43	277.26	76.36	15 45 28	2332.9	-28.26	88.89
100.00	16 35 23	2992.74	-27.58	91.07	277.91	78.09	17 25 16	1992.7	-29.80	63.86
110.00	18 28 30	2638.72	-33.31	65.36	279.08	81.97	19 12 28	1638.7	-33.16	36.62

DIFFERENTIAL CORRECTIONS

TDE -.5425 TRA-1.3531 TC3 .6727 BAU .2949
RDE .0163 RRA .5957 RC3 -.9362 FAU .18175
FDE 2.8093 FRA 4.7700 FC3-8.2240 BSP 4133
BDE .5427 BRA 1.4784 BC3 1.1529 FSP 1461

MID-COURSE EXECUTION ACCURACY

SGT 2166.4 SGR 1189.9 SG3 918.6
RRT -.8490 RRF .9433 RTF -.8853
SGB 2471.6 R23 -.2566 R13 .9217
SG1 2405.9 SG2 566.1 THA 153.41

ORBIT DETERMINATION ACCURACY

ST 46.1 SR 13.0 SS 71.6
CRT -.6973 CRS -.5623 CST .9837
LSA 85.3 MSA 12.4 SSA 1.5
EL1 47.0 EL2 9.2 ALF 168.40

LAUNCH DATE JUL 7 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 456.994 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	33.092	GAL	-3.69	AZL	88.64	HCA	147.67	SMA	204.17	ECC	.26250	INC	1.3562	V1	29.291
RP	228.51	LAP	.73	LOP	72.42	VP	22.618	GAP	13.62	AZP	91.15	TAL	342.14	TAP	129.61	RCA	150.58	APO	257.77	V2	24.069
RC	134.321	GL	10.35	GP	-16.54	ZAL	118.98	ZAP	143.40	ETS	205.47	ZAE	161.24	ETE	285.91	ZAC	67.73	ETC	283.90	LVI	-1.91

PLANETOCENTRIC CONIC

C3	18.916	VHL	4.349	DLA	25.98	RAL	38.39	RAD	6642.4	VEL	11.787	PTH	6.81	VHP	3.837	DPA	-1.26	RAP	42.70	ECC	1.3113

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 6 11	3655.37	-47.56	142.85	280.03	91.42	14 7 7	2655.4	-41.43	109.80
60.00	13 11 22	3641.56	-40.12	141.36	279.78	85.83	14 12 4	2641.6	-37.41	110.57
70.00	13 20 22	3619.03	-33.07	138.20	278.76	80.95	14 20 37	2615.0	-33.39	109.47
80.00	13 40 6	3553.08	-27.07	132.16	277.41	76.90	14 39 20	2553.1	-29.85	105.08
90.00	14 34 17	3378.04	-24.25	118.52	276.62	74.99	15 30 36	2378.0	-28.17	92.19
100.00	16 22 58	3027.55	-27.07	93.52	277.41	76.90	17 13 26	2027.6	-29.85	66.45
110.00	18 19 49	2661.85	-33.07	67.12	278.76	80.95	19 4 11	1661.8	-33.39	38.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5504	TRA	-1.3324	TC3	.6492	BAU	.3037	SGT	2158.0	SGR	1270.3	SG3	959.4	ST	46.6	SR	14.2	SS	74.7
RDE	.0550	RRA	.6241	RC3	-1.0102	FAU	.18819	RRT	-.8515	RRF	.9525	RTF	-.8812	CRT	-.8043	CRS	-.6879	CST	.9833
FDE	2.9990	FRA	4.8999	FC3	-8.6129	BSP	4274	SGB	2504.1	R23	-.2675	R13	.9239	LSA	88.4	NSA	12.1	SSA	1.5
BDE	.5532	BRA	1.4713	BC3	1.2006	FSP	1541	SG1	2433.5	SG2	590.6	THA	151.55	EL1	48.0	EL2	8.2	ALF	165.76

LAUNCH DATE JUL 7 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 460.705 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	33.067	GAL	-3.65	AZL	88.54	HCA	148.71	SMA	203.66	ECC	.26053	INC	1.4554	V1	29.291
RP	228.90	LAP	.76	LOP	73.46	VP	22.538	GAP	13.35	AZP	91.24	TAL	342.22	TAP	130.92	RCA	150.60	APO	256.72	V2	24.028
RC	137.073	GL	11.17	GP	-17.36	ZAL	118.79	ZAP	142.01	ETS	205.51	ZAE	160.63	ETE	282.49	ZAC	66.96	ETC	284.00	LVI	-1.16

PLANETOCENTRIC CONIC

C3	18.726	VHL	4.327	DLA	26.71	RAL	37.99	RAD	6642.3	VEL	11.779	PTH	6.80	VHP	3.760	DPA	-2.09	RAP	42.82	ECC	1.3082

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 50	3669.49	-47.57	144.22	280.11	90.37	14 1 59	2669.5	-41.85	110.91
60.00	13 4 26	3659.86	-40.02	142.91	279.67	84.79	14 5 26	2659.9	-37.75	112.00
70.00	13 10 51	3640.95	-32.78	140.17	278.45	79.82	14 11 32	2640.9	-33.61	111.46
80.00	13 25 51	3593.87	-26.41	135.01	276.85	75.54	14 25 45	2593.9	-29.84	108.11
90.00	14 15 9	3434.56	-23.20	122.33	275.87	73.36	15 12 24	2434.6	-27.92	96.31
100.00	16 8 43	3068.34	-26.41	96.37	276.85	75.54	16 59 51	2068.3	-29.84	69.48
110.00	18 10 18	2687.77	-32.78	69.08	278.45	79.82	18 55 5	1687.8	-33.61	40.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5456	TRA	-1.2974	TC3	.6490	BAU	.3181	SGT	2129.6	SGR	1358.5	SG3	1000.3	ST	46.2	SR	15.9	SS	77.7
RDE	.0959	RRA	.6526	RC3	-1.0922	FAU	.19523	RRT	-.8582	RRF	.9604	RTF	-.8811	CRT	-.8828	CRS	-.7822	CST	.9818
FDE	3.1906	FRA	5.0113	FC3	-9.0257	BSP	4272	SGB	2526.0	R23	-.2656	R13	.9296	LSA	91.0	NSA	11.8	SSA	1.5
BDE	.5539	BRA	1.4523	BC3	1.2705	FSP	1609	SG1	2452.4	SG2	605.5	THA	149.22	EL1	48.4	EL2	7.1	ALF	162.72

LAUNCH DATE JUL 7 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 464.424 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	33.044	GAL	-3.61	AZL	88.44	HCA	149.74	SMA	203.17	ECC	.25867	INC	1.5603	V1	29.291
RP	229.28	LAP	.79	LOP	74.49	VP	22.460	GAP	13.08	AZP	91.35	TAL	342.29	TAP	132.03	RCA	150.62	APO	255.73	V2	23.988
RC	139.847	GL	12.03	GP	-18.23	ZAL	118.60	ZAP	140.58	ETS	205.55	ZAE	159.92	ETE	279.12	ZAC	66.14	ETC	284.11	LVI	-.37

PLANETOCENTRIC CONIC

C3	18.566	VHL	4.309	DLA	27.50	RAL	37.58	RAD	6642.2	VEL	11.772	PTH	6.80	VHP	3.687	DPA	-2.97	RAP	42.94	ECC	1.3055

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 55 6	3685.12	-47.57	145.73	280.25	89.21	13 56 31	2685.1	-42.29	112.14
60.00	12 56 57	3680.17	-39.88	144.62	279.58	83.64	13 58 18	2680.2	-38.10	113.61
70.00	13 0 20	3670.19	-32.41	142.37	278.14	78.57	14 1 31	2670.2	-33.81	113.72
80.00	13 8 58	3643.08	-25.53	138.40	276.22	73.96	14 9 41	2643.1	-29.73	111.76
90.00	13 49 19	3512.64	-21.59	127.48	274.87	71.27	14 47 52	2512.6	-27.36	101.95
100.00	15 51 50	3117.55	-25.53	99.76	276.22	73.96	16 43 48	2117.5	-29.73	73.13
110.00	17 59 47	2717.01	-32.41	71.28	278.14	78.57	18 45 4	1717.0	-33.81	42.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5485	TRA	-1.2701	TC3	.6243	BAU	.3306	SGT	2108.7	SGR	1454.4	SG3	1041.3	ST	46.3	SR	18.1	SS	81.0
RDE	.1414	RRA	.6842	RC3	-1.1765	FAU	.20177	RRT	-.8593	RRF	.9671	RTF	-.8772	CRT	-.9347	CRS	-.8521	CST	.9810
FDE	3.4020	FRA	5.1259	FC3	-9.4086	BSP	4376	SGB	2561.6	R23	-.2682	R13	.9336	LSA	94.3	NSA	11.6	SSA	1.5
BDE	.5664	BRA	1.4427	BC3	1.3319	FSP	1687	SG1	2482.5	SG2	631.8	THA	146.93	EL1	49.4	EL2	6.0	ALF	159.63

LAUNCH DATE JUL 7 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 468.150 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	33.022	GAL	-3.58	AZL	88.33	HCA	150.77	SMA	202.72	ECC	.25691	INC	1.6714	V1	29.291
RP	229.67	LAP	.82	LOP	75.52	VP	22.384	GAP	12.82	AZP	91.46	TAL	342.35	TAP	133.12	RCA	150.64	APO	254.80	V2	23.947
RC	142.641	GL	12.94	GP	-19.16	ZAL	118.40	ZAP	139.11	ETS	205.59	ZAE	159.10	ETE	279.83	ZAC	65.29	ETC	284.23	LVI	.47

PLANETOCENTRIC CONIC

C3	18.433	VHL	4.293	DLA	28.33	RAL	37.15	RAD	6642.1	VEL	11.767	PTH	6.79	VHP	3.619	DPA	-3.92	RAP	43.04	ECC	1.3034

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 48 58	3702.37	-47.54	147.40	280.45	87.92	13 50 40	2702.4	-42.76	113.53
60.00	12 48 50	3702.70	-39.69	146.51	279.53	82.37	13 50 33	2702.7	-38.46	115.42
70.00	12 48 36	3703.39	-31.93	144.84	277.80	77.18	13 50 19	2703.4	-33.98	116.29
80.00	12 47 55	3705.54	-24.28	142.62	275.42	72.07	13 49 41	2705.5	-29.43	116.38
88.23	12 34 24	3749.23	-17.04	142.94	272.53	67.02	13 36 54	2749.3	-25.04	118.76
100.00	15 30 47	3180.01	-24.28	103.99	275.42	72.07	16 23 47	2180.0	-29.43	77.75
110.00	17 48 2	2750.21	-31.93	73.75	277.80	77.18	18 33 52	1750.2	-33.98	45.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5459	TRA	-1.2365	TC3	.6042	BAU	.3459	SGT	2077.1	SGR	1558.4	SG3	1081.6	ST	46.0	SR	20.7	SS	84.3
RDE	.1906	RRA	.7166	RC3	-1.2669	FAU	.20839	RRT	-.8608	RRF	.9728	RTF	-.8741	CRT	-.9669	CRS	-.8999	CST	.9796
FDE	3.6202	FRA	5.2247	FC3	-9.7872	BSP	4435	SGB	2596.7	R23	-.2647	R13	.9368	LSA	97.6	NSA	11.4	SSA	1.4
BDE	.5782	BRA	1.4292	BC3	1.4036	FSP	1760	SG1	2512.6	SG2	655.6	THA	144.35	EL1	50.2	EL2	4.8	ALF	156.22

LAUNCH DATE JUL 7 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 471.884 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 33.001 GAL -3.55 AZL 88.21 HCA 151.79 SMA 202.29 ECC .25526 INC 1.7895 V1 29.291
RP 230.05 LAP .85 LOP 76.55 VP 22.309 GAP 12.55 AZP 91.58 TAL 342.41 TAP 134.21 RCA 150.65 APO 253.93 V2 23.907
RC 145.456 GL 13.90 GP -20.14 ZAL 118.20 ZAP 137.60 ETS 205.62 ZAE 158.16 ETE 272.64 ZAC 64.38 ETC 284.36 LVI 1.35

PLANETOCENTRIC CONIC

C3 18.331 VHL 4.282 DLA 29.21 RAL 36.71 RAD 6642.1 VEL 11.762 PTH 6.79 VHP 3.556 DPA -4.93 RAP 43.14 ECC 1.3017

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 42 20	3721.40	-47.48	149.23	280.71	86.51	13 44 22	2721.4	-43.26	115.09
60.00	12 39 58	3727.74	-39.45	148.59	279.49	80.97	13 42 5	2727.7	-38.83	117.45
70.00	12 35 18	3741.50	-31.32	147.64	277.43	75.63	13 37 40	2741.5	-34.11	119.26
80.00	12 18 6	3795.70	-22.27	148.55	274.26	69.58	13 21 21	2795.7	-28.68	122.97
82.35	11 44 22	3903.94	-17.57	154.53	272.23	66.28	12 49 25	2903.9	-25.83	130.33
100.00	15 0 57	3270.17	-22.27	109.92	274.26	69.58	15 55 28	2270.2	-28.68	84.34
110.00	17 34 44	2788.32	-31.32	76.56	277.43	75.63	18 21 13	1788.3	-34.11	48.18

DIFFERENTIAL CORRECTIONS

TDE -.5412 TRA-1.2000 TC3 .5818 BAU .3633
RDE .2443 RRA .7502 RC3-1.3633 FAU .21500
FDE 3.8475 FRA 5.3077 FC-10.1537 BSP 4489
BDE .5938 BRA 1.4152 BC3 1.4822 FSP 1829

MID-COURSE EXECUTION ACCURACY

SGT 2039.1 SGR 1671.1 SG3 1121.0
RRT -.8612 RRF .9775 RTF -.8706
SGB 2636.4 R23 -.2577 R13 .9446
SG1 2547.2 SG2 679.9 THA 141.55

ORBIT DETERMINATION ACCURACY

ST 45.5 SR 23.8 SS 87.6
CRT -.9854 CRS -.9323 CST .9779
LSA 101.0 MSA 11.2 SSA 1.4
EL1 51.3 EL2 3.6 ALF 152.57

LAUNCH DATE JUL 7 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 475.625 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.981 GAL -3.52 AZL 88.08 HCA 152.81 SMA 201.89 ECC .25370 INC 1.9154 V1 29.291
RP 230.44 LAP .87 LOP 77.57 VP 22.237 GAP 12.29 AZP 91.70 TAL 342.47 TAP 135.28 RCA 150.67 APO 253.11 V2 23.867
RC 148.289 GL 14.92 GP -21.16 ZAL 118.00 ZAP 136.05 ETS 205.65 ZAE 157.11 ETE 269.59 ZAC 63.43 ETC 284.51 LVI 2.28

PLANETOCENTRIC CONIC

C3 18.261 VHL 4.273 DLA 30.15 RAL 36.25 RAD 6642.1 VEL 11.759 PTH 6.79 VHP 3.497 DPA -6.01 RAP 43.23 ECC 1.3003

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 35 11	3742.41	-47.37	151.25	281.02	84.96	13 37 33	2742.4	-43.79	116.83
60.00	12 30 12	3755.67	-39.12	150.89	279.47	79.44	13 32 48	2755.7	-39.19	119.73
70.00	12 19 56	3786.00	-30.52	150.86	276.99	73.88	13 23 2	2786.0	-34.15	122.73
79.07	11 17 15	3983.87	-18.13	160.72	271.96	65.48	12 23 39	2983.9	-26.66	136.49
79.07	11 17 15	3983.87	-18.13	160.72	271.96	65.48	12 23 39	2983.9	-26.66	136.49
79.07	11 17 15	3983.87	-18.13	160.72	271.96	65.48	12 23 39	2983.9	-26.66	136.49
110.00	17 19 23	2832.82	-30.52	79.78	276.99	73.88	18 6 35	1832.8	-34.15	51.65

DIFFERENTIAL CORRECTIONS

TDE -.5359 TRA-1.1633 TC3 .5508 BAU .3817
RDE .3037 RRA .7859 RC3-1.4633 FAU .22115
FDE 4.0886 FRA 5.3803 FC-10.4844 BSP 4568
BDE .6160 BRA 1.4039 BC3 1.5635 FSP 1899

MID-COURSE EXECUTION ACCURACY

SGT 1998.0 SGR 1792.9 SG3 1159.0
RRT -.8596 RRF .9814 RTF -.8659
SGB 2684.5 R23 -.2486 R13 .9504
SG1 2589.8 SG2 706.7 THA 138.60

ORBIT DETERMINATION ACCURACY

ST 45.0 SR 27.4 SS 91.1
CRT -.9949 CRS -.9542 CST .9761
LSA 104.7 MSA 11.1 SSA 1.3
EL1 52.6 EL2 2.4 ALF 148.69

LAUNCH DATE JUL 7 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 479.372 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.962 GAL -3.49 AZL 87.95 HCA 153.83 SMA 201.51 ECC .25223 INC 2.0497 V1 29.291
RP 230.82 LAP .90 LOP 78.59 VP 22.167 GAP 12.02 AZP 91.84 TAL 342.52 TAP 136.35 RCA 150.69 APO 252.34 V2 23.827
RC 151.140 GL 16.00 GP -22.28 ZAL 117.78 ZAP 134.45 ETS 205.67 ZAE 155.94 ETE 266.68 ZAC 62.42 ETC 284.68 LVI 3.26

PLANETOCENTRIC CONIC

C3 18.224 VHL 4.269 DLA 31.15 RAL 35.76 RAD 6642.0 VEL 11.758 PTH 6.79 VHP 3.445 DPA -7.15 RAP 43.31 ECC 1.2999

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 27 23	3765.60	-47.21	153.47	281.38	83.25	13 30 9	2765.6	-44.33	118.80
60.00	12 19 23	3786.95	-38.70	153.45	279.44	77.76	13 22 30	2786.9	-39.54	122.32
70.00	12 1 38	3839.42	-29.45	154.65	276.41	71.87	13 5 38	2839.4	-34.07	126.90
76.35	10 55 32	4046.10	-18.71	165.67	271.72	64.62	12 2 58	3046.1	-27.53	141.42
76.35	10 55 32	4046.10	-18.71	165.67	271.72	64.62	12 2 58	3046.1	-27.53	141.42
76.35	10 55 32	4046.10	-18.71	165.67	271.72	64.62	12 2 58	3046.1	-27.53	141.42
110.00	17 1 5	2886.24	-29.45	83.57	276.41	71.87	17 49 11	1886.2	-34.07	55.82

DIFFERENTIAL CORRECTIONS

TDE -.5280 TRA-1.1225 TC3 .5188 BAU .4028
RDE .3688 RRA .8218 RC3-1.5697 FAU .22723
FDE 4.3367 FRA 5.4269 FC-10.7947 BSP 4632
BDE .6440 BRA 1.3912 BC3 1.6532 FSP 1959

MID-COURSE EXECUTION ACCURACY

SGT 1948.8 SGR 1924.1 SG3 1194.9
RRT -.8570 RRF .9847 RTF -.8705
SGB 2736.6 R23 -.2359 R13 .9566
SG1 2638.9 SG2 732.3 THA 135.43

ORBIT DETERMINATION ACCURACY

ST 44.2 SR 31.5 SS 94.7
CRT -.9986 CRS -.9689 CST .9739
LSA 108.6 MSA 11.0 SSA 1.3
EL1 54.2 EL2 1.4 ALF 144.56

LAUNCH DATE JUL 7 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 483.124 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.945 GAL -3.47 AZL 87.81 HCA 154.84 SMA 201.16 ECC .25085 INC 2.1937 V1 29.291
RP 231.20 LAP .93 LOP 79.60 VP 22.098 GAP 11.76 AZP 91.99 TAL 342.57 TAP 137.41 RCA 150.70 APO 251.62 V2 23.787
RC 154.008 GL 17.15 GP -23.45 ZAL 117.55 ZAP 132.81 ETS 205.67 ZAE 154.65 ETE 263.94 ZAC 61.36 ETC 284.67 LVI 4.30

PLANETOCENTRIC CONIC

C3 18.223 VHL 4.269 DLA 32.22 RAL 35.25 RAD 6642.0 VEL 11.758 PTH 6.79 VHP 3.398 DPA -8.37 RAP 43.40 ECC 1.2999

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 18 52	3791.26	-46.98	155.91	281.79	81.39	13 22 3	2791.3	-44.89	121.02
60.00	12 7 16	3822.22	-38.15	156.26	279.38	75.90	13 10 58	2822.2	-39.86	125.26
70.00	11 38 38	3906.95	-27.93	159.31	275.59	69.49	12 43 45	2906.9	-33.73	132.14
73.88	10 36 32	4099.27	-19.30	170.00	271.52	63.69	11 44 52	3099.3	-28.45	145.74
73.88	10 36 32	4099.27	-19.30	170.00	271.52	63.69	11 44 52	3099.3	-28.45	145.74
73.88	10 36 32	4099.27	-19.30	170.00	271.52	63.69	11 44 52	3099.3	-28.45	145.74
110.00	16 38 4	2953.77	-27.93	88.23	275.59	69.49	17 27 18	1953.8	-33.73	61.06

DIFFERENTIAL CORRECTIONS

TDE -.5168 TRA-1.0793 TC3 .4834 BAU .4260
RDE .4408 RRA .8588 RC3-1.6803 FAU .23280
FDE 4.5933 FRA 5.4527 FC-11.0603 BSP 4710
BDE .6792 BRA 1.3792 BC3 1.7485 FSP 2016

MID-COURSE EXECUTION ACCURACY

SGT 1892.9 SGR 2065.0 SG3 1228.0
RRT -.8532 RRF .9874 RTF -.8543
SGB 2801.4 R23 -.2202 R13 .9628
SG1 2697.5 SG2 755.8 THA 132.08

ORBIT DETERMINATION ACCURACY

ST 43.2 SR 36.0 SS 98.3
CRT -.9984 CRS -.9787 CST .9712
LSA 112.7 MSA 11.0 SSA 1.2
EL1 56.2 EL2 1.6 ALF 140.16

LAUNCH DATE JUL 7 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 486.882 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	32.928	GAL	-3.45	AZL	87.65	HCA	155.85	SMA	200.83	ECC	.24955	INC	2.3484	V1	29.291
RP	231.58	LAP	.96	LOP	80.62	VP	22.031	GAP	11.50	AZP	92.14	TAL	342.61	TAP	138.46	RCA	150.71	APO	250.94	V2	23.748
RC	156.890	GL	18.37	GP	-24.69	ZAL	117.31	ZAP	131.12	ETS	205.66	ZAE	153.24	ETE	261.36	ZAC	60.23	ETC	285.08	LVI	5.41

PLANETOCENTRIC CONIC

C3	18.261	VHL	4.273	DLA	33.35	RAL	34.71	RAD	6642.1	VEL	11.759	PTH	6.79	VHP	3.357	DPA	-9.66	RAP	43.48	ECC	1.3005

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 9 28	3819.69	-46.65	158.58	282.22	79.36	13 13 8	2819.7	-45.45	123.53
60.00	11 53 30	3862.36	-37.44	159.45	279.27	73.85	12 57 52	2862.4	-40.11	128.65
70.00	11 5 41	4004.20	-25.44	165.78	274.20	66.41	12 12 25	3004.2	-32.83	139.59
71.53	10 19 14	4146.65	-19.91	173.97	271.35	62.67	11 28 21	3146.7	-29.41	149.69
71.53	10 19 14	4146.65	-19.91	173.97	271.35	62.67	11 28 21	3146.7	-29.41	149.69
71.53	10 19 14	4146.65	-19.91	173.97	271.35	62.67	11 28 21	3146.7	-29.41	149.69
110.00	16 5 7	3051.02	-25.44	94.69	274.20	66.41	16 55 58	2051.0	-32.83	68.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4978	TRA	-1.0284	TC3	.4552	BAU	.4530	SGT	1822.6	SGR	2215.8	SG3	1257.3	ST	41.6	SR	41.0	SS	101.7		
RDE	.5190	RRA	.8946	RC3	-1.7988	FAU	.23834	RRT	-.8501	RRF	.9896	RTF	-.8488	CRT	-.9956	CRS	-.9853	C8T	.9673		
FDE	4.8466	FRA	5.4411	FC	-11.2997	BSP	4734	SGB	2869.0	R23	-.1999	R13	.9693	L8A	116.7	M8A	11.0	S8A	1.1		
BDE	.7191	BRA	1.3630	BC3	1.8555	FSP	2054	SG1	2763.9	SG2	769.5	THA	126.49	EL1	58.3	EL2	2.7	ALF	135.40		

LAUNCH DATE JUL 7 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 490.642 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	32.913	GAL	-3.43	AZL	87.48	HCA	156.86	SMA	200.52	ECC	.24834	INC	2.5153	V1	29.291
RP	231.95	LAP	.99	LOP	81.63	VP	21.965	GAP	11.28	AZP	92.31	TAL	342.64	TAP	139.50	RCA	150.72	APO	250.31	V2	23.708
RC	159.785	GL	19.67	GP	-26.01	ZAL	117.06	ZAP	129.39	ETS	205.63	ZAE	151.71	ETE	258.95	ZAC	59.04	ETC	285.31	LVI	6.58

PLANETOCENTRIC CONIC

C3	18.344	VHL	4.283	DLA	34.87	RAL	34.15	RAD	6642.1	VEL	11.763	PTH	6.79	VHP	3.323	DPA	-11.03	RAP	43.58	ECC	1.3019

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 59 3	3851.36	-46.21	161.51	282.67	77.14	13 3 14	2851.4	-46.00	126.36
60.00	11 37 34	3908.76	-36.50	163.04	279.05	71.58	12 42 43	2908.8	-40.27	132.58
69.24	10 3 5	4190.13	-20.54	177.71	271.22	61.57	11 12 55	3190.1	-30.43	153.43
69.24	10 3 5	4190.13	-20.54	177.71	271.22	61.57	11 12 55	3190.1	-30.43	153.43
69.24	10 3 5	4190.13	-20.54	177.71	271.22	61.57	11 12 55	3190.1	-30.43	153.43
69.24	10 3 5	4190.13	-20.54	177.71	271.22	61.57	11 12 55	3190.1	-30.43	153.43
69.24	10 3 5	4190.13	-20.54	177.71	271.22	61.57	11 12 55	3190.1	-30.43	153.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4973	TRA	-.9973	TC3	.3745	BAU	.4764	SGT	1780.5	SGR	2378.8	SG3	1283.9	ST	41.2	SR	47.0	SS	106.0		
RDE	.6131	RRA	.9377	RC3	-1.9080	FAU	.24131	RRT	-.8352	RRF	.9915	RTF	-.8330	CRT	-.9917	CRS	-.9901	C8T	.9692		
FDE	5.1472	FRA	5.4443	FC	-11.3885	BSP	5015	SGB	2971.4	R23	-.1876	R13	.9736	L8A	122.6	M8A	11.1	S8A	1.1		
BDE	.7894	BRA	1.3689	BC3	1.9424	FSP	2128	SG1	2857.4	SG2	815.3	THA	125.31	EL1	62.4	EL2	4.0	ALF	131.20		

LAUNCH DATE JUL 7 1973 FLIGHT TIME 204.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 494.407 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	32.898	GAL	-3.41	AZL	87.30	HCA	157.87	SMA	200.23	ECC	.24720	INC	2.6958	V1	29.291
RP	232.33	LAP	1.02	LOP	82.63	VP	21.901	GAP	10.99	AZP	92.50	TAL	342.67	TAP	140.53	RCA	150.73	APO	249.72	V2	23.670
RC	162.693	GL	21.06	GP	-27.40	ZAL	116.79	ZAP	127.62	ETS	205.58	ZAE	150.07	ETE	256.70	ZAC	57.79	ETC	285.57	LVI	7.81

PLANETOCENTRIC CONIC

C3	18.476	VHL	4.298	DLA	35.86	RAL	33.53	RAD	6642.2	VEL	11.769	PTH	6.79	VHP	3.295	DPA	-12.48	RAP	43.67	ECC	1.3041

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 47 21	3866.75	-45.65	164.72	280.10	74.72	12 52 6	2866.8	-46.55	129.64
60.00	11 18 38	3363.55	-35.24	167.14	276.64	69.04	12 24 42	2963.6	-40.28	137.25
66.97	9 47 43	4230.71	-21.18	181.31	271.13	60.36	10 58 14	3230.7	-31.49	157.04
66.97	9 47 43	4230.71	-21.18	181.31	271.13	60.36	10 58 14	3230.7	-31.49	157.04
66.97	9 47 43	4230.71	-21.18	181.31	271.13	60.36	10 58 14	3230.7	-31.49	157.04
66.97	9 47 43	4230.71	-21.18	181.31	271.13	60.36	10 58 14	3230.7	-31.49	157.04
66.97	9 47 43	4230.71	-21.18	181.31	271.13	60.36	10 58 14	3230.7	-31.49	157.04

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4808	TRA	-.9506	TC3	.3185	BAU	.5062	SGT	1711.8	SGR	2551.5	SG3	1304.2	ST	39.7	SR	53.4	SS	109.8		
RDE	.7137	RRA	.9760	RC3	-2.0243	FAU	.24465	RRT	-.8233	RRF	.9930	RTF	-.8197	CRT	-.9860	CRS	-.9932	C8T	.9608		
FDE	5.4258	FRA	5.3848	FC	-11.4635	BSP	5171	SGB	3072.6	R23	-.1682	R13	.9787	L8A	127.9	M8A	11.2	S8A	1.0		
BDE	.8606	BRA	1.3624	BC3	2.0492	FSP	2166	SG1	2955.9	SG2	838.7	THA	121.77	EL1	66.3	EL2	5.3	ALF	126.94		

LAUNCH DATE JUL 7 1973 FLIGHT TIME 206.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 498.176 EARTH TO MARS

RL	152.10	LAL	.00	LOL	284.74	VL	32.884	GAL	-3.39	AZL	87.11	HCA	158.87	SMA	199.86	ECC	.24613	INC	2.8919	V1	29.291
RP	232.70	LAP	1.04	LOP	83.63	VP	21.839	GAP	10.73	AZP	92.70	TAL	342.69	TAP	141.55	RCA	150.74	APO	249.17	V2	23.631
RC	165.610	GL	22.54	GP	-28.87	ZAL	116.49	ZAP	125.81	ETS	205.49	ZAE	148.30	ETE	254.60	ZAC	56.47	ETC	285.86	LVI	9.12

PLANETOCENTRIC CONIC

C3	18.664	VHL	4.320	DLA	37.25	RAL	32.87	RAD	6642.2	VEL	11.776	PTH	6.80	VHP	3.276	DPA	-14.01	RAP	43.78	ECC	1.3072

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 34 4	3926.60	-44.85	168.25	283.46	72.10	12 39 31	2926.6	-46.99	133.37
60.00	10 55 8	4030.94	-33.49	172.00	277.89	66.14	12 2 19	3030.9	-40.00	142.95
64.68	9 32 54	4269.16	-21.84	184.81	271.08	59.05	10 44 3	3269.2	-32.61	160.58
64.68	9 32 54	4269.16	-21.84	184.81	271.08	59.05	10 44 3	3269.2	-32.61	160.58
64.68	9 32 54	4269.16	-21.84	184.81	271.08	59.05	10 44 3	3269.2	-32.61	160.58
64.68	9 32 54	4269.16	-21.84	184.81	271.08	59.05	10 44 3	3269.2	-32.61	160.58
64.68	9 32 54	4269.16	-21.84	184.81	271.08	59.05	10 44 3	3269.2	-32.61	160.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4617	TRA	-.9043	TC3	.2548	BAU	.5381	SGT	1641.1	SGR	2735.8	SG3	1318.7	ST	38.1	SR	60.5	SS	113.5		
RDE	.8270	RRA	1.0146	RC3	-2.1416	FAU	.24677	RRT	-.8075	RRF	.9943	RTF	-.8026	CRT	-.9788	CRS	-.9953	C8T	.9551		
FDE	5.7069	FRA	5.2958	FC	-11.4467	BSP	5355	SGB	3190.2	R23	-.1489	R13	.9831	L8A	133.7	M8A	11.3	S8A	.9		
BDE	.9471	BRA	1.3591	BC3	2.1567	FSP	2194	SG1	3071.6	SG2	862.1	THA	118.27	EL1	71.2	EL2	6.6	ALF	121.94		

LAUNCH DATE JUL 7 1973 FLIGHT TIME 208.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC — DISTANCE 501.947 — EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.871 GAL -3.38 AZL 86.89 HCA 159.86 SMA 199.70 ECC .24514 INC 3.1060 V1 29.291
RP 233.07 LAP 1.07 LOP 84.63 VP 21.778 GAP 10.48 AZP 92.92 TAL 342.71 TAP 142.57 RCA 150.75 APO 248.66 V2 23.593
RC 168.537 GL 24.13 GP -30.42 ZAL 116.17 ZAP 123.95 ETS 205.37 ZAE 146.42 ETE 252.66 ZAC 55.08 ETC 286.19 LVI 10.51

PLANETOCENTRIC CONIC

C3 18.917 VHL 4.349 DLA 38.73 RAL 32.16 RAD 6642.4 VEL 11.787 PTH 6.81 VHP 3.264 DPA -15.64 RAP 43.91 ECC 1.3113

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 47	3971.91	-43.83	172.13	283.70	69.26	12 24 59	2971.9	-47.36	137.69
60.00	10 23 5	4121.31	-30.83	178.19	276.42	62.64	11 31 47	3121.5	-39.14	150.50
62.36	9 18 25	4306.04	-22.50	188.28	271.08	57.61	10 30 11	3306.0	-33.78	164.11
62.36	9 18 25	4306.04	-22.50	188.28	271.08	57.61	10 30 11	3306.0	-33.78	164.11
62.36	9 18 25	4306.04	-22.50	188.28	271.08	57.61	10 30 11	3306.0	-33.78	164.11
62.36	9 18 25	4306.04	-22.50	188.28	271.08	57.61	10 30 11	3306.0	-33.78	164.11
62.36	9 18 25	4306.04	-22.50	188.28	271.08	57.61	10 30 11	3306.0	-33.78	164.11

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4387 TRA -.8557 TC3 .1867 BAU .5724 — SGT 1564.7 SGR 2931.0 SG3 1326.0 — ST 36.1 SR 68.4 SS 117.3
RDE .9555 RRA 1.0521 RC3-2.2557 FAU .24749 — RRT -.7879 RRF .9953 RTF -.7818 — CRT -.9700 CRS -.9968 CST .9479
FDE 5.9904 FRA 5.1687 FC-11.3267 BSP 5574 — SGB 3322.5 R23 -.1296 R13 .9869 — LSA 140.1 MSA 11.5 SSA .8
BDE 1.0514 BRA 1.3562 BC3 2.2634 FSP 2214 — SG1 3203.4 SG2 881.7 THA 114.82 — EL1 77.0 EL2 7.8 ALF 117.43

LAUNCH DATE JUL 7 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC — DISTANCE 505.722 — EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.859 GAL -3.37 AZL 86.66 HCA 160.86 SMA 199.46 ECC .24421 INC 3.3405 V1 29.291
RP 233.44 LAP 1.09 LOP 85.63 VP 21.718 GAP 10.23 AZP 93.16 TAL 342.72 TAP 143.57 RCA 150.75 APO 248.18 V2 23.554
RC 171.472 GL 25.83 GP -32.06 ZAL 115.81 ZAP 122.05 ETS 205.21 ZAE 144.43 ETE 250.84 ZAC 53.61 ETC 286.56 LVI 11.98

PLANETOCENTRIC CONIC

C3 19.246 VHL 4.387 DLA 40.32 RAL 31.37 RAD 6642.5 VEL 11.801 PTH 6.82 VHP 3.262 DPA -17.35 RAP 44.05 ECC 1.3167

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 0 48	4024.15	-42.48	176.42	283.70	66.17	12 7 52	3024.1	-47.56	142.72
59.98	9 4 11	4341.66	-23.16	191.75	271.12	56.03	10 16 32	3341.7	-35.00	167.67
59.98	9 4 11	4341.66	-23.16	191.75	271.12	56.03	10 16 32	3341.7	-35.00	167.67
59.98	9 4 11	4341.66	-23.16	191.75	271.12	56.03	10 16 32	3341.7	-35.00	167.67
59.98	9 4 11	4341.66	-23.16	191.75	271.12	56.03	10 16 32	3341.7	-35.00	167.67
59.98	9 4 11	4341.66	-23.16	191.75	271.12	56.03	10 16 32	3341.7	-35.00	167.67
59.98	9 4 11	4341.66	-23.16	191.75	271.12	56.03	10 16 32	3341.7	-35.00	167.67

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4071 TRA -.8017 TC3 .1234 BAU .6112 — SGT 1476.5 SGR 3135.8 SG3 1324.2 — ST 33.6 SR 77.0 SS 120.7
RDE 1.0976 RRA 1.0837 RC3-2.3722 FAU .24751 — RRT -.7638 RRF .9962 RTF -.7564 — CRT -.9580 CRS -.9978 CST .9371
FDE 6.2513 FRA 4.9823 FC-11.1337 BSP 5769 — SGB 3466.0 R23 -.1103 R13 .9901 — LSA 146.5 MSA 11.7 SSA .7
BDE 1.1707 BRA 1.3480 BC3 2.3754 FSP 2206 — SG1 3349.2 SG2 892.2 THA 111.37 — EL1 83.5 EL2 8.9 ALF 112.99

LAUNCH DATE JUL 7 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC — DISTANCE 509.498 — EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.848 GAL -3.36 AZL 86.40 HCA 161.85 SMA 199.24 ECC .24335 INC 3.5988 V1 29.291
RP 233.80 LAP 1.12 LOP 86.62 VP 21.660 GAP 9.98 AZP 93.42 TAL 342.72 TAP 144.57 RCA 150.76 APO 247.73 V2 23.517
RC 174.413 GL 27.65 GP -33.79 ZAL 115.42 ZAP 120.13 ETS 205.01 ZAE 142.33 ETE 249.15 ZAC 52.07 ETC 286.97 LVI 13.53

PLANETOCENTRIC CONIC

C3 19.667 VHL 4.435 DLA 42.02 RAL 30.50 RAD 6642.7 VEL 11.819 PTH 6.84 VHP 3.271 DPA -19.15 RAP 44.22 ECC 1.3237

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 39 3	4085.81	-40.67	181.23	283.32	62.81	11 47 9	3085.8	-47.49	148.68
57.52	8 50 0	4376.51	-23.80	195.24	271.21	54.29	10 2 56	3376.5	-36.26	171.31
57.52	8 50 0	4376.51	-23.80	195.24	271.21	54.29	10 2 56	3376.5	-36.26	171.31
57.52	8 50 0	4376.51	-23.80	195.24	271.21	54.29	10 2 56	3376.5	-36.26	171.31
57.52	8 50 0	4376.51	-23.80	195.24	271.21	54.29	10 2 56	3376.5	-36.26	171.31
57.52	8 50 0	4376.51	-23.80	195.24	271.21	54.29	10 2 56	3376.5	-36.26	171.31
57.52	8 50 0	4376.51	-23.80	195.24	271.21	54.29	10 2 56	3376.5	-36.26	171.31

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.3780 TRA -.7557 TC3 .0399 BAU .6504 — SGT 1402.4 SGR 3354.4 SG3 1314.5 — ST 31.4 SR 86.7 SS 124.2
RDE 1.2638 RRA 1.1170 RC3-2.4734 FAU .24505 — RRT -.7286 RRF .9969 RTF -.[illegible]02 — CRT -.9433 CRS -.9985 CST .9239
FDE 6.5202 FRA 4.7758 FC-10.7868 BSP 6091 — SGB 3635.7 R23 -.0941 R13 .9925 — LSA 154.2 MSA 11.9 SSA .7
BDE 1.3191 BRA 1.3486 BC3 2.4737 FSP 2206 — SG1 3518.5 SG2 915.7 THA 108.22 — EL1 91.7 EL2 9.8 ALF 109.07

LAUNCH DATE JUL 7 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC — DISTANCE 513.277 — EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.838 GAL -3.35 AZL 86.12 HCA 162.83 SMA 199.04 ECC .24255 INC 3.8848 V1 29.291
RP 234.17 LAP 1.15 LOP 87.61 VP 21.604 GAP 9.73 AZP 93.71 TAL 342.72 TAP 145.56 RCA 150.76 APO 247.31 V2 23.479
RC 177.360 GL 29.62 GP -35.61 ZAL 114.97 ZAP 118.17 ETS 204.75 ZAE 140.13 ETE 247.56 ZAC 50.45 ETC 287.44 LVI 15.16

PLANETOCENTRIC CONIC

C3 20.199 VHL 4.494 DLA 43.85 RAL 29.53 RAD 6642.9 VEL 11.841 PTH 6.86 VHP 3.292 DPA -21.04 RAP 44.43 ECC 1.3324

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 11 24	4161.65	-38.16	186.75	282.23	59.09	11 20 46	3161.6	-46.94	155.93
54.97	8 35 44	4410.89	-24.42	198.80	271.33	52.38	9 49 14	3410.9	-37.57	175.08
54.97	8 35 44	4410.89	-24.42	198.80	271.33	52.38	9 49 14	3410.9	-37.57	175.08
54.97	8 35 44	4410.89	-24.42	198.80	271.33	52.38	9 49 14	3410.9	-37.57	175.08
54.97	8 35 44	4410.89	-24.42	198.80	271.33	52.38	9 49 14	3410.9	-37.57	175.08
54.97	8 35 44	4410.89	-24.42	198.80	271.33	52.38	9 49 14	3410.9	-37.57	175.08
54.97	8 35 44	4410.89	-24.42	198.80	271.33	52.38	9 49 14	3410.9	-37.57	175.08

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.3391 TRA -.7050 TC3 -.0388 BAU .6935 — SGT 1319.7 SGR 3581.9 SG3 1293.8 — ST 28.6 SR 97.4 SS 127.3
RDE 1.4511 RRA 1.1427 RC3-2.5678 FAU .24117 — RRT -.6848 RRF .9975 RTF -.6752 — CRT -.9218 CRS -.9989 CST .9033
FDE 6.7612 FRA 4.5115 FC-10.3369 BSP 6391 — SGB 3817.3 R23 -.0785 R13 .9944 — LSA 162.3 MSA 12.2 SSA .6
BDE 1.4902 BRA 1.3427 BC3 2.5681 FSP 2175 — SG1 3702.2 SG2 930.5 THA 105.14 — EL1 100.9 EL2 10.7 ALF 105.31

LAUNCH DATE JUL 7 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 517.097 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.828 GAL -3.34 AZL 85.80 HCA 163.82 SMA 198.85 ECC .24181 INC 4.2036 V1 29.291
RP 234.53 LAP 1.17 LOP 88.60 VP 21.548 GAP 9.48 AZP 94.04 TAL 342.72 TAP 146.53 RCA 150.76 APO 246.93 V2 23.442
RC 180.313 GL 31.73 GP -37.53 ZAL 114.48 ZAP 116.18 ETS 204.43 ZAE 137.82 ETE 246.06 ZAC 48.76 ETC 287.96 LVI 16.89

PLANETOCENTRIC CONIC

C3 20.867 VHL 4.568 DLA 45.82 RAL 28.43 RAD 6643.2 VEL 11.869 PTH 6.88 VHP 3.326 DPA -23.03 RAP 44.67 ECC 1.3434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 32 17	4264.58	-34.33	193.61	279.70	54.78	10 43 21	3264.6	-45.43	165.39
52.32	8 21 15	4445.04	-25.00	202.45	271.49	50.27	9 35 21	3445.0	-38.90	179.02
52.32	8 21 15	4445.04	-25.00	202.45	271.49	50.27	9 35 21	3445.0	-38.90	179.02
52.32	8 21 15	4445.04	-25.00	202.45	271.49	50.27	9 35 21	3445.0	-38.90	179.02
52.32	8 21 15	4445.04	-25.00	202.45	271.49	50.27	9 35 21	3445.0	-38.90	179.02
52.32	8 21 15	4445.04	-25.00	202.45	271.49	50.27	9 35 21	3445.0	-38.90	179.02
52.32	8 21 15	4445.04	-25.00	202.45	271.49	50.27	9 35 21	3445.0	-38.90	179.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2917 TRA -.6535 TC3 -.1174 BAU .7397 SGT 1236.4 SGR 3818.6 SG3 1261.5 ST 25.4 SR 109.1 SS 129.9
RDE 1.6651 RRA 1.1606 RC3-2.6489 FAU .23546 RRT -.6272 RRF .9980 RTF -.6163 CRT -.8882 CRS -.9993 CST .8704
FDE 6.9723 FRA 4.1973 FC3-9.7689 BSP 6716 SGB 4013.7 R23 -.0644 R13 .9960 LSA 171.0 MSA 12.5 SSA .5
BDE 1.6904 BRA 1.3320 BC3 2.6515 FSP 2125 SG1 3901.5 SG2 942.5 THA 102.20 EL1 111.4 EL2 11.4 ALF 101.82

LAUNCH DATE JUL 7 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 520.838 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.819 GAL -3.33 AZL 85.44 HCA 164.79 SMA 198.67 ECC .24112 INC 4.5613 V1 29.291
RP 234.89 LAP 1.20 LOP 89.58 VP 21.494 GAP 9.24 AZP 94.40 TAL 342.71 TAP 147.50 RCA 150.77 APO 246.57 V2 23.405
RC 183.270 GL 34.01 GP -39.53 ZAL 113.92 ZAP 114.17 ETS 204.05 ZAE 135.43 ETE 244.64 ZAC 46.99 ETC 288.56 LVI 18.70

PLANETOCENTRIC CONIC

C3 21.705 VHL 4.659 DLA 47.93 RAL 27.18 RAD 6643.6 VEL 11.904 PTH 6.91 VHP 3.377 DPA -25.10 RAP 44.96 ECC 1.3572

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.54	8 6 24	4479.34	-25.52	206.21	271.67	47.94	9 21 3	3479.3	-40.23	183.19
49.54	8 6 24	4479.34	-25.52	206.21	271.67	47.94	9 21 3	3479.3	-40.23	183.19
49.54	8 6 24	4479.34	-25.52	206.21	271.67	47.94	9 21 3	3479.3	-40.23	183.19
49.54	8 6 24	4479.34	-25.52	206.21	271.67	47.94	9 21 3	3479.3	-40.23	183.19
49.54	8 6 24	4479.34	-25.52	206.21	271.67	47.94	9 21 3	3479.3	-40.23	183.19
49.54	8 6 24	4479.34	-25.52	206.21	271.67	47.94	9 21 3	3479.3	-40.23	183.19
49.54	8 6 24	4479.34	-25.52	206.21	271.67	47.94	9 21 3	3479.3	-40.23	183.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2344 TRA -.6014 TC3 -.1934 BAU .7895 SGT 1155.0 SGR 4063.3 SG3 1217.0 ST 22.0 SR 121.9 SS 131.9
RDE 1.9106 RRA 1.1679 RC3-2.7140 FAU .22788 RRT -.5514 RRF .9983 RTF -.5391 CRT -.8315 CRS -.9995 CST .8138
FDE 7.1438 FRA 3.8328 FC3-9.0897 BSP 7057 SGB 4224.3 R23 -.0518 R13 .9971 LSA 180.4 MSA 12.7 SSA .4
BDE 1.9249 BRA 1.3136 BC3 2.7209 FSP 2051 SG1 4115.8 SG2 951.3 THA 99.42 EL1 123.2 EL2 12.1 ALF 98.60

LAUNCH DATE JUL 7 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 524.619 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.810 GAL -3.33 AZL 85.03 HCA 165.77 SMA 198.50 ECC .24049 INC 4.9656 V1 29.291
RP 235.24 LAP 1.22 LOP 90.57 VP 21.442 GAP 8.99 AZP 94.81 TAL 342.69 TAP 148.46 RCA 150.77 APO 246.24 V2 23.369
RC 186.232 GL 36.46 GP -41.63 ZAL 113.29 ZAP 112.15 ETS 203.58 ZAE 132.95 ETE 243.28 ZAC 45.16 ETC 289.24 LVI 20.59

PLANETOCENTRIC CONIC

C3 22.759 VHL 4.771 DLA 50.20 RAL 25.73 RAD 6644.0 VEL 11.948 PTH 6.95 VHP 3.446 DPA -27.26 RAP 45.31 ECC 1.3746

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.63	7 50 55	4514.20	-25.93	210.11	271.84	45.38	9 6 9	3514.2	-41.55	187.67
46.63	7 50 55	4514.20	-25.93	210.11	271.84	45.38	9 6 9	3514.2	-41.55	187.67
46.63	7 50 55	4514.20	-25.93	210.11	271.84	45.38	9 6 9	3514.2	-41.55	187.67
46.63	7 50 55	4514.20	-25.93	210.11	271.84	45.38	9 6 9	3514.2	-41.55	187.67
46.63	7 50 55	4514.20	-25.93	210.11	271.84	45.38	9 6 9	3514.2	-41.55	187.67
46.63	7 50 55	4514.20	-25.93	210.11	271.84	45.38	9 6 9	3514.2	-41.55	187.67
46.63	7 50 55	4514.20	-25.93	210.11	271.84	45.38	9 6 9	3514.2	-41.55	187.67

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1669 TRA -.5915 TC3 -.2687 BAU .8422 SGT 1084.8 SGR 4316.6 SG3 1160.2 ST 18.5 SR 136.0 SS 133.2
RDE 2.1965 RRA 1.1635 RC3-2.7547 FAU .21807 RRT -.4515 RRF .9987 RTF -.4379 CRT -.7279 CRS -.9997 CST .7100
FDE 7.2731 FRA 3.4284 FC3-8.2949 BSP 7431 SGB 4450.8 R23 -.0409 R13 .9979 LSA 190.8 MSA 13.0 SSA .4
BDE 2.2028 BRA 1.2876 BC3 2.7678 FSP 1959 SG1 4345.7 SG2 961.4 THA 98.81 EL1 136.6 EL2 12.6 ALF 95.70

LAUNCH DATE JUL 7 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 528.401 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.803 GAL -3.33 AZL 84.57 HCA 166.74 SMA 198.35 ECC .23991 INC 5.4269 V1 29.291
RP 235.59 LAP 1.24 LOP 91.54 VP 21.390 GAP 8.75 AZP 95.28 TAL 342.67 TAP 149.42 RCA 150.77 APO 245.94 V2 23.332
RC 189.197 GL 39.12 GP -43.81 ZAL 112.57 ZAP 110.13 ETS 203.03 ZAE 130.39 ETE 241.96 ZAC 43.25 ETC 290.02 LVI 22.58

PLANETOCENTRIC CONIC

C3 24.095 VHL 4.909 DLA 52.64 RAL 24.01 RAD 6644.6 VEL 12.003 PTH 7.00 VHP 3.539 DPA -29.49 RAP 45.73 ECC 1.3965

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.56	7 34 37	4549.90	-26.20	214.17	271.96	42.56	8 50 27	3549.9	-42.80	192.50
43.56	7 34 37	4549.90	-26.20	214.17	271.96	42.56	8 50 27	3549.9	-42.80	192.50
43.56	7 34 37	4549.90	-26.20	214.17	271.96	42.56	8 50 27	3549.9	-42.80	192.50
43.56	7 34 37	4549.90	-26.20	214.17	271.96	42.56	8 50 27	3549.9	-42.80	192.50
43.56	7 34 37	4549.90	-26.20	214.17	271.96	42.56	8 50 27	3549.9	-42.80	192.50
43.56	7 34 37	4549.90	-26.20	214.17	271.96	42.56	8 50 27	3549.9	-42.80	192.50
43.56	7 34 37	4549.90	-26.20	214.17	271.96	42.56	8 50 27	3549.9	-42.80	192.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0849 TRA -.5026 TC3 -.3384 BAU .8974 SGT 1027.0 SGR 4576.1 SG3 1090.6 ST 15.3 SR 151.5 SS 133.6
RDE 2.5319 RRA 1.1436 RC3-2.7651 FAU .20590 RRT -.3229 RRF .9990 RTF -.3079 CRT -.5204 CRS -.9998 CST .5022
FDE 7.3481 FRA 2.9877 FC3-7.3980 BSP 7849 SGB 4690.0 R23 -.0314 R13 .9986 LSA 202.2 MSA 13.3 SSA .3
BDE 2.5333 BRA 1.2492 BC3 2.7857 FSP 1850 SG1 4588.7 SG2 969.3 THA 94.34 EL1 151.7 EL2 13.1 ALF 93.04

LAUNCH DATE JUL 7 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 16 1974

DISTANCE 532.182 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 32.795 GAL -3.33 AZL 84.04 HCA 167.71 SMA 198.21 ECC .23938 INC 5.9576 V1 29.291
RP 235.94 LAP 1.27 LOP 92.52 VP 21.340 GAP 8.50 AZP 95.82 TAL 342.65 TAP 150.36 RCA 150.76 APO 245.66 V2 23.297
RC 192.165 GL 41.99 GP -46.08 ZAL 111.76 ZAP 108.12 ETS 202.39 ZAE 127.77 ETE 240.67 ZAC 41.29 ETC 290.91 LVI 24.64

PLANETOCENTRIC CONIC

C3 25.802 VHL 5.080 DLA 55.25 RAL 21.96 RAD 6645.3 VEL 12.073 PTH 7.05 VHP 3.658 DPA -31.80 RAP 46.22 ECC 1.4246

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.34	7 17 5	4587.00	-26.27	218.40	271.95	39.47	8 33 32	3587.0	-43.92	197.75
40.34	7 17 5	4587.00	-26.27	218.40	271.95	39.47	8 33 32	3587.0	-43.92	197.75
40.34	7 17 5	4587.00	-26.27	218.40	271.95	39.47	8 33 32	3587.0	-43.92	197.75
40.34	7 17 5	4587.00	-26.27	218.40	271.95	39.47	8 33 32	3587.0	-43.92	197.75
40.34	7 17 5	4587.00	-26.27	218.40	271.95	39.47	8 33 32	3587.0	-43.92	197.75
40.34	7 17 5	4587.00	-26.27	218.40	271.95	39.47	8 33 32	3587.0	-43.92	197.75
40.34	7 17 5	4587.00	-26.27	218.40	271.95	39.47	8 33 32	3587.0	-43.92	197.75

DIFFERENTIAL CORRECTIONS

TDE .0132 TRA -.4572 TC3 -.4024 BAU .9581
RDE 2.9228 RRA 1.0975 RC3-2.7482 FAU .19206
FDE 7.3417 FRA 2.5031 FC3-6.4441 BSP 8234
BDE 2.9228 BRA 1.1889 BC3 2.7775 FSP 1707

MID-COURSE EXECUTION ACCURACY

SGT 992.8 SGR 4835.3 SG3 1007.5
RRT -.1613 RRF .9992 RTF -.1452
SGB 4936.1 R23 -.0231 R13 .9990
SG1 4838.0 SG2 979.3 THA 91.98

ORBIT DETERMINATION ACCURACY

ST 13.6 SR 168.1 SS 133.0
CRT -.1386 CRS -.9998 CST .1213
LSA 214.3 MSA 13.6 SSA .3
EL1 168.1 EL2 13.5 ALF 90.65

LAUNCH DATE JUL 7 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 18 1974

DISTANCE 535.962 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 32.789 GAL -3.33 AZL 83.42 HCA 168.68 SMA 198.08 ECC .23890 INC 6.5758 V1 29.291
RP 236.29 LAP 1.29 LOP 93.49 VP 21.291 GAP 8.26 AZP 96.45 TAL 342.62 TAP 151.30 RCA 150.76 APO 245.41 V2 23.261
RC 195.134 GL 45.10 GP -48.41 ZAL 110.84 ZAP 106.13 ETS 201.65 ZAE 125.10 ETE 239.38 ZAC 39.28 ETC 291.92 LVI 26.77

PLANETOCENTRIC CONIC

C3 28.012 VHL 5.293 DLA 58.04 RAL 19.44 RAD 6646.2 VEL 12.164 PTH 7.13 VHP 3.812 DPA -34.17 RAP 46.80 ECC 1.4610

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.95	6 57 51	4626.01	-26.07	222.78	271.68	36.11	8 14 57	3626.0	-44.83	203.48
36.95	6 57 51	4626.01	-26.07	222.78	271.68	36.11	8 14 57	3626.0	-44.83	203.48
36.95	6 57 51	4626.01	-26.07	222.78	271.68	36.11	8 14 57	3626.0	-44.83	203.48
36.95	6 57 51	4626.01	-26.07	222.78	271.68	36.11	8 14 57	3626.0	-44.83	203.48
36.95	6 57 51	4626.01	-26.07	222.78	271.68	36.11	8 14 57	3626.0	-44.83	203.48
36.95	6 57 51	4626.01	-26.07	222.78	271.68	36.11	8 14 57	3626.0	-44.83	203.48
36.95	6 57 51	4626.01	-26.07	222.78	271.68	36.11	8 14 57	3626.0	-44.83	203.48

DIFFERENTIAL CORRECTIONS

TDE .1331 TRA -.4162 TC3 -.4564 BAU 1.0217
RDE 3.3902 RRA 1.0265 RC3-2.6897 FAU .17590
FDE 7.2551 FRA 2.0061 FC3-5.4363 BSP 8670
BDE 3.3928 BRA 1.1077 BC3 2.7282 FSP 1553

MID-COURSE EXECUTION ACCURACY

SGT 989.2 SGR 5097.3 SG3 912.9
RRT .0234 RRF .9994 RTF .0402
SGB 5192.4 R23 -.0160 R13 .9994
SG1 5097.4 SG2 989.0 THA 89.73

ORBIT DETERMINATION ACCURACY

ST 14.7 SR 186.2 SS 131.0
CRT .3378 CRS -.9999 CST -.3513
LSA 227.7 MSA 13.9 SSA .2
EL1 186.3 EL2 13.8 ALF 88.47

LAUNCH DATE JUL 7 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 20 1974

DISTANCE 539.741 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 32.783 GAL -3.33 AZL 82.69 HCA 169.64 SMA 197.97 ECC .23846 INC 7.3050 V1 29.291
RP 236.63 LAP 1.31 LOP 94.46 VP 21.244 GAP 8.02 AZP 97.19 TAL 342.59 TAP 152.22 RCA 150.76 APO 245.17 V2 23.226
RC 198.104 GL 48.45 GP -50.80 ZAL 109.79 ZAP 104.17 ETS 200.79 ZAE 122.40 ETE 238.07 ZAC 37.25 ETC 293.08 LVI 28.95

PLANETOCENTRIC CONIC

C3 30.917 VHL 5.560 DLA 61.00 RAL 16.27 RAD 6647.4 VEL 12.282 PTH 7.22 VHP 4.009 DPA -36.58 RAP 47.48 ECC 1.5088

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.40	6 36 11	4667.61	-25.53	227.30	270.94	32.49	7 53 58	3667.6	-45.42	209.69
33.40	6 36 11	4667.61	-25.53	227.30	270.94	32.49	7 53 58	3667.6	-45.42	209.69
33.40	6 36 11	4667.61	-25.53	227.30	270.94	32.49	7 53 58	3667.6	-45.42	209.69
33.40	6 36 11	4667.61	-25.53	227.30	270.94	32.49	7 53 58	3667.6	-45.42	209.69
33.40	6 36 11	4667.61	-25.53	227.30	270.94	32.49	7 53 58	3667.6	-45.42	209.69
33.40	6 36 11	4667.61	-25.53	227.30	270.94	32.49	7 53 58	3667.6	-45.42	209.69
33.40	6 36 11	4667.61	-25.53	227.30	270.94	32.49	7 53 58	3667.6	-45.42	209.69

DIFFERENTIAL CORRECTIONS

TDE .2807 TRA -.3804 TC3 -.4969 BAU 1.0917
RDE 3.9479 RRA .9152 RC3-2.5941 FAU .15818
FDE 7.0577 FRA 1.4951 FC3-4.4292 BSP 9077
BDE 3.9579 BRA .9911 BC3 2.6412 FSP 1375

MID-COURSE EXECUTION ACCURACY

SGT 1021.2 SGR 5353.2 SG3 807.1
RRT .2190 RRF .9995 RTF .0264
SGB 5449.7 R23 -.0099 R13 .9996
SG1 5358.0 SG2 995.6 THA 87.52

ORBIT DETERMINATION ACCURACY

ST 18.9 SR 205.5 SS 127.1
CRT .6673 CRS -.9999 CST -.6762
LSA 242.0 MSA 14.1 SSA .2
EL1 205.9 EL2 14.0 ALF 86.47

LAUNCH DATE JUL 7 1973 FLIGHT TIME 230.00 ARRIVAL DATE FEB 22 1974

DISTANCE 543.517 EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 32.777 GAL -3.33 AZL 81.82 HCA 170.59 SMA 197.86 ECC .23807 INC 8.1782 V1 29.291
RP 236.98 LAP 1.33 LOP 95.43 VP 21.197 GAP 7.78 AZP 98.07 TAL 342.55 TAP 153.14 RCA 150.75 APO 244.96 V2 23.191
RC 201.073 GL 52.08 GP -53.22 ZAL 108.62 ZAP 102.26 ETS 199.80 ZAE 119.70 ETE 236.73 ZAC 35.21 ETC 294.39 LVI 31.17

PLANETOCENTRIC CONIC

C3 34.815 VHL 5.900 DLA 64.13 RAL 12.17 RAD 6648.8 VEL 12.439 PTH 7.34 VHP 4.261 DPA -39.01 RAP 48.26 ECC 1.5730

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.70	6 10 55	4712.62	-24.53	231.90	269.39	28.66	7 29 28	3712.6	-45.53	216.33
29.70	6 10 55	4712.62	-24.53	231.90	269.39	28.66	7 29 28	3712.6	-45.53	216.33
29.70	6 10 55	4712.62	-24.53	231.90	269.39	28.66	7 29 28	3712.6	-45.53	216.33
29.70	6 10 55	4712.62	-24.53	231.90	269.39	28.66	7 29 28	3712.6	-45.53	216.33
29.70	6 10 55	4712.62	-24.53	231.90	269.39	28.66	7 29 28	3712.6	-45.53	216.33
29.70	6 10 55	4712.62	-24.53	231.90	269.39	28.66	7 29 28	3712.6	-45.53	216.33
29.70	6 10 55	4712.62	-24.53	231.90	269.39	28.66	7 29 28	3712.6	-45.53	216.33

DIFFERENTIAL CORRECTIONS

TDE .4602 TRA -.3541 TC3 -.5239 BAU 1.1688
RDE 4.6228 RRA .7538 RC3-2.4560 FAU .13894
FDE 6.7322 FRA .9932 FC3-3.4549 BSP 9468
BDE 4.6457 BRA .8328 BC3 2.5112 FSP 1182

MID-COURSE EXECUTION ACCURACY

SGT 1096.8 SGR 5600.4 SG3 692.5
RRT .4031 RRF .9996 RTF .4209
SGB 5706.8 R23 -.0052 R13 .9998
SG1 5618.4 SG2 1000.6 THA 85.34

ORBIT DETERMINATION ACCURACY

ST 25.3 SR 225.9 SS 121.0
CRT .8263 CRS -.9999 CST -.8322
LSA 257.1 MSA 14.2 SSA .1
EL1 226.9 EL2 14.2 ALF 84.69

LAUNCH DATE JUL 7 1973 FLIGHT TIME 274.00 ARRIVAL DATE APR 7 1974

HELIOCENTRIC CONIC DISTANCE 627.208 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.750 GAL -3.88 AZL 98.59 HCA 191.46 SMA 197.34 ECC .23851 INC 8.5870 V1 29.291
RP 243.50 LAP 1.70 LOP 116.07 VP 20.435 GAP 2.76 AZP 81.58 TAL 339.66 TAP 171.11 RCA 150.27 APO 244.41 V2 22.535
RC 264.483 GL -52.59 GP 49.80 ZAL 110.93 ZAP 82.68 ETS 191.05 ZAE 104.79 ETE 165.05 ZAC 137.29 ETC 291.14 LVI -71.68

PLANETOCENTRIC CONIC

C3 37.729 VHL 6.142 DLA -32.79 RAL 62.80 RAD 6649.9 VEL 12.554 PTH 7.43 VHP 3.575 DPA 48.44 RAP 345.74 ECC 1.6209

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 52 54	2597.98	-12.26	70.65	290.32	136.34	19 36 12	1598.0	6.11	54.84
60.00	20 25 46	2350.77	-4.56	55.70	297.62	130.09	21 4 57	1350.8	11.50	37.68
70.00	22 46 56	1934.83	6.04	29.97	305.55	123.68	23 19 11	934.8	19.17	9.37
72.67	0 20 20	1659.45	13.77	13.57	310.42	120.05	0 47 59	659.5	24.92	351.04
72.67	0 20 20	1659.45	13.77	13.57	310.42	120.05	0 47 59	659.5	24.92	351.04
72.67	0 20 20	1659.45	13.77	13.57	310.42	120.05	0 47 59	659.5	24.92	351.04
110.00	3 50 19	6269.69	6.04	296.80	305.55	123.68	5 34 48	5269.7	19.17	276.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7895 TRA 3.6272 TC3-2.3991 BAU 1.6514 SGT 5260.3 SGR 5596.5 SG3 990.4 ST 103.1 SR 83.8 SS 49.6
RDE .9115 RRA-4.3322 RC3 2.2279 FAU .21586 RRT -.9794 RRF -.9985 RTF .9780 CRT -.9165 CRS .9969 CST -.8825
FDE-1.5105 FRA 8.6630 FC3-4.9532 BSP 12977 SGB 7680.6 R23 .0947 R13 -.9940 LSA 138.5 MSA 30.5 SSA .3
BDE 2.0083 BRA 5.6502 BC3 3.2740 FSP 1769 SG1 7641.1 SG2 778.3 THA 133.19 EL1 130.2 EL2 26.5 ALF 141.41

LAUNCH DATE JUL 7 1973 FLIGHT TIME 276.00 ARRIVAL DATE APR 9 1974

HELIOCENTRIC CONIC DISTANCE 630.971 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.752 GAL -3.91 AZL 98.02 HCA 192.36 SMA 197.38 ECC .23880 INC 8.0162 V1 29.291
RP 243.74 LAP 1.71 LOP 116.99 VP 20.411 GAP 2.53 AZP 82.17 TAL 339.50 TAP 171.86 RCA 150.24 APO 244.51 V2 22.511
RC 267.212 GL -50.31 GP 47.84 ZAL 111.95 ZAP 81.43 ETS 191.79 ZAE 104.24 ETE 166.78 ZAC 135.55 ETC 290.44 LVI -69.96

PLANETOCENTRIC CONIC

C3 35.064 VHL 5.921 DLA -30.65 RAL 61.87 RAD 6648.9 VEL 12.448 PTH 7.35 VHP 3.414 DPA 46.68 RAP 347.09 ECC 1.5771

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 36 8	2631.08	-13.88	72.11	287.72	135.98	19 19 59	1631.1	4.45	56.23
60.00	20 1 44	2403.34	-6.85	58.23	294.35	129.81	20 41 47	1403.3	9.24	40.29
70.00	21 59 56	2055.51	1.45	36.30	300.59	124.13	22 34 12	1055.5	15.07	16.31
77.66	0 50 54	1533.58	13.54	3.90	307.88	117.76	1 16 27	533.6	23.80	341.03
77.66	0 50 54	1533.58	13.54	3.90	307.88	117.76	1 16 27	533.6	23.80	341.03
77.66	0 50 54	1533.58	13.54	3.90	307.88	117.76	1 16 27	533.6	23.80	341.03
110.00	3 3 19	1102.33	1.45	325.22	300.59	124.13	3 21 41	102.3	15.07	305.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7233 TRA 3.6722 TC3-2.6463 BAU 1.6404 SGT 5446.2 SGR 5408.6 SG3 1103.2 ST 104.0 SR 80.4 SS 52.1
RDE .8469 RRA-4.0965 RC3 2.2897 FAU .23683 RRT -.9809 RRF -.9984 RTF .9793 CRT -.9225 CRS .9960 CST -.8843
FDE-1.5717 FRA 9.4412 FC3-5.8474 BSP 12871 SGB 7675.6 R23 .0988 R13 -.9935 LSA 138.3 MSA 29.8 SSA .3
BDE 1.9202 BRA 5.5015 BC3 3.4994 FSP 1950 SG1 7638.9 SG2 749.6 THA 135.20 EL1 129.1 EL2 25.0 ALF 142.85

LAUNCH DATE JUL 7 1973 FLIGHT TIME 278.00 ARRIVAL DATE APR 11 1974

HELIOCENTRIC CONIC DISTANCE 634.731 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.754 GAL -3.95 AZL 97.52 HCA 193.27 SMA 197.42 ECC .23911 INC 7.5232 V1 29.291
RP 243.98 LAP 1.72 LOP 117.90 VP 20.387 GAP 2.31 AZP 82.68 TAL 339.33 TAP 172.60 RCA 150.21 APO 244.62 V2 22.487
RC 269.924 GL -48.21 GP 45.96 ZAL 112.91 ZAP 80.16 ETS 192.45 ZAE 103.58 ETE 168.41 ZAC 133.86 ETC 289.82 LVI -68.27

PLANETOCENTRIC CONIC

C3 32.932 VHL 5.739 DLA -28.65 RAL 61.10 RAD 6648.1 VEL 12.363 PTH 7.28 VHP 3.281 DPA 44.96 RAP 348.30 ECC 1.5420

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 21 45	2661.85	-15.39	73.49	285.62	135.60	19 6 6	1661.8	2.90	57.52
60.00	19 41 50	2448.81	-8.83	60.45	291.76	129.48	20 22 38	1448.8	7.26	42.51
70.00	21 28 3	2136.38	-1.64	40.52	297.16	124.12	22 3 40	1136.4	12.18	20.80
80.00	23 50 6	1691.51	6.34	11.69	302.08	119.24	24 18 18	691.5	17.77	350.16
85.20	1 46 36	1329.33	13.19	348.59	305.69	115.67	2 8 45	329.3	22.64	325.47
100.00	2 36 54	1165.99	6.34	333.06	302.08	119.24	2 56 20	166.0	17.77	311.53
110.00	2 31 26	1183.20	-1.64	329.44	297.16	124.12	2 51 9	183.2	12.18	309.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6542 TRA 3.7349 TC3-2.6839 BAU 1.6258 SGT 5633.8 SGR 5220.8 SG3 1208.7 ST 104.4 SR 76.8 SS 54.0
RDE .7636 RRA-3.8981 RC3 2.3064 FAU .25396 RRT -.9814 RRF -.9983 RTF .9796 CRT -.9239 CRS .9946 CST -.8793
FDE-1.5423 FRA10.1987 FC3-6.6763 BSP 13027 SGB 7680.9 R23 .1043 R13 -.9929 LSA 137.2 MSA 29.9 SSA .4
BDE 1.8219 BRA 5.3986 BC3 3.6927 FSP 2172 SG1 7645.4 SG2 738.5 THA 137.22 EL1 127.4 EL2 24.1 ALF 144.35

LAUNCH DATE JUL 7 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 13 1974

HELIOCENTRIC CONIC DISTANCE 638.492 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.756 GAL -3.98 AZL 97.09 HCA 194.17 SMA 197.46 ECC .23944 INC 7.0931 V1 29.291
RP 244.22 LAP 1.73 LOP 118.81 VP 20.365 GAP 2.09 AZP 83.12 TAL 339.16 TAP 173.33 RCA 150.18 APO 244.74 V2 22.464
RC 272.618 GL -46.25 GP 44.15 ZAL 113.81 ZAP 78.87 ETS 193.05 ZAE 102.83 ETE 169.95 ZAC 132.23 ETC 289.27 LVI -66.62

PLANETOCENTRIC CONIC

C3 31.203 VHL 5.586 DLA -26.78 RAL 60.45 RAD 6647.5 VEL 12.293 PTH 7.23 VHP 3.171 DPA 43.28 RAP 349.37 ECC 1.5135

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 9 14	2690.68	-16.78	74.81	283.92	135.20	18 54 5	1690.7	1.46	58.73
60.00	19 24 56	2489.34	-10.58	62.45	289.70	129.12	20 6 25	1489.3	5.49	44.47
70.00	21 3 14	2200.29	-4.07	43.86	294.55	123.94	21 39 54	1200.3	9.85	24.27
80.00	23 5 18	1818.22	2.08	18.69	298.37	119.79	23 35 36	818.2	14.05	357.72
90.00	1 3 21	1450.20	5.35	353.42	300.17	117.81	1 27 31	450.2	16.31	331.75
100.00	1 52 6	1292.69	2.08	340.05	298.37	119.79	2 13 38	292.7	14.05	319.09
110.00	2 6 36	1247.11	-4.07	332.78	294.55	123.94	2 27 23	247.1	9.85	313.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.5867 TRA 3.8049 TC3-3.1152 BAU 1.6170 SGT 5820.0 SGR 5031.0 SG3 1305.8 ST 104.6 SR 73.1 SS 55.5
RDE .6880 RRA-3.7102 RC3 2.3067 FAU .26960 RRT -.9820 RRF -.9982 RTF .9801 CRT -.9258 CRS .9929 CST -.8743
FDE-1.4820 FRA10.8796 FC3-7.4802 BSP 13174 SGB 7693.1 R23 .1092 R13 -.9922 LSA 136.0 MSA 29.9 SSA .4
BDE 1.7295 BRA 5.3144 BC3 3.8762 FSP 2377 SG1 7659.1 SG2 722.4 THA 139.23 EL1 125.6 EL2 23.0 ALF 145.78

LAUNCH DATE JUL 7 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 15 1974

HELIOCENTRIC CONIC — DISTANCE 642.253 — EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.759 GAL -4.02 AZL 96.71 HCA 195.07 SMA 197.50 ECC .23979 INC 6.7141 V1 29.291
RP 244.45 LAP 1.74 LOP 119.72 VP 20.344 GAP 1.87 AZP 83.51 TAL 338.98 TAP 174.06 RCA 150.14 APO 244.86 V2 22.441
RC 275.292 GL -44.43 GP 42.41 ZAL 114.65 ZAP 77.57 ETS 193.59 ZAE 101.99 ETE 171.39 ZAC 130.66 ETC 288.79 LVI -65.01

PLANETOCENTRIC CONIC

C3 29.785 VHL 5.458 DLA -25.03 RAL 59.90 RAD 6646.9 VEL 12.236 PTH 7.19 VHP 3.080 DPA 41.67 RAP 350.32 ECC 1.4902

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 58 15	2717.89	-18.09	76.07	282.54	134.79	18 43 33	1717.9	.09	59.87
60.00	19 10 20	2526.18	-12.15	64.28	288.02	128.73	19 52 26	1526.2	3.88	46.24
70.00	20 42 48	2254.29	-6.12	46.71	292.49	123.67	21 20 22	1254.3	7.84	27.16
80.00	22 34 44	1904.00	-.82	23.39	295.77	119.85	23 6 28	904.0	11.38	2.69
90.00	0 23 11	1566.90	1.61	359.95	297.13	118.24	0 49 18	566.9	13.03	338.74
100.00	1 21 31	1378.47	-.82	344.76	295.77	119.85	1 44 30	378.5	11.38	324.06
110.00	1 46 10	1301.11	-6.12	335.62	292.49	123.67	2 7 52	301.1	7.84	316.08

DIFFERENTIAL CORRECTIONS

TDE-1.5291 TRA 3.8708 TC3-3.3496 BAU 1.6198
RDE .6316 RRA-3.5226 RC3 2.3082 FAU .28551
FDE-1.4354 FRA11.4513 FC3-8.2987 BSP 13147
BDE 1.6544 BRA 5.2337 BC3 4.0679 FSP 2522

MID-COURSE EXECUTION ACCURACY

SGT 6004.9 SGR 4842.1 SG3 1394.1
RRT -.9830 RRF -.9980 RTF .9809
SGB 7713.9 R23 .1123 R13 -.9917
SG1 7682.5 SG2 695.5 THA 141.22

ORBIT DETERMINATION ACCURACY

ST 104.9 SR 69.7 SS 56.7
CRT -.9300 CRS .9910 CST -.8725
LSA 134.9 MSA 29.6 SSA .4
EL1 124.1 EL2 21.7 ALF 147.14

LAUNCH DATE JUL 7 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 17 1974

HELIOCENTRIC CONIC — DISTANCE 646.013 — EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.761 GAL -4.06 AZL 96.38 HCA 195.98 SMA 197.55 ECC .24016 INC 6.3776 V1 29.291
RP 244.68 LAP 1.75 LOP 120.63 VP 20.323 GAP 1.65 AZP 83.87 TAL 338.60 TAP 174.78 RCA 150.11 APO 245.00 V2 22.418
RC 277.948 GL -42.74 GP 40.75 ZAL 115.45 ZAP 76.27 ETS 194.07 ZAE 101.08 ETE 172.73 ZAC 129.16 ETC 288.36 LVI -63.47

PLANETOCENTRIC CONIC

C3 28.613 VHL 5.349 DLA -23.39 RAL 59.44 RAD 6646.5 VEL 12.188 PTH 7.15 VHP 3.004 DPA 40.11 RAP 351.19 ECC 1.4709

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 48 31	2743.70	-19.33	77.28	281.42	134.37	18 34 14	1743.7	-1.21	60.94
60.00	18 57 32	2560.14	-13.59	66.00	286.67	128.31	19 40 12	1560.1	2.39	47.87
70.00	20 25 27	2301.67	-7.90	49.22	290.85	123.34	21 3 48	1301.7	6.06	29.67
80.00	22 10 45	1972.08	-3.13	27.13	293.79	119.71	22 43 37	972.1	9.19	6.56
90.00	23 50 36	1650.03	-1.07	4.59	294.93	118.26	24 18 6	650.0	10.56	343.59
100.00	0 57 33	1446.56	-3.13	348.50	293.79	119.71	1 21 40	446.6	9.19	327.93
110.00	1 28 49	1348.49	-7.90	338.14	290.85	123.34	1 51 17	348.5	6.06	318.59

DIFFERENTIAL CORRECTIONS

TDE-1.4725 TRA 3.9436 TC3-3.5765 BAU 1.6245
RDE .5764 RRA-3.3516 RC3 2.2901 FAU .29917
FDE-1.3526 FRA11.9674 FC3-9.0520 BSP 13190
BDE 1.5813 BRA 5.1755 BC3 4.2468 FSP 2666

MID-COURSE EXECUTION ACCURACY

SGT 6189.4 SGR 4656.4 SG3 1473.7
RRT -.9836 RRF -.9978 RTF .9815
SGB 7745.4 R23 .1153 R13 -.9911
SG1 7716.1 SG2 672.8 THA 143.17

ORBIT DETERMINATION ACCURACY

ST 105.0 SR 66.4 SS 57.7
CRT -.9335 CRS .9886 CST -.8688
LSA 133.7 MSA 29.5 SSA .4
EL1 122.5 EL2 20.4 ALF 148.46

LAUNCH DATE JUL 7 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 19 1974

HELIOCENTRIC CONIC — DISTANCE 649.772 — EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.764 GAL -4.10 AZL 96.08 HCA 196.88 SMA 197.60 ECC .24055 INC 6.0768 V1 29.291
RP 244.90 LAP 1.76 LOP 121.53 VP 20.303 GAP 1.42 AZP 84.18 TAL 338.62 TAP 175.49 RCA 150.07 APO 245.14 V2 22.397
RC 280.584 GL -41.15 GP 39.17 ZAL 116.21 ZAP 74.97 ETS 194.50 ZAE 100.11 ETE 173.98 ZAC 127.72 ETC 287.97 LVI -61.98

PLANETOCENTRIC CONIC

C3 27.636 VHL 5.257 DLA -21.84 RAL 59.06 RAD 6646.1 VEL 12.149 PTH 7.12 VHP 2.941 DPA 38.62 RAP 351.97 ECC 1.4548

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 39 49	2768.26	-20.49	78.45	280.52	133.93	18 25 57	1768.3	-2.44	61.97
60.00	18 46 12	2591.73	-14.92	67.61	285.58	127.88	19 29 24	1591.7	1.00	49.38
70.00	20 10 24	2344.21	-9.48	51.49	289.53	122.97	20 49 28	1344.2	4.44	31.91
80.00	21 50 53	2029.71	-5.06	30.31	292.23	119.46	22 24 43	1029.7	7.30	9.79
90.00	23 27 47	1717.16	-3.23	8.34	293.24	118.11	23 56 24	717.2	8.50	347.45
100.00	0 37 41	1504.18	-5.06	351.68	292.23	119.46	1 2 45	504.2	7.30	331.16
110.00	1 13 46	1391.03	-9.48	340.41	289.53	122.97	1 36 57	391.0	4.44	320.83

DIFFERENTIAL CORRECTIONS

TDE-1.4169 TRA 4.0207 TC3-3.7958 BAU 1.6320
RDE .5261 RRA-3.1917 RC3 2.2591 FAU .31110
FDE-1.2492 FRA12.4171 FC3-9.7456 BSP 13268
BDE 1.5115 BRA 5.1335 BC3 4.4172 FSP 2797

MID-COURSE EXECUTION ACCURACY

SGT 6371.9 SGR 4473.9 SG3 1544.2
RRT -.9842 RRF -.9975 RTF .9820
SGB 7785.7 R23 .1177 R13 -.9905
SG1 7758.5 SG2 649.7 THA 145.07

ORBIT DETERMINATION ACCURACY

ST 104.9 SR 63.2 SS 58.3
CRT -.9372 CRS .9856 CST -.8649
LSA 132.5 MSA 29.4 SSA .5
EL1 121.0 EL2 19.1 ALF 149.72

LAUNCH DATE JUL 7 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 21 1974

HELIOCENTRIC CONIC — DISTANCE 653.530 — EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.767 GAL -4.14 AZL 95.81 HCA 197.78 SMA 197.66 ECC .24095 INC 5.8060 V1 29.291
RP 245.11 LAP 1.77 LOP 122.44 VP 20.284 GAP 1.20 AZP 84.47 TAL 338.43 TAP 176.20 RCA 150.03 APO 245.28 V2 22.375
RC 283.198 GL -39.67 GP 37.66 ZAL 116.93 ZAP 73.69 ETS 194.87 ZAE 99.09 ETE 175.14 ZAC 126.34 ETC 287.63 LVI -60.55

PLANETOCENTRIC CONIC

C3 26.819 VHL 5.179 DLA -20.39 RAL 58.73 RAD 6645.7 VEL 12.115 PTH 7.09 VHP 2.889 DPA 37.19 RAP 352.68 ECC 1.4414

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 32 1	2791.71	-21.59	79.59	279.80	133.49	18 18 33	1791.7	-3.62	62.95
60.00	18 36 5	2621.35	-16.15	69.14	284.70	127.44	19 19 46	1621.3	-.31	50.79
70.00	19 57 9	2383.02	-10.91	53.59	288.47	122.57	20 36 52	1383.0	2.97	33.95
80.00	21 33 53	2080.25	-6.75	33.12	290.98	119.15	22 8 34	1080.3	5.62	12.60
90.00	23 8 40	1774.50	-5.06	11.56	291.91	117.86	23 38 15	774.5	6.71	350.71
100.00	0 20 41	1554.72	-6.75	354.49	290.98	119.15	0 46 36	554.7	5.62	333.97
110.00	1 0 31	1429.84	-10.91	342.50	288.47	122.57	1 24 21	429.8	2.97	322.86

DIFFERENTIAL CORRECTIONS

TDE-1.3648 TRA 4.0992 TC3-4.0103 BAU 1.6435
RDE .4823 RRA-3.0415 RC3 2.2200 FAU .32170
FDE-1.1364 FRA12.8017 FC-10.3847 BSP 13336
BDE 1.4476 BRA 5.1043 BC3 4.5838 FSP 2906

MID-COURSE EXECUTION ACCURACY

SGT 6553.2 SGR 4296.5 SG3 1606.2
RRT -.9848 RRF -.9972 RTF .9824
SGB 7836.1 R23 .1194 R13 -.9900
SG1 7811.0 SG2 626.8 THA 146.91

ORBIT DETERMINATION ACCURACY

ST 104.9 SR 60.2 SS 58.8
CRT -.9412 CRS .9821 CST -.8610
LSA 131.3 MSA 29.4 SSA .5
EL1 119.6 EL2 17.8 ALF 150.92

LAUNCH DATE JUL 7 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 23 1974

HELIOCENTRIC CONIC DISTANCE 657.286 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.770 GAL -4.18 AZL 95.56 HCA 198.68 SMA 197.71 ECC .24138 INC 5.5610 V1 29.291
RP 245.32 LAP 1.78 LOP 123.34 VP 20.266 GAP .98 AZP 84.73 TAL 338.23 TAP 176.91 RCA 149.99 APO 245.44 V2 22.354
RC 285.791 GL -38.28 GP 36.22 ZAL 117.62 ZAP 72.42 ETS 195.20 ZAE 98.03 ETE 176.20 ZAC 125.02 ETC 287.33 LVI -39.18

PLANETOCENTRIC CONIC

C3 26.132 VHL 5.112 DLA -19.02 RAL 58.46 RAD 6645.5 VEL 12.087 PTH 7.07 VHP 2.845 DPA 35.83 RAP 353.34 ECC 1.4301

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 24 58	2814.15	-22.64	80.70	279.23	133.03	18 11 53	1814.1	-4.74	63.89
60.00	18 26 58	2649.27	-17.30	70.61	284.00	126.98	19 11 8	1649.3	-1.54	52.12
70.00	19 45 22	2418.83	-12.22	55.54	287.61	122.14	20 25 41	1418.8	1.60	35.82
80.00	21 19 3	2125.61	-8.24	35.65	289.99	118.80	21 54 29	1125.6	4.10	15.11
90.00	22 52 13	1825.08	-6.66	14.41	290.85	117.55	23 22 38	825.1	5.11	353.56
100.00	0 5 51	1600.08	-8.24	357.02	289.99	118.80	0 32 31	600.1	4.10	336.48
110.00	0 48 44	1465.65	-12.22	344.46	287.61	122.14	1 13 10	465.6	1.60	324.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3138 TRA 4.1808 TC3-4.2174 BAU 1.6572 SGT 6732.5 SGR 4123.6 SG3 1659.6 ST 104.8 SR 57.4 SS 59.2
RDE .4431 RRA-2.9011 RC3 2.1714 FAU .33059 RRT -.9852 RRF -.9968 RTF .9828 CRT -.9456 CRS .9779 CST -.8570
FDE-1.0107 FRA13.1289 FC-10.9525 BSP 13438 SGB 7895.0 R23 .1204 R13 -.9895 LSA 130.1 MSA 29.3 SSA .5
BDE 1.3865 BRA 5.0887 BC3 4.7436 FSP 3006 SG1 7871.8 SG2 605.1 THA 148.69 EL1 118.3 EL2 16.5 ALF 152.05

LAUNCH DATE JUL 7 1973 FLIGHT TIME 292.00 ARRIVAL DATE APR 25 1974

HELIOCENTRIC CONIC DISTANCE 661.042 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.773 GAL -4.23 AZL 95.34 HCA 199.57 SMA 197.77 ECC .24181 INC 5.3381 V1 29.291
RP 245.53 LAP 1.79 LOP 124.24 VP 20.249 GAP .76 AZP 84.97 TAL 338.03 TAP 177.60 RCA 149.95 APO 245.60 V2 22.334
RC 288.361 GL -36.98 GP 34.85 ZAL 118.29 ZAP 71.17 ETS 195.49 ZAE 96.94 ETE 177.19 ZAC 123.76 ETC 287.06 LVI -57.88

PLANETOCENTRIC CONIC

C3 25.553 VHL 5.055 DLA -17.72 RAL 58.24 RAD 6645.2 VEL 12.063 PTH 7.05 VHP 2.810 DPA 34.54 RAP 353.95 ECC 1.4205

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 18 35	2835.67	-23.64	81.78	278.80	132.58	18 5 51	1835.7	-5.82	64.80
60.00	18 18 44	2675.71	-18.38	72.01	283.45	126.52	19 3 20	1675.7	-2.70	53.39
70.00	19 34 47	2452.18	-13.42	57.38	286.94	121.71	20 15 39	1452.2	.33	37.56
80.00	21 5 54	2166.96	-9.59	37.98	289.20	118.41	21 42 1	1167.0	2.71	17.39
90.00	22 37 46	1870.62	-8.09	17.00	290.00	117.19	23 8 57	870.6	3.65	356.12
100.00	23 48 46	1641.43	-9.59	359.35	289.20	118.41	24 16 8	641.4	2.71	338.76
110.00	0 38 9	1499.00	-13.42	346.29	286.94	121.71	1 3 8	499.0	.33	326.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.2632 TRA 4.2656 TC3-4.4151 BAU 1.6724 SGT 6909.2 SGR 3955.7 SG3 1704.6 ST 104.7 SR 54.7 SS 59.5
RDE .4081 RRA-2.7695 RC3 2.1153 FAU .33788 RRT -.9855 RRF -.9964 RTF .9832 CRT -.9504 CRS .9730 CST -.8531
FDE -.8752 FRA13.4020 FC-11.4476 BSP 13566 SGB 7961.5 R23 .1207 R13 -.9891 LSA 129.0 MSA 29.3 SSA .6
BDE 1.3275 BRA 5.0858 BC3 4.8957 FSP 3091 SG1 7940.1 SG2 583.7 THA 150.39 EL1 117.1 EL2 15.2 ALF 153.12

LAUNCH DATE JUL 7 1973 FLIGHT TIME 294.00 ARRIVAL DATE APR 27 1974

HELIOCENTRIC CONIC DISTANCE 664.795 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.776 GAL -4.27 AZL 95.13 HCA 200.47 SMA 197.84 ECC .24227 INC 5.1342 V1 29.291
RP 245.73 LAP 1.79 LOP 125.14 VP 20.232 GAP .54 AZP 85.19 TAL 337.83 TAP 178.30 RCA 149.91 APO 245.77 V2 22.314
RC 290.907 GL -35.75 GP 33.55 ZAL 118.92 ZAP 69.93 ETS 195.73 ZAE 95.82 ETE 178.10 ZAC 122.56 ETC 286.81 LVI -56.63

PLANETOCENTRIC CONIC

C3 25.064 VHL 5.006 DLA -16.50 RAL 58.06 RAD 6645.0 VEL 12.043 PTH 7.03 VHP 2.781 DPA 33.31 RAP 354.51 ECC 1.4125

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 12 46	2856.35	-24.58	82.83	278.48	132.11	18 0 23	1856.4	-6.86	65.68
60.00	18 11 15	2700.86	-19.39	73.37	283.03	126.05	18 56 16	1700.9	-3.80	54.59
70.00	19 25 12	2483.44	-14.53	59.12	286.41	121.25	20 6 36	1483.4	-.87	39.19
80.00	20 54 8	2205.09	-10.82	40.15	288.57	118.00	21 30 53	1205.1	1.42	19.48
90.00	22 24 54	1912.26	-9.37	19.38	289.33	116.80	22 56 47	912.3	2.32	358.45
100.00	23 37 0	1679.57	-10.82	1.52	288.57	118.00	24 4 59	679.6	1.42	340.85
110.00	0 28 34	1530.26	-14.53	348.03	286.41	121.25	0 54 5	530.3	-.87	328.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.2142 TRA 4.3517 TC3-4.6067 BAU 1.6902 SGT 7084.2 SGR 3793.7 SG3 1742.2 ST 104.6 SR 52.2 SS 59.6
RDE .3774 RRA-2.6460 RC3 2.0544 FAU .34384 RRT -.9858 RRF -.9959 RTF .9835 CRT -.9553 CRS .9672 CST -.8492
FDE -.7344 FRA13.6254 FC-11.8763 BSP 13701 SGB 8036.1 R23 .1204 R13 -.9887 LSA 127.9 MSA 29.3 SSA .6
BDE 1.2716 BRA 5.0930 BC3 5.0440 FSP 3163 SG1 8016.2 SG2 563.9 THA 152.02 EL1 116.1 EL2 13.9 ALF 154.14

LAUNCH DATE JUL 7 1973 FLIGHT TIME 296.00 ARRIVAL DATE APR 29 1974

HELIOCENTRIC CONIC DISTANCE 668.548 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.779 GAL -4.32 AZL 94.95 HCA 201.36 SMA 197.90 ECC .24274 INC 4.9471 V1 29.291
RP 245.93 LAP 1.80 LOP 126.03 VP 20.216 GAP .33 AZP 85.39 TAL 337.62 TAP 178.98 RCA 149.86 APO 245.94 V2 22.295
RC 293.430 GL -34.59 GP 32.31 ZAL 119.53 ZAP 68.72 ETS 195.95 ZAE 94.69 ETE 178.93 ZAC 121.41 ETC 286.59 LVI -55.44

PLANETOCENTRIC CONIC

C3 24.653 VHL 4.965 DLA -15.33 RAL 57.92 RAD 6644.8 VEL 12.026 PTH 7.02 VHP 2.758 DPA 32.14 RAP 355.05 ECC 1.4057

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 7 28	2876.26	-25.49	83.86	278.26	131.64	17 55 24	1876.3	-7.85	66.52
60.00	18 4 24	2724.84	-20.35	74.67	282.72	125.57	18 49 49	1724.8	-4.86	55.75
70.00	19 16 29	2512.93	-15.57	60.77	286.00	120.79	19 58 22	1512.9	-1.99	40.73
80.00	20 43 30	2240.59	-11.95	42.18	288.08	117.57	21 20 50	1240.6	.21	21.43
90.00	22 13 20	1950.74	-10.55	21.60	288.81	116.39	22 45 51	950.7	1.08	.60
100.00	23 26 22	1715.06	-11.95	3.55	288.08	117.57	23 54 57	715.1	.21	342.80
110.00	0 19 51	1559.75	-15.57	349.69	286.00	120.79	0 45 51	559.7	-1.99	329.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.1663 TRA 4.4399 TC3-4.7904 BAU 1.7096 SGT 7257.0 SGR 3637.9 SG3 1772.8 ST 104.5 SR 49.8 SS 59.8
RDE .3509 RRA-2.5302 RC3 1.9900 FAU .34856 RRT -.9859 RRF -.9954 RTF .9838 CRT -.9607 CRS .9604 CST -.8457
FDE -.5915 FRA13.8031 FC-12.2405 BSP 13855 SGB 8117.8 R23 .1192 R13 -.9883 LSA 127.0 MSA 29.4 SSA .6
BDE 1.2180 BRA 5.1102 BC3 5.1872 FSP 3222 SG1 8099.5 SG2 544.8 THA 153.57 EL1 115.1 EL2 12.6 ALF 155.09

LAUNCH DATE JUL 7 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 1 1974

DISTANCE 672.298

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 32.783 GAL -4.36 AZL 94.77 HCA 202.26 SMA 197.97 ECC .24322 INC 4.7746 V1 29.291
RP 246.12 LAP 1.81 LOP 126.93 VP 20.201 GAP .11 AZP 85.58 TAL 337.41 TAP 179.66 RCA 149.82 APO 246.12 V2 22.276
RC 295.928 GL -33.50 GP 31.14 ZAL 120.13 ZAP 67.54 ETS 196.13 ZAE 93.54 ETE 179.69 ZAC 120.32 ETC 286.39 LVI -54.30

PLANETOCENTRIC CONIC

C3 24.307 VHL 4.930 DLA -14.23 RAL 57.82 RAD 6644.7 VEL 12.012 PTH 7.00 VHP 2.740 DPA 31.04 RAP 355.55 ECC 1.4000

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 2 36	2895.47	-26.35	84.87	278.13	131.16	17 50 51	1895.5	-8.81	67.34
60.00	17 58 7	2747.80	-21.25	75.94	282.51	125.08	18 43 55	1747.8	-5.86	56.85
70.00	19 8 31	2540.86	-16.53	62.36	285.71	120.32	19 50 51	1540.9	-3.06	42.19
80.00	20 33 49	2273.86	-12.99	44.10	287.72	117.12	21 11 43	1273.9	-.91	23.26
90.00	22 2 51	1986.62	-11.62	23.68	288.41	115.96	22 35 58	986.6	-.08	2.60
100.00	23 16 41	1748.33	-12.99	5.47	287.72	117.12	23 45 49	748.3	-.91	344.63
110.00	0 11 53	1587.68	-16.53	351.28	285.71	120.32	0 38 21	587.7	-3.06	331.11

DIFFERENTIAL CORRECTIONS

TDE-1.1207 TRA 4.5284 TC3-4.9686 BAU 1.7315
RDE .3289 RRA-2.4207 RC3 1.9241 FAU .35233
FDE -.4532 FRA13.9359 FC-12.5487 BSP 14003
BDE 1.1680 BRA 5.1348 BC3 5.3282 FSP 3265

MID-COURSE EXECUTION ACCURACY

SGT 7428.0 SGR 3488.4 SG3 1796.9
RRT -.9860 RRF -.9947 RTF .9840
SGB 8206.3 R23 .1173 R13 -.9880
SG1 8189.4 SG2 526.8 THA 155.04

ORBIT DETERMINATION ACCURACY

ST 104.5 SR 47.6 SS 59.8
CRT -.9663 CRS .9527 CST -.8428
LSA 126.1 MSA 29.4 SSA .6
EL1 114.3 EL2 11.2 ALF 155.99

LAUNCH DATE JUL 7 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 3 1974

DISTANCE 676.046

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 32.786 GAL -4.41 AZL 94.62 HCA 203.15 SMA 198.04 ECC .24372 INC 4.6150 V1 29.291
RP 246.30 LAP 1.81 LOP 127.83 VP 20.187 GAP -.11 AZP 85.76 TAL 337.19 TAP 180.34 RCA 149.77 APO 246.30 V2 22.258
RC 298.401 GL -32.46 GP 30.02 ZAL 120.70 ZAP 66.38 ETS 196.28 ZAE 92.39 ETE 180.39 ZAC 119.27 ETC 286.22 LVI -53.21

PLANETOCENTRIC CONIC

C3 24.018 VHL 4.901 DLA -13.18 RAL 57.74 RAD 6644.6 VEL 12.000 PTH 6.99 VHP 2.727 DPA 29.99 RAP 356.03 ECC 1.3953

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 58 7	2914.02	-27.18	85.86	278.08	130.68	17 46 41	1914.0	-9.73	68.14
60.00	17 52 20	2769.82	-22.11	77.17	282.38	124.60	18 38 30	1769.8	-6.82	57.92
70.00	19 1 11	2567.44	-17.44	63.89	285.51	119.84	19 43 58	1567.4	-4.07	43.58
80.00	20 24 57	2305.23	-13.95	45.93	287.45	116.67	21 3 22	1305.2	-1.97	24.98
90.00	21 53 16	2020.29	-12.62	25.65	288.12	115.52	22 26 56	1020.3	-1.17	4.48
100.00	23 7 49	1779.70	-13.95	7.30	287.45	116.67	23 37 29	779.7	-1.97	346.35
110.00	0 4 33	1614.26	-17.44	352.81	285.51	119.84	0 31 27	614.3	-4.07	332.50

DIFFERENTIAL CORRECTIONS

TDE-1.0753 TRA 4.6188 TC3-5.1380 BAU 1.7540
RDE .3095 RRA-2.3183 RC3 1.8546 FAU .35467
FDE -.3112 FRA14.0344 FC-12.7843 BSP 14174
BDE 1.1190 BRA 5.1680 BC3 5.4625 FSP 3302

MID-COURSE EXECUTION ACCURACY

SGT 7596.0 SGR 3344.2 SG3 1814.6
RRT -.9860 RRF -.9940 RTF .9842
SGB 8299.6 R23 .1149 R13 -.9877
SG1 8283.8 SG2 511.4 THA 156.44

ORBIT DETERMINATION ACCURACY

ST 104.5 SR 45.6 SS 59.9
CRT -.9718 CRS .9439 CST -.8399
LSA 125.4 MSA 29.4 SSA .7
EL1 113.6 EL2 9.9 ALF 156.85

LAUNCH DATE JUL 7 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 5 1974

DISTANCE 679.794

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 32.790 GAL -4.46 AZL 94.47 HCA 204.04 SMA 198.11 ECC .24424 INC 4.4668 V1 29.291
RP 246.48 LAP 1.82 LOP 128.72 VP 20.173 GAP -.33 AZP 85.92 TAL 336.97 TAP 181.01 RCA 149.72 APO 246.49 V2 22.241
RC 300.850 GL -31.47 GP 28.96 ZAL 121.26 ZAP 65.24 ETS 196.41 ZAE 91.23 ETE 181.04 ZAC 118.28 ETC 286.05 LVI -52.18

PLANETOCENTRIC CONIC

C3 23.778 VHL 4.876 DLA -12.17 RAL 57.69 RAD 6644.5 VEL 11.990 PTH 6.99 VHP 2.717 DPA 29.01 RAP 356.50 ECC 1.3913

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 0	2931.96	-27.97	86.84	278.10	130.19	17 42 52	1932.0	-10.62	68.92
60.00	17 47 0	2791.00	-22.92	78.37	282.33	124.10	18 33 31	1791.0	-7.74	58.95
70.00	18 54 25	2592.81	-18.29	65.36	285.39	119.36	19 37 38	1592.8	-5.03	44.91
80.00	20 16 47	2334.95	-14.85	47.68	287.28	116.20	20 55 42	1335.0	-2.98	26.61
90.00	21 44 28	2052.08	-13.54	27.53	287.93	115.06	22 18 40	1052.1	-2.19	6.25
100.00	22 59 39	1809.42	-14.85	9.04	287.28	116.20	23 29 49	809.4	-2.98	347.98
110.00	23 53 51	1639.63	-18.29	354.28	285.39	119.36	24 21 11	639.6	-5.03	333.83

DIFFERENTIAL CORRECTIONS

TDE-1.0307 TRA 4.7106 TC3-5.3008 BAU 1.7781
RDE .2935 RRA-2.2214 RC3 1.7854 FAU .35628
FDE -.1745 FRA14.0950 FC-12.9717 BSP 14355
BDE 1.0716 BRA 5.2081 BC3 5.5934 FSP 3326

MID-COURSE EXECUTION ACCURACY

SGT 7762.2 SGR 3206.3 SG3 1827.0
RRT -.9859 RRF -.9932 RTF .9844
SGB 8398.4 R23 .1114 R13 -.9874
SG1 8383.7 SG2 496.2 THA 157.76

ORBIT DETERMINATION ACCURACY

ST 104.6 SR 43.7 SS 59.9
CRT -.9774 CRS .9339 CST -.8379
LSA 124.8 MSA 29.4 SSA .7
EL1 113.0 EL2 8.5 ALF 157.66

LAUNCH DATE JUL 7 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 7 1974

DISTANCE 683.540

EARTH TO MARS

HELIOCENTRIC CONIC

RL 152.10 LAL .00 LOL 284.74 VL 32.794 GAL -4.51 AZL 94.33 HCA 204.93 SMA 198.18 ECC .24477 INC 4.3289 V1 29.291
RP 246.65 LAP 1.82 LOP 129.61 VP 20.161 GAP -.54 AZP 86.07 TAL 336.75 TAP 181.68 RCA 149.67 APO 246.69 V2 22.224
RC 303.274 GL -30.54 GP 27.96 ZAL 121.81 ZAP 64.14 ETS 196.51 ZAE 90.07 ETE 181.63 ZAC 117.33 ETC 285.91 LVI -51.19

PLANETOCENTRIC CONIC

C3 23.582 VHL 4.856 DLA -11.21 RAL 57.67 RAD 6644.4 VEL 11.982 PTH 6.98 VHP 2.710 DPA 28.07 RAP 356.94 ECC 1.3881

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 50 11	2949.35	-28.73	87.80	278.17	129.70	17 39 21	1949.4	-11.48	69.67
60.00	17 42 4	2811.41	-23.70	79.55	282.35	123.60	18 28 55	1811.4	-8.63	59.94
70.00	18 48 9	2617.11	-19.10	66.78	285.34	118.87	19 31 46	1617.1	-5.95	46.19
80.00	20 9 15	2363.23	-15.70	49.35	287.18	115.73	20 48 38	1363.2	-3.93	28.17
90.00	21 36 21	2082.24	-14.41	29.32	287.81	114.60	22 11 3	1082.2	-3.16	7.94
100.00	22 52 7	1837.71	-15.70	10.72	287.18	115.73	23 22 45	837.7	-3.93	349.54
110.00	23 47 35	1663.93	-19.10	355.70	285.34	118.87	24 15 19	663.9	-5.95	335.11

DIFFERENTIAL CORRECTIONS

TDE -.9862 TRA 4.8044 TC3-5.4551 BAU 1.8028
RDE .2798 RRA-2.1307 RC3 1.7146 FAU .35675
FDE -.0378 FRA14.1295 FC-13.0971 BSP 14553
BDE 1.0251 BRA 5.2557 BC3 5.7182 FSP 3345

MID-COURSE EXECUTION ACCURACY

SGT 7925.9 SGR 3074.2 SG3 1834.1
RRT -.9857 RRF -.9923 RTF .9846
SGB 8501.2 R23 .1075 R13 -.9872
SG1 8487.4 SG2 483.4 THA 159.01

ORBIT DETERMINATION ACCURACY

ST 104.7 SR 41.9 SS 59.9
CRT -.9828 CRS .9225 CST -.8361
LSA 124.2 MSA 29.5 SSA .7
EL1 112.5 EL2 7.2 ALF 158.43

LAUNCH DATE JUL 7 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 9 1974

HELIOCENTRIC CONIC DISTANCE 687.284 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.798 GAL -4.56 AZL 94.20 HCA 205.82 SMA 198.25 ECC .24531 INC 4.1999 V1 29.291
RP 246.82 LAP 1.83 LOP 130.50 VP 20.149 GAP -.76 AZP 86.22 TAL 336.52 TAP 182.34 RCA 149.62 APO 246.89 V2 22.207
RC 305.673 GL -29.65 GP 27.00 ZAL 122.34 ZAP 63.06 ETS 196.60 ZAE 88.91 ETE 182.17 ZAC 116.41 ETC 285.78 LVI -50.25

PLANETOCENTRIC CONIC

C3 23.424 VHL 4.840 DLA -10.30 RAL 57.67 RAD 6644.3 VEL 11.975 PTH 6.97 VHP 2.707 DPA 27.19 RAP 357.38 ECC 1.3855

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 46 40	2966.22	-29.46	88.74	278.31	129.21	17 36 6	1966.2	-12.31	70.41
60.00	17 37 28	2831.12	-24.43	80.69	282.43	123.10	18 24 39	1831.1	-9.48	60.91
70.00	18 42 20	2640.44	-19.86	68.17	285.36	118.38	19 26 20	1640.4	-6.83	47.43
80.00	20 2 15	2390.24	-16.49	50.97	287.16	115.25	20 42 5	1390.2	-4.84	29.66
90.00	21 28 49	2110.97	-15.21	31.04	287.77	114.13	22 4 0	1111.0	-4.08	9.55
100.00	22 45 7	1864.72	-16.49	12.33	287.16	115.25	23 16 12	864.7	-4.84	351.03
110.00	23 41 46	1687.26	-19.86	357.08	285.36	118.38	24 9 53	687.3	-6.83	336.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.9433 TRA 4.8985 TC3-5.6042 BAU 1.8290 SGT 8087.8 SGR 2948.1 SG3 1836.9 ST 104.9 SR 40.3 SS 59.8
RDE .2691 RRA-2.0450 RC3 1.6450 FAU .35659 RRT -.9854 RRF -.9912 RTF .9847 CRT -.9878 CRS .9099 CST -.8350
FDE .0913 FRA14.1343 FC-13.1796 BSP 14746 SG8 8608.4 R23 .1030 R13 -.9870 LSA 123.8 MSA 29.5 SSA .8
BDE .9809 BRA 5.3082 BC3 5.8406 FSP 3353 SG1 8595.4 SG2 472.1 THA 160.18 EL1 112.2 EL2 5.9 ALF 159.17

LAUNCH DATE JUL 7 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 11 1974

HELIOCENTRIC CONIC DISTANCE 691.026 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.802 GAL -4.61 AZL 94.08 HCA 206.71 SMA 198.33 ECC .24587 INC 4.0792 V1 29.291
RP 246.98 LAP 1.83 LOP 131.39 VP 20.138 GAP -.98 AZP 86.35 TAL 336.29 TAP 183.00 RCA 149.57 APO 247.09 V2 22.191
RC 308.047 GL -28.81 GP 26.09 ZAL 122.86 ZAP 62.00 ETS 196.66 ZAE 87.76 ETE 182.66 ZAC 115.54 ETC 285.66 LVI -49.36

PLANETOCENTRIC CONIC

C3 23.300 VHL 4.827 DLA -9.42 RAL 57.68 RAD 6644.3 VEL 11.970 PTH 6.97 VHP 2.707 DPA 26.36 RAP 357.80 ECC 1.3835

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 43 24	2982.62	-30.17	89.67	278.49	128.71	17 33 7	1982.6	-13.11	71.13
60.00	17 33 12	2850.19	-25.14	81.81	282.56	122.60	18 20 42	1850.2	-10.30	61.65
70.00	18 36 54	2662.90	-20.58	69.51	285.44	117.88	19 21 17	1662.9	-7.68	48.62
80.00	19 55 44	2416.12	-17.23	52.53	287.19	114.77	20 36 0	1416.1	-5.71	31.10
90.00	21 21 48	2138.43	-15.97	32.70	287.78	113.65	21 57 27	1138.4	-4.95	11.09
100.00	22 38 36	1890.59	-17.23	13.89	287.19	114.77	23 10 7	890.6	-5.71	352.46
110.00	23 36 20	1709.72	-20.58	358.43	285.44	117.88	24 4 50	709.7	-7.68	337.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.9009 TRA 4.9934 TC3-5.7464 BAU 1.8560 SGT 8247.2 SGR 2827.5 SG3 1835.4 ST 105.1 SR 38.7 SS 59.8
RDE .2603 RRA-1.9642 RC3 1.5757 FAU .35565 RRT -.9850 RRF -.9900 RTF .9848 CRT -.9921 CRS .8957 CST -.8341
FDE .2175 FRA14.1156 FC-13.2149 BSP 14947 SG8 8718.4 R23 .0980 R13 -.9867 LSA 123.5 MSA 29.6 SSA .8
BDE .9377 BRA 5.3658 BC3 5.9585 FSP 3353 SG1 8706.1 SG2 462.7 THA 161.29 EL1 111.9 EL2 4.6 ALF 159.88

LAUNCH DATE JUL 7 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 13 1974

HELIOCENTRIC CONIC DISTANCE 694.767 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.806 GAL -4.67 AZL 93.97 HCA 207.59 SMA 198.41 ECC .24644 INC 3.9659 V1 29.291
RP 247.14 LAP 1.84 LOP 132.28 VP 20.127 GAP -1.19 AZP 86.48 TAL 336.06 TAP 183.65 RCA 149.51 APO 247.31 V2 22.176
RC 310.395 GL -28.00 GP 25.22 ZAL 123.37 ZAP 60.98 ETS 196.71 ZAE 86.61 ETE 183.12 ZAC 114.71 ETC 285.55 LVI -48.50

PLANETOCENTRIC CONIC

C3 23.206 VHL 4.817 DLA -8.58 RAL 57.72 RAD 6644.2 VEL 11.966 PTH 6.97 VHP 2.708 DPA 25.58 RAP 358.22 ECC 1.3819

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 40 23	2998.57	-30.84	90.59	278.72	128.21	17 30 21	1998.6	-13.90	71.84
60.00	17 29 13	2868.67	-25.81	82.91	282.74	122.09	18 17 2	1868.7	-11.10	62.77
70.00	18 31 50	2684.57	-21.26	70.82	285.57	117.38	19 16 35	1684.6	-8.48	49.77
80.00	19 49 39	2440.98	-17.94	54.04	287.28	114.28	20 30 20	1441.0	-6.53	32.48
90.00	21 15 16	2164.76	-16.68	34.31	287.86	113.17	21 51 21	1164.8	-5.79	12.57
100.00	22 32 31	1915.45	-17.94	15.41	287.28	114.28	23 4 26	915.5	-6.53	353.84
110.00	23 31 17	1731.39	-21.26	359.74	285.57	117.38	24 0 8	731.4	-8.48	338.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.8589 TRA 5.0904 TC3-5.8810 BAU 1.8835 SGT 8404.7 SGR 2712.5 SG3 1830.3 ST 105.4 SR 37.3 SS 59.8
RDE .2535 RRA-1.8861 RC3 1.5072 FAU .35400 RRT -.9844 RRF -.9887 RTF .9849 CRT -.9956 CRS .8800 CST -.8338
FDE .3334 FRA14.0772 FC-13.2067 BSP 15164 SG8 8831.5 R23 .0925 R13 -.9866 LSA 123.3 MSA 29.6 SSA .8
BDE .8955 BRA 5.4293 BC3 6.0710 FSP 3350 SG1 8819.8 SG2 454.8 THA 162.33 EL1 111.8 EL2 3.3 ALF 160.57

LAUNCH DATE JUL 7 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC DISTANCE 698.506 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.810 GAL -4.72 AZL 93.86 HCA 208.48 SMA 198.49 ECC .24703 INC 3.8592 V1 29.291
RP 247.29 LAP 1.84 LOP 133.17 VP 20.118 GAP -1.41 AZP 86.61 TAL 335.82 TAP 184.30 RCA 149.46 APO 247.52 V2 22.161
RC 312.717 GL -27.23 GP 24.40 ZAL 123.87 ZAP 59.98 ETS 196.75 ZAE 85.47 ETE 183.54 ZAC 113.91 ETC 285.45 LVI -47.69

PLANETOCENTRIC CONIC

C3 23.140 VHL 4.810 DLA -7.77 RAL 57.78 RAD 6644.2 VEL 11.963 PTH 6.96 VHP 2.712 DPA 24.85 RAP 358.63 ECC 1.3808

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 37 34	3014.10	-31.49	91.50	278.99	127.71	17 27 48	2014.1	-14.66	72.54
60.00	17 25 30	2886.61	-26.46	83.99	282.96	121.59	18 13 37	1886.6	-11.86	63.66
70.00	18 27 6	2705.53	-21.91	72.10	285.75	116.88	19 12 11	1705.5	-9.26	50.89
80.00	19 43 57	2464.93	-18.60	55.51	287.42	113.79	20 25 2	1464.9	-7.33	33.81
90.00	21 9 8	2190.08	-17.35	35.86	287.98	112.68	21 45 38	1190.1	-6.59	14.00
100.00	22 26 49	1939.40	-18.60	16.87	287.42	113.79	22 59 8	939.4	-7.33	355.18
110.00	23 26 32	1752.34	-21.91	1.01	285.75	116.88	23 55 44	752.3	-9.26	339.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.8167 TRA 5.1886 TC3-6.0084 BAU 1.9113 SGT 8559.5 SGR 2602.6 SG3 1821.8 ST 105.8 SR 36.0 SS 59.7
RDE .2485 RRA-1.8163 RC3 1.4398 FAU .35172 RRT -.9837 RRF -.9872 RTF .9850 CRT -.9982 CRS .8627 CST -.8341
FDE .4547 FRA14.0195 FC-13.1593 BSP 15385 SG8 8946.4 R23 .0866 R13 -.9864 LSA 123.2 MSA 29.7 SSA .9
BDE .8537 BRA 5.4973 BC3 6.1785 FSP 3338 SG1 8935.1 SG2 448.5 THA 163.30 EL1 111.7 EL2 2.0 ALF 161.23

LAUNCH DATE JUL 7 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 17 1974

HELIOCENTRIC CONIC DISTANCE 702.242 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.814 GAL -4.78 AZL 93.76 HCA 209.36 SMA 198.57 ECC .24763 INC 3.7585 V1 29.291
RP 247.44 LAP 1.84 LOP 134.05 VP 20.109 GAP -1.62 AZP 86.72 TAL 335.58 TAP 184.94 RCA 149.40 APO 247.74 V2 22.147
RC 315.013 GL -26.49 GP 23.62 ZAL 124.36 ZAP 59.01 ETS 196.77 ZAE 84.34 ETE 183.92 ZAC 113.15 ETC 285.36 LVI -46.91

PLANETOCENTRIC CONIC

C3 23.098 VHL 4.806 DLA -6.99 RAL 57.85 RAD 6644.2 VEL 11.962 PTH 6.96 VHP 2.718 DPA 24.16 RAP 359.04 ECC 1.3801

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 34 57	3029.25	-32.12	92.40	279.29	127.20	17 25 26	2029.3	-15.39	73.22
60.00	17 22 2	2904.04	-27.07	85.06	283.23	121.07	18 10 26	1904.0	-12.61	64.54
70.00	18 22 39	2725.82	-22.53	73.34	285.97	116.37	19 8 5	1725.8	-10.02	51.99
80.00	19 38 36	2488.05	-19.23	56.93	287.60	113.29	20 20 4	1488.0	-8.09	35.10
90.00	21 3 23	2214.49	-17.99	37.37	288.15	112.20	21 40 17	1214.5	-7.36	15.39
100.00	22 21 28	1962.52	-19.23	18.30	287.60	113.29	22 54 10	962.5	-8.09	356.47
110.00	23 22 5	1772.64	-22.53	2.26	285.97	116.37	23 51 38	772.6	-10.02	340.90

DIFFERENTIAL CORRECTIONS
TDE -.7766 TRA 5.2860 TC3-6.1320 BAU 1.9406
RDE .2454 RRA-1.7480 RC3 1.3747 FAU .34910
FDE .5622 FRA13.9421 FC-13.0845 BSP 15598
BDE .8145 BRA 5.5675 BC3 6.2842 FSP 3321

MID-COURSE EXECUTION ACCURACY
SGT 8712.4 SGR 2498.0 SG3 1810.4
RRT -.9828 RRF -.9855 RTF .9851
SGB 9063.5 R23 .0804 R13 -.9863
SG1 9052.6 SG2 443.8 THA 164.22

ORBIT DETERMINATION ACCURACY
ST 106.3 SR 34.8 SS 59.7
CRT -.9995 CRS .8438 CST -.8347
LSA 123.2 MSA 29.8 SSA .9
EL1 111.8 EL2 1.0 ALF 161.88

LAUNCH DATE JUL 7 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC DISTANCE 705.978 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.818 GAL -4.83 AZL 93.66 HCA 210.25 SMA 198.65 ECC .24824 INC 3.6632 V1 29.291
RP 247.58 LAP 1.84 LOP 134.94 VP 20.100 GAP -1.84 AZP 86.83 TAL 335.33 TAP 185.58 RCA 149.34 APO 247.97 V2 22.133
RC 317.282 GL -25.78 GP 22.87 ZAL 124.84 ZAP 58.06 ETS 196.78 ZAE 83.22 ETE 184.27 ZAC 112.42 ETC 285.27 LVI -46.16

PLANETOCENTRIC CONIC

C3 23.080 VHL 4.804 DLA -6.24 RAL 57.94 RAD 6644.2 VEL 11.961 PTH 6.96 VHP 2.726 DPA 23.51 RAP 359.44 ECC 1.3798

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 32 31	3044.04	-32.72	93.29	279.64	126.69	17 23 15	2044.0	-16.11	73.89
60.00	17 18 47	2921.02	-27.66	86.10	283.53	120.56	18 7 28	1921.0	-13.33	65.39
70.00	18 18 28	2745.52	-23.12	74.57	286.22	115.87	19 4 13	1745.5	-10.74	53.05
80.00	19 33 33	2510.42	-19.82	58.33	287.83	112.79	20 15 24	1510.4	-8.82	36.36
90.00	20 57 58	2238.07	-18.59	38.84	288.36	111.70	21 35 16	1238.1	-8.09	16.73
100.00	22 16 25	1984.89	-19.82	19.70	287.83	112.79	22 49 30	984.9	-8.82	357.73
110.00	23 17 54	1792.34	-23.12	3.49	286.22	115.87	23 47 46	792.3	-10.74	341.97

DIFFERENTIAL CORRECTIONS
TDE -.7365 TRA 5.3857 TC3-6.2484 BAU 1.9699
RDE .2436 RRA-1.6838 RC3 1.3108 FAU .34592
FDE .6657 FRA13.8534 FC-12.9756 BSP 15813
BDE .7758 BRA 5.6428 BC3 6.3845 FSP 3298

MID-COURSE EXECUTION ACCURACY
SGT 8863.8 SGR 2398.3 SG3 1795.4
RRT -.9818 RRF -.9836 RTF .9851
SGB 9182.5 R23 .0742 R13 -.9861
SG1 9171.9 SG2 440.7 THA 165.09

ORBIT DETERMINATION ACCURACY
ST 106.8 SR 33.7 SS 59.6
CRT -.9994 CRS .8231 CST -.8356
LSA 123.3 MSA 29.8 SSA .9
EL1 112.0 EL2 1.1 ALF 162.51

LAUNCH DATE JUL 7 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC DISTANCE 709.711 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.822 GAL -4.89 AZL 93.57 HCA 211.13 SMA 198.74 ECC .24886 INC 3.5731 V1 29.291
RP 247.71 LAP 1.85 LOP 135.82 VP 20.093 GAP -2.05 AZP 86.94 TAL 335.08 TAP 186.21 RCA 149.28 APO 248.20 V2 22.120
RC 319.522 GL -25.10 GP 22.16 ZAL 125.32 ZAP 57.14 ETS 196.78 ZAE 82.12 ETE 184.59 ZAC 111.72 ETC 285.20 LVI -45.45

PLANETOCENTRIC CONIC

C3 23.082 VHL 4.804 DLA -5.52 RAL 58.04 RAD 6644.2 VEL 11.961 PTH 6.96 VHP 2.735 DPA 22.91 RAP 359.84 ECC 1.3799

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 30 15	3058.50	-33.31	94.18	280.01	126.17	17 21 14	2058.5	-16.81	74.55
60.00	17 15 43	2937.56	-28.23	87.13	283.86	120.04	18 4 41	1937.6	-14.02	66.23
70.00	18 14 32	2764.66	-23.69	75.77	286.52	115.36	19 0 36	1764.7	-11.44	54.09
80.00	19 28 48	2532.10	-20.39	59.69	288.09	112.30	20 11 1	1532.1	-9.53	37.58
90.00	20 52 51	2260.91	-19.16	40.27	288.61	111.21	21 30 32	1260.9	-8.80	18.03
100.00	22 11 40	2006.57	-20.39	21.06	288.09	112.30	22 45 7	1006.6	-9.53	358.95
110.00	23 13 58	1811.47	-23.69	4.69	286.52	115.36	23 44 9	811.5	-11.44	343.01

DIFFERENTIAL CORRECTIONS
TDE -.6969 TRA 5.4859 TC3-6.3593 BAU 1.9999
RDE .2433 RRA-1.6229 RC3 1.2490 FAU .34238
FDE .7622 FRA13.7507 FC-12.8415 BSP 16032
BDE .7382 BRA 5.7209 BC3 6.4808 FSP 3271

MID-COURSE EXECUTION ACCURACY
SGT 9012.8 SGR 2303.4 SG3 1780.2
RRT -.9805 RRF -.9815 RTF .9851
SGB 9302.5 R23 .0677 R13 -.9860
SG1 9292.1 SG2 438.9 THA 165.90

ORBIT DETERMINATION ACCURACY
ST 107.4 SR 32.6 SS 59.5
CRT -.9976 CRS .8007 CST -.8370
LSA 123.5 MSA 29.9 SSA .9
EL1 112.2 EL2 2.2 ALF 163.13

LAUNCH DATE JUL 7 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 23 1974

HELIOCENTRIC CONIC DISTANCE 713.443 EARTH TO MARS

RL 152.10 LAL .00 LOL 284.74 VL 32.827 GAL -4.95 AZL 93.49 HCA 212.01 SMA 198.82 ECC .24950 INC 3.4874 V1 29.291
RP 247.84 LAP 1.85 LOP 136.71 VP 20.086 GAP -2.26 AZP 87.04 TAL 334.83 TAP 186.84 RCA 149.22 APO 248.43 V2 22.107
RC 321.734 GL -24.45 GP 21.49 ZAL 125.79 ZAP 56.25 ETS 196.78 ZAE 81.02 ETE 184.89 ZAC 111.04 ETC 285.13 LVI -44.77

PLANETOCENTRIC CONIC

C3 23.104 VHL 4.807 DLA -4.82 RAL 58.15 RAD 6644.2 VEL 11.962 PTH 6.96 VHP 2.746 DPA 22.34 RAP .25 ECC 1.3802

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 28 8	3072.65	-33.87	95.05	280.42	125.66	17 19 21	2072.6	-17.49	75.21
60.00	17 12 51	2953.71	-28.78	88.15	284.23	119.53	18 2 5	1953.7	-14.70	67.06
70.00	18 10 49	2783.29	-24.22	76.95	286.84	114.85	18 57 12	1783.3	-12.12	55.11
80.00	19 24 19	2553.16	-20.93	61.02	288.38	111.79	20 6 52	1553.2	-10.21	38.78
90.00	20 48 2	2283.06	-19.70	41.68	288.89	110.71	21 26 5	1283.1	-9.48	19.30
100.00	22 7 11	2027.63	-20.93	22.39	288.38	111.79	22 40 59	1027.6	-10.21	.14
110.00	23 10 15	1830.10	-24.22	5.87	286.84	114.85	23 40 45	830.1	-12.12	344.02

DIFFERENTIAL CORRECTIONS
TDE -.6582 TRA 5.5874 TC3-6.4642 BAU 2.0301
RDE .2443 RRA-1.5653 RC3 1.1889 FAU .33846
FDE .8514 FRA13.6377 FC-12.6826 BSP 16258
BDE .7021 BRA 5.8025 BC3 6.5726 FSP 3242

MID-COURSE EXECUTION ACCURACY
SGT 9160.1 SGR 2213.0 SG3 1761.9
RRT -.9791 RRF -.9792 RTF .9851
SGB 9423.6 R23 .0613 R13 -.9859
SG1 9413.4 SG2 438.5 THA 166.66

ORBIT DETERMINATION ACCURACY
ST 108.1 SR 31.7 SS 59.4
CRT -.9940 CRS .7766 CST -.8388
LSA 123.8 MSA 30.0 SSA .9
EL1 112.6 EL2 3.3 ALF 163.74

LAUNCH DATE JUL 8 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 361.704 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 34.716 GAL -5.63 AZL 90.25 HCA 116.79 SMA 245.80 ECC .39185 INC .2473 V1 29.292
RP 217.98 LAP -.22 LOP 42.49 VP 26.033 GAP 22.18 AZP 89.89 TAL 339.88 TAP 96.67 RCA 149.48 APO 342.12 V2 25.208
RC 74.281 GL -1.37 GP -5.30 ZAL 122.70 ZAP 170.79 ETS 216.72 ZAE 169.95 ETE 329.74 ZAC 79.60 ETC 283.53 LVI -13.86

PLANETOCENTRIC CONIC

C3 39.055 VHL 6.249 DLA 15.99 RAL 46.34 RAD 6650.3 VEL 12.607 PTH 7.46 VHP 7.849 DPA 7.79 RAP 34.77 ECC 1.6428

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 18 52	3621.84	-47.45	139.62	295.85	93.91	15 19 13	2621.8	-40.41	107.25
60.00	14 40 13	3564.97	-40.30	134.86	296.21	90.24	15 39 38	2565.0	-35.79	104.71
70.00	15 11 34	3472.72	-34.06	127.22	296.05	87.36	16 9 26	2472.7	-31.58	98.77
80.00	16 0 3	3320.76	-29.53	115.36	295.71	85.37	16 55 24	2320.8	-28.45	87.99
90.00	17 12 33	3086.73	-27.81	97.99	295.54	84.63	18 4 0	2086.7	-27.24	71.00
100.00	18 42 55	2795.23	-29.53	76.73	295.71	85.37	19 29 30	1795.2	-28.45	49.36
110.00	20 11 0	2519.54	-34.06	56.14	296.05	87.36	20 52 59	1519.5	-31.58	27.69

DIFFERENTIAL CORRECTIONS
TDE -.4932 TRA-1.6868 TC3 .1271 BAU .0781
RDE -.5538 RRA .2818 RC3 -.0790 FAU .06070
FDE .6029 FRA 1.8316 FC3-1.3456 BSP 2656
BDE .7416 BRA 1.7102 BC3 .1497 FSP 291

MID-COURSE EXECUTION ACCURACY
SGT 1678.7 SGR 582.9 SG3 214.9
RRT -.2233 RRF .2448 RTF -.7970
SGB 1777.0 R23 -.0451 R13 .7987
SG1 1684.3 SG2 566.2 THA 175.00

ORBIT DETERMINATION ACCURACY
ST 33.1 SR 25.7 SS 25.9
CRT .5607 CRS .6071 CST .9965
LSA 45.2 MSA 19.5 SSA 1.2
EL1 37.4 EL2 18.8 ALF 32.79

LAUNCH DATE JUL 8 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 364.414 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 34.609 GAL -5.51 AZL 90.21 HCA 117.93 SMA 242.47 ECC .38323 INC .2084 V1 29.292
RP 218.35 LAP -.18 LOP 43.63 VP 25.851 GAP 21.84 AZP 89.90 TAL 339.96 TAP 97.89 RCA 149.55 APO 335.39 V2 25.168
RC 75.647 GL -1.17 GP -5.49 ZAL 122.59 ZAP 170.07 ETS 215.11 ZAE 169.17 ETE 330.42 ZAC 79.34 ETC 283.50 LVI -13.58

PLANETOCENTRIC CONIC

C3 37.488 VHL 6.123 DLA 16.15 RAL 46.18 RAD 6649.8 VEL 12.545 PTH 7.42 VHP 7.630 DPA 7.76 RAP 35.21 ECC 1.6170

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 17 34	3614.72	-47.42	138.93	294.81	94.44	15 17 48	2614.7	-40.18	106.71
60.00	14 38 43	3558.41	-40.30	134.30	295.25	90.62	15 38 1	2558.4	-35.64	104.22
70.00	15 9 48	3466.90	-34.08	126.77	295.13	87.63	16 7 35	2466.9	-31.49	98.34
80.00	15 58 2	3315.76	-29.56	114.99	294.81	85.57	16 53 18	2315.8	-28.39	87.63
90.00	17 10 25	3082.14	-27.84	97.66	294.65	84.80	18 1 47	2082.1	-27.20	70.67
100.00	18 40 54	2790.23	-29.56	76.36	294.81	85.57	19 27 24	1790.2	-28.39	49.00
110.00	20 9 14	2513.72	-34.08	55.69	295.13	87.63	20 51 8	1513.7	-31.49	27.26

DIFFERENTIAL CORRECTIONS
TDE -.4975 TRA-1.6871 TC3 .1439 BAU .0846
RDE -.5363 RRA .2837 RC3 -.0884 FAU .06315
FDE .6309 FRA 1.9000 FC3-1.4582 BSP 2773
BDE .7315 BRA 1.7108 BC3 .1689 FSP 310

MID-COURSE EXECUTION ACCURACY
SGT 1717.4 SGR 583.0 SG3 228.0
RRT -.2394 RRF .2656 RTF -.8014
SGB 1813.7 R23 -.0520 R13 .8033
SG1 1723.7 SG2 564.0 THA 174.80

ORBIT DETERMINATION ACCURACY
ST 33.9 SR 25.4 SS 26.8
CRT .5587 CRS .6052 CST .9966
LSA 46.2 MSA 19.4 SSA 1.3
EL1 38.0 EL2 18.8 ALF 31.22

LAUNCH DATE JUL 8 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 367.218 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 34.507 GAL -5.41 AZL 90.17 HCA 119.06 SMA 239.39 ECC .37506 INC .1686 V1 29.292
RP 218.71 LAP -.15 LOP 44.76 VP 25.676 GAP 21.49 AZP 89.92 TAL 340.05 TAP 99.11 RCA 149.61 APO 329.18 V2 25.127
RC 77.098 GL -.97 GP -5.68 ZAL 122.48 ZAP 169.34 ETS 213.73 ZAE 168.45 ETE 330.83 ZAC 79.07 ETC 283.48 LVI -13.30

PLANETOCENTRIC CONIC

C3 36.022 VHL 6.002 DLA 16.31 RAL 46.00 RAD 6649.3 VEL 12.487 PTH 7.38 VHP 7.419 DPA 7.72 RAP 35.64 ECC 1.5928

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 16 10	3608.04	-47.38	138.29	293.80	94.93	15 16 19	2608.0	-39.97	106.22
60.00	14 37 7	3552.31	-40.29	133.78	294.30	90.97	15 36 19	2552.3	-35.49	103.77
70.00	15 7 56	3461.60	-34.10	126.36	294.23	87.87	16 5 37	2461.6	-31.40	97.95
80.00	15 55 53	3311.32	-29.58	114.67	293.93	85.74	16 51 4	2311.3	-28.34	87.31
90.00	17 8 7	3078.14	-27.86	97.37	293.77	84.94	17 59 25	2078.1	-27.16	70.39
100.00	18 38 45	2785.79	-29.58	76.04	293.93	85.74	19 25 10	1785.8	-28.34	48.68
110.00	20 7 22	2508.42	-34.10	55.27	294.23	87.87	20 49 10	1508.4	-31.40	26.87

DIFFERENTIAL CORRECTIONS
TDE -.5008 TRA-1.6856 TC3 .1627 BAU .0918
RDE -.5188 RRA .2861 RC3 -.0986 FAU .06566
FDE .6622 FRA 1.9721 FC3-1.5780 BSP 2877
BDE .7211 BRA 1.7098 BC3 .1902 FSP 330

MID-COURSE EXECUTION ACCURACY
SGT 1754.4 SGR 583.4 SG3 241.8
RRT -.2575 RRF .2674 RTF -.8066
SGB 1848.9 R23 -.0580 R13 .8087
SG1 1761.6 SG2 561.4 THA 174.55

ORBIT DETERMINATION ACCURACY
ST 34.7 SR 25.1 SS 27.7
CRT .5556 CRS .6038 CST .9965
LSA 47.2 MSA 19.4 SSA 1.3
EL1 38.5 EL2 18.8 ALF 29.71

LAUNCH DATE JUL 8 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 370.108 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 34.411 GAL -5.30 AZL 90.13 HCA 120.19 SMA 236.55 ECC .36730 INC .1286 V1 29.292
RP 219.08 LAP -.11 LOP 45.89 VP 25.506 GAP 21.15 AZP 89.94 TAL 340.14 TAP 100.34 RCA 149.67 APO 323.44 V2 25.087
RC 78.631 GL -.75 GP -5.88 ZAL 122.35 ZAP 168.60 ETS 212.54 ZAE 167.78 ETE 331.02 ZAC 78.79 ETC 283.46 LVI -13.01

PLANETOCENTRIC CONIC

C3 34.648 VHL 5.886 DLA 16.49 RAL 45.81 RAD 6648.8 VEL 12.432 PTH 7.34 VHP 7.214 DPA 7.66 RAP 36.07 ECC 1.5702

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 14 42	3601.82	-47.34	137.69	292.80	95.39	15 14 44	2601.8	-39.76	105.76
60.00	14 35 24	3546.70	-40.28	133.30	293.37	91.30	15 34 31	2546.7	-35.36	103.35
70.00	15 5 56	3456.83	-34.11	125.99	293.33	88.09	16 3 33	2456.8	-31.32	97.61
80.00	15 53 35	3307.48	-29.60	114.38	293.05	85.88	16 48 43	2307.5	-28.30	87.03
90.00	17 5 41	3074.76	-27.88	97.13	292.90	85.06	17 56 56	2074.8	-27.13	70.14
100.00	18 36 27	2781.95	-29.60	75.75	293.05	85.88	19 22 49	1782.0	-28.30	48.40
110.00	20 5 22	2503.65	-34.11	54.90	293.33	88.09	20 47 6	1503.6	-31.32	26.52

DIFFERENTIAL CORRECTIONS
TDE -.5031 TRA-1.6827 TC3 .1832 BAU .0989
RDE -.5015 RRA .2891 RC3 -.1098 FAU .06827
FDE .6961 FRA 2.0471 FC3-1.7058 BSP 2963
BDE .7104 BRA 1.7074 BC3 .2135 FSP 353

MID-COURSE EXECUTION ACCURACY
SGT 1790.0 SGR 584.0 SG3 256.4
RRT -.2775 RRF .3107 RTF -.8121
SGB 1882.9 R23 -.0635 R13 .8144
SG1 1798.1 SG2 558.5 THA 174.27

ORBIT DETERMINATION ACCURACY
ST 35.4 SR 24.8 SS 28.8
CRT .5515 CRS .6022 CST .9964
LSA 48.2 MSA 19.3 SSA 1.3
EL1 38.9 EL2 18.8 ALF 28.26

LAUNCH DATE JUL 8 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC — DISTANCE 373.075 — EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 34.319 GAL -5.19 AZL 90.09 HCA 121.32 SMA 233.83 ECC .35994 INC .0868 V1 29.292
RP 219.45 LAP -.08 LOP 47.02 VP 25.342 GAP 20.81 AZP 89.95 TAL 340.24 TAP 101.56 RCA 149.73 APO 318.12 V2 25.046
RC 80.245 GL -.52 GP -6.10 ZAL 122.22 ZAP 167.83 ETS 211.51 ZAE 167.17 ETE 331.02 ZAC 78.51 ETC 283.44 LVI -12.71

PLANETOCENTRIC CONIC

C3 33.362 VHL 5.776 DLA 16.67 RAL 45.60 RAD 6648.3 VEL 12.380 PTH 7.30 VHP 7.015 DPA 7.59 RAP 36.49 ECC 1.5491

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 13 8	3596.07	-47.31	137.14	291.84	95.81	15 13 4	2596.1	-39.58	105.34
60.00	14 33 35	3541.61	-40.27	132.87	292.47	91.59	15 32 37	2541.6	-35.24	102.98
70.00	15 3 49	3452.63	-34.12	125.66	292.46	88.29	16 1 21	2452.6	-31.25	97.30
80.00	15 51 9	3304.27	-29.61	114.15	292.19	86.01	16 46 13	2304.3	-28.26	86.80
90.00	17 3 6	3072.05	-27.90	96.93	292.04	85.16	17 54 18	2072.0	-27.10	69.95
100.00	18 34 1	2778.74	-29.61	75.51	292.19	86.01	19 20 20	1778.7	-28.26	48.17
110.00	20 3 15	2499.45	-34.12	54.58	292.46	88.29	20 44 54	1499.4	-31.25	26.22

DIFFERENTIAL CORRECTIONS

TDE -.5049 TRA-1.6783 TC3 .2060 BAU .1068
RDE -.4842 RRA .2925 RC3 -.1220 FAU .07104
FDE .7319 FRA 2.1249 FC3-1.8435 BSP 3045
BDE .6995 BRA 1.7036 BC3 .2394 FSP 377

MID-COURSE EXECUTION ACCURACY

SGT 1824.2 SGR 585.1 SG3 271.9
RRT -.2992 RRF .3355 RTF -.8177
SGB 1915.8 R23 -.0690 R13 .8203
SG1 1833.5 SG2 555.5 THA 173.96

ORBIT DETERMINATION ACCURACY

ST 36.1 SR 24.4 SS 29.8
CRT .5465 CRS .6001 CST .9962
LSA 49.2 MSA 19.2 SSA 1.3
EL1 39.4 EL2 18.8 ALF 26.85

LAUNCH DATE JUL 8 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC — DISTANCE 376.112 — EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 34.232 GAL -5.09 AZL 90.05 HCA 122.45 SMA 231.49 ECC .35295 INC .0437 V1 29.292
RP 219.82 LAP -.04 LOP 48.14 VP 25.183 GAP 20.47 AZP 89.98 TAL 340.34 TAP 102.78 RCA 149.78 APO 313.19 V2 25.005
RC 81.936 GL -.28 GP -6.32 ZAL 122.07 ZAP 167.05 ETS 210.62 ZAE 166.61 ETE 330.86 ZAC 78.22 ETC 283.42 LVI -12.40

PLANETOCENTRIC CONIC

C3 32.157 VHL 5.671 DLA 16.87 RAL 45.39 RAD 6647.8 VEL 12.332 PTH 7.26 VHP 6.823 DPA 7.50 RAP 36.89 ECC 1.5292

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 11 28	3590.81	-47.27	136.64	290.89	96.20	15 11 19	2590.8	-39.40	104.95
60.00	14 31 40	3537.05	-40.27	132.48	291.58	91.85	15 30 37	2537.0	-35.12	102.64
70.00	15 1 34	3449.02	-34.12	125.38	291.60	88.45	15 59 3	2449.0	-31.19	97.04
80.00	15 48 34	3301.72	-29.63	113.96	291.35	86.11	16 43 36	2301.7	-28.23	86.62
90.00	17 0 21	3070.03	-27.91	96.78	291.20	85.23	17 51 31	2070.0	-27.08	69.81
100.00	18 31 26	2776.19	-29.63	75.33	291.35	86.11	19 17 42	1776.2	-28.23	47.99
110.00	20 1 0	2495.84	-34.12	54.29	291.60	88.45	20 42 36	1495.8	-31.19	25.95

DIFFERENTIAL CORRECTIONS

TDE -.5068 TRA-1.6731 TC3 .2293 BAU .1144
RDE -.4670 RRA .2965 RC3 -.1352 FAU .07392
FDE .7711 FRA 2.2057 FC3-1.9902 BSP 3122
BDE .6892 BRA 1.6992 BC3 .2662 FSP 403

MID-COURSE EXECUTION ACCURACY

SGT 1857.4 SGR 586.7 SG3 288.2
RRT -.3223 RRF .3616 RTF -.8231
SGB 1947.9 R23 -.0745 R13 .8260
SG1 1868.0 SG2 552.2 THA 173.63

ORBIT DETERMINATION ACCURACY

ST 36.8 SR 24.1 SS 30.9
CRT .5410 CRS .5980 CST .9960
LSA 50.3 MSA 19.0 SSA 1.3
EL1 39.8 EL2 18.7 ALF 25.46

LAUNCH DATE JUL 8 1973 FLIGHT TIME 140.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC — DISTANCE 379.213 — EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 34.149 GAL -5.00 AZL 90.00 HCA 123.57 SMA 229.23 ECC .34632 INC .0000 V1 29.292
RP 220.19 LAP -.00 LOP 49.26 VP 25.030 GAP 20.14 AZP 90.00 TAL 340.44 TAP 104.01 RCA 149.84 APO 308.61 V2 24.964
RC 83.701 GL -.02 GP -6.56 ZAL 121.92 ZAP 166.25 ETS 209.85 ZAE 166.11 ETE 330.54 ZAC 77.93 ETC 283.40 LVI -12.09

PLANETOCENTRIC CONIC

C3 31.029 VHL 5.570 DLA 17.07 RAL 45.16 RAD 6647.4 VEL 12.286 PTH 7.22 VHP 6.637 DPA 7.40 RAP 37.29 ECC 1.5107

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 9 43	3586.06	-47.23	136.19	289.98	96.54	15 9 29	2586.1	-39.24	104.61
60.00	14 29 38	3533.04	-40.26	132.14	290.71	92.08	15 28 31	2533.0	-35.02	102.35
70.00	14 59 11	3446.03	-34.13	125.14	290.76	88.59	15 56 37	2446.0	-31.14	96.82
80.00	15 45 50	3299.86	-29.63	113.82	290.51	86.18	16 40 50	2299.9	-28.20	86.49
90.00	16 57 26	3068.75	-27.91	96.69	290.37	85.28	17 48 34	2068.7	-27.07	69.71
100.00	18 28 42	2774.33	-29.63	75.19	290.51	86.18	19 14 56	1774.3	-28.20	47.85
110.00	19 58 38	2492.84	-34.13	54.06	290.76	88.59	20 40 11	1492.8	-31.14	25.74

DIFFERENTIAL CORRECTIONS

TDE -.5084 TRA-1.6668 TC3 .2541 BAU .1223
RDE -.4498 RRA .3011 RC3 -.1497 FAU .07696
FDE .8124 FRA 2.2897 FC3-2.1472 BSP 3192
BDE .6789 BRA 1.6938 BC3 .2949 FSP 431

MID-COURSE EXECUTION ACCURACY

SGT 1889.5 SGR 588.9 SG3 305.4
RRT -.3471 RRF .3894 RTF -.8285
SGB 1979.1 R23 -.0803 R13 .8318
SG1 1901.5 SG2 548.8 THA 173.26

ORBIT DETERMINATION ACCURACY

ST 37.5 SR 23.6 SS 32.1
CRT .5345 CRS .5949 CST .9958
LSA 51.3 MSA 18.9 SSA 1.3
EL1 40.2 EL2 18.6 ALF 24.09

LAUNCH DATE JUL 8 1973 FLIGHT TIME 142.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC — DISTANCE 382.372 — EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 34.071 GAL -4.90 AZL 89.96 HCA 124.68 SMA 227.12 ECC .34002 INC .0383 V1 29.292
RP 220.57 LAP .03 LOP 50.38 VP 24.881 GAP 19.81 AZP 90.02 TAL 340.55 TAP 105.23 RCA 149.90 APO 304.35 V2 24.923
RC 85.536 GL .25 GP -6.80 ZAL 121.77 ZAP 165.44 ETS 209.17 ZAE 165.66 ETE 330.07 ZAC 77.62 ETC 283.38 LVI -11.77

PLANETOCENTRIC CONIC

C3 29.971 VHL 5.475 DLA 17.29 RAL 44.92 RAD 6647.0 VEL 12.244 PTH 7.19 VHP 6.456 DPA 7.28 RAP 37.68 ECC 1.4932

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 7 52	3581.84	-47.20	135.78	289.10	96.85	15 7 34	2581.8	-39.10	104.31
60.00	14 27 29	3529.61	-40.25	131.85	289.87	92.28	15 26 19	2529.6	-34.94	102.10
70.00	14 56 41	3443.68	-34.13	124.96	289.93	88.70	15 54 5	2443.7	-31.10	96.65
80.00	15 42 56	3298.72	-29.64	113.74	289.70	86.22	16 37 55	2298.7	-28.19	86.40
90.00	16 54 20	3068.23	-27.92	96.65	289.55	85.29	17 45 28	2068.2	-27.06	69.68
100.00	18 25 48	2773.19	-29.64	75.10	289.70	86.22	19 12 1	1773.2	-28.19	47.77
110.00	19 56 7	2490.49	-34.13	53.88	289.93	88.70	20 37 38	1490.5	-31.10	25.57

DIFFERENTIAL CORRECTIONS

TDE -.5095 TRA-1.6595 TC3 .2801 BAU .1304
RDE -.4327 RRA .3062 RC3 -.1655 FAU .08016
FDE .8568 FRA 2.3762 FC3-2.3155 BSP 3259
BDE .6685 BRA 1.6875 BC3 .3254 FSP 460

MID-COURSE EXECUTION ACCURACY

SGT 1920.2 SGR 592.0 SG3 323.5
RRT -.3734 RRF .4185 RTF -.8337
SGB 2009.4 R23 -.0860 R13 .8373
SG1 1934.0 SG2 545.3 THA 172.86

ORBIT DETERMINATION ACCURACY

ST 38.2 SR 23.2 SS 33.2
CRT .5268 CRS .5914 CST .9955
LSA 52.4 MSA 18.7 SSA 1.4
EL1 40.6 EL2 18.5 ALF 22.73

LAUNCH DATE JUL 8 1973 FLIGHT TIME 144.00 ARRIVAL DATE NOV 29 1973

DISTANCE 385.585 EARTH TO MARS

HELIOCENTRIC CONIC

RL	152.10	LAL	.00	LOL	285.70	VL	33.996	GAL	-4.81	AZL	89.91	HCA	125.79	SMA	225.16	ECC	.33404	INC	.0842
RP	220.95	LAP	.07	LOP	51.49	VP	24.737	GAP	19.49	AZP	90.05	TAL	340.66	TAP	106.46	RCA	149.95	APO	300.38
RC	87.440	GL	.54	GP	-7.06	ZAL	121.60	ZAP	164.61	ETS	208.58	ZAE	165.26	ETE	329.47	ZAC	77.30	ETC	283.37

V1	29.292
V2	24.882
LVI	-11.44

PLANETOCENTRIC CONIC

C3	28.980	VHL	5.383	DLA	17.52	RAL	44.68	RAD	6646.6	VEL	12.203	PTH	7.16	VHP	6.282	DPA	7.14	RAP	38.06

ECC	1.4769
INJ 2 LONG	

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT
50.00	14 5 56	3578.17	-47.17	135.43	288.25	97.12	15 5 34	2576.2	-38.98
60.00	14 25 14	3526.78	-40.24	131.61	289.05	92.44	15 24 1	2526.8	-34.87
70.00	14 54 2	3442.00	-34.13	124.83	289.13	88.78	15 51 24	2442.0	-31.07
80.00	15 39 52	3298.35	-29.64	113.71	288.90	86.24	16 34 50	2298.4	-28.19
90.00	16 51 4	3068.53	-27.92	96.67	288.75	85.28	17 42 12	2066.5	-27.07
100.00	18 22 44	2772.82	-29.64	75.08	288.90	86.24	19 8 57	1772.8	-28.19
110.00	19 53 28	2488.82	-34.13	53.75	289.13	88.78	20 34 57	1488.8	-31.07

INJ 2 LONG
104.04
101.89
96.53
86.38
69.70
47.75
25.44

DIFFERENTIAL CORRECTIONS

TDE	-.5115	TRA	-1.6519	TC3	.3065	BAU	.1382
RDE	-.4154	RRA	.3119	RC3	-.1827	FAU	.08351
FDE	.9046	FRA	2.4662	FC3	-2.4948	BSP	3326
BDE	.6590	BRA	1.6810	BC3	.3568	FSP	491

MID-COURSE EXECUTION ACCURACY

SGT	1950.4	SGR	596.1	SG3	342.5		
RRT	-.4007	RRF	.4488	RTF	-.8387		
SGB	2039.5	R23	-.0923	R13	.8426		
SG1	1966.2	SG2	541.8	THA	172.44		

ORBIT DETERMINATION ACCURACY

ST	38.8	SR	22.7	SS	34.5
CRT	.5187	CRS	.5870	CST	.9952
LSA	53.5	MSA	19.5	SSA	1.4
EL1	41.0	EL2	18.4	ALF	21.37

LAUNCH DATE JUL 8 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 1 1973

DISTANCE 388.846 EARTH TO MARS

HELIOCENTRIC CONIC

RL	152.10	LAL	.00	LOL	285.70	VL	33.925	GAL	-4.72	AZL	89.87	HCA	126.90	SMA	223.34	ECC	.32837	INC	.1301
RP	221.33	LAP	.10	LOP	52.60	VP	24.598	GAP	19.16	AZP	90.08	TAL	340.78	TAP	107.68	RCA	150.00	APO	296.67
RC	89.407	GL	.84	GP	-7.34	ZAL	121.43	ZAP	163.76	ETS	208.07	ZAE	164.92	ETE	328.74	ZAC	76.98	ETC	283.35

V1	29.292
V2	24.840
LVI	-11.10

PLANETOCENTRIC CONIC

C3	28.051	VHL	5.296	DLA	17.76	RAL	44.42	RAD	6646.2	VEL	12.166	PTH	7.13	VHP	6.113	DPA	6.98	RAP	38.43

ECC	1.4617
INJ 2 LONG	

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT
50.00	14 3 54	3575.06	-47.14	135.14	287.43	97.35	15 3 29	2575.1	-38.87
60.00	14 22 52	3524.56	-40.23	131.42	288.26	92.57	15 21 36	2524.6	-34.81
70.00	14 51 14	3441.02	-34.14	124.75	288.35	88.82	15 48 35	2441.0	-31.05
80.00	15 36 37	3298.77	-29.64	113.74	288.12	86.22	16 31 36	2298.8	-28.19
90.00	16 47 36	3069.68	-27.91	96.76	287.97	85.24	17 38 45	2069.7	-27.08
100.00	18 19 29	2773.25	-29.64	75.11	288.12	86.22	19 5 42	1773.2	-28 19
110.00	19 50 41	2487.83	-34.14	53.67	288.35	88.82	20 32 8	1487.8	-31.05

INJ 2 LONG
103.82
101.73
96.45
86.41
69.78
47.78
25.37

DIFFERENTIAL CORRECTIONS

TDE	-.5128	TRA	-1.6430	TC3	.3338	BAU	.1462
RDE	-.3982	RRA	.3182	RC3	-.2014	FAU	.08705
FDE	.9550	FRA	2.5589	FC3	-2.6866	BSP	3389
BDE	.6492	BRA	1.6735	BC3	.3899	FSP	524

MID-COURSE EXECUTION ACCURACY

SGT	1978.8	SGR	601.4	SG3	362.6		
RRT	-.4294	RRF	.4805	RTF	-.8434		
SGB	2068.2	R23	-.0989	R13	.8477		
SG1	1996.9	SG2	538.2	THA	171.98		

ORBIT DETERMINATION ACCURACY

ST	39.4	SR	22.2	SS	35.8
CRT	.5088	CRS	.5815	CST	.9948
LSA	54.7	MSA	18.3	SSA	1.4
EL1	41.4	EL2	18.2	ALF	20.02

LAUNCH DATE JUL 8 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 3 1973

DISTANCE 392.151 EARTH TO MARS

HELIOCENTRIC CONIC

RL	152.10	LAL	.00	LOL	285.70	VL	33.858	GAL	-4.63	AZL	89.82	HCA	128.00	SMA	221.63	ECC	.32298	INC	.1778
RP	221.71	LAP	.14	LOP	53.70	VP	24.462	GAP	18.84	AZP	90.11	TAL	340.89	TAP	108.90	RCA	150.05	APO	293.22
RC	91.436	GL	1.15	GP	-7.63	ZAL	121.26	ZAP	162.89	ETS	207.62	ZAE	164.62	ETE	327.86	ZAC	76.64	ETC	283.34

V1	29.292
V2	24.799
LVI	-10.75

PLANETOCENTRIC CONIC

C3	27.181	VHL	5.214	DLA	18.01	RAL	44.15	RAD	6645.9	VEL	12.130	PTH	7.10	VHP	5.949	DPA	6.80	RAP	38.79

ECC	1.4473
INJ 2 LONG	

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT
50.00	14 1 45	3572.53	-47.12	134.90	286.64	97.53	15 1 18	2572.5	-38.79
60.00	14 20 22	3522.98	-40.23	131.29	287.49	92.66	15 19 5	2523.0	-34.77
70.00	14 48 18	3440.76	-34.14	124.73	287.59	88.84	15 45 38	2440.8	-31.04
80.00	15 33 12	3300.04	-29.63	113.83	287.36	86.17	16 28 12	2300.0	-28.21
90.00	16 43 55	3071.72	-27.90	96.91	287.21	85.17	17 35 7	2071.7	-27.10
100.00	18 16 3	2774.51	-29.63	75.20	287.36	86.17	19 2 18	1774.5	-28.21
110.00	19 47 44	2487.58	-34.14	53.65	287.59	88.84	20 29 11	1487.6	-31.04

INJ 2 LONG
103.64
101.62
96.44
86.50
69.93
47.87
25.35

DIFFERENTIAL CORRECTIONS

TDE	-.5143	TRA	-1.6337	TC3	.3613	BAU	.1540
RDE	-.3808	RRA	.3252	RC3	-.2217	FAU	.09074
FDE	1.0090	FRA	2.6553	FC3	-2.8902	BSP	3446
BDE	.6399	BRA	1.6658	BC3	.4239	FSP	559

MID-COURSE EXECUTION ACCURACY

SGT	2006.4	SGR	608.1	SG3	383.7		
RRT	-.4591	RRF	.5131	RTF	-...78		
SGB	2096.5	R23	-.1059	R13	.8526		
SG1	2027.2	SG2	534.7	THA	171.48		

ORBIT DETERMINATION ACCURACY

ST	40.0	SR	21.7	SS	37.1
CRT	.4975	CRS	.5746	CST	.9945
LSA	55.9	MSA	18.1	SSA	1.4
EL1	41.8	EL2	18.0	ALF	18.67

LAUNCH DATE JUL 8 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 5 1973

DISTANCE 395.498 EARTH TO MARS

HELIOCENTRIC CONIC

RL	152.10	LAL	.00	LOL	285.70	VL	33.794	GAL	-4.55	AZL	89.77	HCA	129.11	SMA	220.04	ECC	.31786	INC	.2263
RP	222.09	LAP	.18	LOP	54.80	VP	24.331	GAP	18.53	AZP	90.14	TAL	341.01	TAP	110.12	RCA	150.10	APO	289.99
RC	93.523	GL	1.49	GP	-7.93	ZAL	121.08	ZAP	162.01	ETS	207.24	ZAE	164.37	ETE	326.85	ZAC	76.29	ETC	283.34

V1	29.292
V2	24.757
LVI	-10.39

PLANETOCENTRIC CONIC

C3	26.366	VHL	5.135	DLA	18.28	RAL	43.88	RAD	6645.6	VEL	12.097	PTH	7.07	VHP	5.791	DPA	6.61	RAP	39.13

ECC	1.4339
INJ 2 LONG	

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT
50.00	13 59 31	3570.60	-47.10	134.71	285.89	97.67	14 59 2	2570.6	-38.72
60.00	14 17 45	3522.07	-40.22	131.21	286.75	92.72	15 16 27	2522.1	-34.75
70.00	14 45 11	3441.27	-34.14	124.77	286.86	88.81	15 42 33	2441.3	-31.05
80.00	15 29 34	3302.18	-29.62	113.99	286.62	86.09	16 24 36	2302.2	-28.23
90.00	16 40 2	3074.71	-27.88	97.12	286.46	85.06	17 31 17	2074.7	-27.13
100.00	18 12 26	2776.65	-29.62	75.36	286.62	86.09	18 58 43	1776.6	-28.23
110.00	19 44 38	2488.09	-34.14	53.69	286.86	88.81	20 26 6	1488.1	-31.05

INJ 2 LONG
103.50
101.55
96.47
86.65
70.14
48.02
25.39

DIFFERENTIAL CORRECTIONS

TDE	-.5162	TRA	-1.6235	TC3	.3892	BAU	.1619
RDE	-.3632	RRA	.3329	RC3	-.2438	FAU	.09465
FDE	1.0675	FRA	2.7545	FC3	-3.1078	BSP	3505
BDE	.6311	BRA	1.6573	BC3	.4593	FSP	595

MID-COURSE EXECUTION ACCURACY

SGT	2032.6	SGR	616.4	SG3	406.0		
RRT	-.4893	RRF	.5464	RTF	-.8519		
SGB	2124.0	R23	-.1134	R13	.8573		
SG1	2056.5	SG2	531.3	THA	170.95		

ORBIT DETERMINATION ACCURACY

ST	40.6	SR	21.1	SS	38.5
CRT	.4848	CRS	.5664	CST	.9941
LSA	57.1	MSA	17.8	SSA	1.4
EL1	42.2	EL2	17.8	ALF	17.31

LAUNCH DATE JUL 8 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 398.882 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 33.733 GAL -4.47 AZL 89.72 HCA 130.20 SMA 218.56 ECC .31300 INC .2763 V1 29.292
RP 222.48 LAP .21 LOP 55.90 VP 24.204 GAP 18.21 AZP 90.18 TAL 341.13 TAP 111.33 RCA 150.15 APO 286.97 V2 24.715
RC 95.665 GL 1.84 GP -8.25 ZAL 120.90 ZAP 161.10 ETS 206.90 ZAE 164.15 ETE 325.70 ZAC 75.93 ETC 283.33 LVI -10.02

PLANETOCENTRIC CONIC

C3 25.602 VHL 5.060 DLA 18.57 RAL 43.60 RAD 6645.2 VEL 12.065 PTH 7.05 VHP 5.638 DPA 6.39 RAP 39.46 ECC 1.4213

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 57 11	3569.29	-47.09	134.59	285.17	97.77	14 56 40	2569.3	-38.68	103.41
60.00	14 15 0	3521.84	-40.22	131.19	286.04	92.73	15 13 42	2521.8	-34.74	101.53
70.00	14 41 56	3442.56	-34.13	124.87	286.14	88.75	15 39 18	2442.6	-31.08	96.57
80.00	15 25 44	3305.24	-29.61	114.22	285.90	85.97	16 20 49	2305.2	-28.27	86.87
90.00	16 35 55	3078.71	-27.86	97.41	285.74	84.92	17 27 14	2078.7	-27.17	70.43
100.00	18 8 36	2779.71	-29.61	75.59	285.90	85.97	18 54 56	1779.7	-28.27	48.24
110.00	19 41 22	2489.38	-34.13	53.79	286.14	88.75	20 22 51	1489.4	-31.08	25.48

DIFFERENTIAL CORRECTIONS

TDE -.5185 TRA-1.6127 TC3 .4166 BAU .1695
RDE -.3453 RRA .3413 RC3 -.2677 FAU .09871
FDE 1.1304 FRA 2.8572 FC3-3.3380 BSP 3566
BDE .6230 BRA 1.6484 BC3 .4952 FSP 634

MID-COURSE EXECUTION ACCURACY

SGT 2057.5 SGR 626.5 SG3 429.4
RRT -.5198 RRF .5801 RTF -.8558
SGB 2150.8 R23 -.1215 R13 .8618
SG1 2084.9 SG2 528.1 THA 170.38

ORBIT DETERMINATION ACCURACY

ST 41.2 SR 20.5 SS 40.0
CRT .4703 CRS .5564 CST .9937
LSA 58.4 MSA 17.5 SSA 1.4
EL1 42.6 EL2 17.5 ALF 15.93

LAUNCH DATE JUL 8 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 402.300 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 33.675 GAL -4.39 AZL 89.67 HCA 131.29 SMA 217.17 ECC .30839 INC .3273 V1 29.292
RP 222.86 LAP .25 LOP 56.99 VP 24.081 GAP 17.90 AZP 90.22 TAL 341.25 TAP 112.54 RCA 150.19 APO 284.14 V2 24.673
RC 97.860 GL 2.21 GP -8.59 ZAL 120.72 ZAP 160.18 ETS 206.61 ZAE 163.98 ETE 324.41 ZAC 75.56 ETC 283.33 LVI -9.63

PLANETOCENTRIC CONIC

C3 24.887 VHL 4.989 DLA 18.87 RAL 43.31 RAD 6644.9 VEL 12.036 PTH 7.02 VHP 5.489 DPA 6.14 RAP 39.79 ECC 1.4096

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 54 44	3568.61	-47.08	134.53	284.49	97.81	14 54 13	2568.6	-38.65	103.36
60.00	14 12 7	3522.32	-40.23	131.23	285.36	92.70	15 10 49	2522.3	-34.76	101.57
70.00	14 38 29	3444.69	-34.13	125.04	285.46	88.65	15 35 54	2444.7	-31.11	96.72
80.00	15 21 41	3309.28	-29.59	114.52	285.20	85.82	16 16 50	2309.3	-28.32	87.16
90.00	16 31 33	3083.76	-27.83	97.78	285.03	84.74	17 22 57	2083.8	-27.22	70.79
100.00	18 4 33	2783.75	-29.59	75.88	285.20	85.82	18 50 57	1783.7	-28.32	48.53
110.00	19 37 56	2491.50	-34.13	53.96	285.46	88.65	20 19 27	1491.5	-31.11	25.64

DIFFERENTIAL CORRECTIONS

TDE -.5205 TRA-1.6004 TC3 .4443 BAU .1772
RDE -.3272 RRA .3504 RC3 -.2937 FAU .10301
FDE 1.1967 FRA 2.9620 FC3-3.5833 BSP 3620
BDE .6148 BRA 1.6383 BC3 .5326 FSP 675

MID-COURSE EXECUTION ACCURACY

SGT 2080.2 SGR 638.7 SG3 453.9
RRT -.5505 RRF .6140 RTF -.8593
SGB 2176.0 R23 -.1301 R13 .8660
SG1 2111.7 SG2 525.2 THA 169.77

ORBIT DETERMINATION ACCURACY

ST 41.7 SR 19.8 SS 41.5
CRT .4531 CRS .5439 CST .9932
LSA 59.7 MSA 17.2 SSA 1.5
EL1 42.9 EL2 17.2 ALF 14.55

LAUNCH DATE JUL 8 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 405.750 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 33.620 GAL -4.31 AZL 89.62 HCA 132.38 SMA 215.86 ECC .30400 INC .3801 V1 29.292
RP 223.25 LAP .28 LOP 58.08 VP 23.961 GAP 17.59 AZP 90.26 TAL 341.37 TAP 113.75 RCA 150.24 APO 281.49 V2 24.631
RC 100.104 GL 2.59 GP -8.94 ZAL 120.53 ZAP 159.23 ETS 206.36 ZAE 163.84 ETE 322.96 ZAC 75.17 ETC 283.33 LVI -9.24

PLANETOCENTRIC CONIC

C3 24.216 VHL 4.921 DLA 19.19 RAL 43.01 RAD 6644.7 VEL 12.008 PTH 7.00 VHP 5.346 DPA 5.88 RAP 40.09 ECC 1.3985

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 52 10	3568.56	-47.08	134.52	283.85	97.82	14 51 39	2568.6	-38.65	103.35
60.00	14 9 5	3523.51	-40.23	131.33	284.71	92.63	15 7 49	2523.5	-34.79	101.65
70.00	14 34 52	3447.63	-34.13	125.27	284.79	88.52	15 32 19	2447.6	-31.16	96.94
80.00	15 17 24	3314.30	-29.56	114.89	284.51	85.62	16 12 38	2314.3	-28.37	87.53
90.00	16 26 55	3089.89	-27.79	98.22	284.34	84.52	17 18 25	2089.9	-27.27	71.23
100.00	18 0 16	2788.77	-29.56	76.26	284.51	85.62	18 46 44	1788.8	-28.37	48.89
110.00	19 34 18	2494.45	-34.13	54.19	284.79	88.52	20 15 52	1494.5	-31.16	25.85

DIFFERENTIAL CORRECTIONS

TDE -.5073 TRA-1.5730 TC3 .4969 BAU .1917
RDE -.3087 RRA .3603 RC3 -.3220 FAU .10752
FDE 1.2677 FRA 3.0707 FC3-3.8439 BSP 3487
BDE .5939 BRA 1.6137 BC3 .5921 FSP 717

MID-COURSE EXECUTION ACCURACY

SGT 2085.3 SGR 653.4 SG3 479.7
RRT -.5901 RRF .6478 RTF -.9092
SGB 2185.3 R23 -.1251 R13 .8762
SG1 2123.0 SG2 518.2 THA 168.85

ORBIT DETERMINATION ACCURACY

ST 41.5 SR 19.2 SS 43.1
CRT .4235 CRS .5285 CST .9917
LSA 60.4 MSA 17.0 SSA 1.4
EL1 42.4 EL2 17.0 ALF 13.24

LAUNCH DATE JUL 8 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 409.229 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 33.568 GAL -4.24 AZL 89.57 HCA 133.47 SMA 214.64 ECC .29985 INC .4347 V1 29.292
RP 223.64 LAP .32 LOP 59.17 VP 23.845 GAP 17.29 AZP 90.30 TAL 341.49 TAP 114.96 RCA 150.28 APO 279.00 V2 24.590
RC 102.397 GL 3.00 GP -9.32 ZAL 120.34 ZAP 158.26 ETS 206.15 ZAE 163.72 ETE 321.35 ZAC 74.77 ETC 283.34 LVI -8.83

PLANETOCENTRIC CONIC

C3 23.591 VHL 4.857 DLA 19.52 RAL 42.70 RAD 6644.4 VEL 11.982 PTH 6.98 VHP 5.207 DPA 5.58 RAP 40.39 ECC 1.3882

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 49 30	3569.24	-47.09	134.59	283.24	97.77	14 49 0	2569.2	-38.67	103.40
60.00	14 5 55	3525.52	-40.24	131.50	284.10	92.52	15 4 41	2525.5	-34.84	101.80
70.00	14 31 3	3451.54	-34.12	125.57	284.15	88.34	15 28 34	2451.5	-31.23	97.22
80.00	15 12 52	3320.47	-29.53	115.34	283.86	85.38	16 8 12	2320.5	-28.44	87.97
90.00	16 22 0	3097.28	-27.74	98.76	283.67	84.25	17 13 37	2097.3	-27.34	71.76
100.00	17 55 43	2794.94	-29.53	76.71	283.86	85.38	18 42 18	1794.9	-28.44	49.34
110.00	19 30 29	2498.36	-34.12	54.49	284.15	88.34	20 12 8	1498.4	-31.23	26.14

DIFFERENTIAL CORRECTIONS

TDE -.5164 TRA-1.5661 TC3 .5131 BAU .1963
RDE -.2897 RRA .3712 RC3 -.3524 FAU .11219
FDE 1.3451 FRA 3.1828 FC3-4.1172 BSP 3622
BDE .5921 BRA 1.6095 BC3 .6225 FSP 762

MID-COURSE EXECUTION ACCURACY

SGT 2112.3 SGR 670.6 SG3 506.6
RRT -.6163 RRF .6809 RTF -.8694
SGB 2216.2 R23 -.1405 R13 .8775
SG1 2154.9 SG2 517.7 THA 168.24

ORBIT DETERMINATION ACCURACY

ST 42.3 SR 18.5 SS 44.8
CRT .4032 CRS .5096 CST .9916
LSA 62.1 MSA 16.6 SSA 1.5
EL1 43.1 EL2 16.6 ALF 11.73

LAUNCH DATE JUL 8 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 412.735 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.519	GAL	-4.17	AZL	89.51	HCA	134.55	SMA	213.50	ECC	.29591	INC	.4908
RP	224.03	LAP	.35	LOP	60.25	VP	23.732	GAP	16.99	AZP	90.34	TAL	341.60	TAP	116.15	RCA	150.32	APO	276.68
RC	104.735	GL	3.42	GP	-9.71	ZAL	120.16	ZAP	157.27	ETS	205.97	ZAE	163.62	ETE	319.59	ZAC	74.35	ETC	283.34

V1	29.292	V2	24.548	LVI	-8.41

PLANETOCENTRIC CONIC

C3	23.006	VHL	4.796	DLA	19.88	RAL	42.39	RAD	6644.2	VEL	11.958	PTH	6.96	VHP	5.073	DPA	5.27	RAP	40.68
ECC	1.3786

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 46 43	3570.62	-47.10	134.72	282.68	97.67	14 46 14	2570.6	-38.72	103.50
60.00	14 2 36	3528.32	-40.24	131.74	283.51	92.36	15 1 24	2528.3	-34.91	102.00
70.00	14 27 2	3456.38	-34.11	125.95	283.54	88.11	15 24 38	2456.4	-31.31	97.57
80.00	15 8 3	3327.79	-29.49	115.88	283.22	85.10	16 3 31	2327.8	-28.53	88.50
90.00	16 16 46	3105.95	-27.68	99.39	283.02	83.95	17 8 32	2106.0	-27.42	72.38
100.00	17 50 55	2802.26	-29.49	77.25	283.22	85.10	18 37 37	1802.3	-28.53	49.87
110.00	19 26 28	2503.20	-34.11	54.87	283.54	88.11	20 8 11	1503.2	-31.31	26.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5228	TRA	-1.5558	TC3	.5321	BAU	.2021	SGT	2134.5	SGR	690.9	SG3	534.8	ST	43.1	SR	17.7	SS	46.5
RDE	-.2702	RRA	.3829	RC3	-.3853	FAU	.11708	RRT	-.6431	RRF	.7130	RTF	-.8704	CRT	.3764	CRS	.4861	CST	.9914
FDE	1.4273	FRA	3.2978	FC3	-4.4059	BSP	3722	SGB	2243.5	R23	-.1543	R13	.8797	LSA	63.7	MSA	16.3	SSA	1.5
BDE	.5885	BRA	1.6022	BC3	.6569	FSP	810	SG1	2183.1	SG2	517.3	THA	167.53	EL1	43.7	EL2	16.2	ALF	10.22

LAUNCH DATE JUL 8 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 416.265 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.472	GAL	-4.10	AZL	89.45	HCA	135.63	SMA	212.43	ECC	.29217	INC	.5490
RP	224.42	LAP	.38	LOP	61.33	VP	23.622	GAP	16.69	AZP	90.39	TAL	341.72	TAP	117.35	RCA	150.36	APO	274.49
RC	107.119	GL	3.87	GP	-10.13	ZAL	119.97	ZAP	156.26	ETS	205.82	ZAE	163.54	ETE	317.65	ZAC	73.91	ETC	283.36

V1	29.292	V2	24.506	LVI	-7.97

PLANETOCENTRIC CONIC

C3	22.460	VHL	4.739	DLA	20.26	RAL	42.08	RAD	6643.9	VEL	11.935	PTH	6.94	VHP	4.944	DPA	4.92	RAP	40.95
ECC	1.3696

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 43 48	3572.72	-47.12	134.92	282.16	97.52	14 43 21	2572.7	-38.79	103.65
60.00	13 59 7	3531.94	-40.25	132.05	282.96	92.15	14 57 59	2531.9	-35.00	102.27
70.00	14 22 47	3462.22	-34.09	126.41	282.96	87.85	15 20 29	2462.2	-31.41	98.00
80.00	15 2 57	3336.34	-29.44	116.51	282.61	84.78	15 58 33	2336.3	-28.62	89.12
90.00	16 11 12	3116.00	-27.60	100.11	282.40	83.59	17 3 8	2116.0	-27.50	73.10
100.00	17 45 48	2810.81	-29.44	77.88	282.61	84.78	18 32 39	1810.8	-28.62	50.49
110.00	19 22 14	2509.04	-34.09	55.32	282.96	87.85	20 4 3	1509.0	-31.41	26.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5268	TRA	-1.5422	TC3	.5539	BAU	.2089	SGT	2152.0	SGR	714.4	SG3	564.3	ST	43.6	SR	16.9	SS	48.3
RDE	-.2500	RRA	.3955	RC3	-.4208	FAU	.12219	RRT	-.6700	RRF	.7438	RTF	-.8721	CRT	.3420	CRS	.4567	CST	.9910
FDE	1.5154	FRA	3.4157	FC3	-4.7101	BSP	3795	SGB	2267.5	R23	-.1664	R13	.8827	LSA	65.3	MSA	15.9	SSA	1.5
BDE	.5832	BRA	1.5921	BC3	.6957	FSP	860	SG1	2207.7	SG2	516.9	THA	166.72	EL1	44.1	EL2	15.8	ALF	8.69

LAUNCH DATE JUL 8 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 419.818 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.428	GAL	-4.04	AZL	89.39	HCA	136.70	SMA	211.42	ECC	.28862	INC	.6093
RP	224.81	LAP	.42	LOP	62.40	VP	23.516	GAP	16.39	AZP	90.44	TAL	341.84	TAP	118.54	RCA	150.40	APO	272.44
RC	109.544	GL	4.34	GP	-10.57	ZAL	119.78	ZAP	155.22	ETS	205.70	ZAE	163.47	ETE	315.54	ZAC	73.46	ETC	283.37

V1	29.292	V2	24.464	LVI	-7.51

PLANETOCENTRIC CONIC

C3	21.951	VHL	4.685	DLA	20.65	RAL	41.75	RAD	6643.7	VEL	11.914	PTH	6.92	VHP	4.819	DPA	4.54	RAP	41.20
ECC	1.3613

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 40 45	3575.57	-47.15	135.19	281.68	97.51	14 40 21	2575.6	-38.69	103.85
60.00	13 55 27	3536.44	-40.26	132.43	282.44	91.89	14 54 23	2536.4	-35.11	102.60
70.00	14 18 19	3469.11	-34.08	126.94	282.40	87.53	15 16 8	2469.1	-31.53	98.50
80.00	14 57 31	3346.20	-29.38	117.24	282.01	84.40	15 53 17	2346.2	-28.72	89.83
90.00	16 5 15	3127.54	-27.51	100.94	281.78	83.18	16 57 22	2127.5	-27.59	73.94
100.00	17 40 23	2820.68	-29.38	78.61	282.01	84.40	18 27 23	1820.7	-28.72	51.20
110.00	19 17 45	2515.93	-34.08	55.86	282.40	87.53	19 59 41	1515.9	-31.53	27.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5303	TRA	-1.5274	TC3	.5749	BAU	.2159	SGT	2166.9	SGR	741.4	SG3	595.1	ST	44.1	SR	16.2	SS	50.2
RDE	-.2291	RRA	.4093	RC3	-.4591	FAU	.12747	RRT	-.6957	RRF	.7730	RTF	-.8739	CRT	.2994	CRS	.4200	CST	.9905
FDE	1.6101	FRA	3.5370	FC3	-5.0274	BSP	3855	SGB	2290.2	R23	-.1783	R13	.8858	LSA	67.0	MSA	15.6	SSA	1.5
BDE	.5777	BRA	1.5812	BC3	.7357	FSP	912	SG1	2231.0	SG2	517.2	THA	165.83	EL1	44.4	EL2	15.3	ALF	7.10

LAUNCH DATE JUL 8 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 423.392 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.385	GAL	-3.98	AZL	89.33	HCA	137.77	SMA	210.47	ECC	.28526	INC	.6718
RP	225.20	LAP	.45	LOP	63.47	VP	23.412	GAP	16.09	AZP	90.30	TAL	341.95	TAP	119.72	RCA	150.44	APO	270.51
RC	112.011	GL	4.83	GP	-11.03	ZAL	119.58	ZAP	154.15	ETS	205.60	ZAE	163.39	ETE	313.25	ZAC	72.98	ETC	283.40

V1	29.292	V2	24.422	LVI	-7.04

PLANETOCENTRIC CONIC

C3	21.476	VHL	4.634	DLA	21.07	RAL	41.42	RAD	6643.5	VEL	11.894	PTH	6.90	VHP	4.699	DPA	4.14	RAP	41.45
ECC	1.3534

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 37 34	3579.21	-47.18	135.53	281.24	97.04	14 37 13	2579.2	-39.01	104.12
60.00	13 51 36	3541.83	-40.28	132.89	281.96	91.58	14 50 38	2541.8	-35.24	103.00
70.00	14 13 35	3477.12	-34.05	127.57	281.88	87.16	15 11 32	2477.1	-31.65	99.09
80.00	14 51 44	3357.50	-29.30	118.07	281.44	83.97	15 47 41	2357.5	-28.83	90.65
90.00	15 58 53	3140.71	-27.40	101.89	281.19	82.72	16 51 13	2140.7	-27.69	74.89
100.00	17 34 36	2831.97	-29.30	79.44	281.44	83.97	18 21 48	1832.0	-28.83	52.02
110.00	19 13 1	2523.94	-34.05	56.48	281.88	87.16	19 55 5	1523.9	-31.65	28.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5332	TRA	-1.5102	TC3	.5959	BAU	.2234	SGT	2177.9	SGR	772.2	SG3	627.1	ST	44.6	SR	15.4	SS	52.2
RDE	-.2074	RRA	.4239	RC3	-.5005	FAU	.13298	RRT	-.7200	RRF	.8003	RTF	-.8757	CRT	.2470	CRS	.3740	CST	.9899
FDE	1.7116	FRA	3.6594	FC3	-5.3606	BSP	3904	SGB	2310.8	R23	-.1898	R13	.8892	LSA	68.7	MSA	15.2	SSA	1.5
BDE	.5721	BRA	1.5685	BC3	.7782	FSP	966	SG1	2251.9	SG2	518.3	THA	164.86	EL1	44.8	EL2	14.8	ALF	5.46

LAUNCH DATE JUL 8 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 23 1973

DISTANCE 426.986

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.345	GAL	-3.92	AZL	89.26	HCA	138.84	SMA	209.59	ECC	.28206	INC	.7367	V1	29.292
RP	225.59	LAP	.48	LOP	64.54	VP	23.311	GAP	15.80	AZP	90.55	TAL	342.06	TAP	120.90	RCA	150.47	APO	268.70	V2	24.380
RC	114.516	GL	5.35	GP	-11.53	ZAL	119.30	ZAP	153.06	ETS	205.52	ZAE	163.31	ETE	310.77	ZAC	72.49	ETC	283.42	LVI	-6.55

PLANETOCENTRIC CONIC

C3	21.035	VHL	4.586	DLA	21.52	RAL	41.09	RAD	6643.3	VEL	11.876	PTH	6.89	VHP	4.583	DPA	3.70	RAP	41.68	ECC	1.3462

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 34 14	3583.67	-47.21	135.96	280.85	96.72	14 33 58	2583.7	-39.16	104.44
60.00	13 47 33	3548.19	-40.29	133.43	281.51	91.21	14 46 42	2548.2	-35.39	103.46
70.00	14 8 34	3486.31	-34.02	128.28	281.37	86.74	15 6 40	2486.3	-31.80	99.77
80.00	14 45 33	3370.34	-29.20	119.01	280.89	83.48	15 41 43	2370.3	-28.95	91.59
90.00	15 52 2	3155.68	-27.27	102.96	280.61	82.20	16 44 38	2155.7	-27.79	75.97
100.00	17 28 25	2844.81	-29.20	80.38	280.89	83.48	18 15 50	1844.8	-28.95	52.96
110.00	19 8 0	2533.13	-34.02	57.20	281.37	86.74	19 50 13	1533.1	-31.80	28.69

DIFFERENTIAL CORRECTIONS

TDE	-.5358	TRA	-1.4922	TC3	.6156	BAU	.2312
RDE	-.1846	RRA	.4397	RC3	-.5451	FAU	.13872
FDE	1.8208	FRA	3.7851	FC3	-5.7092	BSP	3952
BDE	.5667	BRA	1.5556	BC3	.8223	FSP	1024

MID-COURSE EXECUTION ACCURACY

SGT	2186.8	SGR	807.4	SG3	660.5		
RRT	-.7426	RRF	.8256	RTF	-.8773		
SGB	2331.1	R23	-.2011	R13	.8926		
SG1	2272.2	SG2	520.4	THA	163.79		

ORBIT DETERMINATION ACCURACY

ST	45.0	SR	14.6	SS	54.3
CRT	.1817	CRS	.3156	CST	.9893
LSA	70.4	MSA	14.8	SSA	1.6
EL1	45.1	EL2	14.3	ALF	3.74

LAUNCH DATE JUL 8 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 25 1973

DISTANCE 430.597

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.307	GAL	-3.86	AZL	89.20	HCA	139.90	SMA	208.75	ECC	.27904	INC	.8041	V1	29.292
RP	225.98	LAP	.52	LOP	65.60	VP	23.213	GAP	15.51	AZP	90.62	TAL	342.17	TAP	122.07	RCA	150.50	APO	267.00	V2	24.338
RC	117.057	GL	5.89	GP	-12.05	ZAL	119.20	ZAP	151.94	ETS	205.46	ZAE	163.21	ETE	308.12	ZAC	71.97	ETC	283.46	LVI	-6.03

PLANETOCENTRIC CONIC

C3	20.627	VHL	4.542	DLA	21.99	RAL	40.75	RAD	6643.1	VEL	11.859	PTH	6.87	VHP	4.471	DPA	3.22	RAP	41.89	ECC	1.3395

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 30 45	3588.98	-47.25	136.46	280.50	96.33	14 30 34	2589.0	-39.34	104.82
60.00	13 43 18	3555.54	-40.29	134.06	281.10	90.79	14 42 33	2555.5	-35.57	104.01
70.00	14 3 15	3496.76	-33.97	129.10	280.90	86.26	15 1 32	2496.8	-31.96	100.54
80.00	14 38 56	3384.87	-29.08	120.08	280.36	82.93	15 35 21	2384.9	-29.08	92.65
90.00	15 44 40	3172.65	-27.11	104.18	280.05	81.61	16 37 33	2172.6	-27.89	77.20
100.00	17 21 48	2859.34	-29.08	81.44	280.36	82.93	18 9 27	1859.3	-29.08	54.02
110.00	19 2 41	2543.58	-33.97	58.01	280.90	86.26	19 45 5	1543.6	-31.96	29.46

DIFFERENTIAL CORRECTIONS

TDE	-.5382	TRA	-1.4726	TC3	.6330	BAU	.2392
RDE	-.1607	RRA	.4567	RC3	-.5930	FAU	.14463
FDE	1.9378	FRA	3.9120	FC3	-6.0705	BSP	3990
BDE	.5617	BRA	1.5417	BC3	.8674	FSP	1083

MID-COURSE EXECUTION ACCURACY

SGT	2192.1	SGR	846.9	SG3	695.0		
RRT	-.7632	RRF	.8486	RTF	-.8786		
SGB	2350.0	R23	-.2123	R13	.8960		
SG1	2290.9	SG2	523.7	THA	162.64		

ORBIT DETERMINATION ACCURACY

ST	45.3	SR	13.8	SS	56.5
CRT	.1013	CRS	.2421	CST	.9887
LSA	72.3	MSA	14.5	SSA	1.6
EL1	45.4	EL2	13.7	ALF	1.94

LAUNCH DATE JUL 8 1973 FLIGHT TIME 172.00 ARRIVAL DATE DEC 27 1973

DISTANCE 434.225

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.271	GAL	-3.81	AZL	89.13	HCA	140.96	SMA	207.97	ECC	.27617	INC	.8742	V1	29.292
RP	226.37	LAP	.55	LOP	66.66	VP	23.117	GAP	15.23	AZP	90.68	TAL	342.27	TAP	123.23	RCA	150.53	APO	265.40	V2	24.297
RC	119.633	GL	6.46	GP	-12.60	ZAL	119.01	ZAP	150.79	ETS	205.43	ZAE	163.08	ETE	305.28	ZAC	71.43	ETC	283.49	LVI	-5.50

PLANETOCENTRIC CONIC

C3	20.249	VHL	4.500	DLA	22.48	RAL	40.40	RAD	6642.9	VEL	11.843	PTH	6.86	VHP	4.364	DPA	2.71	RAP	42.09	ECC	1.3332

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 27 5	3595.18	-47.30	137.06	280.20	95.88	14 27 0	2595.2	-39.55	105.27
60.00	13 38 48	3563.96	-40.30	134.77	280.73	90.30	14 38 12	2564.0	-35.77	104.64
70.00	13 57 36	3508.58	-33.92	130.01	280.45	85.72	14 56 5	2508.6	-32.13	101.42
80.00	14 31 50	3401.26	-28.94	121.27	279.84	82.32	15 28 31	2401.3	-29.21	93.85
90.00	15 36 41	3191.84	-26.91	105.55	279.50	80.95	16 29 53	2191.8	-28.00	78.59
100.00	17 14 41	2875.73	-28.94	82.64	279.84	82.32	18 2 37	1875.7	-29.21	55.22
110.00	18 57 3	2555.40	-33.92	58.93	280.45	85.72	19 39 38	1555.4	-32.13	30.34

DIFFERENTIAL CORRECTIONS

TDE	-.5404	TRA	-1.4519	TC3	.6487	BAU	.2476
RDE	-.1355	RRA	.4748	RC3	-.6447	FAU	.15077
FDE	2.0626	FRA	4.0403	FC3	-6.4462	BSP	4035
BDE	.5571	BRA	1.5276	BC3	.9146	FSP	1145

MID-COURSE EXECUTION ACCURACY

SGT	2194.8	SGR	801.4	SG3	730.8		
RRT	-.7816	RRF	.8595	RTF	-.8798		
SGB	2368.9	R23	-.2231	R13	.8996		
SG1	2309.2	SG2	528.5	THA	161.38		

ORBIT DETERMINATION ACCURACY

ST	45.7	SR	13.1	SS	58.8
CRT	.0025	CRS	.1497	CST	.9880
LSA	74.2	MSA	14.1	SSA	1.6
EL1	45.7	EL2	13.1	ALF	.04

LAUNCH DATE JUL 8 1973 FLIGHT TIME 174.00 ARRIVAL DATE DEC 29 1973

DISTANCE 437.868

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.237	GAL	-3.76	AZL	89.05	HCA	142.02	SMA	207.23	ECC	.27345	INC	.9476	V1	29.292
RP	226.76	LAP	.58	LOP	67.72	VP	23.024	GAP	14.94	AZP	90.75	TAL	342.37	TAP	124.39	RCA	150.56	APO	263.90	V2	24.255
RC	122.240	GL	7.06	GP	-13.18	ZAL	118.82	ZAP	149.60	ETS	205.40	ZAE	162.92	ETE	302.29	ZAC	70.86	ETC	283.54	LVI	-4.94

PLANETOCENTRIC CONIC

C3	19.900	VHL	4.461	DLA	23.00	RAL	40.04	RAD	6642.8	VEL	11.828	PTH	6.85	VHP	4.261	DPA	2.16	RAP	42.28	ECC	1.3275

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 23 14	3602.32	-47.35	137.74	279.95	95.35	14 23 17	2602.3	-39.78	105.80
60.00	13 34 4	3573.50	-40.30	135.58	280.39	89.75	14 33 37	2573.5	-35.99	105.35
70.00	13 51 35	3521.86	-33.84	131.04	280.03	85.11	14 50 17	2521.9	-32.32	102.41
80.00	14 24 9	3419.73	-28.77	122.62	279.34	81.63	15 21 9	2419.7	-29.34	95.21
90.00	15 28 0	3213.60	-26.67	107.10	278.96	80.21	16 21 33	2213.6	-28.09	80.18
100.00	17 7 1	2894.20	-28.77	83.99	279.34	81.63	17 55 15	1894.2	-29.34	56.58
110.00	18 51 2	2568.68	-33.84	59.96	280.03	85.11	19 33 50	1568.7	-32.32	31.33

DIFFERENTIAL CORRECTIONS

TDE	-.5420	TRA	-1.4301	TC3	.6615	BAU	.2563
RDE	-.1088	RRA	.4943	RC3	-.7002	FAU	.15709
FDE	2.1962	FRA	4.1696	FC3	-6.8342	BSP	4070
BDE	.5528	BRA	1.5131	BC3	.9633	FSP	1209

MID-COURSE EXECUTION ACCURACY

SGT	2194.3	SGR	941.0	SG3	767.9		
RRT	-.7980	RRF	.8881	RTF	-.8806		
SGB	2387.6	R23	-.2333	R13	.9031		
SG1	2326.9	SG2	534.9	THA	160.01		

ORBIT DETERMINATION ACCURACY

ST	45.9	SR	12.5	SS	61.2
CRT	-.1169	CRS	.0357	CST	.9872
LSA	76.2	MSA	13.7	SSA	1.6
EL1	45.9	EL2	12.4	ALF	178.03

LAUNCH DATE JUL 8 1973 FLIGHT TIME 176.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 441.525 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.205	GAL	-3.71	AZL	88.98	HCA	143.07	SMA	206.54	ECC	.27087	INC	1.0240	V1	29.292
RP	227.15	LAP	.62	LOP	68.77	VP	22.934	GAP	14.66	AZP	90.82	TAL	342.47	TAP	125.54	RCA	150.59	APO	262.48	V2	24.214
RC	124.878	GL	7.69	GP	-13.79	ZAL	118.63	ZAP	148.39	ETS	205.39	ZAE	162.70	ETE	299.14	ZAC	70.27	ETC	283.59	LVI	-4.36

PLANETOCENTRIC CONIC

C3	19.580	VHL	4.425	DLA	23.56	RAL	39.68	RAD	6642.6	VEL	11.815	PTH	6.84	VHP	4.162	DPA	1.57	RAP	42.46	ECC	1.3222

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 19 12	3610.44	-47.40	138.52	279.75	94.75	14 19 22	2610.4	-40.04	106.40
60.00	13 29 2	3584.22	-40.29	136.50	280.09	89.13	14 28 46	2584.2	-36.23	106.16
70.00	13 45 9	3536.72	-33.75	132.19	279.63	84.44	14 44 6	2536.7	-32.52	103.52
80.00	14 15 49	3440.52	-28.55	124.12	278.84	80.87	15 13 10	2440.5	-29.48	96.74
90.00	15 18 27	3238.30	-26.37	108.84	278.42	79.39	16 12 25	2238.3	-28.18	81.98
100.00	16 58 41	2915.00	-28.55	85.49	278.84	80.87	17 47 16	1915.0	-29.48	58.11
110.00	18 44 36	2583.54	-33.75	61.11	279.63	84.44	19 27 39	1583.5	-32.52	32.44

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.5330	TRA	-1.3961	TC3	.6932	BAU	.2696	SGT	2177.6	SGR	996.3	SG3	805.8			ST	45.5	SR	12.1	SS	63.5
RDE	-.0813	RRA	.5142	RC3	-.7615	FAU	.16394	RRT	-.8172	RRF	.9046	RTF	-.8848			CRT	-.2565	CRS	-.0960	CST	.9856
FDE	2.3313	FRA	4.2901	FC3	-7.2484	BSP	3980	SGB	2394.7	R23	-.2333	R13	.9098			LSA	77.8	MSA	13.5	SSA	1.5
BDE	.5392	BRA	1.4878	BC3	1.0298	FSP	1266	SG1	2334.0	SG2	535.7	THA	158.30			EL1	45.6	EL2	11.7	ALF	175.80

LAUNCH DATE JUL 9 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 445.194 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.174	GAL	-3.66	AZL	88.90	HCA	144.11	SMA	205.89	ECC	.26844	INC	1.1039	V1	29.292
RP	227.54	LAP	.65	LOP	69.82	VP	22.846	GAP	14.38	AZP	90.89	TAL	342.57	TAP	126.68	RCA	150.62	APO	261.16	V2	24.172
RC	127.544	GL	8.35	GP	-14.44	ZAL	118.44	ZAP	147.14	ETS	205.39	ZAE	162.43	ETE	295.87	ZAC	69.64	ETC	283.65	LVI	-3.75

PLANETOCENTRIC CONIC

C3	19.289	VHL	4.392	DLA	24.14	RAL	39.31	RAD	6642.5	VEL	11.803	PTH	6.82	VHP	4.068	DPA	.94	RAP	42.62	ECC	1.3175

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 14 57	3619.63	-47.44	139.40	279.61	94.07	14 15 16	2619.6	-40.34	107.08
60.00	13 23 43	3596.25	-40.28	137.52	279.83	88.44	14 23 39	2596.2	-36.49	107.07
70.00	13 38 16	3553.37	-33.64	133.48	279.25	83.69	14 37 29	2553.4	-32.73	104.78
80.00	14 6 44	3464.06	-28.28	125.82	278.36	80.02	15 4 28	2464.1	-29.60	98.48
90.00	15 7 53	3266.62	-26.00	110.83	277.87	78.46	16 2 19	2266.6	-28.25	84.05
100.00	16 49 36	2938.53	-28.28	87.19	278.36	80.02	17 38 34	1938.5	-29.60	59.84
110.00	18 37 42	2600.19	-33.64	62.40	279.25	83.69	19 21 3	1600.2	-32.73	33.69

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.5428	TRA	-1.3804	TC3	.6814	BAU	.2757	SGT	2180.3	SGR	1057.0	SG3	844.9			ST	46.2	SR	12.0	SS	66.2
RDE	-.0504	RRA	.5369	RC3	-.8239	FAU	.17029	RRT	-.8250	RRF	.9191	RTF	-.8817			CRT	-.4063	CRS	-.2515	CST	.9854
FDE	2.4896	FRA	4.4241	FC3	-7.6426	BSP	4121	SGB	2423.0	R23	-.2497	R13	.9111			LSA	80.5	MSA	13.3	SSA	1.6
BDE	.5451	BRA	1.4811	BC3	1.0692	FSP	1341	SG1	2359.3	SG2	552.0	THA	156.86			EL1	46.4	EL2	10.9	ALF	173.60

LAUNCH DATE JUL 8 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 448.876 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.145	GAL	-3.62	AZL	88.81	HCA	145.16	SMA	205.28	ECC	.26614	INC	1.1878	V1	29.292
RP	227.93	LAP	.68	LOP	70.86	VP	22.760	GAP	14.10	AZP	90.98	TAL	342.66	TAP	127.82	RCA	150.64	APO	259.91	V2	24.131
RC	130.237	GL	9.05	GP	-15.13	ZAL	118.25	ZAP	145.86	ETS	205.40	ZAE	162.09	ETE	292.51	ZAC	68.98	ETC	283.72	LVI	-3.11

PLANETOCENTRIC CONIC

C3	19.026	VHL	4.362	DLA	24.76	RAL	38.94	RAD	6642.4	VEL	11.792	PTH	6.82	VHP	3.978	DPA	.26	RAP	42.77	ECC	1.3131

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 10 27	3629.91	-47.49	140.39	279.42	93.31	14 10 57	2629.9	-40.66	107.86
60.00	13 18 3	3609.64	-40.24	138.66	279.60	87.66	14 18 13	2609.6	-36.77	108.10
70.00	13 30 51	3571.93	-33.49	134.91	278.90	82.86	14 30 23	2571.9	-32.95	106.18
80.00	13 56 44	3490.72	-27.96	127.74	277.88	79.06	14 54 55	2490.7	-29.72	100.45
90.00	14 56 1	3299.28	-25.53	113.11	277.31	77.41	15 51 0	2299.3	-28.28	86.44
100.00	16 39 36	2965.20	-27.96	89.10	277.88	79.06	17 29 1	1965.2	-29.72	61.82
110.00	18 30 17	2618.75	-33.49	63.83	278.90	82.86	19 13 56	1618.7	-32.95	35.10

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.5448	TRA	-1.3562	TC3	.6805	BAU	.2853	SGT	2171.0	SGR	1124.0	SG3	884.7			ST	46.3	SR	12.3	SS	68.9
RDE	-.0179	RRA	.5607	RC3	-.8917	FAU	.17698	RRT	-.8344	RRF	.9317	RTF	-.8908			CRT	-.5573	CRS	-.4100	CST	.9846
FDE	2.6526	FRA	4.5518	FC3	-8.0530	BSP	4171	SGB	2444.7	R23	-.2583	R13	.9146			LSA	83.0	MSA	12.7	SSA	1.6
BDE	.5451	BRA	1.4675	BC3	1.1217	FSP	1411	SG1	2378.4	SG2	565.6	THA	155.13			EL1	46.9	EL2	10.1	ALF	171.19

LAUNCH DATE JUL 8 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 452.569 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.118	GAL	-3.58	AZL	88.72	HCA	146.20	SMA	204.70	ECC	.26395	INC	1.2759	V1	29.292
RP	228.32	LAP	.71	LOP	71.90	VP	22.676	GAP	13.83	AZP	91.06	TAL	342.74	TAP	128.94	RCA	150.67	APO	258.73	V2	24.090
RC	132.954	GL	9.78	GP	-15.86	ZAL	118.06	ZAP	144.55	ETS	205.41	ZAE	161.67	ETE	289.07	ZAC	68.29	ETC	283.80	LVI	-2.44

PLANETOCENTRIC CONIC

C3	18.789	VHL	4.335	DLA	25.41	RAL	38.55	RAD	6642.3	VEL	11.782	PTH	6.81	VHP	3.892	DPA	-.47	RAP	42.90	ECC	1.3092

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 5 41	3641.35	-47.53	141.50	279.47	92.46	14 6 23	2641.4	-41.01	108.73
60.00	13 12 1	3624.50	-40.20	139.92	279.41	86.81	14 12 25	2624.5	-37.08	109.24
70.00	13 22 50	3592.62	-33.30	136.49	278.56	81.94	14 22 42	2592.6	-33.17	107.75
80.00	13 45 36	3521.13	-27.54	129.90	277.38	77.99	14 44 18	2521.1	-29.80	102.70
90.00	14 42 27	3337.54	-24.94	115.75	276.72	76.21	15 38 5	2337.5	-28.26	89.23
100.00	16 28 28	2995.61	-27.54	91.27	277.38	77.99	17 18 24	1995.6	-29.80	64.07
110.00	18 22 16	2639.44	-33.30	65.41	278.56	81.94	19 6 16	1639.4	-33.17	36.67

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.5346	TRA	-1.3180	TC3	.7028	BAU	.3003	SGT	2142.6	SGR	1197.9	SG3	925.2			ST	45.7	SR	12.9	SS	71.5
RDE	.0161	RRA	.5844	RC3	-.9671	FAU	.18431	RRT	-.8476	RRF	.9425	RTF	-.8840			CRT	-.6937	CRS	-.5541	CST	.9828
FDE	2.8170	FRA	4.6639	FC3	-8.4928	BSP	4081	SGB	2454.7	R23	-.2546	R13	.9216			LSA	84.9	MSA	12.5	SSA	1.5
BDE	.5349	BRA	1.4417	BC3	1.1955	FSP	1471	SG1	2387.5	SG2	570.4	THA	152.98			EL1	46.6	EL2	9.1	ALF	168.44

LAUNCH DATE JUL 8 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 456.271 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.092	GAL	-3.54	AZL	88.63	HCA	147.24	SMA	204.16	ECC	.26190	INC	1.3686	V1	29.292
RP	220.70	LAP	.74	LOP	72.94	VP	22.595	GAP	13.55	AZP	91.15	TAL	342.82	TAP	130.06	RCA	150.69	APO	257.63	V2	24.049
RC	135.694	GL	10.55	GP	-16.63	ZAL	117.87	ZAP	143.19	ETS	205.44	ZAE	161.16	ETE	285.62	ZAC	67.57	ETC	283.88	LVI	-1.73

PLANETOCENTRIC CONIC

C3	18.580	VHL	4.310	DLA	26.11	RAL	38.16	RAD	6642.2	VEL	11.773	PTH	6.80	VHP	3.811	DPA	-1.24	RAP	43.03	ECC	1.3058

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 39	3654.10	-47.56	142.73	279.50	91.52	14 1 33	2654.1	-41.40	109.71
60.00	13 5 34	3641.02	-40.12	141.32	279.26	85.86	14 6 15	2641.0	-37.40	110.53
70.00	13 14 7	3615.80	-33.07	138.26	278.24	80.91	14 14 23	2615.8	-33.39	109.52
80.00	13 33 4	3556.30	-27.02	132.38	276.87	76.79	14 32 21	2556.3	-29.85	105.32
90.00	14 26 31	3383.63	-24.15	118.90	276.06	74.83	15 22 55	2383.6	-28.15	92.60
100.00	16 15 56	3030.77	-27.02	93.75	276.87	76.79	17 6 27	2030.8	-29.85	66.68
110.00	18 13 33	2662.62	-33.07	67.18	278.24	80.91	18 57 56	1662.6	-33.39	38.44

DIFFERENTIAL CORRECTIONS

TDE	-.5448	TRA	-1.2997	TC3	.6741	BAU	.3083
RDE	.0549	RRA	.6120	RC3	-1.0423	FAU	.19078
FDE	3.0107	FRA	4.7918	FC3	-8.8691	BSP	4244
BDE	.5476	BRA	1.4366	BC3	1.2413	FSP	1553

MID-COURSE EXECUTION ACCURACY

SGT	2136.2	SGR	1278.0	SG3	966.2
RRT	-.8490	RRF	.9518	RTF	-.8790
SGB	2489.3	R23	-.2670	R13	.9234
SG1	2416.7	SG2	596.9	THA	151.15

ORBIT DETERMINATION ACCURACY

ST	46.3	SR	14.1	SS	74.7
CRT	-.8028	CRS	-.6834	CST	.9826
LSA	88.2	MSA	12.1	SSA	1.5
EL1	47.7	EL2	8.2	ALF	165.81

LAUNCH DATE JUL 8 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 459.983 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.067	GAL	-3.50	AZL	88.53	HCA	148.27	SMA	203.65	ECC	.25995	INC	1.4663	V1	29.292
RP	229.09	LAP	.77	LOP	73.98	VP	22.515	GAP	13.28	AZP	91.25	TAL	342.90	TAP	131.17	RCA	150.71	APO	256.59	V2	24.008
RC	138.457	GL	11.36	GP	-17.45	ZAL	117.68	ZAP	141.80	ETS	205.46	ZAE	160.56	ETE	282.18	ZAC	66.80	ETC	283.98	LVI	-.99

PLANETOCENTRIC CONIC

C3	18.398	VHL	4.289	DLA	26.84	RAL	37.75	RAD	6642.1	VEL	11.765	PTH	6.79	VHP	3.734	DPA	-2.07	RAP	43.14	ECC	1.3028

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 55 18	3668.17	-47.57	144.09	279.57	90.47	13 56 26	2668.2	-41.81	110.80
60.00	12 58 38	3659.28	-40.02	142.86	279.14	84.82	13 59 37	2659.3	-37.74	111.96
70.00	13 4 34	3641.75	-32.77	140.23	277.93	79.79	14 5 16	2641.7	-33.61	111.52
80.00	13 18 39	3597.55	-26.35	135.26	276.30	75.42	14 18 36	2597.6	-29.84	108.38
90.00	14 6 52	3441.73	-23.06	122.81	275.29	73.16	15 4 14	2441.7	-27.88	96.83
100.00	16 1 31	3072.02	-26.35	96.63	276.30	75.42	16 52 43	2072.0	-29.84	69.75
110.00	18 4 1	2688.57	-32.77	69.14	277.93	79.79	18 48 49	1698.6	-33.61	40.44

DIFFERENTIAL CORRECTIONS

TDE	-.5397	TRA	-1.2651	TC3	.6735	BAU	.3227
RDE	.0955	RRA	.6394	RC3	-1.1261	FAU	.19793
FDE	3.2026	FRA	4.8990	FC3	-9.3140	BSP	4240
BDE	.5480	BRA	1.4175	BC3	1.3121	FSP	1622

MID-COURSE EXECUTION ACCURACY

SGT	2107.2	SGR	1365.9	SG3	1007.3
RRT	-.8557	RRF	.9598	RTF	-.8788
SGB	2511.2	R23	-.2648	R13	.9292
SG1	2435.6	SG2	611.5	THA	148.80

ORBIT DETERMINATION ACCURACY

ST	45.9	SR	15.8	SS	77.7
CRT	-.8823	CRS	-.7793	CST	.9811
LSA	90.8	MSA	11.9	SSA	1.5
EL1	48.0	EL2	7.1	ALF	162.74

LAUNCH DATE JUL 8 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 463.702 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.044	GAL	-3.47	AZL	88.43	HCA	149.30	SMA	203.17	ECC	.25811	INC	1.5694	V1	29.292
RP	229.48	LAP	.80	LOP	75.01	VP	22.438	GAP	13.01	AZP	91.35	TAL	342.97	TAP	132.27	RCA	150.73	APO	255.61	V2	23.967
RC	141.241	GL	12.21	GP	-18.32	ZAL	117.49	ZAP	140.37	ETS	205.49	ZAE	159.85	ETE	278.79	ZAC	66.00	ETC	284.09	LVI	-.21

PLANETOCENTRIC CONIC

C3	18.243	VHL	4.271	DLA	27.62	RAL	37.34	RAD	6642.0	VEL	11.759	PTH	6.79	VHP	3.662	DPA	-2.95	RAP	43.25	ECC	1.3002

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 49 34	3683.73	-47.57	145.59	279.71	89.31	13 50 58	2683.7	-42.25	112.03
60.00	12 51 9	3679.52	-39.88	144.56	279.06	83.67	13 52 29	2679.5	-38.09	113.56
70.00	12 54 2	3670.99	-32.39	142.43	277.61	78.54	13 55 13	2671.0	-33.81	113.78
80.00	13 1 32	3647.46	-25.44	138.69	275.65	73.83	14 2 19	2647.5	-29.71	112.09
90.00	13 39 46	3523.83	-21.34	128.21	274.24	70.99	14 38 30	2523.8	-27.26	102.75
100.00	15 44 24	3121.93	-25.44	100.06	275.65	73.83	16 36 26	2121.9	-29.71	73.45
110.00	17 53 29	2717.81	-32.39	71.34	277.61	78.54	18 38 47	1717.8	-33.81	42.70

DIFFERENTIAL CORRECTIONS

TDE	-.5422	TRA	-1.2382	TC3	.6474	BAU	.3352
RDE	.1405	RRA	.6695	RC3	-1.2121	FAU	.20458
FDE	3.4131	FRA	5.0086	FC3	-9.7082	BSP	4340
BDE	.5601	BRA	1.4076	BC3	1.3742	FSP	1699

MID-COURSE EXECUTION ACCURACY

SGT	2085.3	SGR	1461.1	SG3	1048.4
RRT	-.8565	RRF	.9665	RTF	-.8746
SGB	2546.3	R23	-.2674	R13	.9332
SG1	2465.0	SG2	638.0	THA	146.49

ORBIT DETERMINATION ACCURACY

ST	46.0	SR	18.0	SS	81.0
CRT	-.9347	CRS	-.8501	CST	.9802
LSA	94.1	MSA	11.6	SSA	1.5
EL1	49.0	EL2	6.0	ALF	159.63

LAUNCH DATE JUL 8 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 467.430 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	33.022	GAL	-3.44	AZL	88.32	HCA	150.33	SMA	202.72	ECC	.25638	INC	1.6788	V1	29.292
RP	229.86	LAP	.83	LOP	76.03	VP	22.362	GAP	12.75	AZP	91.46	TAL	343.04	TAP	133.37	RCA	150.75	APO	254.70	V2	23.927
RC	144.046	GL	13.11	GP	-19.23	ZAL	117.29	ZAP	138.90	ETS	205.51	ZAE	159.03	ETE	275.48	ZAC	65.15	ETC	284.21	LVI	.62

PLANETOCENTRIC CONIC

C3	18.117	VHL	4.256	DLA	28.44	RAL	36.91	RAD	6642.0	VEL	11.753	PTH	6.78	VHP	3.594	DPA	-3.90	RAP	43.34	ECC	1.2982

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 43 27	3700.87	-47.55	147.25	279.90	88.03	13 45 8	2700.9	-42.72	113.41
60.00	12 43 3	3701.93	-39.70	146.44	279.00	82.41	13 44 45	2701.9	-38.45	115.36
70.00	12 42 17	3704.16	-31.92	144.89	277.27	77.15	13 44 2	2704.2	-33.98	116.35
80.00	12 40 3	3711.23	-24.17	143.00	274.84	71.91	13 41 54	2711.2	-29.39	116.80
86.83	12 17 49	3783.06	-17.21	145.48	272.05	67.00	13 20 52	2783.1	-25.20	121.27
100.00	15 22 54	3185.70	-24.17	104.37	274.84	71.91	16 16 0	2185.7	-29.39	78.16
110.00	17 41 44	2750.98	-31.92	73.81	277.27	77.15	18 27 35	1751.0	-33.98	45.27

DIFFERENTIAL CORRECTIONS

TDE	-.5390	TRA	-1.2044	TC3	.6278	BAU	.3507
RDE	.1693	RRA	.7003	RC3	-1.3046	FAU	.21137
FDE	3.6316	FRA	5.1023	FC	-10.1004	BSP	4391
BDE	.5713	BRA	1.3932	BC3	1.4478	FSP	1771

MID-COURSE EXECUTION ACCURACY

SGT	2052.3	SGR	1564.5	SG3	1086.9
RRT	-.8581	RRF	.9722	RTF	-.8716
SGB	2580.6	R23	-.2632	R13	.9367
SG1	2494.5	SG2	660.9	THA	143.88

ORBIT DETERMINATION ACCURACY

ST	45.6	SR	20.6	SS	84.3
CRT	-.9671	CRS	-.8987	CST	.9768
LSA	97.3	MSA	11.4	SSA	1.5
EL1	49.8	EL2	4.8	ALF	156.19

LAUNCH DATE JUL 8 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 471.165 EARTH TO MARS
RL 152.10 LAL .00 LOL 285.70 VL 33.002 GAL -3.41 AZL 88.21 HCA 151.35 SMA 202.30 ECC .25475 INC 1.7948 V1 29.292
RP 230.25 LAP .86 LOP 77.06 VP 22.289 GAP 12.48 AZP 91.58 TAL 343.10 TAP 134.45 RCA 150.76 APO 253.83 V2 23.887
RC 146.870 GL 14.07 GP -20.21 ZAL 117.10 ZAP 137.39 ETS 205.53 ZAE 158.10 ETE 272.28 ZAC 64.26 ETC 284.34 LVI 1.49
PLANETOCENTRIC CONIC
C3 18.020 VHL 4.245 DLA 29.32 RAL 36.46 RAD 6641.9 VEL 11.749 PTH 6.78 VHP 3.531 DPA -4.90 RAP 43.43 ECC 1.2966

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 36 51	3719.75	-47.49	149.07	280.15	86.63	13 38 51	2719.7	-43.22	114.95
60.00	12 34 13	3726.81	-39.46	148.51	278.96	81.03	13 36 19	2726.8	-38.82	117.37
70.00	12 29 0	3742.21	-31.31	147.69	276.89	75.60	13 31 22	2742.2	-34.11	119.32
80.00	12 8 54	3805.52	-22.03	149.19	273.61	69.32	13 12 19	2805.5	-28.57	123.68
81.93	11 36 12	3910.36	-17.74	155.08	271.75	66.27	12 41 22	2910.4	-25.98	130.85
100.00	14 51 46	3279.99	-22.03	110.56	273.61	69.32	15 46 26	2280.0	-28.57	85.05
110.00	17 28 26	2789.03	-31.31	76.61	276.89	75.60	18 14 55	1789.0	-34.11	48.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.5349 TRA-1.1691 TC3 .6022 BAU .3676 SGT 2014.4 SGR 1676.3 SG3 1128.5 ST 45.2 SR 23.7 SS 87.7
RDE .2427 RRA .7325 RC3-1.4020 FAU .21798 RRT -.8580 RRF .9769 RTF -.8677 CRT -.9857 CRS -.9316 CST .9772
FDE 3.8617 FRA 5.1832 FC-10.4725 BSP 4454 SGB 2620.6 R23 -.2565 R13 .9444 LSA 100.8 MSA 11.3 SSA 1.4
BDE .5874 BRA 1.3796 BC3 1.5259 FSP 1842 SG1 2529.3 SG2 685.7 THA 141.08 EL1 50.9 EL2 3.5 ALF 152.53

LAUNCH DATE JUL 8 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 474.907 EARTH TO MARS
RL 152.10 LAL .00 LOL 285.70 VL 32.982 GAL -3.38 AZL 88.08 HCA 152.37 SMA 201.90 ECC .25321 INC 1.9182 V1 29.292
RP 230.63 LAP .89 LOP 78.08 VP 22.217 GAP 12.22 AZP 91.70 TAL 343.16 TAP 135.53 RCA 150.78 APO 253.03 V2 23.847
RC 149.713 GL 15.08 GP -21.24 ZAL 116.89 ZAP 135.84 ETS 205.54 ZAE 157.05 ETE 269.21 ZAC 63.31 ETC 284.50 LVI 2.40
PLANETOCENTRIC CONIC
C3 17.953 VHL 4.237 DLA 30.24 RAL 36.00 RAD 6641.9 VEL 11.746 PTH 6.78 VHP 3.474 DPA -5.96 RAP 43.51 ECC 1.2958

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 45	3740.55	-47.36	151.08	280.45	85.09	13 32 5	2740.5	-43.74	116.68
60.00	12 24 31	3754.50	-39.14	150.80	278.93	79.50	13 27 5	2754.5	-39.18	119.64
70.00	12 13 39	3786.60	-30.51	150.90	276.44	73.85	13 16 45	2786.6	-34.15	122.78
78.81	11 10 21	3986.22	-18.29	160.98	271.48	65.49	12 16 47	2986.2	-26.80	136.71
78.81	11 10 21	3986.22	-18.29	160.98	271.48	65.49	12 16 47	2986.2	-26.80	136.71
78.81	11 10 21	3986.22	-18.29	160.98	271.48	65.49	12 16 47	2986.2	-26.80	136.71
110.00	17 13 5	2833.42	-30.51	79.82	276.44	73.85	18 0 18	1833.4	-34.15	51.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.5293 TRA-1.1325 TC3 .5708 BAU .3861 SGT 1972.0 SGR 1797.0 SG3 1166.7 ST 44.6 SR 27.3 SS 91.2
RDE .3016 RRA .7662 RC3-1.5039 FAU .22429 RRT -.8563 RRF .9809 RTF -.8628 CRT -.9950 CRS -.9538 CST .9753
FDE 4.1034 FRA 5.2510 FC-10.8157 BSP 4523 SGB 2667.9 R23 -.2469 R13 .9503 LSA 104.5 MSA 11.2 SSA 1.4
BDE .6092 BRA 1.3674 BC3 1.6086 FSP 1911 SG1 2571.2 SG2 711.7 THA 138.10 EL1 52.2 EL2 2.3 ALF 148.62

LAUNCH DATE JUL 8 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 478.654 EARTH TO MARS
RL 152.10 LAL .00 LOL 285.70 VL 32.964 GAL -3.35 AZL 87.95 HCA 153.38 SMA 201.53 ECC .25176 INC 2.0498 V1 29.292
RP 231.01 LAP .92 LOP 79.10 VP 22.147 GAP 11.95 AZP 91.83 TAL 343.21 TAP 136.59 RCA 150.79 APO 252.27 V2 23.807
RC 152.572 GL 16.14 GP -22.33 ZAL 116.68 ZAP 134.25 ETS 205.54 ZAE 155.89 ETE 266.29 ZAC 62.32 ETC 284.66 LVI 3.37
PLANETOCENTRIC CONIC
C3 17.919 VHL 4.233 DLA 31.23 RAL 35.52 RAD 6641.9 VEL 11.745 PTH 6.77 VHP 3.421 DPA -7.10 RAP 43.58 ECC 1.2949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 22 1	3763.48	-47.23	153.27	280.81	83.41	13 24 44	2763.5	-44.28	118.62
60.00	12 13 47	3785.47	-38.72	153.33	278.89	77.83	13 16 52	2785.5	-39.53	122.20
70.00	11 55 22	3839.88	-29.44	154.68	275.86	71.85	12 59 22	2839.9	-34.06	126.94
76.16	10 49 18	4046.33	-18.86	165.77	271.24	64.64	11 56 44	3046.3	-27.67	141.48
76.16	10 49 18	4046.33	-18.86	165.77	271.24	64.64	11 56 44	3046.3	-27.67	141.48
76.16	10 49 18	4046.33	-18.86	165.77	271.24	64.64	11 56 44	3046.3	-27.67	141.48
110.00	16 54 48	2886.70	-29.44	83.60	275.86	71.85	17 42 55	1886.7	-34.06	55.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.5217 TRA-1.0937 TC3 .5149 BAU .4066 SGT 1923.8 SGR 1926.9 SG3 1203.0 ST 43.8 SR 31.3 SS 94.8
RDE .3663 RRA .8009 RC3-1.6109 FAU .23033 RRT -.8931 RRF .9842 RTF -.8468 CRT -.9986 CRS -.9686 CST .9732
FDE 4.3541 FRA 5.2993 FC-11.1281 BSP 4602 SGB 2722.8 R23 -.2345 R13 .9564 LSA 108.5 MSA 11.1 SSA 1.3
BDE .6375 BRA 1.3556 BC3 1.6974 FSP 1975 SG1 2620.9 SG2 737.9 THA 134.95 EL1 53.9 EL2 1.4 ALF 144.48

LAUNCH DATE JUL 8 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 482.407 EARTH TO MARS
RL 152.10 LAL .00 LOL 285.70 VL 32.946 GAL -3.33 AZL 87.81 HCA 154.40 SMA 201.18 ECC .25040 INC 2.1905 V1 29.292
RP 231.39 LAP .95 LOP 80.11 VP 22.078 GAP 11.69 AZP 91.98 TAL 343.25 TAP 137.65 RCA 150.81 APO 251.56 V2 23.767
RC 155.447 GL 17.28 GP -23.48 ZAL 116.46 ZAP 132.61 ETS 205.53 ZAE 154.61 ETE 263.53 ZAC 61.27 ETC 284.85 LVI 4.40
PLANETOCENTRIC CONIC
C3 17.919 VHL 4.233 DLA 32.28 RAL 35.01 RAD 6641.9 VEL 11.745 PTH 6.77 VHP 3.374 DPA -8.30 RAP 43.65 ECC 1.2949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 13 35	3788.79	-47.00	155.67	281.20	81.57	13 16 44	2788.8	-44.84	120.80
60.00	12 1 46	3820.32	-38.19	156.13	278.83	76.00	13 5 26	2820.3	-39.84	125.11
70.00	11 32 23	3907.26	-27.92	159.34	275.03	69.48	12 37 31	2907.3	-33.73	132.17
73.75	10 30 45	4098.06	-19.45	169.99	271.03	63.72	11 39 3	3098.1	-28.57	145.68
73.75	10 30 45	4098.06	-19.45	169.99	271.03	63.72	11 39 3	3098.1	-28.57	145.68
73.75	10 30 45	4098.06	-19.45	169.99	271.03	63.72	11 39 3	3098.1	-28.57	145.68
110.00	16 31 50	2954.08	-27.92	88.25	275.03	69.48	17 21 4	1954.1	-33.73	61.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.5101 TRA-1.0510 TC3 .4996 BAU .4300 SGT 1867.2 SGR 2068.7 SG3 1236.7 ST 42.8 SR 35.8 SS 98.4
RDE .4373 RRA .8358 RC3-1.7241 FAU .23618 RRT -.8493 RRF .9870 RTF -.8505 CRT -.9983 CRS -.9785 CST .9704
FDE 4.6105 FRA 5.3229 FC-11.4105 BSP 4675 SGB 2785.3 R23 -.2184 R13 .9628 LSA 112.6 MSA 11.1 SSA 1.2
BDE .6719 BRA 1.3428 BC3 1.7950 FSP 2032 SG1 2679.5 SG2 760.3 THA 131.59 EL1 55.8 EL2 1.6 ALF 140.08

LAUNCH DATE JUL 8 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 486.165 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.930 GAL -3.31 AZL 87.66 HCA 155.41 SNA 200.85 ECC .24912 INC 2.3416 V1 29.292
RP 231.77 LAP .97 LOP 81.12 VP 22.011 GAP 11.44 AZP 92.13 TAL 343.29 TAP 138.70 RCA 150.82 APO 250.89 V2 23.728
RC 158.336 GL 18.48 GP -24.70 ZAL 116.23 ZAP 130.93 ETS 205.50 ZAE 153.21 ETE 260.94 ZAC 60.16 ETC 285.06 LVI 5.48

PLANETOCENTRIC CONIC

C3 17.957 VHL 4.238 DLA 33.39 RAL 34.47 RAD 6641.9 VEL 11.747 PTH 6.78 VHP 3.334 DPA -9.58 RAP 43.73 ECC 1.2955

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 18	3816.78	-46.69	150.31	281.63	79.56	13 7 55	2816.8	-45.40	123.27
60.00	11 48 9	3859.90	-37.49	159.26	278.72	73.98	12 52 29	2859.9	-40.10	128.44
70.00	10 59 21	4004.70	-25.43	165.81	273.63	66.39	12 6 6	3004.7	-32.82	139.62
71.45	10 13 50	4144.26	-20.06	173.87	270.86	62.72	11 22 55	3144.3	-29.52	149.55
71.45	10 13 50	4144.26	-20.06	173.87	270.86	62.72	11 22 55	3144.3	-29.52	149.55
71.45	10 13 50	4144.26	-20.06	173.87	270.86	62.72	11 22 55	3144.3	-29.52	149.55
110.00	15 58 48	3951.52	-25.43	94.73	273.63	66.39	16 49 39	2951.5	-32.82	68.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4915 TRA-1.0022 TC3 .4683 BAU .4566 SGT 1798.2 SGR 2215.9 SG3 1266.6 ST 41.2 SR 40.8 SS 101.9
RDE .5148 RRA .8701 RC3-1.8432 FAU .24173 RRT -.8456 RRF .9892 RTF -.8445 CRT -.9953 CRS -.9852 CST .9665
FDE 4.8667 FRA 5.3142 FC-11.6539 BSP 4708 SGS 2853.7 R23 -.1984 R13 .9693 L&A 116.7 M&A 11.1 S&A 1.1
BDE .7118 BRA 1.3272 BC3 1.9018 FSP 2072 SG1 2748.7 SG2 774.3 THA 128.01 EL1 57.9 EL2 2.8 ALF 135.29

LAUNCH DATE JUL 8 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 489.925 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.915 GAL -3.28 AZL 87.50 HCA 156.41 SNA 200.58 ECC .24793 INC 2.5041 V1 29.292
RP 232.14 LAP 1.00 LOP 82.13 VP 21.946 GAP 11.18 AZP 92.30 TAL 343.33 TAP 139.74 RCA 150.83 APO 250.27 V2 23.689
RC 161.238 GL 19.76 GP -25.99 ZAL 115.99 ZAP 129.21 ETS 205.46 ZAE 151.69 ETE 256.52 ZAC 59.00 ETC 285.29 LVI 6.63

PLANETOCENTRIC CONIC

C3 18.038 VHL 4.247 DLA 34.58 RAL 33.91 RAD 6642.0 VEL 11.750 PTH 6.78 VHP 3.299 DPA -10.93 RAP 43.81 ECC 1.2969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 2	3847.90	-46.27	161.19	282.07	77.38	12 58 10	2847.9	-45.95	126.07
60.00	11 32 28	3905.54	-36.57	168.79	278.50	71.74	12 37 34	2905.5	-40.27	132.31
69.21	9 58 1	4186.79	-20.68	177.53	270.74	61.64	11 7 47	3186.8	-30.52	153.21
69.21	9 58 1	4186.79	-20.68	177.53	270.74	61.64	11 7 47	3186.8	-30.52	153.21
69.21	9 58 1	4186.79	-20.68	177.53	270.74	61.64	11 7 47	3186.8	-30.52	153.21
69.21	9 58 1	4186.79	-20.68	177.53	270.74	61.64	11 7 47	3186.8	-30.52	153.21
69.21	9 58 1	4186.79	-20.68	177.53	270.74	61.64	11 7 47	3186.8	-30.52	153.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4898 TRA -.9711 TC3 .3865 BAU .4800 SGT 1753.9 SGR 2376.2 SG3 1293.4 ST 40.8 SR 46.7 SS 106.1
RDE .6070 RRA .9104 RC3-1.9524 FAU .24493 RRT -.8300 RRF .9912 RTF -.8280 CRT -.9913 CRS -.9899 CST .9642
FDE 5.1648 FRA 5.3145 FC-11.7551 BSP 4977 SGS 2953.4 R23 -.1858 R13 .9736 L&A 122.4 M&A 11.1 S&A 1.1
BDE .7800 BRA 1.3311 BC3 1.9903 FSP 2148 SG1 2837.5 SG2 819.2 THA 124.81 EL1 61.9 EL2 4.0 ALF 131.07

LAUNCH DATE JUL 8 1973 FLIGHT TIME 204.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 493.691 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.900 GAL -3.27 AZL 87.32 HCA 157.41 SNA 200.26 ECC .24681 INC 2.5798 V1 29.292
RP 232.51 LAP 1.03 LOP 83.13 VP 21.883 GAP 10.92 AZP 92.47 TAL 343.38 TAP 140.77 RCA 150.84 APO 249.69 V2 23.650
RC 164.150 GL 21.12 GP -27.36 ZAL 115.73 ZAP 127.45 ETS 205.38 ZAE 150.06 ETE 256.26 ZAC 57.77 ETC 285.55 LVI 7.84

PLANETOCENTRIC CONIC

C3 18.166 VHL 4.262 DLA 35.85 RAL 33.30 RAD 6642.0 VEL 11.755 PTH 6.78 VHP 3.271 DPA -12.36 RAP 43.89 ECC 1.2990

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 42 33	3882.59	-46.70	164.35	282.49	75.01	12 47 15	2882.6	-46.47	129.25
60.00	11 13 53	3959.25	-36.36	166.82	278.10	69.24	12 19 52	2959.3	-40.26	136.88
68.98	9 42 56	4226.53	-21.31	181.05	270.64	60.46	10 53 22	3226.5	-31.57	156.74
68.98	9 42 56	4226.53	-21.31	181.05	270.64	60.46	10 53 22	3226.5	-31.57	156.74
68.98	9 42 56	4226.53	-21.31	181.05	270.64	60.46	10 53 22	3226.5	-31.57	156.74
68.98	9 42 56	4226.53	-21.31	181.05	270.64	60.46	10 53 22	3226.5	-31.57	156.74
68.98	9 42 56	4226.53	-21.31	181.05	270.64	60.46	10 53 22	3226.5	-31.57	156.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4734 TRA -.9263 TC3 .3267 BAU .5091 SGT 1686.1 SGR 2346.4 SG3 1314.4 ST 39.3 SR 53.1 SS 110.0
RDE .7061 RRA .9471 RC3-2.0707 FAU .24825 RRT -.8173 RRF .9927 RTF -.8138 CRT -.9855 CRS -.9931 CST .9597
FDE 5.4458 FRA 5.2614 FC-11.8308 BSP 5135 SGS 3054.1 R23 -.1665 R13 .9767 L&A 127.6 M&A 11.2 S&A 1.0
BDE .8501 BRA 1.3248 BC3 2.0963 FSP 2186 SG1 2935.8 SG2 842.9 THA 121.29 EL1 65.8 EL2 5.4 ALF 126.40

LAUNCH DATE JUL 8 1973 FLIGHT TIME 206.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 497.460 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.887 GAL -3.26 AZL 87.13 HCA 158.41 SNA 199.89 ECC .24576 INC 2.6701 V1 29.292
RP 232.89 LAP 1.06 LOP 84.13 VP 21.821 GAP 10.67 AZP 92.67 TAL 343.38 TAP 141.79 RCA 150.84 APO 249.14 V2 23.612
RC 167.073 GL 22.57 GP -28.80 ZAL 115.48 ZAP 125.84 ETS 205.28 ZAE 148.31 ETE 254.16 ZAC 56.48 ETC 285.83 LVI 9.12

PLANETOCENTRIC CONIC

C3 18.347 VHL 4.283 DLA 37.21 RAL 32.68 RAD 6642.1 VEL 11.763 PTH 6.78 VHP 3.251 DPA -13.87 RAP 43.98 ECC 1.3018

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 29 33	3921.53	-44.96	167.80	282.85	72.43	12 34 54	2921.5	-46.94	132.89
60.00	10 50 56	4024.98	-33.66	171.58	277.38	66.39	11 58 1	3025.0	-40.03	142.45
64.74	9 28 23	4264.21	-21.96	184.49	270.59	59.18	10 39 27	3264.2	-32.67	160.20
64.74	9 28 23	4264.21	-21.96	184.49	270.59	59.18	10 39 27	3264.2	-32.67	160.20
64.74	9 28 23	4264.21	-21.96	184.49	270.59	59.18	10 39 27	3264.2	-32.67	160.20
64.74	9 28 23	4264.21	-21.96	184.49	270.59	59.18	10 39 27	3264.2	-32.67	160.20
64.74	9 28 23	4264.21	-21.96	184.49	270.59	59.18	10 39 27	3264.2	-32.67	160.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4534 TRA -.8803 TC3 .2826 BAU .5411 SGT 1613.8 SGR 2727.8 SG3 1329.7 ST 37.6 SR 60.1 SS 113.7
RDE .8169 RRA .9828 RC3-2.1908 FAU .25069 RRT -.8009 RRF .9940 RTF -.7960 CRT -.9762 CRS -.9952 CST .9539
FDE 5.7264 FRA 5.1727 FC-11.8295 BSP 5311 SGS 3169.3 R23 -.1469 R13 .9831 L&A 133.5 M&A 11.3 S&A .9
BDE .9343 BRA 1.3194 BC3 2.2062 FSP 2213 SG1 3049.1 SG2 864.5 THA 117.78 EL1 70.5 EL2 6.6 ALF 121.78

LAUNCH DATE JUL 8 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 501.232 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.874 GAL -3.24 AZL 86.92 HCA 159.41 SMA 199.74 ECC .24478 INC 3.0775 V1 29.292
RP 233.25 LAP 1.08 LOP 85.13 VP 21.760 GAP 10.42 AZP 92.88 TAL 343.39 TAP 142.80 RCA 150.85 APO 248.64 V2 23.573
RC 170.003 GL 24.12 GP -30.32 ZAL 115.14 ZAP 123.80 ETS 205.14 ZAE 146.46 ETE 252.20 ZAC 55.12 ETC 286.15 LVI 10.47

PLANETOCENTRIC CONIC

C3 18.589 VHL 4.311 DLA 38.65 RAL 31.94 RAD 6642.2 VEL 11.773 PTH 6.80 VHP 3.239 DPA -15.46 RAP 44.09 ECC 1.3059

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 14 36	3965.67	-43.98	171.60	283.09	69.64	12 20 44	2965.7	-47.32	137.09
60.00	10 20 1	4112.38	-31.11	177.58	275.99	62.97	11 28 33	3112.4	-39.25	149.75
62.47	9 14 11	4300.34	-22.61	187.89	270.58	57.77	10 25 52	3300.3	-33.81	163.66
62.47	9 14 11	4300.34	-22.61	187.89	270.58	57.77	10 25 52	3300.3	-33.81	163.66
62.47	9 14 11	4300.34	-22.61	187.89	270.58	57.77	10 25 52	3300.3	-33.81	163.66
62.47	9 14 11	4300.34	-22.61	187.89	270.58	57.77	10 25 52	3300.3	-33.81	163.66
62.47	9 14 11	4300.34	-22.61	187.89	270.58	57.77	10 25 52	3300.3	-33.81	163.66

DIFFERENTIAL CORRECTIONS

TDE -.4301 TRA -.8336 TC3 .1918 BAU .5749
RDE .9425 RRA 1.0181 RC3-2.3056 FAU .25157
FDE 6.0106 FRA 5.0526 FC-11.7166 B8P 5530
BDE 1.0360 BRA 1.3158 BC3 2.3135 F8P 2236

MID-COURSE EXECUTION ACCURACY

SGT 1538.2 SGR 2919.4 SG3 1338.0
RRT -.7798 RRF .9951 RTF -.7737
SGB 3299.8 R23 -.1278 R13 .9869
SG1 3179.1 SG2 884.2 THA 114.34

ORBIT DETERMINATION ACCURACY

ST 35.6 SR 67.9 SS 117.5
CRT -.9691 CRS -.9967 CST .9464
LSA 139.8 MSA 11.5 SSA .8
EL1 76.3 EL2 7.8 ALF 117.28

LAUNCH DATE JUL 8 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 505.007 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.862 GAL -3.23 AZL 86.70 HCA 160.40 SMA 199.51 ECC .24387 INC 3.3041 V1 29.292
RP 233.62 LAP 1.11 LOP 86.13 VP 21.701 GAP 10.16 AZP 93.11 TAL 343.41 TAP 143.81 RCA 150.86 APO 248.16 V2 23.536
RC 172.941 GL 25.76 GP -31.93 ZAL 114.81 ZAP 121.92 ETS 204.96 ZAE 144.49 ETE 250.38 ZAC 53.69 ETC 286.51 LVI 11.90

PLANETOCENTRIC CONIC

C3 18.903 VHL 4.348 DLA 40.20 RAL 31.17 RAD 6642.3 VEL 11.786 PTH 6.81 VHP 3.236 DPA -17.14 RAP 44.21 ECC 1.3111

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 57 12	4016.35	-42.69	178.79	283.13	66.82	12 4 8	3016.4	-47.88	141.87
60.00	9 18 26	4283.98	-29.29	188.37	272.07	57.51	10 29 52	3284.0	-36.33	163.36
60.14	9 0 12	4335.30	-23.26	191.28	270.62	56.24	10 12 28	3335.3	-35.01	167.13
60.14	9 0 12	4335.30	-23.26	191.28	270.62	56.24	10 12 28	3335.3	-35.01	167.13
60.14	9 0 12	4335.30	-23.26	191.28	270.62	56.24	10 12 28	3335.3	-35.01	167.13
60.14	9 0 12	4335.30	-23.26	191.28	270.62	56.24	10 12 28	3335.3	-35.01	167.13
60.14	9 0 12	4335.30	-23.26	191.28	270.62	56.24	10 12 28	3335.3	-35.01	167.13

DIFFERENTIAL CORRECTIONS

TDE -.3987 TRA -.7822 TC3 .1283 BAU .6131
RDE 1.0818 RRA 1.0486 RC3-2.4229 FAU .25176
FDE 6.2789 FRA 4.8800 FC-11.5305 B8P 5731
BDE 1.1527 BRA 1.3082 BC3 2.4262 F8P 2232

MID-COURSE EXECUTION ACCURACY

SGT 1482.5 SGR 3121.8 SG3 1338.0
RRT -.7844 RRF .9960 RTF -.7470
SGB 3442.9 R23 -.1087 R13 .9901
SG1 3324.5 SG2 895.2 THA 110.93

ORBIT DETERMINATION ACCURACY

ST 33.2 SR 76.3 SS 120.9
CRT -.9869 CRS -.9977 CST .9385
LSA 146.3 MSA 11.7 SSA .8
EL1 82.7 EL2 8.9 ALF 112.86

LAUNCH DATE JUL 8 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 508.783 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.851 GAL -3.22 AZL 86.45 HCA 161.39 SMA 199.29 ECC .24302 INC 3.5530 V1 29.292
RP 233.99 LAP 1.13 LOP 87.12 VP 21.644 GAP 9.92 AZP 93.37 TAL 343.41 TAP 144.80 RCA 150.86 APO 247.72 V2 23.498
RC 175.886 GL 27.56 GP -33.62 ZAL 114.44 ZAP 120.01 ETS 204.74 ZAE 142.42 ETE 248.67 ZAC 52.18 ETC 286.92 LVI 13.41

PLANETOCENTRIC CONIC

C3 19.302 VHL 4.393 DLA 41.86 RAL 30.32 RAD 6642.5 VEL 11.803 PTH 6.83 VHP 3.242 DPA -18.91 RAP 44.37 ECC 1.3177

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 36 15	4075.62	-40.98	187 47	282.80	63.33	11 44 11	3075.6	-47.52	147.72
57.75	8 46 18	4369.49	-23.90	194.70	270.70	54.55	9 59 7	3369.5	-36.25	170.69
57.75	8 46 18	4369.49	-23.90	194.70	270.70	54.55	9 59 7	3369.5	-36.25	170.69
57.75	8 46 18	4369.49	-23.90	194.70	270.70	54.55	9 59 7	3369.5	-36.25	170.69
57.75	8 46 18	4369.49	-23.90	194.70	270.70	54.55	9 59 7	3369.5	-36.25	170.69
57.75	8 46 18	4369.49	-23.90	194.70	270.70	54.55	9 59 7	3369.5	-36.25	170.69
57.75	8 46 18	4369.49	-23.90	194.70	270.70	54.55	9 59 7	3369.5	-36.25	170.69

DIFFERENTIAL CORRECTIONS

TDE -.3691 TRA -.7374 TC3 .0383 BAU .6515
RDE 1.2431 RRA 1.0797 RC3-2.5244 FAU .24942
FDE 6.5478 FRA 4.6639 FC-11.1868 B8P 6043
BDE 1.2967 BRA 1.3074 BC3 2.5247 F8P 2233

MID-COURSE EXECUTION ACCURACY

SGT 1378.4 SGR 3335.0 SG3 1329.6
RRT -.7170 RRF .9967 RTF -.7086
SGB 3608.7 R23 -.0924 R13 .9925
SG1 3489.9 SG2 918.2 THA 107.78

ORBIT DETERMINATION ACCURACY

ST 30.9 SR 65.9 SS 124.5
CRT -.9418 CRS -.9984 CST .9218
LSA 154.0 MSA 11.9 SSA .7
EL1 90.8 EL2 9.8 ALF 108.93

LAUNCH DATE JUL 8 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 512.561 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.841 GAL -3.21 AZL 86.17 HCA 162.37 SMA 199.09 ECC .24223 INC 3.8279 V1 29.292
RP 234.35 LAP 1.16 LOP 88.11 VP 21.587 GAP 9.67 AZP 93.68 TAL 343.41 TAP 145.78 RCA 150.86 APO 247.31 V2 23.461
RC 178.836 GL 29.47 GP -35.39 ZAL 114.03 ZAP 118.07 ETS 204.47 ZAE 140.25 ETE 247.08 ZAC 50.61 ETC 287.37 LVI 15.00

PLANETOCENTRIC CONIC

C3 19.804 VHL 4.450 DLA 43.64 RAL 29.38 RAD 6642.8 VEL 11.824 PTH 6.84 VHP 3.261 DPA -20.76 RAP 44.55 ECC 1.3259

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 9 56	4148.23	-38.63	185.81	281.84	59.72	11 19 4	3148.2	-47.08	154.66
55.27	8 32 21	4403.10	-24.52	198.18	270.82	52.70	9 45 45	3403.1	-37.53	174.35
55.27	8 32 21	4403.10	-24.52	198.18	270.82	52.70	9 45 45	3403.1	-37.53	174.35
55.27	8 32 21	4403.10	-24.52	198.18	270.82	52.70	9 45 45	3403.1	-37.53	174.35
55.27	8 32 21	4403.10	-24.52	198.18	270.82	52.70	9 45 45	3403.1	-37.53	174.35
55.27	8 32 21	4403.10	-24.52	198.18	270.82	52.70	9 45 45	3403.1	-37.53	174.35
55.27	8 32 21	4403.10	-24.52	198.18	270.82	52.70	9 45 45	3403.1	-37.53	174.35

DIFFERENTIAL CORRECTIONS

TDE -.3291 TRA -.6881 TC3 -.0422 BAU .6940
RDE 1.4238 RRA 1.1035 RC3-2.6208 FAU .24586
FDE 6.7891 FRA 4.4323 FC-10.7477 B8P 6339
BDE 1.4614 BRA 1.3005 BC3 2.6212 F8P 2207

MID-COURSE EXECUTION ACCURACY

SGT 1295.9 SGR 3557.5 SG3 1310.6
RRT -.6707 RRF .9973 RTF -.6611
SGB 3786.2 R23 -.0767 R13 .9944
SG1 3669.7 SG2 931.8 THA 104.70

ORBIT DETERMINATION ACCURACY

ST 28.0 SR 96.3 SS 127.6
CRT -.9191 CRS -.9989 CST .9000
LSA 161.9 MSA 12.2 SSA .6
EL1 99.8 EL2 10.7 ALF 105.15

LAUNCH DATE JUL 8 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 516.341 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.831 GAL -3.21 AZL 85.87 HCA 163.35 SMA 198.80 ECC .24150 INC 4.1332 V1 29.292
RP 234.71 LAP 1.18 LOP 89.09 VP 21.533 GAP 9.42 AZP 93.96 TAL 343.41 TAP 146.76 RCA 150.87 APO 246.94 V2 23.424
RC 181.791 GL 31.51 GP -37.26 ZAL 113.58 ZAP 116.11 ETS 204.13 ZAE 137.99 ETE 245.57 ZAC 48.96 ETC 287.88 LVI 16.68

PLANETOCENTRIC CONIC

C3 20.432 VHL 4.520 DLA 45.54 RAL 28.32 RAD 6643.0 VEL 11.851 PTH 6.87 VHP 3.292 DPA -22.70 RAP 44.77 ECC 1.3363

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 33 41	4244.10	-35.13	192.30	279.65	55.57	10 44 25	3244.1	-45.80	163.55
52.68	8 18 12	4436.51	-25.10	201.74	270.97	50.66	9 32 9	3436.5	-38.83	176.19
52.68	8 18 12	4436.51	-25.10	201.74	270.97	50.66	9 32 9	3436.5	-38.83	176.19
52.68	8 18 12	4436.51	-25.10	201.74	270.97	50.66	9 32 9	3436.5	-38.83	176.19
52.68	8 18 12	4436.51	-25.10	201.74	270.97	50.66	9 32 9	3436.5	-38.83	176.19
52.68	8 18 12	4436.51	-25.10	201.74	270.97	50.66	9 32 9	3436.5	-38.83	176.19
52.68	8 18 12	4436.51	-25.10	201.74	270.97	50.66	9 32 9	3436.5	-38.83	176.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2810 TRA -.6382 TC3 -.1211 BAU .7403 SGT 1213.7 SGR 3789.6 SG3 1280.8 ST 24.8 SR 107.7 SS 130.2
RDE 1.6293 RRA 1.1195 RC3-2.7074 FAU .24077 RRT -.8105 RRF .9978 RTF -.5997 CRT -.8837 CRS -.9992 CST .8652
FDE 7.0018 FRA 4.1315 FC-10.2017 BSP 6643 SGB 3979.2 R23 -.0626 R13 .9959 L8A 170.4 M8A 12.4 S8A .5
BDE 1.6533 BRA 1.2886 BC3 2.7101 F8P 2155 SG1 3866.0 SG2 942.2 THA 101.77 EL1 109.9 EL2 11.4 ALF 101.65

LAUNCH DATE JUL 8 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 520.122 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.822 GAL -3.20 AZL 85.53 HCA 164.33 SMA 198.73 ECC .24083 INC 4.4746 V1 29.292
RP 235.06 LAP 1.21 LOP 90.08 VP 21.478 GAP 9.17 AZP 94.31 TAL 343.39 TAP 147.73 RCA 150.87 APO 246.58 V2 23.387
RC 184.750 GL 33.72 GP -39.21 ZAL 113.07 ZAP 114.13 ETS 203.74 ZAE 135.63 ETE 244.14 ZAC 47.25 ETC 288.46 LVI 18.43

PLANETOCENTRIC CONIC

C3 21.216 VHL 4.606 DLA 47.59 RAL 27.11 RAD 6643.4 VEL 11.883 PTH 6.89 VHP 3.338 DPA -24.72 RAP 45.03 ECC 1.3492

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
49.99	8 3 43	4470.05	-25.62	205.41	271.15	48.42	9 18 13	3470.1	-40.15	182.23
49.99	8 3 43	4470.05	-25.62	205.41	271.15	48.42	9 18 13	3470.1	-40.15	182.23
49.99	8 3 43	4470.05	-25.62	205.41	271.15	48.42	9 18 13	3470.1	-40.15	182.23
49.99	8 3 43	4470.05	-25.62	205.41	271.15	48.42	9 18 13	3470.1	-40.15	182.23
49.99	8 3 43	4470.05	-25.62	205.41	271.15	48.42	9 18 13	3470.1	-40.15	182.23
49.99	8 3 43	4470.05	-25.62	205.41	271.15	48.42	9 18 13	3470.1	-40.15	182.23
49.99	8 3 43	4470.05	-25.62	205.41	271.15	48.42	9 18 13	3470.1	-40.15	182.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2244 TRA -.5890 TC3 -.2017 BAU .7884 SGT 1136.8 SGR 4030.2 SG3 1239.3 ST 21.5 SR 120.3 SS 132.8
RDE 1.8667 RRA 1.1280 RC3-2.7724 FAU .23329 RRT -.8312 RRF .9982 RTF -.5190 CRT -.8245 CRS -.9995 CST .8061
FDE 7.1865 FRA 3.7919 FC3-9.5199 BSP 6995 SGB 4187.5 R23 -.0502 R13 .9971 L8A 179.8 M8A 12.7 S8A .5
BDE 1.6802 BRA 1.2725 BC3 2.7797 F8P 2091 SG1 4077.8 SG2 952.0 THA 99.02 EL1 121.6 EL2 12.0 ALF 98.45

LAUNCH DATE JUL 8 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 523.903 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.814 GAL -3.20 AZL 85.14 HCA 165.31 SMA 198.66 ECC .24021 INC 4.8589 V1 29.292
RP 235.42 LAP 1.23 LOP 91.05 VP 21.427 GAP 8.93 AZP 94.70 TAL 343.38 TAP 148.69 RCA 150.87 APO 246.26 V2 23.351
RC 187.714 GL 36.09 GP -41.25 ZAL 112.49 ZAP 112.14 ETS 203.26 ZAE 133.20 ETE 242.78 ZAC 48.48 ETC 289.11 LVI 20.27

PLANETOCENTRIC CONIC

C3 22.196 VHL 4.711 DLA 49.78 RAL 25.71 RAD 6643.8 VEL 11.924 PTH 6.93 VHP 3.402 DPA -26.82 RAP 45.35 ECC 1.3653

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
47.16	7 48 41	4504.00	-26.04	209.21	271.32	45.95	9 3 45	3504.0	-41.45	186.55
47.16	7 48 41	4504.00	-26.04	209.21	271.32	45.95	9 3 45	3504.0	-41.45	186.55
47.16	7 48 41	4504.00	-26.04	209.21	271.32	45.95	9 3 45	3504.0	-41.45	186.55
47.16	7 48 41	4504.00	-26.04	209.21	271.32	45.95	9 3 45	3504.0	-41.45	186.55
47.16	7 48 41	4504.00	-26.04	209.21	271.32	45.95	9 3 45	3504.0	-41.45	186.55
47.16	7 48 41	4504.00	-26.04	209.21	271.32	45.95	9 3 45	3504.0	-41.45	186.55
47.16	7 48 41	4504.00	-26.04	209.21	271.32	45.95	9 3 45	3504.0	-41.45	186.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1571 TRA -.5412 TC3 -.2803 BAU .8400 SGT 1070.1 SGR 4277.3 SG3 1188.3 ST 18.0 SR 134.0 SS 133.9
RDE 2.1394 RRA 1.1241 RC3-2.8169 FAU .22389 RRT -.4269 RRF .9986 RTF -.4.34 CRT -.7147 CRS -.9996 CST .6961
FDE 7.3233 FRA 3.4074 FC3-8.7326 BSP 7365 SGB 4409.2 R23 -.0393 R13 .9979 L8A 189.8 M8A 13.0 S8A .4
BDE 2.1451 BRA 1.2476 BC3 2.8308 F8P 2004 SG1 4303.0 SG2 961.9 THA 96.42 EL1 134.6 EL2 12.8 ALF 95.84

LAUNCH DATE JUL 8 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 527.668 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.806 GAL -3.19 AZL 84.70 HCA 166.28 SMA 198.41 ECC .23964 INC 5.2958 V1 29.292
RP 235.77 LAP 1.26 LOP 92.03 VP 21.376 GAP 8.68 AZP 95.18 TAL 343.36 TAP 149.64 RCA 150.87 APO 245.96 V2 23.315
RC 190.660 GL 38.68 GP -43.37 ZAL 111.84 ZAP 110.18 ETS 202.71 ZAE 130.69 ETE 241.46 ZAC 49.81 ETC 289.85 LVI 22.19

PLANETOCENTRIC CONIC

C3 23.429 VHL 4.840 DLA 52.13 RAL 24.00 RAD 6644.3 VEL 11.978 PTH 6.97 VHP 3.486 DPA -29.00 RAP 45.73 ECC 1.3886

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
44.20	7 32 53	4538.70	-26.34	213.18	271.45	43.24	8 48 32	3538.7	-42.69	191.20
44.20	7 32 53	4538.70	-26.34	213.18	271.45	43.24	8 48 32	3538.7	-42.69	191.20
44.20	7 32 53	4538.70	-26.34	213.18	271.45	43.24	8 48 32	3538.7	-42.69	191.20
44.20	7 32 53	4538.70	-26.34	213.18	271.45	43.24	8 48 32	3538.7	-42.69	191.20
44.20	7 32 53	4538.70	-26.34	213.18	271.45	43.24	8 48 32	3538.7	-42.69	191.20
44.20	7 32 53	4538.70	-26.34	213.18	271.45	43.24	8 48 32	3538.7	-42.69	191.20
44.20	7 32 53	4538.70	-26.34	213.18	271.45	43.24	8 48 32	3538.7	-42.69	191.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0761 TRA -.4947 TC3 -.3830 BAU .8981 SGT 1017.1 SGR 4830.2 SG3 1118.8 ST 15.0 SR 148.9 SS 134.6
RDE 2.4868 RRA 1.1048 RC3-2.8358 FAU .21246 RRT -.2941 RRF .9989 RTF -.2794 CRT -.4985 CRS -.9998 CST .4774
FDE 7.4081 FRA 2.9838 FC3-7.8806 BSP 7752 SGB 4843.0 R23 -.0298 R13 .9985 L8A 200.8 M8A 13.3 S8A .3
BDE 2.4570 BRA 1.2103 BC3 2.8877 F8P 1895 SG1 4840.8 SG2 970.0 THA 93.98 EL1 149.1 EL2 13.0 ALF 92.89

LAUNCH DATE JUL 8 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 531.466 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.799 GAL -3.19 AZL 84.20 HCA 167.25 SNA 198.28 ECC .23912 INC 5.7949 V1 29.292
RP 236.12 LAP 1.28 LOP 93.01 VP 21.326 GAP 8.44 AZP 95.65 TAL 343.33 TAP 150.58 RCA 150.86 APO 245.69 V2 23.278
RC 193.649 GL 41.41 GP -45.87 ZAL 111.10 ZAP 106.17 ETS 202.07 ZAE 128.13 ETE 240.16 ZAC 41.71 ETC 290.70 LVI 24.19

PLANETOCENTRIC CONIC

C3 24.992 VHL 4.999 DLA 54.64 RAL 22.14 RAD 6645.0 VEL 12.040 PTH 7.03 VHP 3.598 DPA -31.25 RAP 46.18 ECC 1.4113

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.08	7 16 0	4574.65	-26.47	217.25	271.47	40.28	8 32 15	3574.6	-43.83	196.25
41.08	7 16 0	4574.65	-26.47	217.25	271.47	40.28	8 32 15	3574.6	-43.83	196.25
41.08	7 16 0	4574.65	-26.47	217.25	271.47	40.28	8 32 15	3574.6	-43.83	196.25
41.08	7 16 0	4574.65	-26.47	217.25	271.47	40.28	8 32 15	3574.6	-43.83	196.25
41.08	7 16 0	4574.65	-26.47	217.25	271.47	40.28	8 32 15	3574.6	-43.83	196.25
41.08	7 16 0	4574.65	-26.47	217.25	271.47	40.28	8 32 15	3574.6	-43.83	196.25
41.08	7 16 0	4574.65	-26.47	217.25	271.47	40.28	8 32 15	3574.6	-43.83	196.25

DIFFERENTIAL CORRECTIONS

TDE .0211 TRA -.4511 TC3 -.4196 BAU .9830
RDE 2.8272 RRA 1.0662 RC3-2.8212 FAU .19878
FDE 7.4226 FRA 2.8310 FC3-6.8887 BSP 8165
BDE 2.8273 BRA 1.1577 BC3 2.8522 FSP 1766

MID-COURSE EXECUTION ACCURACY

SGT 987.3 SGR 4786.9 SG3 1040.0
RRT -.1321 RRF .9991 RTF -.1164
SGB 4887.6 R23 -.0215 R13 .9990
SG1 4786.7 SG2 978.2 THA 91.63

ORBIT DETERMINATION ACCURACY

ST 13.5 SR 165.1 SS 134.2
CRT -.1015 CRS -.9998 CST .0836
LSA 212.8 MSA 13.5 SSA .3
EL1 165.1 EL2 13.4 ALF 90.48

LAUNCH DATE JUL 8 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 535.247 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.793 GAL -3.19 AZL 83.63 HCA 168.21 SNA 198.18 ECC .23865 INC 6.3753 V1 29.292
RP 236.46 LAP 1.30 LOP 93.98 VP 21.278 GAP 8.20 AZP 96.24 TAL 343.30 TAP 151.91 RCA 150.86 APO 245.44 V2 23.244
RC 196.619 GL 44.39 GP -47.63 ZAL 110.26 ZAP 106.21 ETS 201.33 ZAE 125.51 ETE 238.88 ZAC 39.76 ETC 291.66 LVI 26.26

PLANETOCENTRIC CONIC

C3 26.997 VHL 5.196 DLA 57.32 RAL 19.76 RAD 6645.8 VEL 12.122 PTH 7.09 VHP 3.737 DPA -33.86 RAP 46.72 ECC 1.4443

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.82	6 57 36	4612.30	-26.35	221.51	271.27	37.05	8 14 28	3612.3	-44.79	201.74
37.82	6 57 36	4612.30	-26.35	221.51	271.27	37.05	8 14 28	3612.3	-44.79	201.74
37.82	6 57 36	4612.30	-26.35	221.51	271.27	37.05	8 14 28	3612.3	-44.79	201.74
37.82	6 57 36	4612.30	-26.35	221.51	271.27	37.05	8 14 28	3612.3	-44.79	201.74
37.82	6 57 36	4612.30	-26.35	221.51	271.27	37.05	8 14 28	3612.3	-44.79	201.74
37.82	6 57 36	4612.30	-26.35	221.51	271.27	37.05	8 14 28	3612.3	-44.79	201.74
37.82	6 57 36	4612.30	-26.35	221.51	271.27	37.05	8 14 28	3612.3	-44.79	201.74

DIFFERENTIAL CORRECTIONS

TDE .1388 TRA -.4119 TC3 -.4789 BAU 1.0149
RDE 3.2639 RRA 1.0020 RC3-2.7711 FAU .18315
FDE 7.3554 FRA 2.0546 FC3-5.8730 BSP 8602
BDE 3.2669 BRA 1.0834 BC3 2.8119 FSP 1619

MID-COURSE EXECUTION ACCURACY

SGT 988.2 SGR 5043.3 SG3 949.0
RRT .0515 RRF .9993 RTF .0679
SGB 5139.2 R23 -.0144 R13 .9993
SG1 5043.5 SG2 986.8 THA 89.40

ORBIT DETERMINATION ACCURACY

ST 14.8 SR 182.6 SS 132.5
CRT .3681 CRS -.9999 CST -.3619
LSA 225.7 MSA 13.8 SSA .2
EL1 182.7 EL2 13.7 ALF 88.28

LAUNCH DATE JUL 8 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 539.026 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.787 GAL -3.20 AZL 82.95 HCA 169.17 SNA 198.03 ECC .23822 INC 7.0508 V1 29.292
RP 236.81 LAP 1.32 LOP 94.04 VP 21.230 GAP 7.98 AZP 96.93 TAL 343.27 TAP 152.44 RCA 150.86 APO 245.21 V2 23.209
RC 199.589 GL 47.60 GP -50.16 ZAL 109.32 ZAP 104.29 ETS 200.49 ZAE 122.67 ETE 237.59 ZAC 37.77 ETC 292.75 LVI 26.38

PLANETOCENTRIC CONIC

C3 29.607 VHL 5.441 DLA 60.17 RAL 16.86 RAD 6646.9 VEL 12.229 PTH 7.18 VHP 3.916 DPA -35.91 RAP 47.35 ECC 1.4872

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.39	6 37 3	4652.25	-25.92	225.91	270.69	33.58	7 54 36	3652.3	-45.47	207.70
34.39	6 37 3	4652.25	-25.92	225.91	270.69	33.58	7 54 36	3652.3	-45.47	207.70
34.39	6 37 3	4652.25	-25.92	225.91	270.69	33.58	7 54 36	3652.3	-45.47	207.70
34.39	6 37 3	4652.25	-25.92	225.91	270.69	33.58	7 54 36	3652.3	-45.47	207.70
34.39	6 37 3	4652.25	-25.92	225.91	270.69	33.58	7 54 36	3652.3	-45.47	207.70
34.39	6 37 3	4652.25	-25.92	225.91	270.69	33.58	7 54 36	3652.3	-45.47	207.70
34.39	6 37 3	4652.25	-25.92	225.91	270.69	33.58	7 54 36	3652.3	-45.47	207.70

DIFFERENTIAL CORRECTIONS

TDE .2812 TRA -.3787 TC3 -.5223 BAU 1.0811
RDE 3.7842 RRA .9052 RC3-2.6810 FAU .16567
FDE 7.1914 FRA 1.5680 FC3-4.8443 BSP 9032
BDE 3.7947 BRA .9812 BC3 2.7314 FSP 1451

MID-COURSE EXECUTION ACCURACY

SGT 1026.4 SGR 5297.4 SG3 847.2
RRT .2395 RRF .9994 RTF .2161
SGB 5395.9 R23 -.0083 R13 .9996
SG1 5303.3 SG2 995.4 THA 87.25

ORBIT DETERMINATION ACCURACY

ST 19.1 SR 201.4 SS 129.2
CRT .6784 CRS -.9999 CST -.6875
LSA 239.6 MSA 14.0 SSA .2
EL1 201.8 EL2 14.0 ALF 86.30

LAUNCH DATE JUL 8 1973 FLIGHT TIME 230.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 542.802 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.781 GAL -3.20 AZL 82.14 HCA 170.12 SNA 197.93 ECC .23784 INC 7.8555 V1 29.292
RP 237.14 LAP 1.34 LOP 95.91 VP 21.184 GAP 7.71 AZP 97.74 TAL 343.23 TAP 153.35 RCA 150.85 APO 245.00 V2 23.174
RC 202.557 GL 51.08 GP -52.52 ZAL 108.26 ZAP 102.41 ETS 199.83 ZAE 120.22 ETE 236.28 ZAC 35.78 ETC 294.00 LVI 30.54

PLANETOCENTRIC CONIC

C3 33.064 VHL 5.750 DLA 63.17 RAL 13.11 RAD 6648.2 VEL 12.368 PTH 7.29 VHP 4.144 DPA -38.29 RAP 48.08 ECC 1.5442

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.83	6 13 26	4695.23	-25.09	230.40	269.43	29.89	7 31 41	3695.2	-45.73	214.09
30.83	6 13 26	4695.23	-25.09	230.40	269.43	29.89	7 31 41	3695.2	-45.73	214.09
30.83	6 13 26	4695.23	-25.09	230.40	269.43	29.89	7 31 41	3695.2	-45.73	214.09
30.83	6 13 26	4695.23	-25.09	230.40	269.43	29.89	7 31 41	3695.2	-45.73	214.09
30.83	6 13 26	4695.23	-25.09	230.40	269.43	29.89	7 31 41	3695.2	-45.73	214.09
30.83	6 13 26	4695.23	-25.09	230.40	269.43	29.89	7 31 41	3695.2	-45.73	214.09
30.83	6 13 26	4695.23	-25.09	230.40	269.43	29.89	7 31 41	3695.2	-45.73	214.09

DIFFERENTIAL CORRECTIONS

TDE .4552 TRA -.3526 TC3 -.5518 BAU 1.1545
RDE 4.4054 RRA .7622 RC3-2.5528 FAU .14684
FDE 6.9038 FRA 1.0811 FC3-3.8448 BSP 9445
BDE 4.4289 BRA .8398 BC3 2.6117 FSP 1265

MID-COURSE EXECUTION ACCURACY

SGT 1102.1 SGR 5542.5 SG3 736.0
RRT .4164 RRF .9995 RTF .4332
SGB 5651.0 R23 -.0033 R13 .9997
SG1 5562.1 SG2 998.5 THA 85.11

ORBIT DETERMINATION ACCURACY

ST 25.5 SR 221.0 SS 123.8
CRT .8309 CRS -.9999 CST -.8368
LSA 254.2 MSA 14.1 SSA .1
EL1 222.0 EL2 14.1 ALF 84.50

LAUNCH DATE JUL 8 1973 FLIGHT TIME 232.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 546.576 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	32.776	GAL	-3.20	AZL	81.17	HCA	171.07	SMA	197.83	ECC	.23749	INC	8.6273	V1	29.292
RP	237.48	LAP	1.36	LOP	96.87	VP	21.139	GAP	7.47	AZP	98.72	TAL	343.19	TAP	154.26	RCA	150.85	APO	244.82	V2	23.140
RC	205.523	GL	54.82	GP	-54.90	ZAL	107.07	ZAP	100.60	ETS	198.45	ZAE	117.58	ETE	234.91	ZAC	33.80	ETC	295.40	LVI	32.72

PLANETOCENTRIC CONIC

C3	37.750	VHL	6.144	DLA	66.30	RAL	8.17	RAD	6649.9	VEL	12.555	PTH	7.43	VHP	4.436	DPA	-40.66	RAP	48.91	ECC	1.6213

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.16	5 45 13	4742.07	-23.74	234.89	267.05	26.05	7 4 15	3742.1	-45.44	220.81
27.16	5 45 13	4742.07	-23.74	234.89	267.05	26.05	7 4 15	3742.1	-45.44	220.81
27.16	5 45 13	4742.07	-23.74	234.89	267.05	26.05	7 4 15	3742.1	-45.44	220.81
27.16	5 45 13	4742.07	-23.74	234.89	267.05	26.05	7 4 15	3742.1	-45.44	220.81
27.16	5 45 13	4742.07	-23.74	234.89	267.05	26.05	7 4 15	3742.1	-45.44	220.81
27.16	5 45 13	4742.07	-23.74	234.89	267.05	26.05	7 4 15	3742.1	-45.44	220.81
27.16	5 45 13	4742.07	-23.74	234.89	267.05	26.05	7 4 15	3742.1	-45.44	220.81

DIFFERENTIAL CORRECTIONS

TDE	.6635	TRA	-.3388	TC3	-.5659	BAU	1.2341												
RDE	5.1579	RRA	.5659	RC3	-2.3789	FAU	.12655												
FDE	6.4751	FRA	.6237	FC3	-2.9023	BSP	9900												
BDE	5.2004	BRA	.6596	BC3	2.4453	FSP	1073												

MID-COURSE EXECUTION ACCURACY

SGT	1218.4	SGR	5779.7	SG3	618.7						
RRT	.5648	RRF	.9996	RTF	.5822						
SGB	5906.7	R23	-.0003	R13	.9998						
SG1	5821.7	SG2	998.2	THA	83.00						

ORBIT DETERMINATION ACCURACY

BT	33.1	BR	241.3	BB	116.0						
CRT	.9022	CRB	-1.0000	CBT	-.9065						
LBA	269.4	MBA	14.2	BBA	.1						
EL1	243.2	EL2	14.2	ALF	82.92						

LAUNCH DATE JUL 8 1973 FLIGHT TIME 274.00 ARRIVAL DATE APR 8 1974

HELIOCENTRIC CONIC DISTANCE 626.488 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	32.756	GAL	-3.75	AZL	99.00	HCA	190.97	SMA	197.44	ECC	.23834	INC	8.9992	V1	29.292
RP	243.62	LAP	1.71	LOP	116.53	VP	20.429	GAP	2.71	AZP	81.16	TAL	340.31	TAP	171.27	RCA	150.39	APO	244.50	V2	22.523
RC	265.850	GL	-54.37	GP	51.14	ZAL	109.66	ZAP	82.86	ETS	191.33	ZAE	104.27	ETE	164.93	ZAC	138.48	ETC	291.66	LVI	-72.82

PLANETOCENTRIC CONIC

C3	39.571	VHL	6.291	DLA	-34.45	RAL	63.58	RAD	6650.5	VEL	12.627	PTH	7.48	VHP	3.701	DPA	49.66	RAP	344.78	ECC	1.6512

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	19 3 4	2568.44	-10.80	69.36	292.44	136.62	19 45 53	1568.4	7.58	53.59
60.00	20 43 8	2302.02	-2.41	53.36	300.41	130.24	21 21 30	1302.0	13.57	35.23
69.46	23 55 44	1732.37	13.97	19.35	312.30	121.81	24 24 37	732.4	25.78	357.10
69.46	23 55 44	1732.37	13.97	19.35	312.30	121.81	24 24 37	732.4	25.78	357.10
69.46	23 55 44	1732.37	13.97	19.35	312.30	121.81	24 24 37	732.4	25.78	357.10
69.46	23 55 44	1732.37	13.97	19.35	312.30	121.81	24 24 37	732.4	25.78	357.10
69.46	23 55 44	1732.37	13.97	19.35	312.30	121.81	24 24 37	732.4	25.78	357.10

DIFFERENTIAL CORRECTIONS

TDE	-1.9250	TRA	3.6573	TC3	-2.3173	BAU	1.6898												
RDE	1.0279	RRA	-4.4200	RC3	2.1984	FAU	.20101												
FDE	-1.5699	FRA	7.9360	FC3	-4.3977	BSP	13187												
BDE	2.1822	BRA	5.7369	BC3	3.1942	FSP	1622												

MID-COURSE EXECUTION ACCURACY

SGT	5281.3	SGR	5688.5	SG3	904.1						
RRT	-.9795	RRF	-.9985	RTF	.9780						
SGB	7762.2	R23	.0935	R13	-.9941						
SG1	7722.5	SG2	784.3	THA	132.83						

ORBIT DETERMINATION ACCURACY

BT	106.7	BR	87.0	BB	47.9						
CRT	-.9223	CRB	.9975	CBT	-.8926						
LBA	142.6	MBA	30.0	BBA	.3						
EL1	135.1	EL2	26.6	ALF	141.27						

LAUNCH DATE JUL 8 1973 FLIGHT TIME 276.00 ARRIVAL DATE APR 10 1974

HELIOCENTRIC CONIC DISTANCE 630.247 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	32.756	GAL	-3.79	AZL	98.37	HCA	191.07	SMA	197.48	ECC	.23862	INC	8.3725	V1	29.292
RP	243.86	LAP	1.72	LOP	117.45	VP	20.406	GAP	2.48	AZP	81.80	TAL	340.15	TAP	172.02	RCA	150.36	APO	244.60	V2	22.499
RC	268.570	GL	-51.99	GP	49.16	ZAL	110.70	ZAP	81.62	ETS	192.09	ZAE	103.75	ETE	166.66	ZAC	136.72	ETC	290.90	LVI	-71.11

PLANETOCENTRIC CONIC

C3	36.494	VHL	6.041	DLA	-32.22	RAL	62.56	RAD	6649.4	VEL	12.505	PTH	7.39	VHP	3.520	DPA	47.90	RAP	346.24	ECC	1.6006

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 44 25	2603.50	-12.53	70.89	289.44	136.29	19 27 48	1603.5	5.83	55.07
60.00	20 15 10	2361.95	-5.05	56.23	296.53	130.04	20 54 32	1362.0	11.02	38.24
70.00	22 28 17	1969.94	4.71	31.82	303.85	123.87	23 1 7	969.9	18.01	11.42
73.88	0 23 20	1626.52	13.84	11.09	309.54	119.39	0 50 26	626.5	24.72	348.43
73.88	0 23 20	1626.52	13.84	11.09	309.54	119.39	0 50 26	626.5	24.72	348.43
73.88	0 23 20	1626.52	13.84	11.09	309.54	119.39	0 50 26	626.5	24.72	348.43
110.00	3 31 40	1016.76	4.71	320.74	303.85	123.87	3 48 36	16.8	18.01	300.34

DIFFERENTIAL CORRECTIONS

TDE	-1.8532	TRA	3.6936	TC3	-2.5710	BAU	1.6719												
RDE	.9477	RRA	-4.1833	RC3	2.2684	FAU	.22161												
FDE	-1.6416	FRA	8.7488	FC3	-5.2572	BSP	13156												
BDE	2.0814	BRA	5.5808	BC3	3.4267	FSP	1826												

MID-COURSE EXECUTION ACCURACY

SGT	5468.7	SGR	5804.0	SG3	1018.8						
RRT	-.9805	RRF	-.9984	RTF	.9788						
SGB	7757.5	R23	.0986	R13	-.9936						
SG1	7719.5	SG2	786.1	THA	134.80						

ORBIT DETERMINATION ACCURACY

BT	107.7	BR	83.6	BB	50.7						
CRT	-.9262	CRB	.9966	CBT	-.8923						
LBA	142.4	MBA	29.6	BBA	.3						
EL1	134.0	EL2	25.3	ALF	142.74						

LAUNCH DATE JUL 8 1973 FLIGHT TIME 278.00 ARRIVAL DATE APR 12 1974

HELIOCENTRIC CONIC DISTANCE 634.008 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	32.760	GAL	-3.82	AZL	97.63	HCA	192.77	SMA	197.52	ECC	.23893	INC	7.8344	V1	29.292
RP	244.10	LAP	1.73	LOP	118.36	VP	20.383	GAP	2.26	AZP	82.36	TAL	339.98	TAP	172.76	RCA	150.33	APO	244.71	V2	22.475
RC	271.273	GL	-49.78	GP	47.23	ZAL	111.68	ZAP	80.36	ETS	192.77	ZAE	103.14	ETE	168.30	ZAC	138.00	ETC	290.23	LVI	-69.41

PLANETOCENTRIC CONIC

C3	34.081	VHL	5.838	DLA	-30.14	RAL	61.70	RAD	6648.8	VEL	12.408	PTH	7.32	VHP	3.371	DPA	48.16	RAP	347.84	ECC	1.5804

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 28 33	2638.78	-14.11	72.32	287.03	135.92	19 12 28	1638.8	4.21	56.43
60.00	19 52 37	2412.08	-7.24	58.66	293.61	129.76	20 32 50	1412.1	8.86	40.71
70.00	21 47 18	2074.85	.71	37.31	299.49	124.15	22 21 50	1074.8	14.39	17.40
79.13	0 57 8	1491.88	13.86	.79	307.14	117.17	1 21 57	491.9	23.56	337.82
79.13	0 57 8	1491.88	13.86	.79	307.14	117.17	1 21 57	491.9	23.56	337.82
79.13	0 57 8	1491.88	13.86	.79	307.14	117.17	1 21 57	491.9	23.56	337.82
110.00	2 50 37	1121.67	.71	326.23	299.49	124.15	3 9 19	121.7	14.39	306.32

DIFFERENTIAL CORRECTIONS

TDE	-1.7798	TRA	3.7470	TC3	-2.6172	BAU	1.6535												
RDE	.8543	RRA	-3.8798	RC3	2.2927	FAU	.23912												
FDE	-1.6339	FRA	9.8319	FC3	-6.0795	BSP	13335												
BDE	1.9742	BRA	5.4662	BC3	3.6323	FSP	2061												

MID-COURSE EXECUTION ACCURACY

SGT	5683.5	SGR	5317.8	SG3	1126.6						
RRT	-.9807	RRF	-.9984	RTF	.9790						
SGB	7761.5	R23	.1048	R13	-.9929						
SG1	7724.2	SG2	760.1	THA	136.79						

ORBIT DETERMINATION ACCURACY

BT	108.3	BR	79.6	BB	52.8						
CRT	-.9266	CRB	.9955	CBT	-.8867						
LBA	141.4	MBA	29.8	BBA	.3						
EL1	132.3	EL2	24.6	ALF	144.25						

LAUNCH DATE JUL 8 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 14 1974

HELIOCENTRIC CONIC DISTANCE 637.786 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.762 GAL -3.86 AZL 97.37 HCA 193.68 SMA 197.56 ECC .23926 INC 7.3673 V1 29.292
RP 244.34 LAP 1.74 LOP 119.27 VP 20.361 GAP 2.04 AZP 82.84 TAL 339.81 TAP 173.49 RCA 150.29 APO 244.83 V2 22.452
RC 273.957 GL -47.73 GP 45.40 ZAL 112.60 ZAP 79.07 ETS 193.39 ZAE 102.41 ETE 169.86 ZAC 133.34 ETC 289.64 LVI -67.74

PLANETOCENTRIC CONIC

C3 32.082 VHL 5.664 DLA -28.19 RAL 60.99 RAD 6647.8 VEL 12.329 PTH 7.26 VHP 3.248 DPA 44.47 RAP 348.70 ECC 1.5280

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 14 51	2665.64	-15.58	73.67	285.08	135.55	18 59 17	1665.8	2.70	57.69
60.00	19 33 47	2455.86	-9.13	60.80	291.11	129.43	20 14 43	1455.9	6.86	42.85
70.00	21 17 51	2149.85	-2.15	41.22	296.34	124.09	21 53 40	1149.8	11.70	21.54
80.00	23 33 14	1725.92	5.19	13.60	300.89	119.44	24 2 0	725.9	16.79	352.24
90.00	2 2 20	1257.67	11.31	342.42	304.14	116.09	2 23 18	257.7	21.10	319.66
100.00	2 20 2	1200.39	5.19	334.97	300.89	119.44	2 40 2	200.4	16.79	313.61
110.00	2 21 13	1196.67	-2.15	330.14	296.34	124.09	2 41 9	196.7	11.70	310.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7118 TRA 3.8034 TC3-3.0615 BAU 1.6480 SGT 5837.8 SGR 5127.9 SG3 1226.8 ST 108.7 SR 76.2 SS 54.6
RDE .7840 RRA-3.7728 RC3 2.3218 FAU .25720 RRT -.9820 RRF -.9982 RTF .9800 CRT -.9306 CRS .9941 C3T -.8656
FDE-1.6338 FRA10.2008 FC3-6.9407 BSP 13314 SGB 7770.1 R23 .1083 R13 -.9923 LSA 140.5 MSA 29.3 SSA .4
BDE 1.8828 BRA 5.3572 BC3 3.8424 FSP 2231 SG1 7735.6 SG2 731.8 THA 138.77 EL1 130.7 EL2 23.2 ALF 145.64

LAUNCH DATE JUL 8 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 16 1974

HELIOCENTRIC CONIC DISTANCE 641.527 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.765 GAL -3.90 AZL 96.96 HCA 194.58 SMA 197.61 ECC .23961 INC 6.9576 V1 29.292
RP 244.56 LAP 1.75 LOP 120.17 VP 20.340 GAP 1.82 AZP 83.26 TAL 339.63 TAP 174.21 RCA 150.26 APO 244.96 V2 22.430
RC 278.623 GL -45.83 GP 43.62 ZAL 113.46 ZAP 77.77 ETS 193.94 ZAE 101.61 ETE 171.32 ZAC 131.73 ETC 289.12 LVI -66.12

PLANETOCENTRIC CONIC

C3 30.476 VHL 5.521 DLA -26.36 RAL 60.38 RAD 6647.2 VEL 12.264 PTH 7.21 VHP 3.146 DPA 42.83 RAP 349.74 ECC 1.5018

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 2 53	2694.12	-16.95	74.97	283.49	135.15	18 47 47	1694.1	1.28	58.87
60.00	19 17 41	2495.19	-10.83	62.74	289.18	129.06	19 59 16	1495.2	5.24	44.75
70.00	20 54 29	2210.57	-4.46	44.40	293.92	123.90	21 31 20	1210.6	9.46	24.82
80.00	22 53 41	1837.45	1.43	19.74	297.58	119.83	23 24 19	837.4	13.46	358.85
90.00	0 48 36	1479.54	4.42	355.06	299.23	117.96	1 13 16	479.5	15.51	333.53
100.00	1 40 29	1311.92	1.43	341.11	297.58	119.83	2 2 21	311.9	13.46	320.22
110.00	1 57 51	1257.39	-4.46	333.32	293.92	123.90	2 18 49	257.4	9.46	313.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6512 TRA 3.8610 TC3-3.3063 BAU 1.6495 SGT 6022.1 SGR 4939.2 SG3 1318.9 ST 109.0 SR 72.7 SS 55.9
RDE .7210 RRA-3.5786 RC3 2.3361 FAU .27411 RRT -.9830 RRF -.9981 RTF .9808 CRT -.9343 CRS .9925 C3T -.8839
FDE-1.6110 FRA10.7939 FC3-7.7866 BSP 13264 SGB 7788.5 R23 .1115 R13 -.9918 LSA 139.4 MSA 29.0 SSA .4
BDE 1.8018 BRA 5.2644 BC3 4.0484 FSP 2381 SG1 7756.5 SG2 705.0 THA 140.74 EL1 129.1 EL2 21.9 ALF 147.01

LAUNCH DATE JUL 8 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 18 1974

HELIOCENTRIC CONIC DISTANCE 645.285 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.767 GAL -3.93 AZL 96.60 HCA 195.48 SMA 197.66 ECC .23997 INC 6.5954 V1 29.292
RP 244.79 LAP 1.76 LOP 121.08 VP 20.320 GAP 1.60 AZP 83.64 TAL 339.45 TAP 174.93 RCA 150.22 APO 245.09 V2 22.407
RC 279.268 GL -44.06 GP 41.92 ZAL 114.28 ZAP 76.47 ETS 194.44 ZAE 100.73 ETE 172.68 ZAC 130.19 ETC 288.65 LVI -64.54

PLANETOCENTRIC CONIC

C3 29.154 VHL 5.399 DLA -24.65 RAL 59.88 RAD 6646.7 VEL 12.210 PTH 7.16 VHP 3.061 DPA 41.25 RAP 350.67 ECC 1.4798

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 52 21	2720.89	-18.24	76.21	282.20	134.74	18 37 42	1720.9	-.08	59.00
60.00	19 3 41	2531.14	-12.36	64.53	287.62	128.67	19 45 52	1531.1	3.66	46.48
70.00	20 35 3	2262.56	-6.43	47.14	292.00	123.62	21 12 45	1262.6	7.53	27.60
80.00	22 25 15	1917.64	-1.29	24.14	295.19	119.83	22 57 13	917.6	10.94	3.47
90.00	0 12 24	1584.72	1.04	.95	296.48	118.26	0 38 49	584.7	12.50	339.79
100.00	1 12 3	1392.11	-1.29	345.51	295.19	119.83	1 35 15	392.1	10.94	324.84
110.00	1 38 25	1309.38	-6.43	336.06	292.00	123.62	2 0 14	309.4	7.53	316.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.5893 TRA 3.9290 TC3-3.5408 BAU 1.6513 SGT 6205.4 SGR 4753.2 SG3 1402.6 ST 109.0 SR 69.2 SS 56.9
RDE .6569 RRA-3.4040 RC3 2.3265 FAU .28853 RRT -.9836 RRF -.9979 RTF .9814 CRT -.9370 CRS .9904 C3T -.8800
FDE-1.5410 FRA11.3382 FC3-8.5681 BSP 13327 SGB 7816.6 R23 .1147 R13 -.9913 LSA 138.1 MSA 28.9 SSA .4
BDE 1.7197 BRA 5.1985 BC3 4.2367 FSP 2535 SG1 7786.8 SG2 682.4 THA 142.67 EL1 127.4 EL2 20.7 ALF 148.33

LAUNCH DATE JUL 8 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 20 1974

HELIOCENTRIC CONIC DISTANCE 649.044 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.770 GAL -3.97 AZL 96.27 HCA 196.38 SMA 197.71 ECC .24036 INC 6.2727 V1 29.292
RP 245.01 LAP 1.77 LOP 121.98 VP 20.300 GAP 1.37 AZP 83.98 TAL 339.27 TAP 175.65 RCA 150.19 APO 245.23 V2 22.386
RC 281.893 GL -42.40 GP 40.29 ZAL 115.06 ZAP 75.18 ETS 194.87 ZAE 99.79 ETE 173.95 ZAC 128.71 ETC 288.24 LVI -63.02

PLANETOCENTRIC CONIC

C3 28.056 VHL 5.297 DLA -23.04 RAL 59.45 RAD 6646.2 VEL 12.166 PTH 7.13 VHP 2.990 DPA 39.73 RAP 351.52 ECC 1.4617

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 42 58	2746.32	-19.45	77.40	281.15	134.32	18 28 45	1746.3	-1.34	61.05
60.00	18 51 23	2564.40	-13.77	66.21	286.35	128.26	19 34 7	1564.4	2.20	48.07
70.00	20 18 25	2308.53	-8.16	49.58	290.47	123.28	20 56 53	1308.5	5.80	30.04
80.00	22 2 32	1982.64	-3.48	27.72	293.34	119.67	22 35 35	982.6	8.85	7.15
90.00	23 41 38	1663.01	-1.49	5.31	294.45	118.24	24 9 21	663.0	10.16	344.34
100.00	0 49 20	1457.11	-3.48	349.08	293.34	119.67	1 13 37	457.1	8.85	328.52
110.00	1 21 47	1355.35	-8.16	338.50	290.47	123.28	1 44 22	355.4	5.80	318.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.5306 TRA 4.0001 TC3-3.7694 BAU 1.6569 SGT 6387.2 SGR 4569.5 SG3 1477.3 ST 108.9 SR 65.8 SS 57.6
RDE .5998 RRA-3.2399 RC3 2.3035 FAU .30134 RRT -.9842 RRF -.9976 RTF .9819 CRT -.9400 CRS .9879 C3T -.8758
FDE-1.4523 FRA11.8134 FC3-9.2988 BSP 13397 SGB 7853.4 R23 .1173 R13 -.9907 LSA 136.7 MSA 28.8 SSA .4
BDE 1.6439 BRA 5.1476 BC3 4.4176 FSP 2672 SG1 7825.7 SG2 659.5 THA 144.56 EL1 125.8 EL2 19.4 ALF 149.61

LAUNCH DATE JUL 8 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 22 1974

HELIOCENTRIC CONIC DISTANCE 652.800 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.773 GAL -4.02 AZL 95.98 HCA 197.28 SNA 197.76 ECC .24076 INC 5.9831 V1 29.292
RP 245.22 LAP 1.77 LOP 122.89 VP 20.262 GAP 1.15 AZP 84.28 TAL 339.07 TAP 176.35 RCA 150.15 APO 245.38 V2 22.365
RC 284.497 GL -40.86 GP 38.74 ZAL 115.80 ZAP 73.89 ETS 195.26 ZAE 98.79 ETE 175.12 ZAC 127.29 ETC 287.87 LVI -61.55

PLANETOCENTRIC CONIC

C3 27.138 VHL 5.209 DLA -21.52 RAL 59.09 RAD 6645.9 VEL 12.128 PTH 7.10 VHP 2.932 DPA 38.27 RAP 352.30 ECC 1.4466

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 34 35	2770.58	-20.60	78.56	280.31	133.89	18 20 46	1770.6	-2.56	62.07
60.00	18 40 26	2595.45	-15.08	67.80	285.33	127.83	19 23 42	1595.4	.83	49.55
70.00	20 3 55	2350.04	-9.70	51.81	289.23	122.91	20 43 5	1350.0	4.22	32.22
80.00	21 43 32	2038.30	-5.35	30.79	291.88	119.42	22 17 30	1038.3	7.02	10.27
90.00	23 19 55	1727.39	-3.55	8.91	292.87	118.07	23 48 42	727.4	8.18	348.04
100.00	0 30 19	1512.77	-5.35	352.16	291.88	119.42	0 55 32	512.8	7.02	331.64
110.00	1 7 17	1396.86	-9.70	340.72	289.23	122.91	1 30 34	396.9	4.22	321.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.4754 TRA 4.0727 TC3-3.9932 BAU 1.6664 SGT 6567.3 SGR 4389.5 SG3 1543.2 ST 108.8 SR 62.6 SS 58.2
RDE .5487 RRA-3.0860 RC3 2.2695 FAU .31260 RRT -.9847 RRF -.9973 RTF .9823 CRT -.9431 CRS .9848 CST -.8712
FDE-1.3471 FRA12.2240 FC3-9.9721 BSP 13463 SGB 7899.1 R23 .1195 R13 -.9902 LSA 135.3 MSA 28.8 SSA .5
BDE 1.5741 BRA 5.1098 BC3 4.5931 FSP 2792 SG1 7873.3 SG2 638.1 THA 146.40 EL1 124.2 EL2 18.2 ALF 150.83

LAUNCH DATE JUL 8 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 24 1974

HELIOCENTRIC CONIC DISTANCE 656.556 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.776 GAL -4.06 AZL 95.72 HCA 198.18 SNA 197.82 ECC .24118 INC 5.7219 V1 29.292
RP 245.43 LAP 1.78 LOP 123.79 VP 20.264 GAP .94 AZP 84.56 TAL 338.88 TAP 177.05 RCA 150.11 APO 245.53 V2 22.344
RC 287.079 GL -39.40 GP 37.26 ZAL 116.50 ZAP 72.61 ETS 195.59 ZAE 97.75 ETE 176.21 ZAC 125.94 ETC 287.54 LVI -60.15

PLANETOCENTRIC CONIC

C3 26.368 VHL 5.135 DLA -20.09 RAL 58.80 RAD 6645.6 VEL 12.097 PTH 7.07 VHP 2.883 DPA 36.88 RAP 353.01 ECC 1.4339

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 27 2	2793.77	-21.69	79.69	279.64	133.45	18 13 36	1793.8	-3.72	63.04
60.00	18 30 39	2624.62	-16.29	69.31	284.50	127.39	19 14 23	1624.6	-.45	50.95
70.00	19 51 7	2388.06	-11.10	53.86	288.23	122.51	20 30 55	1388.1	2.78	34.21
80.00	21 27 10	2087.47	-6.99	33.52	290.72	119.10	22 1 57	1087.5	5.38	13.00
90.00	23 1 34	1782.93	-5.33	12.03	291.62	117.81	23 31 17	782.9	6.44	351.19
100.00	0 13 57	1561.94	-6.99	354.89	290.72	119.10	0 39 59	561.9	5.38	334.37
110.00	0 54 29	1434.87	-11.10	342.78	288.23	122.51	1 18 24	434.9	2.78	323.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.4204 TRA 4.1508 TC3-4.2076 BAU 1.6779 SGT 6745.8 SGR 4214.6 SG3 1600.8 ST 108.6 SR 59.6 SS 58.5
RDE .5024 RRA-2.9430 RC3 2.2252 FAU .32217 RRT -.9851 RRF -.9970 RTF .9827 CRT -.9465 CRS .9811 CST -.8664
FDE-1.2247 FRA12.5802 FC-10.5777 BSP 13578 SGB 7954.1 R23 .1209 R13 -.9897 LSA 133.9 MSA 28.8 SSA .5
BDE 1.5066 BRA 5.0883 BC3 4.7597 FSP 2902 SG1 7930.2 SG2 616.4 THA 148.17 EL1 122.7 EL2 17.0 ALF 151.98

LAUNCH DATE JUL 8 1973 FLIGHT TIME 292.00 ARRIVAL DATE APR 26 1974

HELIOCENTRIC CONIC DISTANCE 660.311 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.779 GAL -4.10 AZL 95.48 HCA 199.07 SNA 197.88 ECC .24161 INC 5.4847 V1 29.292
RP 245.63 LAP 1.79 LOP 124.69 VP 20.267 GAP .72 AZP 84.81 TAL 338.68 TAP 177.75 RCA 150.07 APO 245.69 V2 22.324
RC 289.037 GL -38.04 GP 35.85 ZAL 117.18 ZAP 71.36 ETS 195.88 ZAE 96.68 ETE 177.21 ZAC 124.64 ETC 287.25 LVI -58.80

PLANETOCENTRIC CONIC

C3 25.719 VHL 5.071 DLA -18.74 RAL 58.55 RAD 6645.3 VEL 12.070 PTH 7.05 VHP 2.843 DPA 35.56 RAP 353.66 ECC 1.4233

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 20 13	2818.99	-22.73	80.79	279.12	133.00	18 7 9	1818.0	-4.64	63.97
60.00	18 21 49	2652.18	-17.42	70.76	283.85	126.93	19 6 1	1652.2	-1.66	52.26
70.00	19 39 41	2423.26	-12.36	55.78	287.44	122.09	20 20 4	1423.3	1.43	36.05
80.00	21 12 48	2131.81	-8.45	36.00	289.78	118.74	21 48 20	1131.8	3.89	15.45
90.00	22 45 41	1832.22	-6.88	14.81	290.63	117.80	23 16 13	832.2	4.88	353.97
100.00	23 55 40	1606.28	-8.45	357.37	289.78	118.74	24 22 26	606.3	3.89	336.82
110.00	0 43 3	1470.07	-12.36	344.70	287.44	122.09	1 7 33	470.1	1.43	324.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3688 TRA 4.2292 TC3-4.4186 BAU 1.6927 SGT 6922.2 SGR 4044.8 SG3 1650.2 ST 108.4 SR 56.7 SS 58.8
RDE .4629 RRA-2.8077 RC3 2.1747 FAU .33047 RRT -.9855 RRF -.9986 RTF .9830 CRT -.9506 CRS .9787 CST -.8620
FDE-1.0996 FRA12.8782 FC-11.1241 BSP 13674 SGB 8017.3 R23 .1218 R13 -.9892 LSA 132.6 MSA 28.8 SSA .5
BDE 1.4449 BRA 5.0763 BC3 4.9230 FSP 2989 SG1 7995.2 SG2 593.0 THA 149.68 EL1 121.3 EL2 18.7 ALF 153.06

LAUNCH DATE JUL 8 1973 FLIGHT TIME 294.00 ARRIVAL DATE APR 28 1974

HELIOCENTRIC CONIC DISTANCE 664.064 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.782 GAL -4.15 AZL 95.27 HCA 199.97 SNA 197.94 ECC .24206 INC 5.2685 V1 29.292
RP 245.83 LAP 1.80 LOP 125.59 VP 20.270 GAP .50 AZP 85.05 TAL 338.47 TAP 178.44 RCA 150.03 APO 245.86 V2 22.305
RC 292.172 GL -36.76 GP 34.51 ZAL 117.83 ZAP 70.12 ETS 196.14 ZAE 98.58 ETE 178.13 ZAC 123.40 ETC 286.99 LVI -57.82

PLANETOCENTRIC CONIC

C3 25.171 VHL 5.017 DLA -17.47 RAL 58.35 RAD 6645.1 VEL 12.047 PTH 7.03 VHP 2.810 DPA 34.30 RAP 354.28 ECC 1.4143

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 14 1	2837.33	-23.71	81.86	278.73	132.54	18 1 18	1837.3	-5.90	64.87
60.00	18 13 48	2678.33	-18.49	72.15	283.35	126.47	18 58 26	1678.3	-2.81	53.51
70.00	19 29 23	2456.12	-13.86	57.59	286.81	121.65	20 10 20	1456.1	.18	37.76
80.00	21 0 3	2172.40	-9.77	38.29	289.04	118.35	21 36 15	1172.4	2.52	17.69
90.00	22 31 40	1876.84	-8.26	17.35	289.84	117.14	23 2 57	876.8	3.45	356.47
100.00	23 42 54	1646.87	-9.77	359.66	289.04	118.35	24 10 21	646.9	2.52	339.06
110.00	0 32 46	1502.94	-13.56	346.51	286.81	121.65	0 57 49	502.9	.18	326.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3167 TRA 4.3116 TC3-4.6153 BAU 1.7086 SGT 7096.0 SGR 3879.9 SG3 1691.7 ST 108.1 SR 54.1 SS 58.9
RDE .4264 RRA-2.6818 RC3 2.1161 FAU .33706 RRT -.9857 RRF -.9962 RTF .9833 CRT -.9547 CRS .9714 CST -.8571
FDE -.9587 FRA13.1236 FC-11.5927 BSP 13818 SGB 8087.5 R23 .1217 R13 -.9887 LSA 131.4 MSA 28.8 SSA .6
BDE 1.3940 BRA 5.0776 BC3 5.0773 FSP 3072 SG1 8067.0 SG2 575.0 THA 151.52 EL1 120.0 EL2 14.5 ALF 154.08

LAUNCH DATE JUL 8 1973 FLIGHT TIME 296.00 ARRIVAL DATE APR 30 1974

HELIOCENTRIC CONIC DISTANCE 667.816 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.785 GAL -4.19 AZL 93.07 HCA 200.66 SMA 198.01 ECC .24252 INC 5.0703 V1 29.292
RP 246.02 LAP 1.80 LOP 126.48 VP 20.215 GAP .28 AZP 85.26 TAL 338.27 TAP 179.13 RCA 149.99 APO 246.03 V2 22.286
RC 294.682 GL -38.55 GP 33.23 ZAL 118.46 ZAP 68.90 ETS 196.35 ZAE 94.46 ETE 178.98 ZAC 122.22 ETC 296.75 LVI -56.29

PLANETOCENTRIC CONIC

C3 24.708 VHL 4.971 DLA -16.25 RAL 58.19 RAD 6644.9 VEL 12.028 PTH 7.02 VHP 2.783 DPA 33.10 RAP 354.85 ECC 1.4066

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 8 21	2857.66	-24.65	82.91	278.45	132.07	17 55 59	1857.9	-6.93	65.74
60.00	18 6 30	2703.23	-19.49	73.49	282.96	126.00	18 51 33	1703.2	-3.91	54.71
70.00	19 20 4	2487.00	-14.66	59.32	286.32	121.20	20 1 31	1487.0	-1.00	39.37
80.00	20 48 35	2209.94	-10.97	40.42	288.46	117.94	21 25 25	1209.9	1.25	19.75
90.00	22 19 9	1917.76	-9.54	19.69	289.21	116.75	22 51 7	917.8	2.14	358.76
100.00	23 31 27	1684.41	-10.97	1.79	288.46	117.94	23 59 31	684.4	1.25	341.12
110.00	0 23 26	1533.82	-14.66	348.23	286.32	121.20	0 49 0	533.8	-1.00	328.29

DIFFERENTIAL CORRECTIONS

TDE-1.2688 TRA 4.3931 TC3-4.8109 BAU 1.7283
RDE .3969 RRA-2.5621 RC3 2.0586 FAU .34291
FDE -.8270 FRA13.3177 FC-12.0147 BSP 13932
BDE 1.3294 BRA 5.0857 BC3 5.2321 FSP 3129

MID-COURSE EXECUTION ACCURACY

SGT 7268.8 SGR 3721.9 SG3 1726.4
RRT -.9859 RRF -.9957 RTF .9836
SGB 8186.3 R23 .1207 R13 -.9884
SG1 8147.4 SG2 554.8 THA 153.08

ORBIT DETERMINATION ACCURACY

ST 108.0 SR 51.6 SS 59.0
CRT -.9596 CRS .9654 CST -.8533
LSA 130.3 NSA 28.8 SSA .6
EL1 118.9 EL2 13.2 ALF 155.04

LAUNCH DATE JUL 8 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 2 1974

HELIOCENTRIC CONIC DISTANCE 671.567 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.789 GAL -4.24 AZL 94.89 HCA 201.75 SMA 198.08 ECC .24300 INC 4.8881 V1 29.292
RP 246.21 LAP 1.81 LOP 127.38 VP 20.200 GAP .06 AZP 85.46 TAL 338.05 TAP 179.81 RCA 149.94 APO 246.21 V2 22.267
RC 297.167 GL -34.40 GP 32.02 ZAL 119.06 ZAP 67.71 ETS 196.54 ZAE 93.32 ETE 179.76 ZAC 121.09 ETC 296.54 LVI -58.12

PLANETOCENTRIC CONIC

C3 24.318 VHL 4.931 DLA -15.10 RAL 58.07 RAD 6644.7 VEL 12.012 PTH 7.00 VHP 2.762 DPA 31.97 RAP 355.39 ECC 1.4002

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 3 11	2877.65	-25.55	83.93	278.26	131.60	17 51 9	1877.7	-7.92	66.58
60.00	17 59 50	2727.03	-20.43	74.79	282.69	125.52	18 45 17	1727.0	-4.95	55.85
70.00	19 11 33	2516.17	-15.68	60.96	285.95	120.74	19 53 29	1516.2	-2.12	40.90
80.00	20 38 12	2244.97	-12.08	42.43	288.01	117.51	21 15 37	1245.0	.07	21.67
90.00	22 7 52	1955.69	-10.70	21.88	288.73	116.34	22 40 28	955.7	.92	.88
100.00	23 21 4	1719.44	-12.08	3.80	288.01	117.51	23 49 43	719.4	.07	343.04
110.00	0 14 55	1562.99	-15.68	349.88	285.95	120.74	0 40 58	563.0	-2.12	329.81

DIFFERENTIAL CORRECTIONS

TDE-1.2192 TRA 4.4796 TC3-4.9944 BAU 1.7479
RDE .3694 RRA-2.4513 RC3 1.9901 FAU .34700
FDE -.8822 FRA13.4774 FC-12.3532 BSP 14108
BDE 1.2740 BRA 5.1064 BC3 5.3763 FSP 3186

MID-COURSE EXECUTION ACCURACY

SGT 7438.6 SGR 3809.2 SG3 1784.0
RRT -.9861 RRF -.9951 RTF .9839
SGB 8250.5 R23 .1192 R13 -.9880
SG1 8233.1 SG2 536.7 THA 154.56

ORBIT DETERMINATION ACCURACY

ST 107.8 SR 49.3 SS 59.0
CRT -.9645 CRS .9583 CST -.8491
LSA 129.2 NSA 28.8 SSA .6
EL1 117.9 EL2 11.9 ALF 155.94

LAUNCH DATE JUL 8 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 4 1974

HELIOCENTRIC CONIC DISTANCE 675.314 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.793 GAL -4.29 AZL 94.72 HCA 202.64 SMA 198.15 ECC .24350 INC 4.7198 V1 29.292
RP 246.39 LAP 1.82 LOP 128.27 VP 20.186 GAP -.16 AZP 85.64 TAL 337.84 TAP 180.48 RCA 149.90 APO 246.39 V2 22.249
RC 299.628 GL -33.32 GP 30.87 ZAL 119.65 ZAP 66.55 ETS 196.69 ZAE 92.18 ETE 180.48 ZAC 120.01 ETC 296.35 LVI -54.00

PLANETOCENTRIC CONIC

C3 23.991 VHL 4.898 DLA -14.01 RAL 57.98 RAD 6644.6 VEL 11.999 PTH 6.99 VHP 2.746 DPA 30.89 RAP 355.91 ECC 1.3948

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 58 26	2896.76	-26.41	84.94	278.15	131.13	17 46 43	1896.8	-8.87	67.40
60.00	17 53 42	2749.83	-21.33	76.05	282.50	125.04	18 39 31	1749.8	-5.95	56.95
70.00	19 3 45	2543.86	-16.63	62.53	285.69	120.27	19 46 9	1543.9	-3.17	42.34
80.00	20 28 44	2277.88	-13.11	44.33	287.68	117.07	21 6 42	1277.9	-1.05	23.48
90.00	21 57 37	1991.13	-11.76	23.94	288.37	115.91	22 30 48	991.1	-.22	2.85
100.00	23 11 36	1752.35	-13.11	5.70	287.68	117.07	23 40 48	752.3	-1.05	344.85
110.00	0 7 7	1590.68	-16.63	351.45	285.69	120.27	0 33 38	590.7	-3.17	331.26

DIFFERENTIAL CORRECTIONS

TDE-1.1721 TRA 4.8659 TC3-5.1724 BAU 1.7698
RDE .3463 RRA-2.3464 RC3 1.9222 FAU .35013
FDE -.5403 FRA13.5943 FC-12.6347 BSP 14265
BDE 1.2222 BRA 5.1335 BC3 5.5181 FSP 3227

MID-COURSE EXECUTION ACCURACY

SGT 7606.3 SGR 3822.3 SG3 1775.3
RRT -.9861 RRF -.9944 RTF .9841
SGB 8340.8 R23 .1171 R13 -.9877
SG1 8324.6 SG2 520.1 THA 155.98

ORBIT DETERMINATION ACCURACY

ST 107.6 SR 47.1 SS 59.0
CRT -.9696 CRS .9502 CST -.8494
LSA 128.2 NSA 28.9 SSA .7
EL1 117.0 EL2 10.6 ALF 156.80

LAUNCH DATE JUL 8 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 6 1974

HELIOCENTRIC CONIC DISTANCE 679.061 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.796 GAL -4.34 AZL 94.56 HCA 203.53 SMA 198.22 ECC .24401 INC 4.5638 V1 29.292
RP 246.57 LAP 1.82 LOP 129.17 VP 20.173 GAP -.37 AZP 85.81 TAL 337.62 TAP 181.15 RCA 149.85 APO 246.58 V2 22.232
RC 302.065 GL -32.30 GP 29.77 ZAL 120.22 ZAP 65.41 ETS 196.82 ZAE 91.03 ETE 181.13 ZAC 118.98 ETC 296.18 LVI -52.93

PLANETOCENTRIC CONIC

C3 23.717 VHL 4.870 DLA -12.96 RAL 57.92 RAD 6644.5 VEL 11.987 PTH 6.98 VHP 2.734 DPA 29.88 RAP 356.40 ECC 1.3903

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 5	2915.23	-27.24	85.93	278.12	130.65	17 42 40	1915.2	-9.79	68.19
60.00	17 48 2	2771.72	-22.18	77.28	282.40	124.55	18 34 14	1771.7	-6.90	58.01
70.00	18 56 34	2570.24	-17.53	64.05	285.51	119.79	19 39 25	1570.2	-4.18	43.73
80.00	20 20 3	2308.96	-14.07	46.15	287.44	116.61	20 58 32	1309.0	-2.10	25.18
90.00	21 48 14	2024.47	-12.74	25.90	288.11	115.46	22 21 58	1024.5	-1.30	4.71
100.00	23 2 55	1783.43	-14.07	7.52	287.44	116.61	23 32 38	783.4	-2.10	346.55
110.00	23 56 1	1617.06	-17.53	352.97	285.51	119.79	24 22 58	617.1	-4.18	332.64

DIFFERENTIAL CORRECTIONS

TDE-1.1237 TRA 4.6539 TC3-5.3431 BAU 1.7931
RDE .3264 RRA-2.2478 RC3 1.8530 FAU .35225
FDE -.3992 FRA13.6765 FC-12.8580 BSP 14441
BDE 1.1720 BRA 5.1683 BC3 5.6552 FSP 3259

MID-COURSE EXECUTION ACCURACY

SGT 7772.0 SGR 3281.7 SG3 1791.0
RRT -.9860 RRF -.9936 RTF .9842
SGB 8436.5 R23 .1142 R13 -.9874
SG1 8421.3 SG2 504.9 THA 157.31

ORBIT DETERMINATION ACCURACY

ST 107.5 SR 45.1 SS 58.9
CRT -.9748 CRS .9408 CST -.8420
LSA 127.3 NSA 29.0 SSA .7
EL1 116.2 EL2 9.3 ALF 157.60

LAUNCH DATE JUL 8 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 682.807 EARTH TO MARS

RL 192.10 LAL .00 LOL 285.70 VL 32.800 GAL -4.39 AZL 94.42 HCA 204.42 SMA 198.29 ECC .24453 INC 4.4188 V1 29.292
RP 246.74 LAP 1.83 LOP 130.06 VP 20.161 GAP -.59 AZP 85.98 TAL 337.39 TAP 181.82 RCA 149.80 APO 246.78 V2 22.215
RC 304.476 GL -31.32 GP 28.73 ZAL 120.78 ZAP 64.29 ETS 196.92 ZAE 89.88 ETE 181.73 ZAC 117.99 ETC 286.02 LVI -51.92

PLANETOCENTRIC CONIC

C3 23.490 VHL 4.847 DLA -11.97 RAL 57.89 RAD 6644.4 VEL 11.978 PTH 6.98 VHP 2.725 DPA 28.92 RAP 358.87 ECC 1.3866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 50 3	2933.12	-28.02	86.90	278.16	130.16	17 38 56	1933.1	-10.67	66.97
60.00	17 42 49	2792.80	-22.99	78.48	282.38	124.06	18 29 22	1792.8	-7.82	59.03
70.00	18 49 56	2595.45	-18.38	69.51	285.42	119.31	19 33 12	1595.5	-5.13	45.05
80.00	20 12 3	2338.45	-14.96	47.88	287.30	116.14	20 51 1	1338.5	-3.10	26.81
90.00	21 39 36	2055.99	-13.66	27.76	287.94	115.01	22 13 52	1056.0	-2.31	6.47
100.00	22 54 54	1812.93	-14.96	9.25	287.30	116.14	23 25 7	812.9	-3.10	348.17
110.00	23 49 23	1642.27	-18.38	354.43	285.42	119.31	24 16 45	642.3	-5.13	333.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.0790 TRA 4.7443 TC3-5.5042 BAU 1.8169 SGT 7934.9 SGR 3146.6 SG3 1801.2 ST 107.4 SR 43.2 SS 58.9
RDE .3088 RRA-2.1555 RC3 1.7817 FAU .35321 RRT -.9858 RRF -.9927 RTF .9844 CRT -.9798 CRS .9302 CST -.8367
FDE -.2556 FRA13.7302 FC-13.0175 BSP 14636 SGB 8536.0 R23 .1108 R13 -.9871 LSA 126.5 MSA 29.1 SSA .7
BDE 1.1224 BRA 5.2110 BC3 5.7854 FSP 3283 SG1 8521.9 SG2 491.6 THA 158.57 EL1 115.5 EL2 8.0 ALF 158.37

LAUNCH DATE JUL 8 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 686.551 EARTH TO MARS

RL 192.10 LAL .00 LOL 285.70 VL 32.804 GAL -4.44 AZL 94.28 HCA 205.31 SMA 198.36 ECC .24507 INC 4.2835 V1 29.292
RP 246.90 LAP 1.83 LOP 130.95 VP 20.149 GAP -.80 AZP 86.13 TAL 337.17 TAP 182.48 RCA 149.75 APO 246.98 V2 22.199
RC 306.863 GL -30.40 GP 27.74 ZAL 121.32 ZAP 63.21 ETS 197.01 ZAE 88.73 ETE 182.28 ZAC 117.05 ETC 285.88 LVI -50.94

PLANETOCENTRIC CONIC

C3 23.305 VHL 4.828 DLA -11.02 RAL 57.88 RAD 6644.3 VEL 11.970 PTH 6.97 VHP 2.720 DPA 28.01 RAP 357.33 ECC 1.3838

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 46 20	2950.46	-28.78	87.86	278.26	129.67	17 35 30	1950.5	-11.53	69.72
60.00	17 37 58	2813.14	-23.76	79.65	282.42	123.56	18 24 51	1813.1	-8.70	60.03
70.00	18 43 47	2619.63	-19.18	68.93	285.40	118.82	19 27 27	1619.6	-6.05	46.32
80.00	20 4 38	2368.56	-15.80	49.55	287.22	115.67	20 44 5	1368.6	-4.04	28.35
90.00	21 31 37	2085.94	-14.51	29.54	287.85	114.54	22 6 23	1085.9	-3.28	8.15
100.00	22 47 30	1841.03	-15.80	10.92	287.22	115.67	23 18 11	841.0	-4.04	349.72
110.00	23 43 14	1666.45	-19.18	355.85	285.40	118.82	24 11 0	666.4	-6.05	335.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.0350 TRA 4.8348 TC3-5.6611 BAU 1.8427 SGT 8096.6 SGR 3017.9 SG3 1807.0 ST 107.4 SR 41.5 SS 58.8
RDE .2954 RRA-2.0678 RC3 1.7123 FAU .35369 RRT -.9856 RRF -.9918 RTF .9845 CRT -.9849 CRS .9184 CST -.8367
FDE -.1280 FRA13.7510 FC-13.1391 BSP 14618 SGB 8640.8 R23 .1064 R13 -.9869 LSA 125.9 MSA 29.2 SSA .8
BDE 1.0763 BRA 5.2582 BC3 5.9144 FSP 3293 SG1 8627.5 SG2 479.0 THA 159.76 EL1 114.9 EL2 8.7 ALF 159.10

LAUNCH DATE JUL 8 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 690.293 EARTH TO MARS

RL 192.10 LAL .00 LOL 285.70 VL 32.808 GAL -4.49 AZL 94.16 HCA 206.20 SMA 198.44 ECC .24562 INC 4.1570 V1 29.292
RP 247.06 LAP 1.83 LOP 131.84 VP 20.138 GAP -1.02 AZP 86.27 TAL 336.93 TAP 183.13 RCA 149.70 APO 247.18 V2 22.183
RC 309.224 GL -29.52 GP 26.80 ZAL 121.85 ZAP 62.15 ETS 197.07 ZAE 87.58 ETE 182.79 ZAC 116.18 ETC 285.75 LVI -50.02

PLANETOCENTRIC CONIC

C3 23.156 VHL 4.812 DLA -10.10 RAL 57.89 RAD 6644.2 VEL 11.964 PTH 6.96 VHP 2.718 DPA 27.16 RAP 357.78 ECC 1.3811

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 42 53	2967.31	-29.51	88.80	278.41	129.18	17 32 21	1967.3	-12.36	70.46
60.00	17 33 28	2832.79	-24.50	80.79	282.51	123.06	18 20 41	1832.8	-9.55	60.99
70.00	18 38 4	2642.87	-19.94	68.31	285.44	118.32	19 22 7	1642.9	-6.92	47.55
80.00	19 57 45	2393.43	-16.58	51.16	287.22	115.19	20 37 39	1393.4	-4.95	29.84
90.00	21 24 12	2114.50	-15.31	31.26	287.82	114.07	21 59 27	1114.5	-4.19	9.75
100.00	22 40 37	1867.90	-16.58	12.53	287.22	115.19	23 11 43	867.9	-4.95	351.21
110.00	23 37 30	1689.69	-19.94	357.23	285.44	118.32	24 5 40	689.7	-6.92	336.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.9908 TRA 4.9271 TC3-5.8092 BAU 1.8688 SGT 8255.8 SGR 2894.8 SG3 1808.3 ST 107.4 SR 39.9 SS 58.7
RDE .2838 RRA-1.9859 RC3 1.6419 FAU .35315 RRT -.9852 RRF -.9907 RTF .9846 CRT -.9894 CRS .9050 CST -.8348
FDE .0063 FRA13.7510 FC-13.2034 BSP 15021 SGB 8748.6 R23 .1018 R13 -.9867 LSA 125.4 MSA 29.2 SSA .8
BDE 1.0306 BRA 5.3123 BC3 6.0368 FSP 3300 SG1 8736.1 SG2 468.7 THA 160.89 EL1 114.4 EL2 5.4 ALF 159.79

LAUNCH DATE JUL 8 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 694.033 EARTH TO MARS

RL 192.10 LAL .00 LOL 285.70 VL 32.812 GAL -4.54 AZL 94.04 HCA 207.09 SMA 198.52 ECC .24619 INC 4.0384 V1 29.292
RP 247.22 LAP 1.84 LOP 132.72 VP 20.128 GAP -1.23 AZP 86.40 TAL 336.70 TAP 183.78 RCA 149.65 APO 247.39 V2 22.168
RC 311.559 GL -28.68 GP 25.91 ZAL 122.37 ZAP 61.12 ETS 197.12 ZAE 86.44 ETE 183.25 ZAC 115.29 ETC 285.63 LVI -49.14

PLANETOCENTRIC CONIC

C3 23.040 VHL 4.800 DLA -9.23 RAL 57.92 RAD 6644.2 VEL 11.959 PTH 6.96 VHP 2.718 DPA 26.36 RAP 358.22 ECC 1.3792

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 39 42	2983.68	-30.21	89.73	278.61	128.68	17 29 26	1983.7	-13.17	71.18
60.00	17 29 17	2851.83	-25.20	81.91	282.66	122.56	18 16 49	1851.8	-10.37	61.93
70.00	18 32 44	2665.26	-20.65	69.65	285.53	117.83	19 17 9	1665.3	-7.76	48.74
80.00	19 51 20	2419.20	-17.32	52.71	287.27	114.71	20 31 39	1419.2	-5.81	31.27
90.00	21 17 18	2141.84	-16.06	32.91	287.86	113.59	21 53 0	1141.8	-5.06	11.28
100.00	22 34 12	1893.67	-17.32	14.08	287.27	114.71	23 5 46	893.7	-5.81	352.63
110.00	23 32 10	1712.08	-20.65	358.57	285.53	117.83	24 0 42	712.1	-7.76	337.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.9471 TRA 5.0209 TC3-5.9495 BAU 1.8955 SGT 8412.4 SGR 2776.8 SG3 1805.6 ST 107.5 SR 38.4 SS 58.7
RDE .2743 RRA-1.9085 RC3 1.5717 FAU .35182 RRT -.9847 RRF -.9894 RTF .9847 CRT -.9934 CRS .8902 CST -.8333
FDE .1340 FRA13.7287 FC-13.2196 BSP 15237 SGB 8858.8 R23 .0967 R13 -.9865 LSA 125.0 MSA 29.3 SSA .8
BDE .9860 BRA 5.3714 BC3 6.1536 FSP 3300 SG1 8846.9 SG2 460.3 THA 161.94 EL1 114.1 EL2 4.2 ALF 160.46

LAUNCH DATE JUL 8 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC DISTANCE 697.772 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.818 GAL -4.60 AZL 93.93 HCA 207.97 SMA 198.60 ECC .24677 INC 3.9268 V1 29.292
RP 247.37 LAP 1.84 LOP 133.61 VP 20.119 GAP -1.45 AZP 86.53 TAL 336.46 TAP 184.43 RCA 149.59 APO 247.61 V2 22.154
RC 313.869 GL -27.88 GP 25.06 ZAL 122.88 ZAP 60.12 ETS 197.15 ZAE 85.30 ETE 183.68 ZAC 114.47 ETC 285.53 LVI -48.29

PLANETOCENTRIC CONIC

C3 22.953 VHL 4.791 DLA -8.39 RAL 57.97 RAD 6644.1 VEL 11.956 PTH 6.96 VHP 2.720 DPA 25.60 RAP 358.65 ECC 1.3778

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 44	2999.63	-30.89	90.65	278.86	128.18	17 26 44	1999.6	-13.95	71.89
60.00	17 25 22	2870.28	-25.87	83.01	282.86	122.05	18 13 13	1870.3	-11.17	62.85
70.00	18 27 45	2686.88	-21.34	70.96	285.68	117.32	19 12 32	1686.9	-8.57	49.90
80.00	19 45 20	2443.98	-18.02	54.22	287.38	114.22	20 26 4	1444.0	-6.63	32.64
90.00	21 10 51	2168.08	-16.77	34.51	287.95	113.11	21 46 59	1168.1	-5.90	12.76
100.00	22 28 12	1918.46	-18.02	15.59	287.38	114.22	23 0 11	918.5	-6.63	354.01
110.00	23 27 11	1733.70	-21.34	359.88	285.68	117.32	23 56 5	733.7	-8.57	338.81

DIFFERENTIAL CORRECTIONS

TDE -.9048 TRA 5.1149 TC3-6.0848 BAU 1.9233
RDE .2673 RRA-1.8352 RC3 1.5033 FAU .34999
FDE .2531 FRA13.6841 FC-13.2007 BSP 15442
BDE .9435 BRA 5.4342 BC3 6.2677 FSP 3292

MID-COURSE EXECUTION ACCURACY

SGT 8567.2 SGR 2664.3 SG3 1799.4
RRT -.9840 RRF -.9880 RTF .9848
SGB 8971.9 R23 .0911 R13 -.9863
SG1 8980.5 SG2 453.3 THA 182.94

ORBIT DETERMINATION ACCURACY

ST 107.7 SR 37.0 SS 58.6
CRT -.9965 CRS .8738 CST -.8325
LSA 124.7 MSA 29.4 SSA .8
EL1 113.9 EL2 2.9 ALF 161.10

LAUNCH DATE JUL 8 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 701.509 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.820 GAL -4.65 AZL 93.82 HCA 208.85 SMA 198.68 ECC .24736 INC 3.8216 V1 29.292
RP 247.51 LAP 1.84 LOP 134.50 VP 20.110 GAP -1.66 AZP 86.65 TAL 336.22 TAP 185.07 RCA 149.54 APO 247.83 V2 22.140
RC 316.151 GL -27.11 GP 24.25 ZAL 123.38 ZAP 59.14 ETS 197.17 ZAE 84.18 ETE 184.07 ZAC 113.68 ETC 285.43 LVI -47.49

PLANETOCENTRIC CONIC

C3 22.893 VHL 4.785 DLA -7.59 RAL 58.04 RAD 6644.1 VEL 11.953 PTH 6.95 VHP 2.725 DPA 24.89 RAP 359.08 ECC 1.3768

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 33 59	3015.16	-31.54	91.56	279.14	127.67	17 24 14	2015.2	-14.71	72.59
60.00	17 21 43	2888.21	-26.51	84.09	283.10	121.54	18 9 51	1888.2	-11.93	63.74
70.00	18 23 5	2707.81	-21.98	72.23	285.88	116.82	19 8 12	1707.8	-9.35	51.02
80.00	19 39 43	2467.88	-18.68	55.69	287.54	113.72	20 20 51	1467.9	-7.42	33.98
90.00	21 4 49	2193.33	-17.44	36.06	288.10	112.62	21 41 22	1193.3	-6.69	14.19
100.00	22 22 35	1942.35	-18.68	17.06	287.54	113.72	22 54 57	942.4	-7.42	355.34
110.00	23 22 31	1754.62	-21.98	1.15	285.88	116.82	23 51 46	754.6	-9.35	339.93

DIFFERENTIAL CORRECTIONS

TDE -.8637 TRA 5.2096 TC3-6.2141 BAU 1.9520
RDE .2622 RRA-1.7658 RC3 1.4367 FAU .34773
FDE .3656 FRA13.6211 FC-13.1500 BSP 15648
BDE .9026 BRA 5.5007 BC3 6.3780 FSP 3277

MID-COURSE EXECUTION ACCURACY

SGT 8720.0 SGR 2557.2 SG3 1790.2
RRT -.9833 RRF -.9864 RTF .9848
SGB 9087.2 R23 .0851 R13 -.9861
SG1 9076.1 SG2 447.7 THA 183.87

ORBIT DETERMINATION ACCURACY

ST 108.0 SR 35.7 SS 58.5
CRT -.9987 CRS .8558 CST -.8322
LSA 124.5 MSA 29.5 SSA .9
EL1 113.7 EL2 1.7 ALF 161.73

LAUNCH DATE JUL 8 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC DISTANCE 705.244 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.824 GAL -4.71 AZL 93.72 HCA 209.74 SMA 198.77 ECC .24797 INC 3.7223 V1 29.292
RP 247.65 LAP 1.85 LOP 135.38 VP 20.102 GAP -1.88 AZP 86.77 TAL 335.97 TAP 185.71 RCA 149.48 APO 248.05 V2 22.126
RC 318.406 GL -26.37 GP 23.48 ZAL 123.88 ZAP 58.19 ETS 197.18 ZAE 83.06 ETE 184.43 ZAC 112.92 ETC 285.34 LVI -46.72

PLANETOCENTRIC CONIC

C3 22.857 VHL 4.781 DLA -6.81 RAL 58.12 RAD 6644.1 VEL 11.952 PTH 6.95 VHP 2.731 DPA 24.22 RAP 359.50 ECC 1.3762

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 31 26	3030.32	-32.16	92.47	279.46	127.16	17 21 56	2030.3	-15.45	73.27
60.00	17 18 18	2905.65	-27.13	85.15	283.38	121.03	18 6 44	1905.6	-12.67	64.62
70.00	18 18 42	2728.09	-22.60	73.48	286.11	116.31	19 4 10	1728.1	-10.10	52.11
80.00	19 34 26	2490.96	-19.31	57.12	287.74	113.23	20 15 57	1491.0	-8.18	35.27
90.00	20 59 8	2217.70	-18.07	37.57	288.28	112.13	21 36 5	1217.7	-7.46	15.57
100.00	22 17 18	1965.44	-19.31	18.48	287.74	113.23	22 50 3	965.4	-8.18	356.64
110.00	23 18 8	1774.90	-22.60	2.40	286.11	116.31	23 47 43	774.9	-10.10	341.03

DIFFERENTIAL CORRECTIONS

TDE -.8227 TRA 5.3060 TC3-6.3368 BAU 1.9812
RDE .2587 RRA-1.7003 RC3 1.3718 FAU .34501
FDE .4724 FRA13.5439 FC-13.0675 BSP 15861
BDE .8624 BRA 5.5718 BC3 6.4836 FSP 3258

MID-COURSE EXECUTION ACCURACY

SGT 8671.1 SGR 2455.2 SG3 1778.4
RRT -.9823 RRF -.9847 RTF .9849
SGB 9204.6 R23 .0788 R13 -.9860
SG1 9193.9 SG2 443.4 THA 184.75

ORBIT DETERMINATION ACCURACY

ST 108.4 SR 34.5 SS 58.4
CRT -.9996 CRS .8362 CST -.8325
LSA 124.4 MSA 29.6 SSA .9
EL1 113.7 EL2 .9 ALF 162.33

LAUNCH DATE JUL 8 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 708.978 EARTH TO MARS

RL 152.10 LAL .00 LOL 285.70 VL 32.829 GAL -4.76 AZL 93.63 HCA 210.82 SMA 198.85 ECC .24858 INC 3.6284 V1 29.292
RP 247.78 LAP 1.85 LOP 136.27 VP 20.095 GAP -2.09 AZP 86.88 TAL 335.72 TAP 186.34 RCA 149.42 APO 248.28 V2 22.113
RC 320.632 GL -25.67 GP 22.75 ZAL 124.37 ZAP 57.27 ETS 197.18 ZAE 81.96 ETE 184.76 ZAC 112.20 ETC 285.26 LVI -45.99

PLANETOCENTRIC CONIC

C3 22.843 VHL 4.779 DLA -6.06 RAL 58.22 RAD 6644.1 VEL 11.951 PTH 6.95 VHP 2.740 DPA 23.60 RAP 359.92 ECC 1.3759

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 29 3	3045.13	-32.77	93.36	279.82	126.65	17 19 48	2045.1	-16.16	73.94
60.00	17 15 6	2922.63	-27.72	86.20	283.70	120.51	18 3 49	1922.6	-13.39	65.48
70.00	18 14 34	2747.78	-23.19	74.71	286.38	115.81	19 0 22	1747.8	-10.82	53.17
80.00	19 29 28	2513.32	-19.90	58.51	287.98	112.73	20 11 21	1513.3	-8.91	36.52
90.00	20 53 47	2241.26	-18.67	39.04	288.51	111.63	21 31 8	1241.3	-8.19	16.91
100.00	22 12 19	1987.79	-19.90	19.88	287.98	112.73	22 45 27	987.8	-8.91	357.89
110.00	23 14 0	1794.60	-23.19	3.63	286.38	115.81	23 43 55	794.6	-10.82	342.09

DIFFERENTIAL CORRECTIONS

TDE -.7810 TRA 5.4044 TC3-6.4513 BAU 2.0102
RDE .2562 RRA-1.6388 RC3 1.3072 FAU .34152
FDE .5787 FRA13.4566 FC-12.9436 BSP 16090
BDE .8220 BRA 5.6474 BC3 6.5824 FSP 3237

MID-COURSE EXECUTION ACCURACY

SGT 9019.6 SGR 2357.7 SG3 1763.8
RRT -.9812 RRF -.9827 RTF .9849
SGB 9322.6 R23 .0727 R13 -.9858
SG1 9312.2 SG2 441.2 THA 185.58

ORBIT DETERMINATION ACCURACY

ST 108.8 SR 33.4 SS 58.3
CRT -.9991 CRS .8147 CST -.8329
LSA 124.4 MSA 29.7 SSA .9
EL1 113.8 EL2 1.4 ALF 162.93

LAUNCH DATE JUL 8 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 24 1974

HELIOCENTRIC CONIC DISTANCE 712.710 EARTH TO MARS

RL	152.10	LAL	.00	LOL	285.70	VL	32.833	GAL	-4.82	AZL	93.54	HCA	211.50	SMA	198.94	ECC	.24921	INC	3.5393	VI	29.292
RP	247.91	LAP	1.85	LOP	137.15	VP	20.089	GAP	-2.30	AZP	86.98	TAL	335.47	TAP	186.97	RCA	149.36	APO	248.52	V2	22.101
RC	322.829	GL	-24.99	GP	22.05	ZAL	124.85	ZAP	56.37	ETS	197.17	ZAE	80.87	ETE	185.06	ZAC	111.50	ETC	285.19	LVI	-45.28

PLANETOCENTRIC CONIC

C3	22.849	VHL	4.780	DLA	-5.34	RAL	58.33	RAD	6644.1	VEL	11.951	PTH	6.95	VHP	2.749	DPA	23.01	RAP	.34	ECC	1.3760

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 26 49	3059.62	-33.35	94.25	280.21	126.13	17 17 49	2059.6	-16.87	74.60
60.00	17 12 6	2939.19	-28.29	87.24	284.05	119.99	18 1 5	1939.2	-14.09	66.32
70.00	18 10 41	2766.93	-23.75	75.91	286.69	115.30	18 56 48	1766.9	-11.52	54.21
80.00	19 24 46	2535.00	-20.47	59.87	288.25	112.23	20 7 1	1535.0	-9.62	37.75
90.00	20 48 44	2264.09	-19.24	40.48	288.77	111.14	21 26 28	1264.1	-8.90	18.21
100.00	22 7 38	2009.47	-20.47	21.24	288.25	112.23	22 41 7	1009.5	-9.62	359.12
110.00	23 10 7	1813.74	-23.75	4.83	286.69	115.30	23 40 21	813.7	-11.52	343.13

DIFFERENTIAL CORRECTIONS

TDE	-.7410	TRA	5.5030	TC3	-6.5608	BAU	2.0399
RDE	.2553	RRA	-1.5802	RC3	1.2453	FAU	.33785
FDE	.6759	FRA	13.3554	FC	-12.8006	BSP	16315
BDE	.7837	BRA	5.7254	BC3	6.6780	FSP	3211

MID-COURSE EXECUTION ACCURACY

SGT	9166.2	SGR	2264.9	SG3	1747.2		
RRT	-.9798	RRF	-.9805	RTF	.9849		
SGB	9441.9	R23	.0663	R13	-.9857		
SG1	9431.6	SG2	440.0	THA	166.36		

ORBIT DETERMINATION ACCURACY

ST	109.3	SR	32.4	SS	58.3		
CRT	-.9969	CRS	.7915	CST	-.8338		
LSA	124.5	MSA	29.8	SSA	.9		
EL1	113.9	EL2	2.4	ALF	165.51		

LAUNCH DATE JUL 9 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 12 1973

HELIOCENTRIC CONIC DISTANCE 358.110 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	34.611	GAL	-5.56	AZL	90.26	HCA	115.27	SMA	248.82	ECC	.39885	INC	.2642
RP	217.81	LAP	-.24	LOP	41.92	VP	26.178	GAP	22.45	AZP	89.89	TAL	340.39	TAP	95.66	RCA	149.58	APO	348.06
RC	73.631	GL	-1.45	GP	-5.20	ZAL	121.90	ZAP	171.37	ETS	218.65	ZAE	170.12	ETE	330.22	ZAC	79.68	ETC	283.52

V1	29.292																		
V2	25.227																		
LVI	-13.94																		

PLANETOCENTRIC CONIC

C3	39.818	VHL	6.310	DLA	15.96	RAL	46.52	RAD	6650.6	VEL	12.637	PTH	7.49	VHP	8.014	DPA	7.91	RAP	34.80
ECC	1.6553																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 15 48	3628.94	-47.47	140.01	296.48	93.61	15 16 14	2625.9	-40.54	107.55
60.00	14 37 13	3568.93	-40.30	135.20	296.80	90.01	15 36 42	2568.9	-35.88	105.01
70.00	15 0 37	3476.50	-34.05	127.52	296.61	87.19	16 0 33	2476.5	-31.64	99.05
80.00	15 27 10	3324.34	-29.51	115.63	296.25	85.24	16 32 35	2324.3	-28.49	88.25
90.00	17 9 42	3090.22	-27.78	98.25	296.08	84.51	18 1 12	2090.2	-27.26	71.25
100.00	18 40 2	2798.82	-29.51	77.00	296.25	85.24	19 26 41	1798.8	-28.49	49.62
110.00	20 8 3	2523.32	-34.05	56.44	296.61	87.19	20 50 7	1523.3	-31.64	27.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4940	TRA	-1.6707	TCS	.1102	BAU	.0708	SGT	1646.2	SGR	586.0	SGS	204.3	ST	32.6	SR	26.1	SS	24.7
RDE	-.5676	RRA	.2780	RCS	-.0748	FAU	.05923	RRT	-.2033	RRF	.2296	RTF	-.7817	CRT	.5703	CRS	.6082	CST	.9969
FDE	.5664	FRA	1.7360	FCS	-1.2677	BSP	2697	SGB	1747.4	R23	-.0499	R13	.7835	LSA	44.4	MSA	19.5	SSA	1.2
BDE	.7525	BRA	1.6937	BCS	.1331	FSP	270	SG1	1681.1	SG2	572.1	THA	178.29	EL1	37.3	EL2	18.7	ALF	34.21

LAUNCH DATE JUL 9 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 360.740 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	34.699	GAL	-5.44	AZL	90.23	HCA	116.41	SMA	248.25	ECC	.38984	INC	.2262
RP	218.16	LAP	-.20	LOP	43.06	VP	25.990	GAP	22.10	AZP	89.90	TAL	340.47	TAP	96.08	RCA	149.64	APO	340.85
RC	74.953	GL	-1.27	GP	-5.38	ZAL	121.79	ZAP	170.67	ETS	216.78	ZAE	169.32	ETE	330.98	ZAC	79.43	ETC	283.49

V1	29.292																		
V2	25.188																		
LVI	-13.67																		

PLANETOCENTRIC CONIC

C3	38.179	VHL	6.179	DLA	16.10	RAL	46.36	RAD	6650.0	VEL	12.572	PTH	7.44	VHP	7.789	DPA	7.89	RAP	35.25
ECC	1.6283																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 14 32	3618.41	-47.44	139.29	295.41	94.16	15 14 50	2618.4	-40.30	106.99
60.00	14 35 45	3561.93	-40.30	134.60	295.81	90.42	15 35 7	2561.9	-35.72	104.49
70.00	15 0 54	3470.21	-34.07	127.03	295.66	87.48	16 4 44	2470.2	-31.54	98.59
80.00	15 55 13	3318.83	-29.54	115.22	295.33	85.45	16 50 31	2318.8	-28.43	87.85
90.00	17 7 37	3085.10	-27.82	97.88	295.16	84.69	17 59 3	2085.1	-27.23	70.88
100.00	18 38 4	2793.31	-29.54	76.59	295.33	85.45	19 24 38	1793.3	-28.43	49.22
110.00	20 6 21	2517.03	-34.07	55.95	295.66	87.48	20 48 18	1517.0	-31.54	27.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4845	TRA	-1.6579	TCS	.1407	BAU	.0834	SGT	1671.1	SGR	586.0	SGS	216.9	ST	32.9	SR	25.8	SS	25.7
RDE	-.5497	RRA	.2799	RCS	-.0831	FAU	.06132	RRT	-.2258	RRF	.2478	RTF	-.7958	CRT	.5601	CRS	.6092	CST	.9963
FDE	.5965	FRA	1.6065	FCS	-1.3906	BSP	2646	SGB	1770.8	R23	-.0458	R13	.7975	LSA	45.0	MSA	19.5	SSA	1.2
BDE	.7327	BRA	1.6814	BCS	.1634	FSP	294	SG1	1677.0	SG2	568.8	THA	174.88	EL1	37.3	EL2	18.8	ALF	33.21

LAUNCH DATE JUL 9 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 363.472 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	34.893	GAL	-5.33	AZL	90.19	HCA	117.54	SMA	241.96	ECC	.38130	INC	.1869
RP	218.53	LAP	-.17	LOP	44.19	VP	25.810	GAP	21.75	AZP	89.91	TAL	340.56	TAP	98.10	RCA	149.70	APO	334.22
RC	76.362	GL	-1.07	GP	-5.57	ZAL	121.67	ZAP	169.95	ETS	215.18	ZAE	168.58	ETE	331.47	ZAC	79.16	ETC	283.47

V1	29.292																		
V2	25.148																		
LVI	-13.39																		

PLANETOCENTRIC CONIC

C3	36.649	VHL	6.054	DLA	16.26	RAL	46.18	RAD	6649.8	VEL	12.512	PTH	7.40	VHP	7.572	DPA	7.86	RAP	35.66
ECC	1.6032																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 13 11	3611.34	-47.40	138.61	294.36	94.69	15 13 22	2611.3	-40.07	106.46
60.00	14 34 11	3555.42	-40.29	134.05	294.83	90.79	15 33 26	2555.4	-35.57	104.00
70.00	15 8 8	3464.46	-34.09	126.58	294.73	87.74	16 2 49	2464.5	-31.45	98.16
80.00	15 53 7	3313.91	-29.57	114.86	294.43	85.84	16 48 21	2313.9	-28.37	87.50
90.00	17 5 24	3080.59	-27.85	97.55	294.26	84.85	17 56 45	2080.6	-27.16	70.56
100.00	18 35 59	2788.38	-29.57	76.23	294.43	85.64	19 22 28	1788.4	-28.37	48.87
110.00	20 4 31	2511.28	-34.09	55.50	294.73	87.74	20 46 22	1511.3	-31.45	27.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4890	TRA	-1.6577	TCS	.1980	BAU	.0898	SGT	1709.3	SGR	586.3	SGS	230.1	ST	33.7	SR	25.8	SS	26.6
RDE	-.5324	RRA	.2818	RCS	-.0929	FAU	.06377	RRT	-.2418	RRF	.2688	RTF	-.8102	CRT	.5585	CRS	.6079	CST	.9963
FDE	.6270	FRA	1.6735	FCS	-1.5065	BSP	2764	SGB	1807.0	R23	-.0527	R13	.8022	LSA	46.0	MSA	19.5	SSA	1.3
BDE	.7229	BRA	1.6818	BCS	.1833	FSP	313	SG1	1715.9	SG2	566.7	THA	174.68	EL1	37.8	EL2	18.9	ALF	31.63

LAUNCH DATE JUL 9 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 366.297 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	34.492	GAL	-5.22	AZL	90.18	HCA	118.68	SMA	238.93	ECC	.37321	INC	.1472
RP	218.89	LAP	-.13	LOP	45.33	VP	25.635	GAP	21.40	AZP	89.93	TAL	340.65	TAP	99.33	RCA	149.76	APO	328.10
RC	77.655	GL	-.86	GP	-5.76	ZAL	121.58	ZAP	169.22	ETS	213.61	ZAE	167.88	ETE	331.73	ZAC	78.90	ETC	283.44

V1	29.292																		
V2	25.107																		
LVI	-13.11																		

PLANETOCENTRIC CONIC

C3	35.218	VHL	5.934	DLA	16.43	RAL	45.99	RAD	6649.0	VEL	12.458	PTH	7.35	VHP	7.362	DPA	7.81	RAP	36.11
ECC	1.5796																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 11 44	3604.71	-47.36	137.07	293.34	95.17	15 11 49	2604.7	-39.86	105.97
60.00	14 32 31	3549.39	-40.29	133.53	293.88	91.14	15 31 40	2549.4	-35.42	103.55
70.00	15 3 8	3459.23	-34.10	126.17	293.82	87.98	16 0 48	2459.2	-31.36	97.78
80.00	15 50 54	3309.56	-29.59	114.54	293.53	85.80	16 46 3	2309.6	-28.32	87.16
90.00	17 3 3	3076.69	-27.87	97.27	293.37	84.99	17 54 19	2076.7	-27.15	70.26
100.00	18 33 46	2784.03	-29.59	75.91	293.53	85.80	19 20 10	1784.0	-28.32	48.58
110.00	20 2 38	2506.08	-34.10	55.09	293.82	87.98	20 44 21	1506.0	-31.36	26.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4922	TRA	-1.6558	TCS	.1778	BAU	.0869	SGT	1745.9	SGR	586.8	SGS	244.0	ST	34.5	SR	25.8	SS	27.6
RDE	-.5182	RRA	.2842	RCS	-.1038	FAU	.06833	RRT	-.2600	RRF	.2905	RTF	-.8084	CRT	.5555	CRS	.6067	CST	.9962
FDE	.6564	FRA	1.6439	FCS	-1.6306	BSP	2864	SGB	1841.9	R23	-.0587	R13	.8076	LSA	47.0	MSA	19.4	SSA	1.3
BDE	.7125	BRA	1.6800	BCS	.2087	FSP	334	SG1	1753.4	SG2	564.2	THA	174.43	EL1	38.3	EL2	18.9	ALF	30.12

LAUNCH DATE JUL 9 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 369.205 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	34.397	GAL	-5.12	AZL	90.11	HCA	119.81	SMA	236.13	ECC	.36553	INC	.1068	V1	29.292
RP	219.26	LAP	-.09	LOP	46.46	VP	25.466	GAP	21.06	AZP	89.95	TAL	340.75	TAP	100.56	RCA	149.82	APO	322.44	V2	25.067
RC	79.428	GL	-.63	GP	-5.97	ZAL	121.41	ZAP	168.47	ETS	212.63	ZAE	167.24	ETE	331.80	ZAC	78.62	ETC	283.42	LVI	-12.81

PLANETOCENTRIC CONIC

C3	33.878	VHL	5.820	DLA	16.61	RAL	45.78	RAD	6648.5	VEL	12.401	PTH	7.31	VHP	7.159	DPA	7.75	RAP	36.54	ECC	1.9575

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 10 12	3598.55	-47.32	137.38	292.33	95.63	15 10 10	2598.6	-39.66	105.52
60.00	14 30 44	3543.85	-40.28	133.06	292.94	91.46	15 29 48	2543.9	-35.29	103.14
70.00	15 1 5	3454.54	-34.11	125.81	292.91	88.20	15 58 39	2454.5	-31.28	97.44
80.00	15 48 32	3305.82	-29.61	114.26	292.64	85.95	16 43 38	2305.8	-28.28	86.91
90.00	17 0 32	3073.42	-27.89	97.03	292.49	85.11	17 51 46	2073.4	-27.11	70.05
100.00	18 31 24	2780.29	-29.61	75.63	292.64	85.95	19 17 44	1780.3	-28.28	48.28
110.00	20 0 31	2501.36	-34.11	54.72	292.91	88.20	20 42 12	1501.4	-31.28	26.36

DIFFERENTIAL CORRECTIONS

TDE	-.4945	TRA	-1.6520	TC3	.1997	BAU	.1044
RDE	-.4980	RRA	.2871	RC3	-.1152	FAU	.06901
FDE	.6919	FRA	2.0171	FC3	-1.7635	BSP	2952
BDE	.7018	BRA	1.6768	BC3	.2306	FSP	357

MID-COURSE EXECUTION ACCURACY

SGT	1780.7	SGR	587.6	SG3	258.8				
RRT	-.2800	RRF	.3139	RTF	-.8109				
SGB	1875.2	R23	-.0643	R13	.8134				
SG1	1789.1	SG2	561.5	THA	174.14				

ORBIT DETERMINATION ACCURACY

ST	35.2	SR	24.9	SS	28.6		
CRT	.5516	CRS	.6052	CST	.9961		
LSA	48.0	MSA	19.3	SSA	1.3		
EL1	38.8	EL2	18.9	ALF	28.68		

LAUNCH DATE JUL 9 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 372.189 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	34.306	GAL	-5.02	AZL	90.07	HCA	120.93	SMA	233.54	ECC	.35824	INC	.0656	V1	29.292
RP	219.63	LAP	-.06	LOP	47.50	VP	25.303	GAP	20.73	AZP	89.97	TAL	340.85	TAP	101.78	RCA	149.87	APO	317.20	V2	25.026
RC	81.081	GL	-.40	GP	-6.18	ZAL	121.26	ZAP	167.70	ETS	211.60	ZAE	166.65	ETE	331.70	ZAC	78.34	ETC	283.40	LVI	-12.51

PLANETOCENTRIC CONIC

C3	32.623	VHL	5.712	DLA	16.79	RAL	45.87	RAD	6648.0	VEL	12.351	PTH	7.27	VHP	6.982	DPA	7.67	RAP	36.98	ECC	1.8369

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 8 34	3592.87	-47.28	136.84	291.36	96.05	15 6 27	2592.9	-39.47	105.10
60.00	14 28 52	3536.63	-40.27	132.64	292.02	91.75	15 27 51	2536.6	-35.17	102.77
70.00	14 58 54	3450.43	-34.12	125.49	292.03	88.39	15 56 24	2450.4	-31.21	97.14
80.00	15 46 2	3302.71	-29.62	114.03	291.77	86.07	16 41 4	2302.7	-28.24	86.69
90.00	16 57 52	3070.82	-27.90	96.84	291.62	85.20	17 49 3	2070.8	-27.09	69.86
100.00	18 28 54	2777.18	-29.62	75.40	291.77	86.07	19 15 11	1777.2	-28.24	48.06
110.00	19 58 20	2497.25	-34.12	54.40	292.03	88.39	20 39 57	1497.2	-31.21	26.06

DIFFERENTIAL CORRECTIONS

TDE	-.4965	TRA	-1.6473	TC3	.2229	BAU	.1121
RDE	-.4809	RRA	.2905	RC3	-.1278	FAU	.07180
FDE	.7288	FRA	2.0932	FC3	-1.9054	BSP	3030
BDE	.6912	BRA	1.6727	BC3	.2570	FSP	381

MID-COURSE EXECUTION ACCURACY

SGT	1814.4	SGR	588.8	SG3	274.3				
RRT	-.3017	RRF	.3385	RTF	-.8165				
SGB	1907.6	R23	-.0696	R13	.8192				
SG1	1824.0	SG2	558.5	THA	173.83				

ORBIT DETERMINATION ACCURACY

ST	35.9	SR	24.6	SS	29.6		
CRT	.5469	CRS	.6038	CST	.9959		
LSA	49.0	MSA	19.2	SSA	1.3		
EL1	39.2	EL2	18.8	ALF	27.26		

LAUNCH DATE JUL 9 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 375.242 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	34.220	GAL	-4.92	AZL	90.02	HCA	122.05	SMA	231.13	ECC	.35132	INC	.0198	V1	29.292
RP	220.00	LAP	-.02	LOP	48.70	VP	25.145	GAP	20.39	AZP	89.99	TAL	340.96	TAP	103.01	RCA	149.93	APO	312.33	V2	24.985
RC	82.809	GL	-.15	GP	-6.41	ZAL	121.11	ZAP	166.92	ETS	210.72	ZAE	166.12	ETE	331.45	ZAC	78.05	ETC	283.38	LVI	-12.21

PLANETOCENTRIC CONIC

C3	31.448	VHL	5.608	DLA	16.99	RAL	45.34	RAD	6647.6	VEL	12.303	PTH	7.24	VHP	6.771	DPA	7.58	RAP	37.35	ECC	1.8178

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 6 51	3587.68	-47.24	136.34	290.41	96.43	15 6 39	2587.7	-39.30	104.73
60.00	14 26 53	3534.35	-40.26	132.25	291.12	92.01	15 25 47	2534.4	-35.06	102.45
70.00	14 56 35	3446.91	-34.13	125.21	291.16	88.55	15 54 2	2446.9	-31.15	96.88
80.00	15 43 22	3300.27	-29.63	113.85	290.92	86.16	16 38 23	2300.3	-28.21	86.52
90.00	16 55 3	3068.93	-27.91	96.70	290.77	85.27	17 46 12	2068.9	-27.07	69.73
100.00	18 26 14	2774.75	-29.63	75.22	290.92	86.16	19 12 29	1774.7	-28.21	47.88
110.00	19 56 1	2493.73	-34.13	54.13	291.16	88.55	20 37 35	1493.7	-31.15	25.80

DIFFERENTIAL CORRECTIONS

TDE	-.4983	TRA	-1.6416	TC3	.2479	BAU	.1200
RDE	-.4839	RRA	.2948	RC3	-.1417	FAU	.07478
FDE	.7873	FRA	2.1724	FC3	-2.0579	BSP	3105
BDE	.6809	BRA	1.6678	BC3	.2855	FSP	407

MID-COURSE EXECUTION ACCURACY

SGT	1847.2	SGR	590.7	SG3	290.8				
RRT	-.3249	RRF	.3648	RTF	-.8221				
SGB	1939.4	R23	-.0752	R13	.8251				
SG1	1858.1	SG2	555.3	THA	173.48				

ORBIT DETERMINATION ACCURACY

ST	36.6	SR	24.2	SS	30.7		
CRT	.5415	CRS	.6017	CST	.9957		
LSA	50.0	MSA	19.1	SSA	1.3		
EL1	39.7	EL2	18.8	ALF	25.86		

LAUNCH DATE JUL 9 1973 FLIGHT TIME 140.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 378.357 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	34.138	GAL	-4.82	AZL	89.98	HCA	123.17	SMA	228.90	ECC	.34476	INC	.0099	V1	29.292
RP	220.38	LAP	.02	LOP	49.82	VP	24.992	GAP	20.06	AZP	90.01	TAL	341.07	TAP	104.24	RCA	149.98	APO	307.81	V2	24.944
RC	84.610	GL	.11	GP	-6.84	ZAL	120.98	ZAP	166.12	ETS	209.94	ZAE	165.65	ETE	331.06	ZAC	77.78	ETC	283.36	LVI	-11.89

PLANETOCENTRIC CONIC

C3	30.348	VHL	5.509	DLA	17.10	RAL	45.10	RAD	6647.1	VEL	12.259	PTH	7.20	VHP	6.586	DPA	7.47	RAP	37.75	ECC	1.4994

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 5 2	3583.01	-47.21	135.90	289.49	96.77	15 4 45	2583.0	-39.14	104.39
60.00	14 24 47	3530.43	-40.25	131.92	290.25	92.23	15 23 38	2530.4	-34.98	102.16
70.00	14 54 8	3444.02	-34.13	124.99	290.31	88.68	15 51 32	2444.0	-31.10	96.67
80.00	15 40 34	3298.54	-29.64	113.72	290.08	86.23	16 35 32	2298.5	-28.19	86.39
90.00	16 52 3	3067.77	-27.92	96.62	289.93	85.31	17 43 11	2067.8	-27.08	69.65
100.00	18 23 26	2773.01	-29.64	75.09	290.08	86.23	19 9 39	1773.0	-28.19	47.76
110.00	19 53 35	2490.84	-34.13	53.90	290.31	88.68	20 35 6	1490.8	-31.10	25.59

DIFFERENTIAL CORRECTIONS

TDE	-.4995	TRA	-1.6346	TC3	.2739	BAU	.1280
RDE	-.4470	RRA	.2989	RC3	-.1568	FAU	.07786
FDE	.8088	FRA	2.2537	FC3	-2.2211	BSP	3171
BDE	.6703	BRA	1.6617	BC3	.3156	FSP	435

MID-COURSE EXECUTION ACCURACY

SGT	1878.2	SGR	593.2	SG3	308.1				
RRT	-.3498	RRF	.3925	RTF	-.8274				
SGB	1969.7	R23	-.0807	R13	.8308				
SG1	1890.7	SG2	552.0	THA	173.11				

ORBIT DETERMINATION ACCURACY

ST	37.2	SR	23.8	SS	31.9		
CRT	.5350	CRS	.5991	CST	.9954		
LSA	51.1	MSA	18.9	SSA	1.4		
EL1	40.0	EL2	18.7	ALF	24.49		

LAUNCH DATE JUL 9 1973 FLIGHT TIME 142.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 381.529 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	34.060	GAL	-4.73	AZL	89.84	HCA	124.28	SMA	226.82	ECC	.33852	INC	.0606	V1	29.292
RP	220.76	LAP	.05	LOP	80.93	VP	24.845	GAP	19.73	AZP	90.04	TAL	341.18	TAP	105.47	RCA	150.04	APO	303.61	V2	24.902
RC	86.480	GL	.39	GP	-6.89	ZAL	120.78	ZAP	165.30	ETS	209.27	ZAE	165.23	ETE	330.54	ZAC	77.44	ETC	283.35	LVI	-11.57

PLANETOCENTRIC CONIC

C3	29.317	VHL	5.415	DLA	17.41	RAL	44.65	RAD	6646.7	VEL	12.217	PTH	7.17	VHP	6.407	DPA	7.35	RAP	38.13	ECC	1.4825

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 3 6	3578.88	-47.17	135.50	286.60	97.07	15 2 47	2578.9	-39.00	104.09
60.00	14 22 35	3527.09	-40.24	131.64	289.40	92.43	15 21 22	2527.1	-34.88	101.92
70.00	14 51 34	3441.78	-34.13	124.81	289.48	88.79	15 48 56	2441.8	-31.06	98.51
80.00	15 37 35	3297.53	-29.65	113.65	289.25	86.27	16 32 33	2297.5	-28.18	96.32
90.00	16 48 55	3067.40	-27.92	98.59	289.11	85.32	17 40 0	2067.4	-27.05	89.62
100.00	18 20 27	2772.00	-29.65	78.02	289.25	86.27	19 6 39	1772.0	-28.18	47.69
110.00	19 51 0	2488.60	-34.13	53.73	289.48	88.79	20 32 29	1488.6	-31.06	25.43

DIFFERENTIAL CORRECTIONS

TDE	-.5014	TRA	-1.6276	TC3	.3004	BAU	.1359
RDE	-.4299	RRA	.3039	RC3	-.1732	FAU	.08109
FDE	.8537	FRA	2.3388	FC3	-2.3947	BSP	3242
BDE	.6605	BRA	1.6557	BC3	.3467	FSP	468

MID-COURSE EXECUTION ACCURACY

SGT	1909.2	SGR	598.5	SG3	326.4
RRT	-.3759	RRF	.4215	RTF	-.8326
SGB	2000.2	R23	-.0867	R13	.8363
SG1	1923.5	SG2	548.6	THA	172.71

ORBIT DETERMINATION ACCURACY

ST	37.9	SR	23.3	SS	33.1
CRT	.5280	CRS	.5959	CST	.9951
LSA	52.2	MSA	18.7	SSA	1.4
EL1	40.4	EL2	18.5	ALF	23.11

LAUNCH DATE JUL 9 1973 FLIGHT TIME 144.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 384.754 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.986	GAL	-4.64	AZL	89.89	HCA	125.39	SMA	224.89	ECC	.33261	INC	.1063	V1	29.292
RP	221.14	LAP	.09	LOP	82.04	VP	24.702	GAP	19.40	AZP	90.06	TAL	341.30	TAP	106.69	RCA	150.09	APO	299.69	V2	24.861
RC	88.416	GL	.68	GP	-7.15	ZAL	120.61	ZAP	164.47	ETS	208.68	ZAE	164.86	ETE	329.88	ZAC	77.13	ETC	283.33	LVI	-11.24

PLANETOCENTRIC CONIC

C3	28.351	VHL	5.325	DLA	17.64	RAL	44.59	RAD	6646.4	VEL	12.178	PTH	7.14	VHP	6.234	DPA	7.21	RAP	38.51	ECC	1.4866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 1 8	3578.29	-47.14	135.16	287.75	97.33	15 0 43	2578.3	-38.88	103.83
60.00	14 20 16	3524.36	-40.23	131.41	288.57	92.58	15 19 0	2524.4	-34.81	101.72
70.00	14 48 51	3440.22	-34.14	124.69	288.67	88.86	15 46 11	2440.2	-31.03	98.40
80.00	15 34 27	3297.30	-29.68	113.63	288.45	86.26	16 29 24	2297.3	-28.17	96.30
90.00	16 45 32	3067.85	-27.92	98.62	288.30	85.31	17 36 40	2067.8	-27.06	89.65
100.00	18 17 19	2771.77	-29.65	78.00	288.45	86.26	19 3 30	1771.8	-28.17	47.67
110.00	19 48 17	2487.04	-34.14	53.61	288.67	88.86	20 29 44	1487.0	-31.03	25.31

DIFFERENTIAL CORRECTIONS

TDE	-.5031	TRA	-1.6192	TC3	.3279	BAU	.1438
RDE	-.4129	RRA	.3098	RC3	-.1910	FAU	.08450
FDE	.9015	FRA	2.4264	FC3	-2.5604	BSP	3306
BDE	.6508	BRA	1.6486	BC3	.3795	FSP	496

MID-COURSE EXECUTION ACCURACY

SGT	1938.5	SGR	600.8	SG3	345.6
RRT	-.4032	RRF	.4517	RTF	-.8378
SGB	2029.5	R23	-.0929	R13	.8417
SG1	1954.9	SG2	545.2	THA	172.27

ORBIT DETERMINATION ACCURACY

ST	38.5	SR	22.8	SS	34.3
CRT	.5199	CRS	.5919	CST	.9947
LSA	53.3	MSA	18.5	SSA	1.4
EL1	40.8	EL2	18.4	ALF	21.78

LAUNCH DATE JUL 9 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 388.028 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.918	GAL	-4.58	AZL	89.85	HCA	126.80	SMA	223.09	ECC	.32899	INC	.1520	V1	29.292
RP	221.58	LAP	.12	LOP	85.15	VP	24.583	GAP	19.08	AZP	90.09	TAL	341.42	TAP	107.92	RCA	150.14	APO	296.03	V2	24.819
RC	90.414	GL	.89	GP	-7.43	ZAL	120.43	ZAP	165.61	ETS	208.16	ZAE	164.84	ETE	329.09	ZAC	76.80	ETC	283.38	LVI	-10.90

PLANETOCENTRIC CONIC

C3	27.447	VHL	5.239	DLA	17.88	RAL	44.32	RAD	6646.0	VEL	12.141	PTH	7.11	VHP	6.066	DPA	7.04	RAP	38.87	ECC	1.4817

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 59 3	3572.27	-47.12	134.87	286.92	97.55	14 58 35	2572.3	-38.78	103.62
60.00	14 17 50	3522.24	-40.23	131.23	287.78	92.71	15 16 32	2522.2	-34.75	101.56
70.00	14 46 59	3439.36	-34.14	124.62	287.88	88.90	15 43 16	2439.4	-31.02	98.33
80.00	15 31 8	3297.86	-29.64	113.67	287.66	86.26	16 26 6	2297.9	-28.18	96.34
90.00	16 41 59	3069.15	-27.91	98.72	287.51	85.26	17 33 8	2069.2	-27.07	89.74
100.00	18 14 0	2772.33	-29.64	78.04	287.66	86.26	19 0 12	1772.3	-28.18	47.71
110.00	19 48 28	2486.18	-34.14	53.54	287.88	88.90	20 26 32	1486.2	-31.02	25.28

DIFFERENTIAL CORRECTIONS

TDE	-.5081	TRA	-1.6107	TC3	.3588	BAU	.1517
RDE	-.3958	RRA	.3158	RC3	-.2104	FAU	.08810
FDE	.9584	FRA	2.5172	FC3	-2.7788	BSP	3389
BDE	.6417	BRA	1.6413	BC3	.4133	FSP	528

MID-COURSE EXECUTION ACCURACY

SGT	1967.2	SGR	606.3	SG3	368.9
RRT	-.4315	RRF	.4833	RTF	-.8481
SGB	2058.6	R23	-.0998	R13	.8467
SG1	1986.0	SG2	541.8	THA	171.81

ORBIT DETERMINATION ACCURACY

ST	39.2	SR	22.3	SS	35.6
CRT	.5108	CRS	.5867	CST	.9944
LSA	54.4	MSA	18.3	SSA	1.4
EL1	41.2	EL2	18.2	ALF	20.38

LAUNCH DATE JUL 9 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 391.341 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.849	GAL	-4.46	AZL	89.80	HCA	127.60	SMA	221.40	ECC	.32166	INC	.1989	V1	29.292
RP	221.90	LAP	.16	LOP	84.25	VP	24.428	GAP	18.76	AZP	90.12	TAL	341.54	TAP	109.14	RCA	150.19	APO	292.62	V2	24.778
RC	92.473	GL	1.31	GP	-7.72	ZAL	120.24	ZAP	162.74	ETS	207.71	ZAE	164.27	ETE	328.18	ZAC	76.46	ETC	283.31	LVI	-10.54

PLANETOCENTRIC CONIC

C3	26.599	VHL	5.157	DLA	18.14	RAL	44.08	RAD	6645.7	VEL	12.106	PTH	7.08	VHP	5.904	DPA	6.86	RAP	39.22	ECC	1.4378

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 56 51	3569.84	-47.09	134.64	286.13	97.73	14 56 21	2569.8	-38.69	103.45
60.00	14 15 17	3520.77	-40.22	131.10	287.00	92.79	15 13 57	2520.8	-34.72	101.45
70.00	14 42 58	3439.23	-34.14	124.61	287.12	88.91	15 40 18	2439.2	-31.02	98.32
80.00	15 27 38	3299.27	-29.64	113.78	286.89	86.20	16 22 37	2299.3	-28.20	96.44
90.00	16 38 14	3071.36	-27.90	98.88	286.74	85.18	17 29 25	2071.4	-27.09	89.90
100.00	18 10 29	2773.75	-29.64	78.14	286.89	86.20	18 56 43	1773.7	-28.20	47.81
110.00	19 42 25	2486.05	-34.14	53.53	287.12	88.91	20 23 51	1486.0	-31.02	25.24

DIFFERENTIAL CORRECTIONS

TDE	-.5067	TRA	-1.6006	TC3	.3845	BAU	.1596
RDE	-.3785	RRA	.3226	RC3	-.2315	FAU	.09188
FDE	1.0071	FRA	2.6107	FC3	-2.9904	BSP	3425
BDE	.6325	BRA	1.6328	BC3	.4488	FSP	564

MID-COURSE EXECUTION ACCURACY

SGT	1993.8	SGR	613.3	SG3	387.2
RRT	-.4610	RRF	.5157	RTF	-.8466
SGB	2086.0	R23	-.1067	R13	.8516
SG1	2015.3	SG2	538.4	THA	171.31

ORBIT DETERMINATION ACCURACY

ST	39.8	SR	21.6	SS	36.9
CRT	.5000	CRS	.5805	CST	.9940
LSA	55.6	MSA	18.1	SSA	1.4
EL1	41.6	EL2	18.0	ALF	19.02

LAUNCH DATE JUL 9 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 394.696 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.786	GAL	-4.38	AZL	89.75	HCA	128.70	SMA	219.83	ECC	.31660	INC	.2477	V1	29.292
RP	222.28	LAP	.19	LOP	55.35	VP	24.298	GAP	18.45	AZP	90.16	TAL	341.66	TAP	110.36	RCA	150.24	APO	289.43	V2	24.736
RC	94.587	GL	1.65	GP	-8.03	ZAL	120.06	ZAP	161.86	ETS	207.32	ZAE	164.05	ETE	327.12	ZAC	76.12	ETC	283.30	LVI	-10.18

PLANETOCENTRIC CONIC

C3	25.806	VHL	5.080	DLA	18.41	RAL	43.76	RAD	6645.3	VEL	12.074	PTH	7.05	VHP	5.747	DPA	6.66	RAP	39.56	ECC	1.4247

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 54 33	3568.00	-47.08	134.47	285.37	97.86	14 54 2	2568.0	-38.63	103.31
60.00	14 12 36	3519.97	-40.22	131.03	286.26	92.84	15 11 16	2520.0	-34.70	101.40
70.00	14 39 48	3439.86	-34.14	124.66	286.38	88.88	15 37 8	2439.9	-31.03	96.37
80.00	15 23 56	3301.57	-29.63	113.95	286.14	86.11	16 18 57	2301.6	-28.23	86.61
90.00	16 34 16	3074.53	-27.88	97.11	285.99	85.07	17 25 30	2074.5	-27.13	70.13
100.00	18 6 48	2776.04	-29.63	75.31	286.14	86.11	18 53 4	1776.0	-28.23	47.98
110.00	19 39 15	2486.66	-34.14	53.58	286.38	88.88	20 20 41	1486.7	-31.03	25.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5087	TRA	-1.5903	TC3	.4129	BAU	.1673	SGT	2019.7	SGR	621.8	SG3	409.6	ST	40.3	SR	21.2	SS	38.4
RDE	-.3611	RRA	.3301	RC3	-.2544	FAU	.09581	RRT	-.4910	RRF	.5488	RTF	-.8507	CRT	.4876	CRS	.5726	CST	.9936
FDE	1.0657	FRA	2.7079	FC3	-3.2144	BSP	3483	SGB	2113.2	R23	-.1142	R13	.8564	LSA	56.8	MSA	17.8	SSA	1.4
BDE	.6238	BRA	1.6242	BC3	.4849	FSP	601	SG1	2044.3	SG2	535.1	THA	170.77	EL1	42.0	EL2	17.8	ALF	17.65

LAUNCH DATE JUL 9 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 398.088 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.726	GAL	-4.30	AZL	89.70	HCA	129.80	SMA	218.37	ECC	.31179	INC	.2971	V1	29.292
RP	222.67	LAP	.23	LOP	56.45	VP	24.172	GAP	18.13	AZP	90.19	TAL	341.78	TAP	111.58	RCA	150.28	APO	286.45	V2	24.694
RC	96.756	GL	2.00	GP	-8.35	ZAL	119.87	ZAP	160.95	ETS	206.98	ZAE	163.86	ETE	325.93	ZAC	75.76	ETC	283.30	LVI	-9.81

PLANETOCENTRIC CONIC

C3	25.063	VHL	5.006	DLA	18.70	RAL	43.47	RAD	6645.0	VEL	12.043	PTH	7.03	VHP	5.595	DPA	6.44	RAP	39.69	ECC	1.4125

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 52 10	3566.79	-47.07	134.35	284.65	97.95	14 51 37	2566.8	-38.59	103.23
60.00	14 9 48	3519.85	-40.22	131.02	285.55	92.84	15 8 27	2519.8	-34.69	101.39
70.00	14 36 29	3441.29	-34.14	124.77	285.66	88.81	15 33 50	2441.3	-31.05	96.47
80.00	15 20 1	3304.79	-29.61	114.18	285.42	85.99	16 15 6	2304.8	-28.26	86.64
90.00	16 30 4	3078.70	-27.86	97.41	285.26	84.92	17 21 22	2078.7	-27.17	70.43
100.00	18 2 53	2779.26	-29.61	75.55	285.42	85.99	18 49 12	1779.3	-28.26	48.21
110.00	19 35 55	2488.11	-34.14	53.69	285.66	88.81	20 17 23	1488.1	-31.05	25.39

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5108	TRA	-1.5792	TC3	.4416	BAU	.1751	SGT	2044.0	SGR	632.2	SG3	433.2	ST	40.9	SR	20.6	SS	39.8
RDE	-.3434	RRA	.3383	RC3	-.2792	FAU	.09998	RRT	-.5214	RRF	.5824	RTF	-.8546	CRT	.4732	CRS	.5629	CST	.9931
FDE	1.1286	FRA	2.8077	FC3	-3.4535	BSP	3543	SGB	2139.6	R23	-.1222	R13	.8608	LSA	56.1	MSA	17.5	SSA	1.5
BDE	.6155	BRA	1.6150	BC3	.5225	FSP	640	SG1	2072.4	SG2	532.1	THA	170.19	EL1	42.3	EL2	17.5	ALF	16.26

LAUNCH DATE JUL 9 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 401.514 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.668	GAL	-4.22	AZL	89.65	HCA	130.89	SMA	218.99	ECC	.30723	INC	.3482	V1	29.292
RP	223.06	LAP	.26	LOP	57.54	VP	24.049	GAP	17.82	AZP	90.23	TAL	341.90	TAP	112.79	RCA	150.33	APO	283.66	V2	24.652
RC	98.976	GL	2.37	GP	-8.69	ZAL	119.67	ZAP	160.02	ETS	206.69	ZAE	163.71	ETE	324.60	ZAC	75.38	ETC	283.30	LVI	-9.43

PLANETOCENTRIC CONIC

C3	24.367	VHL	4.936	DLA	19.00	RAL	43.17	RAD	6644.7	VEL	12.014	PTH	7.01	VHP	5.448	DPA	6.19	RAP	40.21	ECC	1.4010

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 49 40	3566.22	-47.08	134.30	283.97	97.99	14 49 6	2566.2	-38.57	103.19
60.00	14 8 51	3520.48	-40.22	131.07	284.86	92.81	15 5 32	2520.4	-34.71	101.43
70.00	14 32 58	3443.54	-34.13	124.95	284.96	88.71	15 30 22	2443.5	-31.09	96.64
80.00	15 15 54	3308.99	-29.59	114.49	284.71	85.83	16 11 3	2309.0	-28.31	87.14
90.00	16 25 37	3083.94	-27.82	97.79	284.54	84.73	17 17 1	2083.9	-27.22	70.80
100.00	17 58 46	2783.47	-29.59	75.86	284.71	85.83	18 45 9	1783.5	-28.31	48.51
110.00	19 32 25	2490.36	-34.13	53.87	284.96	88.71	20 13 55	1490.4	-31.09	25.86

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5131	TRA	-1.5672	TC3	.4697	BAU	.1626	SGT	2066.7	SGR	644.7	SG3	457.8	ST	41.5	SR	19.9	SS	41.4
RDE	-.3284	RRA	.3472	RC3	-.3060	FAU	.10431	RRT	-.5519	RRF	.6159	RTF	-.8581	CRT	.4564	CRS	.5510	CST	.9927
FDE	1.1988	FRA	2.9103	FC3	-3.7058	BSP	3998	SGB	2164.9	R23	-.1307	R13	.8651	LSA	59.4	MSA	17.2	SSA	1.8
BDE	.6078	BRA	1.6052	BC3	.5606	FSP	682	SG1	2099.2	SG2	529.3	THA	169.56	EL1	42.7	EL2	17.2	ALF	14.86

LAUNCH DATE JUL 9 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 404.971 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.614	GAL	-4.15	AZL	89.60	HCA	131.97	SMA	215.70	ECC	.30289	INC	.4010	V1	29.292
RP	223.44	LAP	.30	LOP	58.62	VP	23.930	GAP	17.51	AZP	90.27	TAL	342.03	TAP	114.00	RCA	150.37	APO	281.04	V2	24.611
RC	101.244	GL	2.76	GP	-9.04	ZAL	119.48	ZAP	159.07	ETS	206.43	ZAE	163.59	ETE	323.12	ZAC	74.99	ETC	283.30	LVI	-9.03

PLANETOCENTRIC CONIC

C3	23.715	VHL	4.870	DLA	19.32	RAL	42.86	RAD	6644.5	VEL	11.987	PTH	6.98	VHP	5.306	DPA	5.92	RAP	40.51	ECC	1.3903

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 47 3	3566.27	-47.06	134.30	283.32	97.98	14 46 29	2566.3	-38.57	103.19
60.00	14 3 46	3521.75	-40.22	131.18	284.21	92.73	15 2 28	2521.8	-34.74	101.53
70.00	14 29 17	3446.62	-34.13	125.19	284.29	88.96	15 26 44	2446.6	-31.15	96.86
80.00	15 11 32	3314.19	-29.56	114.88	284.02	85.63	16 6 46	2314.2	-28.37	87.52
90.00	16 20 54	3090.26	-27.78	98.25	283.85	84.50	17 12 24	2090.3	-27.28	71.25
100.00	17 54 24	2788.66	-29.56	76.25	284.02	85.63	18 40 52	1788.7	-28.37	48.89
110.00	19 28 43	2493.44	-34.13	54.11	284.29	88.56	20 10 17	1493.4	-31.15	25.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5009	TRA	-1.5401	TC3	.5220	BAU	.1967	SGT	2071.9	SGR	659.6	SG3	483.8	ST	41.2	SR	19.3	SS	42.9
RDE	-.3071	RRA	.3569	RC3	-.3353	FAU	.10888	RRT	-.5908	RRF	.6494	RTF	-.8678	CRT	.4278	CRS	.5362	CST	.9911
FDE	1.2675	FRA	3.0159	FC3	-3.9748	BSP	3471	SGB	2174.4	R23	-.1261	R13	.8752	LSA	60.2	MSA	17.0	SSA	1.5
BDE	.5875	BRA	1.5809	BC3	.6204	FSP	724	SG1	2110.7	SG2	522.4	THA	168.64	EL1	42.2	EL2	17.0	ALF	13.55

LAUNCH DATE JUL 9 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 408.436 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.563	GAL	-4.08	AZL	89.54	HCA	133.06	SNA	214.50	ECC	.29879	INC	.4552
RP	223.83	LAP	.33	LOP	59.71	VP	23.814	GAP	17.21	AZP	90.31	TAL	342.15	TAP	115.21	RCA	150.41	APO	278.59
RC	103.360	GL	3.17	GP	-9.42	ZAL	118.28	ZAP	158.09	ETS	206.21	ZAE	163.49	ETE	321.48	ZAC	74.59	ETC	283.30

V1	29.292																		
V2	24.569																		
LVI	-8.62																		

PLANETOCENTRIC CONIC

C3	23.107	VHL	4.807	DLA	19.66	RAL	42.54	RAD	6644.2	VEL	11.962	PTH	6.96	VHP	5.168	DPA	5.62	RAP	40.60

ECC	1.3803																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 44 20	3567.08	-47.07	134.38	282.72	97.93	14 43 47	2567.1	-38.60	103.25
60.00	14 0 33	3523.87	-40.23	131.36	283.59	92.61	14 59 17	2523.9	-34.80	101.68
70.00	14 25 24	3450.66	-34.12	128.50	283.65	88.38	15 22 55	2450.7	-31.22	97.16
80.00	15 6 55	3320.53	-29.53	115.38	283.36	85.38	16 2 16	2320.5	-28.45	87.87
90.00	16 15 54	3097.65	-27.73	98.80	283.17	84.23	17 7 32	2097.9	-27.34	71.60
100.00	17 49 47	2795.00	-29.83	78.72	283.36	85.38	18 36 22	1795.0	-28.45	49.34
110.00	19 24 51	2497.48	-34.12	54.42	283.65	88.38	20 6 28	1497.5	-31.22	26.07

DIFFERENTIAL CORRECTIONS

TDE	-.5098	TRA	-1.5324	TC3	.5398	BAU	.2016												
RDE	-.2882	RRA	.3674	RC3	-.3668	FAU	.11368												
FDE	1.3448	FRA	3.1244	FC3	-4.2590	BSP	3600												
BDE	.5884	BRA	1.5759	BC3	.6827	FSP	769												

MID-COURSE EXECUTION ACCURACY

SGT	2097.7	SGR	677.2	SG3	511.0														
RRT	-.6169	RRF	.6822	RTF	-.8681														
SGB	2204.3	R23	-.1413	R13	.8786														
SG1	2141.8	SG2	522.1	THA	168.01														

ORBIT DETERMINATION ACCURACY

ST	42.1	SR	18.5	SS	44.6														
CRT	.4079	CRS	.5179	CST	.9911														
LSA	61.6	MSA	18.7	SSA	1.8														
EL1	42.9	EL2	18.6	ALF	18.03														

LAUNCH DATE JUL 9 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 411.987 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.514	GAL	-4.01	AZL	89.49	HCA	134.14	SNA	213.37	ECC	.29489	INC	.5112
RP	224.22	LAP	.37	LOP	60.79	VP	23.702	GAP	16.91	AZP	90.36	TAL	342.27	TAP	116.41	RCA	150.45	APO	276.29
RC	108.921	GL	3.60	GP	-9.82	ZAL	118.08	ZAP	157.10	ETS	206.03	ZAE	163.42	ETE	319.68	ZAC	74.17	ETC	283.31

V1	29.292																		
V2	24.827																		
LVI	-8.20																		

PLANETOCENTRIC CONIC

C3	22.539	VHL	4.748	DLA	20.02	RAL	42.22	RAD	6644.0	VEL	11.939	PTH	6.94	VHP	5.038	DPA	5.30	RAP	41.08

ECC	1.3709																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 41 30	3568.53	-47.08	134.52	282.15	97.82	14 40 58	2568.5	-38.65	103.35
60.00	13 57 10	3526.78	-40.24	131.61	283.00	92.44	14 55 57	2526.8	-34.87	101.69
70.00	14 21 19	3455.65	-34.11	128.89	283.04	88.15	15 18 55	2455.6	-31.30	97.52
80.00	15 2 2	3328.03	-29.49	115.90	282.72	85.09	15 57 30	2328.0	-28.53	88.52
90.00	16 10 35	3106.73	-27.67	99.44	282.52	83.92	17 2 22	2106.7	-27.42	72.44
100.00	17 44 54	2802.50	-29.49	77.27	282.72	85.09	18 31 36	1802.5	-28.53	49.88
110.00	19 20 46	2502.46	-34.11	54.81	283.04	88.15	20 2 28	1502.5	-31.30	26.44

DIFFERENTIAL CORRECTIONS

TDE	-.5157	TRA	-1.5219	TC3	.5595	BAU	.2074												
RDE	-.2668	RRA	.3788	RC3	-.4007	FAU	.11862												
FDE	1.4276	FRA	3.2367	FC3	-4.5563	BSP	3697												
BDE	.5816	BRA	1.5684	BC3	.6882	FSP	817												

MID-COURSE EXECUTION ACCURACY

SGT	2119.2	SGR	697.7	SG3	539.4														
RRT	-.6434	RRF	.7140	RTF	-.8691														
SGB	2231.1	R23	-.1549	R13	.8788														
SG1	2169.2	SG2	521.7	THA	167.29														

ORBIT DETERMINATION ACCURACY

ST	42.8	SR	17.8	SS	46.4														
CRT	.3815	CRS	.4953	CST	.9908														
LSA	63.5	MSA	16.3	SSA	1.5														
EL1	43.4	EL2	16.2	ALF	10.50														

LAUNCH DATE JUL 9 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 415.503 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.468	GAL	-3.94	AZL	89.43	HCA	135.21	SNA	212.31	ECC	.29119	INC	.5692
RP	224.61	LAP	.40	LOP	61.86	VP	23.593	GAP	16.61	AZP	90.40	TAL	342.39	TAP	117.60	RCA	150.49	APO	274.13
RC	108.326	GL	4.05	GP	-10.23	ZAL	118.89	ZAP	156.08	ETS	205.87	ZAE	163.35	ETE	317.71	ZAC	73.73	ETC	283.33

V1	29.292																		
V2	24.485																		
LVI	-7.76																		

PLANETOCENTRIC CONIC

C3	22.009	VHL	4.691	DLA	20.39	RAL	41.89	RAD	6643.7	VEL	11.917	PTH	6.92	VHP	4.907	DPA	4.95	RAP	41.54

ECC	1.3622																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 38 32	3570.72	-47.10	134.73	281.63	97.66	14 38 3	2570.7	-38.73	103.51
60.00	13 53 38	3530.51	-40.25	131.93	282.45	92.23	14 52 28	2530.5	-34.96	102.16
70.00	14 17 1	3461.62	-34.10	126.36	282.45	87.87	15 14 43	2461.6	-31.40	97.96
80.00	14 56 51	3336.75	-29.44	116.54	282.10	84.76	15 52 28	2336.8	-28.62	89.15
90.00	16 4 56	3116.99	-27.60	100.18	281.89	83.55	16 56 53	2117.0	-27.51	73.18
100.00	17 39 43	2811.23	-29.44	77.91	282.10	84.76	18 26 34	1811.2	-28.62	50.52
110.00	19 16 28	2508.44	-34.10	55.28	282.45	87.87	19 58 16	1508.4	-31.40	26.87

DIFFERENTIAL CORRECTIONS

TDE	-.5202	TRA	-1.5083	TC3	.5812	BAU	.2140												
RDE	-.2486	RRA	.3911	RC3	-.4373	FAU	.12379												
FDE	1.5167	FRA	3.3509	FC3	-4.8694	BSP	3770												
BDE	.5766	BRA	1.5582	BC3	.7274	FSP	868												

MID-COURSE EXECUTION ACCURACY

SGT	2136.2	SGR	721.3	SG3	569.0														
RRT	-.6698	RRF	.7445	RTF	-.8707														
SGB	2254.7	R23	-.1671	R13	.8817														
SG1	2193.5	SG2	521.6	THA	166.48														

ORBIT DETERMINATION ACCURACY

ST	43.3	SR	17.0	SS	48.2														
CRT	.3481	CRS	.4666	CST	.9904														
LSA	65.1	MSA	16.0	SSA	1.5														
EL1	43.8	EL2	15.8	ALF	8.95														

LAUNCH DATE JUL 9 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 419.061 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.424	GAL	-3.88	AZL	89.37	HCA	136.28	SNA	211.31	ECC	.28769	INC	.6291
RP	225.00	LAP	.43	LOP	62.94	VP	23.487	GAP	16.31	AZP	90.45	TAL	342.51	TAP	118.79	RCA	150.52	APO	272.11
RC	110.773	GL	4.53	GP	-10.68	ZAL	118.69	ZAP	155.04	ETS	205.75	ZAE	163.30	ETE	315.56	ZAC	73.28	ETC	283.34

V1	29.292																		
V2	24.443																		
LVI	-7.31																		

PLANETOCENTRIC CONIC

C3	21.515	VHL	4.638	DLA	20.79	RAL	41.58	RAD	6643.5	VEL	11.896	PTH	6.91	VHP	4.783	DPA	4.57	RAP	41.59

ECC	1.3541																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 35 26	3573.67	-47.13	135.01	281.14	97.45	14 35 0	2573.7	-38.83	103.72
60.00	13 49 55	3533.11	-40.26	132.32	281.93	91.96	14 48 50	2535.1	-35.08	102.50
70.00	14 12 29	3468.65	-34.08	126.91	281.89	87.55	15 10 18	2468.6	-31.52	98.47
80.00	14 51 21	3346.81	-29.37	117.28	281.50	84.38	15 47 8	2346.8	-28.73	89.88
90.00	15 58 53	3128.75	-27.50	101.03	281.27	83.14	16 51 2	2128.8	-27.60	74.02
100.00	17 34 13	2821.28	-29.37	78.65	281.50	84.38	18 21 14	1821.3	-28.73	51.25
110.00	19 11 56	2515.46	-34.08	55.82	281.89	87.55	19 53 51	1515.5	-31.52	27.39

DIFFERENTIAL CORRECTIONS

TDE	-.5237	TRA	-1.4932	TC3	.6034	BAU	.2212												
RDE	-.2280	RRA	.4044	RC3	-.4769	FAU	.12918												
FDE	1.6120	FRA	3.4686	FC3	-5.1981	BSP	3829												
BDE	.5712	BRA	1.5470	BC3	.7691	FSP	920												

MID-COURSE EXECUTION ACCURACY

SGT	2150.5	SGR	748.7	SG3	600.0														
RRT	-.6954	RRF	.7734	RTF	-.8725														
SGB	2277.1	R23	-.1788	R13	.8849														
SG1	2216.4	SG2	522.0	THA	165.57														

ORBIT DETERMINATION ACCURACY

ST	43.9	SR	16.2	SS	50.1														
CRT	.3063	CRS	.4306	CST	.9899														
LSA	66.7	MSA	15.6	SSA	1.5														
EL1	44.2	EL2	15.3	ALF	7.35														

LAUNCH DATE JUL 9 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 422.639 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.382	GAL	-3.82	AZL	89.31	HCA	137.35	SMA	210.38	ECC	.28436	INC	.6910
RP	225.39	LAP	.47	LOP	64.00	VP	23.384	GAP	16.02	AZP	90.51	TAL	342.62	TAP	119.98	RCA	150.56	APO	270.20
RC	113.259	GL	5.02	GP	-11.14	ZAL	118.49	ZAP	153.97	ETS	205.64	ZAE	163.24	ETE	313.23	ZAC	72.81	ETC	283.37

VI	29.292																		
V2	24.401																		
LVI	-6.84																		

PLANETOCENTRIC CONIC

C3	21.055	VHL	4.589	DLA	21.21	RAL	41.22	RAD	6643.3	VEL	11.877	PTH	6.89	VHP	4.664	DPA	4.16	RAP	41.83

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 32 13	3577.40	-47.16	135.36	280.70	97.18	14 31 50	2577.4	-38.95	103.99
60.00	13 46 1	3540.62	-40.27	132.79	281.44	91.65	14 45 2	2540.6	-35.21	102.91
70.00	14 7 42	3476.78	-34.05	127.54	281.36	87.18	15 5 39	2476.8	-31.65	99.07
80.00	14 45 29	3358.28	-29.29	118.13	280.92	83.94	15 41 28	2358.3	-28.84	90.71
90.00	15 52 26	3142.15	-27.39	101.99	280.67	82.67	16 44 48	2142.2	-27.70	74.99
100.00	17 28 21	2832.76	-29.29	79.50	280.92	83.94	18 15 34	1832.8	-28.84	52.08
110.00	19 7 8	2523.60	-34.05	56.46	281.36	87.18	19 49 12	1523.6	-31.65	27.99

TOE	-.5268	TRA	-1.4764	TC3	.6244	BAU	.2286												
RDE	-.2064	RRA	.4186	RC3	-.5196	FAU	.13479												
FDE	1.7146	FRA	3.5884	FC3	-5.5423	BSP	3878												
BDE	.5658	BRA	1.5346	BC3	.6123	FSP	975												

DIFFERENTIAL CORRECTIONS

MID-COURSE EXECUTION ACCURACY

SGT	2161.5	SGR	779.8	SG3	632.3														
RRT	-.7194	RRF	.8005	RTF	-.8742														
SGB	2297.8	R23	-.1904	R13	.8883														
SG1	2237.5	SG2	523.3	THA	164.59														

ORBIT DETERMINATION ACCURACY

ST	44.3	SR	15.4	SS	52.1														
CRT	.2545	CRS	.3854	CST	.9893														
LSA	68.4	MSA	15.2	SSA	1.6														
EL1	44.5	EL2	14.8	ALF	5.69														

LAUNCH DATE JUL 9 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 426.236 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.342	GAL	-3.76	AZL	89.24	HCA	138.42	SMA	209.50	ECC	.28120	INC	.7554
RP	225.78	LAP	.50	LOP	65.07	VP	23.284	GAP	15.73	AZP	90.57	TAL	342.74	TAP	121.15	RCA	150.59	APO	268.42
RC	115.782	GL	5.54	GP	-11.63	ZAL	118.29	ZAP	152.87	ETS	205.56	ZAE	163.17	ETE	310.72	ZAC	72.31	ETC	283.39

VI	29.292																		
V2	24.359																		
LVI	-6.35																		

PLANETOCENTRIC CONIC

C3	20.627	VHL	4.542	DLA	21.66	RAL	40.88	RAD	6643.1	VEL	11.859	PTH	6.87	VHP	4.549	DPA	3.71	RAP	42.08

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 28 50	3581.94	-47.20	135.79	280.31	96.84	14 28 32	2581.9	-39.11	104.31
60.00	13 41 56	3547.07	-40.28	133.34	280.99	91.28	14 41 3	2547.1	-35.37	103.38
70.00	14 2 38	3486.10	-34.02	128.27	280.85	86.75	15 0 44	2486.1	-31.80	99.75
80.00	14 39 14	3371.31	-29.19	119.08	280.37	83.45	15 35 26	2371.3	-28.96	91.66
90.00	15 45 30	3157.35	-27.25	103.09	280.09	82.14	16 38 8	2157.4	-27.80	76.09
100.00	17 22 6	2845.78	-29.19	80.45	280.37	83.45	18 9 32	1845.8	-28.96	53.03
110.00	19 2 4	2532.92	-34.02	57.18	280.85	86.75	19 44 17	1532.9	-31.80	28.67

TOE	-.5294	TRA	-1.4583	TC3	.6441	BAU	.2364												
RDE	-.1837	RRA	.4339	RC3	-.5655	FAU	.14060												
FDE	1.8242	FRA	3.7098	FC3	-5.9008	BSP	3922												
BDE	.5604	BRA	1.5214	BC3	.6571	FSP	1033												

DIFFERENTIAL CORRECTIONS

MID-COURSE EXECUTION ACCURACY

SGT	2169.4	SGR	815.1	SG3	665.8														
RRT	-.7417	RRF	.8255	RTF	-.8757														
SGB	2317.5	R23	-.2016	R13	.8917														
SG1	2257.1	SG2	525.5	THA	163.51														

ORBIT DETERMINATION ACCURACY

ST	44.7	SR	14.6	SS	54.2														
CRT	.1902	CRS	.3281	CST	.9886														
LSA	70.2	MSA	14.9	SSA	1.6														
EL1	44.8	EL2	14.3	ALF	3.96														

LAUNCH DATE JUL 9 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 429.851 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.305	GAL	-3.71	AZL	89.18	HCA	139.48	SMA	208.68	ECC	.27821	INC	.8222
RP	226.17	LAP	.53	LOP	66.13	VP	23.186	GAP	15.44	AZP	90.63	TAL	342.85	TAP	122.32	RCA	150.62	APO	266.74
RC	118.341	GL	6.09	GP	-12.15	ZAL	118.09	ZAP	151.74	ETS	205.49	ZAE	163.08	ETE	308.02	ZAC	71.79	ETC	283.43

V1	29.292																		
V2	24.318																		
LVI	-5.83																		

PLANETOCENTRIC CONIC

C3	20.231	VHL	4.498	DLA	22.12	RAL	40.53	RAD	6642.9	VEL	11.842	PTH	6.86	VHP	4.439	DPA	3.24	RAP	42.26

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 25 18	3587.33	-47.24	136.31	279.96	96.45	14 25 6	2587.3	-39.29	104.70
60.00	13 37 38	3554.51	-40.29	133.97	280.57	90.85	14 36 52	2554.5	-35.55	103.93
70.00	13 57 16	3496.68	-33.97	129.09	280.37	86.26	14 55 32	2496.7	-31.96	100.54
80.00	14 32 33	3386.03	-29.08	120.16	279.83	82.89	15 28 59	2386.0	-29.09	92.74
90.00	15 38 3	3174.56	-27.09	104.32	279.52	81.54	16 30 57	2174.6	-27.90	77.34
100.00	17 15 25	2860.50	-29.08	81.53	279.83	82.89	18 3 5	1860.5	-29.09	54.10
110.00	18 56 42	2543.50	-33.97	58.01	280.37	86.26	19 39 6	1543.5	-31.96	29.45

TOE	-.5320	TRA	-1.4388	TC3	.6615	BAU	.2443												
RDE	-.1598	RRA	.4503	RC3	-.6148	FAU	.14662												
FDE	1.9420	FRA	3.8329	FC3	-6.2740	BSP	3967												
BDE	.5566	BRA	1.5076	BC3	.9031	FSP	1093												

DIFFERENTIAL CORRECTIONS

MID-COURSE EXECUTION ACCURACY

SGT	2174.3	SGR	854.0	SG3	700.6														
RRT	-.7618	RRF	.8484	RTF	-.8770														
SGB	2336.4	R23	-.2128	R13	.8952														
SG1	2275.7	SG2	529.1	THA	162.34														

ORBIT DETERMINATION ACCURACY

ST	45.1	SR	13.8	SS	56.4														
CRT	.1106	CRS	.2854	CST	.9880														
LSA	72.0	MSA	14.5	SSA	1.6														
EL1	45.1	EL2	13.7	ALF	2.14														

LAUNCH DATE JUL 9 1973 FLIGHT TIME 172.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 433.482 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.269	GAL	-3.66	AZL	89.11	HCA	140.53	SMA	207.90	ECC	.27838	INC	.8920
RP	226.56	LAP	.57	LOP	67.19	VP	23.091	GAP	15.15	AZP	90.69	TAL	342.95	TAP	123.49	RCA	150.65	APO	266.16
RC	120.933	GL	6.66	GP	-12.70	ZAL	117.90	ZAP	150.59	ETS	205.44	ZAE	162.97	ETE	305.15	ZAC	71.25	ETC	283.47

V1	29.292																		
V2	24.276																		
LVI	-5.30																		

PLANETOCENTRIC CONIC

C3	19.868	VHL	4.457	DLA	22.62	RAL	40.17	RAD	6642.8	VEL	11.827	PTH	6.85	VHP	4.332	DPA	2.72	RAP	42.48

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 21 37	3593.61	-47.29	136.91	279.66	95.99	14 21 30	2593.6	-39.49	105.16
60.00	13 33 6	3563.01	-40.30	134.69	280.20	90.35	14 32 29	2563.0	-35.75	104.67
70.00	13 51 34	3508.61	-33.98	130.02	279.92	85.72	14 50 2	2508.6	-32.13	101.42
80.00	14 25 22	3402.62	-28.93	121.37	279.31	82.27	15 22 4	2402.6	-29.22	93.95
90.00	15 29 58	3194.03	-26.88	108.71	278.97	80.88	16 23 12	2194.0	-28.01	78.75
100.00	17 8 13	2877.09	-28.93	82.74	279.31	82.27	17 56 10	1877.1	-29.22	55.32
110.00	18 51 0	2556.43	-33.98	58.93	279.92	85.72	19 33 36	1556.4	-32.13	30.34

TOE	-.5341	TRA	-1.4180	TC3	.6788	BAU	.2525												
RDE	-.1349	RRA	.4678	RC3	-.6679	FAU	.15283												
FDE	2.0678	FRA	3.9568	FC3	-6.6602	BSP	4007												
BDE	.5508	BRA	1.4932	BC3	.9509	FSP	1158												

DIFFERENTIAL CORRECTIONS

MID-COURSE EXECUTION ACCURACY

SGT	2178.0	SGR	899.4	SG3	736.6														
RRT	-.7801	RRF	.8691	RTF	-.8781														
SGB	2354.6	R23	-.2234	R13	.8987														
SG1	2293.2	SG2	534.0	THA	161.06														

ORBIT DETERMINATION ACCURACY

ST	45.4	SR	13.1	SS	58.7														
CRT	.0123	CRS	.1639	CST	.9873														
LSA	74.0	MSA	14.1	SSA	1.6														
EL1	45.4	EL2	13.1	ALF	.22														

LAUNCH DATE JUL 9 1973 FLIGHT TIME 174.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 437.128 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.235	GAL	-3.61	AZL	89.04	HCA	141.59	SMA	207.18	ECC	.27270	INC	.9648	V1	29.292
RP	226.95	LAP	.60	LOP	66.24	VP	22.999	GAP	14.67	AZP	90.76	TAL	343.06	TAP	124.65	RCA	150.66	APO	263.67	V2	24.234
RC	123.556	GL	7.26	GP	-13.28	ZAL	117.70	ZAP	149.40	ETS	205.41	ZAE	162.61	ETE	302.12	ZAC	70.69	ETC	283.51	LVI	-4.75

PLANETOCENTRIC CONIC

C3	19.328	VHL	4.419	DLA	23.14	RAL	39.81	RAD	6642.6	VEL	11.813	PTH	6.83	VHP	4.230	DPA	2.17	RAP	42.64	ECC	1.3214

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 17 44	3600.81	-47.34	137.60	279.41	95.46	14 17 45	2600.8	-39.73	105.69
60.00	13 28 19	3572.63	-40.30	135.51	279.86	89.80	14 27 52	2572.6	-35.97	105.29
70.00	13 45 30	3522.00	-33.84	131.05	279.50	85.11	14 44 12	2522.0	-32.32	102.42
80.00	14 17 36	3421.29	-28.75	122.73	278.80	81.58	15 14 38	2421.3	-29.35	95.32
90.00	15 21 10	3216.08	-26.64	107.27	278.42	80.13	16 14 46	2216.1	-28.10	80.36
100.00	17 0 26	2895.77	-26.75	84.10	278.80	81.58	17 48 44	1895.8	-29.35	58.69
110.00	18 44 56	2568.82	-33.84	59.97	279.50	85.11	19 27 45	1568.8	-32.32	31.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5360	TRA	-1.3963	TCS	.6897	BAU	.2612			BGT	2175.0	BGR	949.2	BGS	773.8	ST	45.6	SR	12.5	SS	61.1
RDE	-.1083	RRA	.4866	RCS	-.7249	FAU	.15925			RRT	-.7962	RRF	.6876	RTF	-.6788	CRT	-.1067	CRS	.0503	CST	.9865
FDE	2.2020	FRA	4.0821	FCS	-7.0597	BSP	4041			BGB	2373.1	RBS	-.2338	RIS	.0024	LSA	76.0	MSA	13.6	SSA	1.6
BDE	.5468	BRA	1.4787	BCS	1.0006	FSP	1219			BGI	2310.8	BGZ	840.8	THA	159.66	ELI	45.6	EL2	12.4	ALP	176.19

LAUNCH DATE JUL 9 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 440.788 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.203	GAL	-3.56	AZL	88.96	HCA	142.64	SMA	206.49	ECC	.27015	INC	1.0402	V1	29.292
RP	227.34	LAP	.63	LOP	69.29	VP	22.909	GAP	14.59	AZP	90.83	TAL	343.16	TAP	125.80	RCA	150.71	APO	262.27	V2	24.193
RC	126.208	GL	7.89	GP	-13.90	ZAL	117.51	ZAP	148.18	ETS	205.39	ZAE	162.61	ETE	298.94	ZAC	70.09	ETC	283.57	LVI	-4.17

PLANETOCENTRIC CONIC

C3	19.219	VHL	4.384	DLA	23.69	RAL	39.44	RAD	6642.8	VEL	11.800	PTH	6.82	VHP	4.132	DPA	1.58	RAP	42.81	ECC	1.3163

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 13 40	3608.97	-47.39	138.38	279.20	94.86	14 13 49	2609.0	-40.00	106.29
60.00	13 23 16	3583.40	-40.29	136.43	279.55	89.18	14 22 59	2583.4	-36.21	106.10
70.00	13 39 1	3536.95	-33.75	132.21	279.09	84.43	14 37 58	2537.0	-32.52	103.84
80.00	14 9 12	3442.28	-28.53	124.28	278.30	80.81	15 6 34	2442.3	-29.49	98.87
90.00	15 11 30	3241.11	-26.33	109.04	277.87	79.30	16 8 31	2241.1	-28.19	88.19
100.00	16 52 4	2916.76	-28.53	88.62	278.30	80.81	17 40 41	1916.8	-29.49	68.24
110.00	18 38 28	2583.77	-33.75	61.13	279.09	84.43	19 21 31	1583.8	-32.52	38.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5279	TRA	-1.3634	TCS	.7192	BAU	.2740			BGT	2158.8	BGR	1004.8	BGS	811.9	ST	45.2	SR	12.1	SS	63.4
RDE	-.0808	RRA	.5058	RCS	-.7875	FAU	.16610			RRT	-.8151	RRF	.9040	RTF	-.8828	CRT	-.2470	CRS	-.0824	CST	.9849
FDE	2.3388	FRA	4.1998	FCS	-7.4824	BSP	3988			BGB	2381.0	RBS	-.2339	RIS	.0089	LSA	77.6	MSA	13.5	SSA	1.6
BDE	.5341	BRA	1.4842	BCS	1.0864	FSP	1278			BGI	2318.6	BGZ	841.9	THA	157.97	ELI	45.3	EL2	11.7	ALP	175.85

LAUNCH DATE JUL 9 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 444.480 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.173	GAL	-3.51	AZL	88.88	HCA	143.68	SMA	205.88	ECC	.26778	INC	1.1193	V1	29.292
RP	227.73	LAP	.66	LOP	70.34	VP	22.821	GAP	14.31	AZP	90.90	TAL	343.25	TAP	126.94	RCA	150.73	APO	260.98	V2	24.182
RC	128.887	GL	8.58	GP	-14.58	ZAL	117.31	ZAP	146.94	ETS	205.38	ZAE	162.58	ETE	295.63	ZAC	69.47	ETC	283.63	LVI	-3.86

PLANETOCENTRIC CONIC

C3	18.938	VHL	4.352	DLA	24.28	RAL	39.07	RAD	6642.4	VEL	11.788	PTH	6.81	VHP	4.039	DPA	.95	RAP	42.96	ECC	1.3117

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 9 23	3618.20	-47.44	139.27	279.06	94.18	14 9 41	2618.2	-40.29	106.97
60.00	13 17 55	3595.48	-40.28	137.45	279.29	88.48	14 17 50	2595.5	-36.47	107.01
70.00	13 32 6	3553.66	-33.63	133.80	278.72	83.87	14 31 19	2553.7	-32.73	104.80
80.00	14 0 2	3466.04	-28.26	126.97	277.62	79.94	14 57 48	2466.0	-29.61	99.62
90.00	15 0 48	3269.80	-25.98	111.08	277.32	78.36	15 55 16	2269.8	-28.25	84.28
100.00	16 42 54	2940.51	-26.26	87.33	277.62	79.94	17 31 54	1940.5	-29.61	59.99
110.00	18 31 32	2600.50	-33.63	62.42	278.72	83.87	19 14 53	1600.5	-32.73	35.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5378	TRA	-1.3471	TCS	.7063	BAU	.2804			BGT	2160.0	BGR	1008.1	BGS	821.2	ST	49.9	SR	11.9	SS	66.2
RDE	-.0800	RRA	.5277	RCS	-.8115	FAU	.17280			RRT	-.8229	RRF	.9184	RTF	-.8796	CRT	-.3983	CRS	-.2393	CST	.9847
FDE	2.4966	FRA	4.3868	FCS	-7.8900	BSP	4093			BGB	2408.4	RBS	-.2407	RIS	.0104	LSA	80.3	MSA	13.1	SSA	1.6
BDE	.5398	BRA	1.4468	BCS	1.1076	FSP	1383			BGI	2342.8	BGZ	856.0	THA	156.80	ELI	48.1	EL2	10.9	ALP	173.78

LAUNCH DATE JUL 9 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 448.143 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	33.144	GAL	-3.47	AZL	88.80	HCA	144.73	SMA	205.24	ECC	.26848	INC	1.2022	V1	29.292
RP	228.12	LAP	.69	LOP	71.38	VP	22.736	GAP	14.03	AZP	90.98	TAL	343.38	TAP	128.07	RCA	150.76	APO	259.73	V2	24.110
RC	131.898	GL	9.24	GP	-15.23	ZAL	117.12	ZAP	148.68	ETS	205.38	ZAE	162.01	ETE	292.24	ZAC	68.82	ETC	283.70	LVI	-2.83

PLANETOCENTRIC CONIC

C3	18.684	VHL	4.323	DLA	24.89	RAL	38.68	RAD	6642.2	VEL	11.777	PTH	6.80	VHP	3.949	DPA	.27	RAP	43.10	ECC	1.3078

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 4 53	3628.50	-47.48	140.26	278.98	93.42	14 5 21	2628.5	-40.62	107.75
60.00	13 12 14	3606.90	-40.25	138.59	279.06	87.71	14 12 23	2606.9	-36.76	108.04
70.00	13 24 59	3572.32	-33.48	134.94	278.36	82.84	14 24 11	2572.3	-32.95	106.21
80.00	13 49 56	3492.94	-27.93	127.89	277.33	78.98	14 48 9	2492.9	-29.72	100.61
90.00	14 46 47	3302.92	-25.48	113.36	276.75	77.29	15 45 80	2302.9	-28.28	86.70
100.00	16 32 48	2967.41	-27.93	89.26	277.33	78.98	17 22 16	1967.4	-29.72	61.98
110.00	18 24 5	2619.14	-33.48	63.85	278.36	82.84	19 7 44	1619.1	-32.95	38.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5394	TRA	-1.3229	TCS	.7074	BAU	.2901			BGT	2149.9	BGR	1132.1	BGS	891.3	ST	46.0	SR	12.2	SS	66.9
RDE	-.0176	RRA	.5804	RCS	-.9212	FAU	.17943			RRT	-.8320	RRF	.9310	RTF	-.8788	CRT	-.5514	CRS	-.3999	CST	.9839
FDE	2.6627	FRA	4.4504	FCS	-8.3141	BSP	4142			BGB	2429.7	RBS	-.2581	RIS	.0140	LSA	82.8	MSA	12.8	SSA	1.6
BDE	.5397	BRA	1.4328	BCS	1.1614	FSP	1423			BGI	2361.5	BGZ	871.7	THA	154.76	ELI	46.6	EL2	10.0	ALP	171.29

LAUNCH DATE JUL 9 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 451.838 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 33.117 GAL -3.43 AZL 88.71 HCA 145.77 SMA 204.67 ECC .26332 INC 1.2891 V1 29.292
RP 228.51 LAP .73 LOP 72.42 VP 22.683 GAP 13.76 AZP 91.07 TAL 343.43 TAP 129.20 RCA 150.78 APO 258.57 V2 24.069
RC 134.321 GL 9.97 GP -15.96 ZAL 116.93 ZAP 144.33 ETS 205.38 ZAE 161.59 ETE 288.77 ZAC 68.13 ETC 283.77 LVI -2.26

PLANETOCENTRIC CONIC

C3 18.455 VHL 4.296 DLA 25.54 RAL 38.29 RAD 6642.1 VEL 11.768 PTH 6.79 VHP 3.864 DPA -.46 RAP 43.23 ECC 1.3037

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 6	3639.94	-47.52	141.36	278.92	92.57	14 0 46	2639.9	-40.97	108.62
60.00	13 6 10	3623.76	-40.20	139.86	278.87	86.85	14 6 34	2623.8	-37.06	109.18
70.00	13 16 35	3593.06	-33.30	136.53	278.02	81.92	14 16 28	2593.1	-33.18	107.79
80.00	13 38 43	3523.61	-27.51	130.08	276.83	77.91	14 37 27	2523.6	-29.81	102.89
90.00	14 35 1	3341.76	-24.87	116.04	276.15	76.08	15 30 43	2341.8	-28.25	89.54
100.00	16 21 35	2998.08	-27.51	91.44	276.83	77.91	17 11 33	1998.1	-29.81	64.26
110.00	18 16 2	2639.87	-33.30	65.44	278.02	81.92	19 0 2	1639.9	-33.18	38.70

DIFFERENTIAL CORRECTIONS

TDE -.5267 TRA-1.2828 TC3 .7334 BAU .3057
RDE .0158 RRA .5729 RC3 -.9986 FAU .18693
FDE 2.8248 FRA 4.5555 FC3-8.7688 BSP .4025
BDE .5270 BRA 1.4049 BC3 1.2390 FSP .1481

MID-COURSE EXECUTION ACCURACY

SGT 2118.0 SGR 1205.7 SG3 931.8
RRT -.8463 RRF .9418 RTF -.8827
SGB 2437.1 R23 -.2523 R13 .9215
SG1 2368.5 SG2 574.4 THA 152.53

ORBIT DETERMINATION ACCURACY

ST 45.2 SR 12.8 SS 71.5
CRT -.6898 CRS -.5455 CST .9818
LSA 84.6 MSA 12.5 SSA 1.5
EL1 46.1 EL2 9.1 ALF 168.49

LAUNCH DATE JUL 9 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 455.542 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 33.092 GAL -3.39 AZL 88.62 HCA 146.80 SMA 204.14 ECC .26129 INC 1.3805 V1 29.292
RP 228.90 LAP .76 LOP 73.46 VP 22.572 GAP 13.48 AZP 91.16 TAL 343.52 TAP 130.32 RCA 150.80 APO 257.48 V2 24.028
RC 137.073 GL 10.74 GP -16.73 ZAL 116.74 ZAP 142.98 ETS 205.39 ZAE 161.09 ETE 285.30 ZAC 67.41 ETC 283.86 LVI -1.56

PLANETOCENTRIC CONIC

C3 18.255 VHL 4.273 DLA 26.23 RAL 37.90 RAD 6642.0 VEL 11.759 PTH 6.79 VHP 3.784 DPA -1.23 RAP 43.35 ECC 1.3004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 55 4	3652.66	-47.56	142.59	278.94	91.62	13 55 56	2652.7	-41.35	109.60
60.00	12 59 43	3640.27	-40.13	141.25	278.71	85.91	14 0 23	2640.3	-37.39	110.47
70.00	13 7 51	3616.27	-33.06	138.30	277.70	80.89	14 8 7	2616.3	-33.40	109.56
80.00	13 26 4	3559.09	-26.98	132.58	276.30	76.69	14 25 23	2559.1	-29.86	105.52
90.00	14 18 48	3388.74	-24.06	119.25	275.48	74.68	15 15 16	2388.7	-28.13	92.97
100.00	16 8 56	3033.56	-26.98	93.95	276.30	76.69	16 59 29	2033.6	-29.86	66.89
110.00	18 7 17	2663.09	-33.06	67.21	277.70	80.89	18 51 41	1663.1	-33.40	38.48

DIFFERENTIAL CORRECTIONS

TDE -.5390 TRA-1.2674 TC3 .6986 BAU .3129
RDE .0547 RRA .5998 RC3-1.0748 FAU .19340
FDE 3.0216 FRA 4.6830 FC3-9.1719 BSP .4213
BDE .5417 BRA 1.4022 BC3 1.2819 FSP .1566

MID-COURSE EXECUTION ACCURACY

SGT 2114.0 SGR 1285.7 SG3 973.1
RRT -.8463 RRF .9511 RTF -.8766
SGB 2474.2 R23 -.2666 R13 .9228
SG1 2399.6 SG2 603.3 THA 150.74

ORBIT DETERMINATION ACCURACY

ST 46.0 SR 14.0 SS 74.7
CRT -.8011 CRS -.6784 CST .9819
LSA 88.0 MSA 12.2 SSA 1.6
EL1 47.4 EL2 8.1 ALF 165.86

LAUNCH DATE JUL 9 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 459.255 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 33.067 GAL -3.36 AZL 88.52 HCA 147.83 SMA 203.64 ECC .25937 INC 1.4768 V1 29.292
RP 229.26 LAP .79 LOP 74.49 VP 22.493 GAP 13.21 AZP 91.25 TAL 343.59 TAP 131.43 RCA 150.82 APO 256.45 V2 23.988
RC 139.847 GL 11.54 GP -17.54 ZAL 116.55 ZAP 141.59 ETS 205.41 ZAE 160.48 ETE 281.83 ZAC 66.65 ETC 283.96 LVI -.62

PLANETOCENTRIC CONIC

C3 18.080 VHL 4.252 DLA 26.96 RAL 37.49 RAD 6642.0 VEL 11.752 PTH 6.78 VHP 3.708 DPA -2.06 RAP 43.45 ECC 1.2975

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 49 42	3666.69	-47.57	143.95	279.01	90.58	13 50 49	2666.7	-41.77	110.69
60.00	12 52 47	3656.48	-40.03	142.79	278.59	84.87	13 53 45	2656.5	-37.72	111.90
70.00	12 58 17	3642.23	-32.76	140.26	277.37	79.77	13 59 0	2642.2	-33.61	111.56
80.00	13 11 30	3600.76	-26.29	135.48	275.73	75.31	14 11 30	2600.8	-29.83	108.62
90.00	13 58 38	3448.42	-22.93	123.25	274.68	72.98	14 56 6	2448.4	-27.84	97.31
100.00	15 54 21	3075.23	-26.29	96.85	275.73	75.31	16 45 37	2075.2	-29.83	69.99
110.00	17 57 44	2689.04	-32.76	69.18	277.37	79.77	18 42 33	1689.0	-33.61	40.47

DIFFERENTIAL CORRECTIONS

TDE -.5337 TRA-1.2329 TC3 .6978 BAU .3273
RDE .0950 RRA .6258 RC3-1.1604 FAU .20067
FDE 3.2140 FRA 4.7843 FC3-9.6092 BSP .4207
BDE .5420 BRA 1.3826 BC3 1.3541 FSP .1635

MID-COURSE EXECUTION ACCURACY

SGT 2084.0 SGR 1373.0 SG3 1014.4
RRT -.8530 RRF .9591 RTF -.8764
SGB 2495.6 R23 -.2641 R13 .9288
SG1 2418.0 SG2 617.6 THA 148.36

ORBIT DETERMINATION ACCURACY

ST 45.6 SR 15.6 SS 77.7
CRT -.8818 CRS -.7761 CST .9803
LSA 90.6 MSA 11.9 SSA 1.5
EL1 47.6 EL2 7.1 ALF 162.77

LAUNCH DATE JUL 9 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 462.976 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 33.044 GAL -3.32 AZL 88.42 HCA 148.86 SMA 203.16 ECC .25756 INC 1.5784 V1 29.292
RP 229.67 LAP .82 LOP 75.52 VP 22.416 GAP 12.94 AZP 91.35 TAL 343.67 TAP 132.53 RCA 150.84 APO 255.49 V2 23.947
RC 142.641 GL 12.39 GP -18.40 ZAL 116.35 ZAP 140.18 ETS 205.42 ZAE 159.78 ETE 278.42 ZAC 65.86 ETC 284.07 LVI -.05

PLANETOCENTRIC CONIC

C3 17.932 VHL 4.238 DLA 27.73 RAL 37.07 RAD 6641.9 VEL 11.746 PTH 6.77 VHP 3.636 DPA -2.94 RAP 43.54 ECC 1.2951

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 43 59	3682.16	-47.57	145.44	279.14	89.43	13 45 22	2682.2	-42.21	111.91
60.00	12 45 19	3678.63	-39.89	144.49	278.50	83.72	13 46 37	2678.6	-38.08	113.49
70.00	12 47 45	3671.45	-32.39	142.46	277.05	78.52	13 48 56	2671.4	-33.81	113.81
80.00	12 54 10	3651.31	-25.37	138.96	275.07	73.71	13 55 1	2651.3	-29.70	112.37
90.00	13 30 10	3534.88	-21.09	128.92	273.58	70.72	14 29 5	2534.9	-27.15	103.54
100.00	15 37 1	3125.78	-25.37	100.33	275.07	73.71	16 29 7	2125.8	-29.70	73.74
110.00	17 47 11	2718.27	-32.39	71.38	277.05	78.52	18 32 30	1718.3	-33.81	42.73

DIFFERENTIAL CORRECTIONS

TDE -.5359 TRA-1.2062 TC3 .6709 BAU .3397
RDE .1398 RRA .6546 RC3-1.2482 FAU .20744
FDE 3.4258 FRA 4.8898 FC-10.0149 BSP .4307
BDE .5539 BRA 1.3724 BC3 1.4171 FSP .1713

MID-COURSE EXECUTION ACCURACY

SGT 2061.1 SGR 1467.8 SG3 1055.7
RRT -.8537 RRF .9658 RTF -.8720
SGB 2530.3 R23 -.2664 R13 .9329
SG1 2447.1 SG2 643.9 THA 146.03

ORBIT DETERMINATION ACCURACY

ST 45.6 SR 17.8 SS 81.0
CRT -.9348 CRS -.8483 CST .9794
LSA 93.9 MSA 11.7 SSA 1.5
EL1 48.6 EL2 5.9 ALF 159.63

LAUNCH DATE JUL 9 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 466.705 EARTH TO MARS

RL	182.09	LAL	.00	LOL	286.65	VL	33.023	GAL	-3.29	AZL	88.31	HCA	149.89	SMA	202.72	ECC	.25585	INC	1.6860	V1	29.292
RP	230.05	LAP	.85	LOP	78.55	VP	22.341	GAP	12.68	AZP	91.46	TAL	343.73	TAP	133.62	RCA	150.85	APO	254.59	V2	23.907
RC	145.456	GL	13.29	GP	-19.31	ZAL	116.16	ZAP	136.69	ETS	205.43	ZAE	158.96	ETE	275.09	ZAC	65.02	ETC	284.19	LVI	.76

PLANETOCENTRIC CONIC

C3	17.811	VHL	4.220	DLA	28.54	RAL	36.63	RAD	6641.8	VEL	11.740	PTH	6.77	VHP	3.569	DPA	-3.87	RAP	43.63	ECC	1.2931

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 37 53	3699.19	-47.55	147.09	279.32	86.16	13 39 32	2699.2	-42.68	113.27
60.00	12 37 14	3700.92	-39.71	148.36	278.44	82.47	13 38 55	2700.9	-38.44	115.28
70.00	12 36 0	3704.56	-31.91	144.92	276.71	77.13	13 37 48	2704.6	-33.99	116.38
80.00	12 32 15	3716.33	-24.06	143.34	274.23	71.76	13 34 12	2716.3	-29.36	117.17
85.97	12 8 39	3802.22	-17.37	146.96	271.55	66.99	13 9 1	2802.2	-25.36	122.72
100.00	15 15 7	3190.81	-24.06	104.71	274.23	71.76	16 8 18	2190.8	-29.36	78.54
110.00	17 38 26	2751.38	-31.91	73.84	276.71	77.13	18 21 18	1751.4	-33.99	45.30

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.5340	TRA	-1.1744	TC3	.6474	BAU	.3547	SGT	2029.3	SGR	1570.6	SG3	1096.5	ST	45.3	SR	20.5	SS	84.4
RDE	.1887	RRA	.6845	RC3	-1.3414	FAU	.21417	RRT	-.8548	RRF	.9715	RTF	-.6686	CRT	-.9675	CRS	-.8980	CST	.9781
FDE	3.6492	FRA	4.9838	FC	-10.4101	BSP	4372	SGB	2566.1	R23	-.2625	R13	.9383	LSA	97.3	MSA	11.5	SSA	1.5
BDE	.5663	BRA	1.3593	BC3	1.4894	FSP	1789	SG1	2477.7	SG2	667.5	THA	143.43	EL1	49.5	EL2	4.7	ALP	156.18

LAUNCH DATE JUL 9 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 470.441 EARTH TO MARS

RL	182.09	LAL	.00	LOL	286.65	VL	33.002	GAL	-3.26	AZL	88.20	HCA	150.91	SMA	202.30	ECC	.25424	INC	1.7999	V1	29.292
RP	230.44	LAP	.87	LOP	77.87	VP	22.267	GAP	12.41	AZP	91.57	TAL	343.80	TAP	134.70	RCA	150.87	APO	253.74	V2	23.887
RC	148.289	GL	14.23	GP	-20.27	ZAL	115.98	ZAP	137.18	ETS	205.43	ZAE	158.04	ETE	271.87	ZAC	64.13	ETC	284.33	LVI	1.62

PLANETOCENTRIC CONIC

C3	17.719	VHL	4.209	DLA	29.41	RAL	36.19	RAD	6641.8	VEL	11.737	PTH	6.77	VHP	3.507	DPA	-4.87	RAP	43.70	ECC	1.2916

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 31 20	3717.91	-47.49	148.90	279.57	86.77	13 33 18	2717.9	-43.17	114.80
60.00	12 28 26	3725.62	-39.47	148.41	278.39	81.09	13 30 32	2725.6	-38.80	117.27
70.00	12 22 43	3742.50	-31.30	147.71	276.33	75.59	13 25 6	2742.5	-34.11	119.34
80.00	11 59 44	3814.96	-21.80	149.80	272.95	69.08	13 3 19	2815.0	-28.47	124.37
81.58	11 28 25	3915.26	-17.90	155.52	271.24	66.27	12 33 41	2915.3	-26.13	131.25
100.00	14 42 35	3289.44	-21.80	111.16	272.95	69.08	15 37 25	2289.4	-28.47	85.73
110.00	17 22 9	2789.32	-31.30	76.63	276.33	75.59	18 6 39	1789.3	-34.11	48.26

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.5296	TRA	-1.1393	TC3	.6210	BAU	.3716	SGT	1990.4	SGR	1681.5	SG3	1136.4	ST	44.9	SR	23.6	SS	87.8
RDE	.2417	RRA	.7151	RC3	-1.4406	FAU	.22092	RRT	-.8546	RRF	.9765	RTF	-.8645	CRT	-.9859	CRS	-.9312	CST	.9765
FDE	3.8804	FRA	5.0601	FC	-10.7940	BSP	4426	SGB	2605.6	R23	-.2554	R13	.9441	LSA	100.7	MSA	11.3	SSA	1.4
BDE	.5822	BRA	1.3451	BC3	1.5687	FSP	1859	SG1	2512.1	SG2	691.9	THA	140.61	EL1	50.6	EL2	3.5	ALP	152.49

LAUNCH DATE JUL 9 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 474.183 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.983	GAL	-3.24	AZL	88.08	HCA	151.92	SMA	201.91	ECC	.25273	INC	1.9208	V1	29.292
RP	230.82	LAP	.90	LOP	78.59	VP	22.196	GAP	12.15	AZP	91.69	TAL	343.85	TAP	135.78	RCA	150.88	APO	252.94	V2	23.827
RC	151.140	GL	15.23	GP	-21.29	ZAL	115.76	ZAP	135.63	ETS	205.43	ZAE	156.99	ETE	268.79	ZAC	63.20	ETC	284.48	LVI	2.52

PLANETOCENTRIC CONIC

C3	17.656	VHL	4.202	DLA	30.32	RAL	35.72	RAD	6641.8	VEL	11.734	PTH	6.76	VHP	3.450	DPA	-5.93	RAP	43.77	ECC	1.2906

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 24 16	3738.50	-47.39	150.88	279.86	85.24	13 26 34	2738.5	-43.69	116.51
60.00	12 18 48	3753.07	-39.15	150.68	278.36	79.58	13 21 21	2753.1	-39.16	119.52
70.00	12 7 24	3786.74	-30.51	150.91	275.87	73.85	13 10 31	2786.7	-34.15	122.79
78.58	11 3 37	3987.77	-18.45	161.17	270.97	65.50	12 10 5	2987.8	-26.94	136.86
78.58	11 3 37	3987.77	-18.45	161.17	270.97	65.50	12 10 5	2987.8	-26.94	136.86
78.58	11 3 37	3987.77	-18.45	161.17	270.97	65.50	12 10 5	2987.8	-26.94	136.86
110.00	17 6 50	2833.56	-30.51	79.83	275.87	73.85	17 54 4	1833.6	-34.15	51.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.5235	TRA	-1.1031	TC3	.5889	BAU	.3902	SGT	1947.1	SGR	1801.2	SG3	1174.8	ST	44.2	SR	27.1	SS	91.3
RDE	.2998	RRA	.7469	RC3	-1.5447	FAU	.22743	RRT	-.8526	RRF	.9804	RTF	-.8693	CRT	-.9952	CRS	-.9534	CST	.9746
FDE	4.1208	FRA	5.1230	FC	-11.1518	BSP	4494	SGB	2652.4	R23	-.2456	R13	.9502	LSA	104.4	MSA	11.2	SSA	1.4
BDE	.6033	BRA	1.3322	BC3	1.6531	FSP	1927	SG1	2553.5	SG2	717.8	THA	137.61	EL1	51.8	EL2	2.3	ALP	148.56

LAUNCH DATE JUL 9 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 477.931 EARTH TO MARS

RL	182.09	LAL	.00	LOL	286.65	VL	32.965	GAL	-3.21	AZL	87.95	HCA	152.94	SMA	201.84	ECC	.25130	INC	2.0496	V1	29.292
RP	231.20	LAP	.93	LOP	79.80	VP	22.126	GAP	11.88	AZP	91.83	TAL	343.90	TAP	136.84	RCA	150.90	APO	252.19	V2	23.787
RC	154.008	GL	16.28	GP	-22.37	ZAL	115.56	ZAP	134.04	ETS	205.41	ZAE	155.84	ETE	265.87	ZAC	62.22	ETC	284.64	LVI	3.48

PLANETOCENTRIC CONIC

C3	17.624	VHL	4.198	DLA	31.29	RAL	35.24	RAD	6641.8	VEL	11.733	PTH	6.76	VHP	3.398	DPA	-7.05	RAP	43.84	ECC	1.2901

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 16 36	3761.16	-47.24	153.05	280.21	83.58	13 19 17	2761.2	-44.23	118.42
60.00	12 8 9	3783.71	-38.75	153.18	278.32	77.93	13 11 13	2783.7	-39.51	122.05
70.00	11 49 11	3839.79	-29.44	154.68	275.29	71.86	12 53 10	2839.8	-34.06	126.93
76.01	10 43 9	4045.99	-19.01	165.81	270.73	64.66	11 50 35	3046.0	-27.79	141.49
76.01	10 43 9	4045.99	-19.01	165.81	270.73	64.66	11 50 35	3046.0	-27.79	141.49
76.01	10 43 9	4045.99	-19.01	165.81	270.73	64.66	11 50 35	3046.0	-27.79	141.49
110.00	16 48 37	2886.61	-29.44	83.59	275.29	71.86	17 36 44	1886.6	-34.06	55.85

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.5159	TRA	-1.0654	TC3	.5503	BAU	.4104	SGT	1898.6	SGR	1929.6	SG3	1211.3	ST	43.5	SR	31.1	SS	94.9
RDE	.3640	RRA	.7798	RC3	-1.6527	FAU	.23350	RRT	-.8490	RRF	.9837	RTF	-.8529	CRT	-.9985	CRS	-.9684	CST	.9724
FDE	4.3731	FRA	5.1697	FC	-11.4699	BSP	4576	SGB	2707.1	R23	-.2332	R13	.9563	LSA	108.4	MSA	11.1	SSA	1.3
BDE	.6314	BRA	1.3203	BC3	1.7419	FSP	1993	SG1	2602.9	SG2	743.8	THA	134.45	EL1	53.5	EL2	1.4	ALP	144.40

LAUNCH DATE JUL 9 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 481.685 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.948 GAL -3.19 AZL 87.81 HCA 153.95 SMA 201.20 ECC .24996 INC 2.1874 V1 29.292
RP 231.58 LAP .96 LOP 80.62 VP 22.058 GAP 11.63 AZP 91.97 TAL 343.95 TAP 137.90 RCA 150.91 APO 251.49 V2 23.748
RC 156.890 GL 17.40 GP -23.51 ZAL 115.34 ZAP 132.40 ETS 205.39 ZAE 154.56 ETE 263.10 ZAC 61.19 ETC 284.83 LVI 4.49

PLANETOCENTRIC CONIC

C3 17.626 VHL 4.198 DLA 32.33 RAL 34.73 RAD 6641.8 VEL 11.733 PTH 6.76 VHP 3.351 DPA -8.24 RAP 43.90 ECC 1.2901

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 8 15	3786.12	-47.03	155.42	280.59	81.76	13 11 21	2786.1	-44.78	120.87
60.00	11 56 16	3818.12	-38.22	155.96	278.25	76.11	12 59 54	2818.1	-39.82	124.92
70.00	11 26 16	3906.90	-27.93	159.31	274.46	69.50	12 31 23	2906.9	-33.73	132.14
73.65	10 25 3	4096.33	-19.59	169.93	270.53	63.76	11 33 20	3096.3	-28.68	145.59
73.65	10 25 3	4096.33	-19.59	169.93	270.53	63.76	11 33 20	3096.3	-28.68	145.59
73.65	10 25 3	4096.33	-19.59	169.93	270.53	63.76	11 33 20	3096.3	-28.68	145.59
110.00	16 25 43	2953.72	-27.93	88.23	274.46	69.50	17 14 56	1953.7	-33.73	61.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5037 TRA-1.0239 TC3 .5120 BAU .4334 SGT 1841.8 SGR 2067.7 SG3 1245.2 ST 42.4 SR 35.6 SS 98.5
RDE .4340 RRA .8131 RC3-1.7665 FAU .23935 RRT -.8446 RRF .9865 RTF -.8460 CRT -.9982 CRS -.9783 CST .9695
FDE 4.6292 FRA 5.1934 FC-11.7561 BSP 4649 SGB 2769.0 R23 -.2171 R13 .9626 LSA 112.5 MSA 11.1 SSA 1.2
BDE .6649 BRA 1.3075 BC3 1.8392 FSP 2051 SG1 2660.9 SG2 766.2 THA 131.09 EL1 55.4 EL2 1.7 ALF 139.96

LAUNCH DATE JUL 9 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 485.444 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.932 GAL -3.17 AZL 87.67 HCA 154.96 SMA 200.88 ECC .24870 INC 2.3347 V1 29.292
RP 231.95 LAP .99 LOP 81.63 VP 21.992 GAP 11.37 AZP 92.12 TAL 343.99 TAP 138.95 RCA 150.92 APO 250.83 V2 23.708
RC 159.785 GL 18.59 GP -24.71 ZAL 115.12 ZAP 130.73 ETS 205.34 ZAE 153.17 ETE 260.50 ZAC 60.10 ETC 285.04 LVI 5.55

PLANETOCENTRIC CONIC

C3 17.664 VHL 4.203 DLA 33.42 RAL 34.20 RAD 6641.8 VEL 11.734 PTH 6.76 VHP 3.310 DPA -9.50 RAP 43.96 ECC 1.2907

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 59 6	3813.68	-46.73	158.02	281.00	79.79	13 2 39	2813.7	-45.34	122.99
60.00	11 42 50	3857.13	-37.54	159.04	278.14	74.12	12 47 7	2857.1	-40.09	128.21
70.00	10 53 17	4004.15	-25.44	165.77	273.06	66.41	12 0 1	3004.1	-32.83	139.58
71.39	10 8 29	4141.50	-20.19	173.73	270.35	62.78	11 17 30	3141.5	-29.62	149.37
71.39	10 8 29	4141.50	-20.19	173.73	270.35	62.78	11 17 30	3141.5	-29.62	149.37
71.39	10 8 29	4141.50	-20.19	173.73	270.35	62.78	11 17 30	3141.5	-29.62	149.37
110.00	15 52 44	3050.96	-25.44	94.69	273.06	66.41	16 43 35	2051.0	-32.83	68.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4845 TRA -.9753 TC3 .4803 BAU .4601 SGT 1771.2 SGR 2215.0 SG3 1275.5 ST 40.8 SR 40.5 SS 102.0
RDE .5100 RRA .8447 RC3-1.8883 FAU .24521 RRT -.8406 RRF .9888 RTF -.8396 CRT -.9951 CRS -.9850 CST .9655
FDE 4.8829 FRA 5.1795 FC-12.0180 BSP 4674 SGB 2836.1 R23 -.1967 R13 .9692 LSA 116.5 MSA 11.2 SSA 1.2
BDE .7034 BRA 1.2902 BC3 1.9484 FSP 2088 SG1 2726.9 SG2 779.2 THA 127.49 EL1 57.4 EL2 2.9 ALF 135.17

LAUNCH DATE JUL 9 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 489.204 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.917 GAL -3.15 AZL 87.51 HCA 155.96 SMA 200.98 ECC .24752 INC 2.4934 V1 29.292
RP 232.33 LAP 1.02 LOP 82.63 VP 21.927 GAP 11.11 AZP 92.28 TAL 344.02 TAP 139.98 RCA 150.93 APO 250.22 V2 23.670
RC 162.693 GL 19.84 GP -25.98 ZAL 114.89 ZAP 129.02 ETS 205.27 ZAE 151.66 ETE 258.07 ZAC 58.96 ETC 285.27 LVI 6.67

PLANETOCENTRIC CONIC

C3 17.743 VHL 4.212 DLA 34.59 RAL 33.64 RAD 6641.8 VEL 11.738 PTH 6.77 VHP 3.276 DPA -10.83 RAP 44.03 ECC 1.2920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 48 59	3844.25	-46.32	160.85	281.44	77.63	12 53 3	2844.2	-45.89	125.73
60.00	11 27 23	3901.99	-36.65	162.52	277.93	71.91	12 32 25	2902.0	-40.26	132.01
69.19	9 52 56	4183.18	-20.80	177.32	270.22	61.72	11 2 39	3183.2	-30.60	152.95
69.19	9 52 56	4183.18	-20.80	177.32	270.22	61.72	11 2 39	3183.2	-30.60	152.95
69.19	9 52 56	4183.18	-20.80	177.32	270.22	61.72	11 2 39	3183.2	-30.60	152.95
69.19	9 52 56	4183.18	-20.80	177.32	270.22	61.72	11 2 39	3183.2	-30.60	152.95
69.19	9 52 56	4183.18	-20.80	177.32	270.22	61.72	11 2 39	3183.2	-30.60	152.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4824 TRA -.9454 TC3 .3963 BAU .4831 SGT 1726.8 SGR 2373.3 SG3 1302.8 ST 40.3 SR 46.5 SS 106.3
RDE .6012 RRA .8635 RC3-1.9977 FAU .24841 RRT -.8245 RRF .9908 RTF -.8225 CRT -.9909 CRS -.9898 CST .9632
FDE 5.1848 FRA 5.1846 FC-12.1203 BSP 4944 SGB 2935.0 R23 -.1839 R13 .9736 LSA 122.3 MSA 11.2 SSA 1.1
BDE .7709 BRA 1.2940 BC3 2.0366 FSP 2165 SG1 2817.2 SG2 823.3 THA 124.29 EL1 61.4 EL2 4.1 ALF 130.92

LAUNCH DATE JUL 9 1973 FLIGHT TIME 204.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 492.970 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.902 GAL -3.13 AZL 87.34 HCA 156.96 SMA 200.29 ECC .24642 INC 2.6642 V1 29.292
RP 232.70 LAP 1.04 LOP 83.65 VP 21.864 GAP 10.86 AZP 92.45 TAL 344.05 TAP 141.01 RCA 150.94 APO 249.65 V2 23.631
RC 165.610 GL 21.18 GP -27.32 ZAL 114.64 ZAP 127.26 ETS 205.18 ZAE 150.05 ETE 255.80 ZAC 57.75 ETC 285.52 LVI 7.86

PLANETOCENTRIC CONIC

C3 17.867 VHL 4.227 DLA 35.84 RAL 33.04 RAD 6641.9 VEL 11.743 PTH 6.77 VHP 3.248 DPA -12.24 RAP 44.09 ECC 1.2940

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 37 42	3878.24	-45.78	163.95	281.85	75.30	12 42 20	2878.2	-46.41	128.85
60.00	11 9 9	3954.61	-35.46	166.48	277.54	69.45	12 15 4	2954.6	-40.29	136.48
67.01	9 38 7	4222.16	-21.43	180.77	270.13	60.57	10 48 30	3222.2	-31.63	156.41
67.01	9 38 7	4222.16	-21.43	180.77	270.13	60.57	10 48 30	3222.2	-31.63	156.41
67.01	9 38 7	4222.16	-21.43	180.77	270.13	60.57	10 48 30	3222.2	-31.63	156.41
67.01	9 38 7	4222.16	-21.43	180.77	270.13	60.57	10 48 30	3222.2	-31.63	156.41
67.01	9 38 7	4222.16	-21.43	180.77	270.13	60.57	10 48 30	3222.2	-31.63	156.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4662 TRA -.9028 TC3 .3341 BAU .5121 SGT 1660.6 SGR 2541.6 SG3 1324.9 ST 38.9 SR 52.7 SS 110.2
RDE .6988 RRA .9182 RC3-2.1178 FAU .25195 RRT -.8107 RRF .9924 RTF -.8073 CRT -.9849 CRS -.9930 CST .9587
FDE 5.4669 FRA 5.1348 FC-12.2081 BSP 5099 SGB 3036.0 R23 -.1648 R13 .9786 LSA 127.7 MSA 11.3 SSA 1.0
BDE .8400 BRA 1.2877 BC3 2.1440 FSP 2205 SG1 2915.3 SG2 847.5 THA 120.79 EL1 65.3 EL2 5.4 ALF 126.28

LAUNCH DATE JUL 9 1973 FLIGHT TIME 206.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 496.739 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.889 GAL -3.12 AZL 87.15 HCA 157.96 SMA 200.03 ECC .24539 INC 2.8491 V1 29.292
RP 233.07 LAP 1.07 LOP 84.63 VP 21.803 GAP 10.60 AZP 92.64 TAL 344.07 TAP 142.03 RCA 150.94 APO 249.11 V2 23.593
RC 168.537 GL 22.60 GP -28.74 ZAL 114.36 ZAP 125.47 ETS 205.06 ZAE 148.32 ETE 253.69 ZAC 56.49 ETC 285.80 LVI 9.11

PLANETOCENTRIC CONIC

C3 18.041 VHL 4.247 DLA 37.16 RAL 32.40 RAD 6642.0 VEL 11.750 PTH 6.78 VHP 3.227 DPA -13.73 RAP 44.17 ECC 1.2989

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 24 59	3916.31	-45.06	167.38	282.21	72.77	12 30 15	2916.3	-46.89	132.40
60.00	10 46 46	4018.66	-33.83	171.13	276.84	66.65	11 53 45	3018.7	-40.07	141.92
64.82	9 23 49	4259.17	-22.07	184.15	270.07	59.31	10 34 48	3259.2	-32.71	159.81
64.82	9 23 49	4259.17	-22.07	184.15	270.07	59.31	10 34 48	3259.2	-32.71	159.81
64.82	9 23 49	4259.17	-22.07	184.15	270.07	59.31	10 34 48	3259.2	-32.71	159.81
64.82	9 23 49	4259.17	-22.07	184.15	270.07	59.31	10 34 48	3259.2	-32.71	159.81
64.82	9 23 49	4259.17	-22.07	184.15	270.07	59.31	10 34 48	3259.2	-32.71	159.81

DIFFERENTIAL CORRECTIONS

TDE -.4465 TRA -.8585 TC3 .2863 BAU .5434
RDE .8081 RRA .9525 RC3-2.2371 FAU .25436
FDE 5.7523 FRA 5.0543 FC-12.2063 BSP 5283
BDE .9232 BRA 1.2822 BC3 2.2529 FSP 2237

MID-COURSE EXECUTION ACCURACY

SGT 1589.1 SGR 2720.1 SG3 1341.1
RRT -.7933 RRF .9938 RTF -.7885
SGB 3150.3 R23 -.1453 R13 .9831
SG1 3028.0 SG2 869.2 THA 117.30

ORBIT DETERMINATION ACCURACY

ST 37.2 SR 59.7 SS 114.0
CRT -.9775 CRS -.9951 CST .9526
LSA 133.5 MSA 11.4 SSA .9
EL1 70.0 EL2 6.7 ALF 121.65

LAUNCH DATE JUL 9 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 500.511 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.877 GAL -3.11 AZL 86.95 HCA 158.95 SMA 199.78 ECC .24443 INC 3.0498 V1 29.292
RP 233.44 LAP 1.09 LOP 85.63 VP 21.743 GAP 10.35 AZP 92.85 TAL 344.09 TAP 143.04 RCA 150.95 APO 248.61 V2 23.554
RC 171.472 GL 24.12 GP -30.23 ZAL 114.09 ZAP 123.64 ETS 204.90 ZAE 146.48 ETE 251.72 ZAC 55.16 ETC 286.12 LVI 10.44

PLANETOCENTRIC CONIC

C3 18.273 VHL 4.275 DLA 38.57 RAL 31.70 RAD 6642.1 VEL 11.760 PTH 6.79 VHP 3.214 DPA -15.30 RAP 44.26 ECC 1.3007

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 10 27	3959.30	-44.13	171.06	282.46	70.03	12 16 26	2959.3	-47.28	136.48
60.00	10 16 58	4102.91	-31.40	176.95	275.54	63.32	11 25 21	3102.9	-39.36	148.97
62.59	9 9 54	4294.59	-22.71	187.48	270.06	57.94	10 21 28	3294.6	-33.84	163.19
62.59	9 9 54	4294.59	-22.71	187.48	270.06	57.94	10 21 28	3294.6	-33.84	163.19
62.59	9 9 54	4294.59	-22.71	187.48	270.06	57.94	10 21 28	3294.6	-33.84	163.19
62.59	9 9 54	4294.59	-22.71	187.48	270.06	57.94	10 21 28	3294.6	-33.84	163.19
62.59	9 9 54	4294.59	-22.71	187.48	270.06	57.94	10 21 28	3294.6	-33.84	163.19

DIFFERENTIAL CORRECTIONS

TDE -.4213 TRA -.8117 TC3 .1955 BAU .5777
RDE .9292 RRA .9638 RC3-2.3567 FAU .25581
FDE 6.0281 FRA 4.9304 FC-12.1199 BSP 5475
BDE 1.0202 BRA 1.2755 BC3 2.3648 FSP 2253

MID-COURSE EXECUTION ACCURACY

SGT 1511.2 SGR 2907.8 SG3 1349.9
RRT -.7709 RRF .9949 RTF -.7649
SGB 3277.0 R23 -.1259 R13 .9869
SG1 3154.7 SG2 887.2 THA 113.83

ORBIT DETERMINATION ACCURACY

ST 35.1 SR 67.3 SS 117.6
CRT -.9681 CRS -.9966 CST .9448
LSA 139.5 MSA 11.5 SSA .9
EL1 75.5 EL2 7.6 ALF 117.12

LAUNCH DATE JUL 9 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 504.286 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.865 GAL -3.09 AZL 86.73 HCA 159.94 SMA 199.55 ECC .24353 INC 3.2690 V1 29.292
RP 233.80 LAP 1.12 LOP 86.62 VP 21.684 GAP 10.10 AZP 93.07 TAL 344.10 TAP 144.04 RCA 150.95 APO 248.15 V2 23.517
RC 174.413 GL 25.74 GP -31.80 ZAL 113.78 ZAP 121.78 ETS 204.71 ZAE 144.54 ETE 249.89 ZAC 53.76 ETC 286.47 LVI 11.83

PLANETOCENTRIC CONIC

C3 18.572 VHL 4.310 DLA 40.08 RAL 30.94 RAD 6642.2 VEL 11.773 PTH 6.80 VHP 3.209 DPA -16.94 RAP 44.37 ECC 1.3057

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 53 32	4008.48	-42.91	175.15	282.52	67.07	12 0 21	3008.5	-47.53	141.21
60.00	9 22 56	4253.57	-26.39	186.55	272.23	56.36	10 33 50	3253.6	-36.97	161.04
60.32	8 56 10	4328.94	-23.35	190.81	270.09	56.45	10 8 19	3328.9	-35.01	166.59
60.32	8 56 10	4328.94	-23.35	190.81	270.09	56.45	10 8 19	3328.9	-35.01	166.59
60.32	8 56 10	4328.94	-23.35	190.81	270.09	56.45	10 8 19	3328.9	-35.01	166.59
60.32	8 56 10	4328.94	-23.35	190.81	270.09	56.45	10 8 19	3328.9	-35.01	166.59
60.32	8 56 10	4328.94	-23.35	190.81	270.09	56.45	10 8 19	3328.9	-35.01	166.59

DIFFERENTIAL CORRECTIONS

TDE -.3902 TRA -.7629 TC3 .1252 BAU .6151
RDE 1.0652 RRA 1.0130 RC3-2.4741 FAU .25607
FDE 6.2970 FRA 4.7701 FC-11.9364 BSP 5685
BDE 1.1344 BRA 1.2682 BC3 2.4773 FSP 2255

MID-COURSE EXECUTION ACCURACY

SGT 1427.7 SGR 3106.7 SG3 1351.4
RRT -.7437 RRF .9958 RTF -.7463
SGB 3419.1 R23 -.1070 R13 .9900
SG1 3298.8 SG2 898.9 THA 110.46

ORBIT DETERMINATION ACCURACY

ST 32.7 SR 75.6 SS 121.2
CRT -.9555 CRS -.9977 CST .9336
LSA 146.0 MSA 11.7 SSA .8
EL1 81.9 EL2 8.9 ALF 112.72

LAUNCH DATE JUL 9 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 508.062 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.854 GAL -3.08 AZL 86.49 HCA 160.93 SMA 199.34 ECC .24270 INC 3.5090 V1 29.292
RP 234.17 LAP 1.15 LOP 87.61 VP 21.627 GAP 9.85 AZP 93.32 TAL 344.10 TAP 145.03 RCA 150.96 APO 247.71 V2 23.479
RC 177.360 GL 27.47 GP -33.45 ZAL 113.44 ZAP 119.89 ETS 204.47 ZAE 142.50 ETE 248.18 ZAC 52.29 ETC 286.86 LVI 13.30

PLANETOCENTRIC CONIC

C3 18.952 VHL 4.353 DLA 41.70 RAL 30.12 RAD 6642.4 VEL 11.789 PTH 6.81 VHP 3.214 DPA -18.67 RAP 44.50 ECC 1.3119

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 33 21	4065.86	-41.28	179.70	282.25	63.86	11 41 7	3065.9	-47.55	146.75
57.98	8 42 32	4362.45	-23.99	194.16	270.17	54.81	9 55 14	3362.4	-36.23	170.06
57.98	8 42 32	4362.45	-23.99	194.16	270.17	54.81	9 55 14	3362.4	-36.23	170.06
57.98	8 42 32	4362.45	-23.99	194.16	270.17	54.81	9 55 14	3362.4	-36.23	170.06
57.98	8 42 32	4362.45	-23.99	194.16	270.17	54.81	9 55 14	3362.4	-36.23	170.06
57.98	8 42 32	4362.45	-23.99	194.16	270.17	54.81	9 55 14	3362.4	-36.23	170.06
57.98	8 42 32	4362.45	-23.99	194.16	270.17	54.81	9 55 14	3362.4	-36.23	170.06

DIFFERENTIAL CORRECTIONS

TDE -.3601 TRA -.7197 TC3 .0355 BAU .6530
RDE 1.2222 RRA 1.0420 RC3-2.5769 FAU .25396
FDE 6.5705 FRA 4.5838 FC-11.6008 BSP 5991
BDE 1.2741 BRA 1.2663 BC3 2.5771 FSP 2258

MID-COURSE EXECUTION ACCURACY

SGT 1354.5 SGR 3315.8 SG3 1344.3
RRT -.7039 RRF .9965 RTF -.6956
SGB 3581.8 R23 -.0906 R13 .9924
SG1 3461.2 SG2 921.7 THA 107.31

ORBIT DETERMINATION ACCURACY

ST 30.4 SR 85.1 SS 124.8
CRT -.9399 CRS -.9984 CST .9193
LSA 153.6 MSA 11.9 SSA .7
EL1 89.8 EL2 9.8 ALF 108.79

LAUNCH DATE JUL 9 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 511.841 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.844	GAL	-3.08	AZL	86.23	HCA	161.91	SMA	199.14	ECC	.24192	INC	3.7734
RP	234.53	LAP	1.17	LOP	88.60	VP	21.571	GAP	9.60	AZP	93.59	TAL	344.10	TAP	146.02	RCA	150.96	APO	247.31
RC	180.313	GL	29.32	GP	-35.18	ZAL	113.06	ZAP	117.97	ETS	204.18	ZAE	140.36	ETE	246.57	ZAC	50.76	ETC	287.30

V1 29.292 V2 23.442 LVI 14.85

PLANETOCENTRIC CONIC

C3	19.427	VHL	4.408	DLA	43.42	RAL	29.20	RAD	6642.6	VEL	11.809	PTH	6.83	VHP	3.230	DPA	-20.49	RAP	44.66

ECC 1.3197

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 8 16	4135.07	-39.08	184.87	281.41	60.34	11 17 11	3135.1	-47.19	153.41
55.56	8 28 52	4395.39	-24.60	197.56	270.28	53.02	9 42 8	3395.4	-37.48	173.64
55.56	8 28 52	4395.39	-24.60	197.56	270.28	53.02	9 42 8	3395.4	-37.48	173.64
55.56	8 28 52	4395.39	-24.60	197.56	270.28	53.02	9 42 8	3395.4	-37.48	173.64
55.56	8 28 52	4395.39	-24.60	197.56	270.28	53.02	9 42 8	3395.4	-37.48	173.64
55.56	8 28 52	4395.39	-24.60	197.56	270.28	53.02	9 42 8	3395.4	-37.48	173.64
55.56	8 28 52	4395.39	-24.60	197.56	270.28	53.02	9 42 8	3395.4	-37.48	173.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3194	TRA	-.6722	TC3	-.0458	BAU	.6953	SGT	1273.4	SGR	3534.8	SG3	1327.5	ST	27.5	SR	95.3	SS	127.9
RDE	1.3971	RRA	1.0643	RC3	-2.6768	FAU	.25085	RRT	-.6555	RRF	.9972	RTF	-.6460	CRT	-.9161	CRS	-.9989	C8T	.8964
FDE	6.8146	FRA	4.3460	FC	-11.1786	BSP	6274	SGB	3757.2	R23	-.0750	R13	.9944	LSA	161.4	MSA	12.2	SSA	.6
BDE	1.4332	BRA	1.2588	BC3	2.6772	FSP	2232	SG1	3639.2	SG2	934.0	THA	104.24	EL1	98.6	EL2	10.7	ALF	105.00

LAUNCH DATE JUL 9 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 515.621 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.834	GAL	-3.07	AZL	85.93	HCA	162.89	SMA	198.95	ECC	.24121	INC	4.0662
RP	234.89	LAP	1.20	LOP	89.58	VP	21.517	GAP	9.35	AZP	93.89	TAL	344.10	TAP	146.99	RCA	150.96	APO	246.94
RC	183.270	GL	31.31	GP	-37.00	ZAL	112.64	ZAP	116.03	ETS	203.83	ZAE	138.13	ETE	245.06	ZAC	49.16	ETC	287.80

V1 29.292 V2 23.405 LVI 16.47

PLANETOCENTRIC CONIC

C3	20.018	VHL	4.474	DLA	45.27	RAL	28.17	RAD	6642.8	VEL	11.833	PTH	6.85	VHP	3.258	DPA	-22.38	RAP	44.86

ECC 1.3294

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 34 31	4224.77	-35.87	191.04	279.50	56.35	10 44 56	3224.8	-46.12	161.79
53.05	8 15 2	4428.16	-25.18	201.04	270.42	51.05	9 28 50	3428.2	-36.76	177.36
53.05	8 15 2	4428.16	-25.18	201.04	270.42	51.05	9 28 50	3428.2	-36.76	177.36
53.05	8 15 2	4428.16	-25.18	201.04	270.42	51.05	9 28 50	3428.2	-36.76	177.36
53.05	8 15 2	4428.16	-25.18	201.04	270.42	51.05	9 28 50	3428.2	-36.76	177.36
53.05	8 15 2	4428.16	-25.18	201.04	270.42	51.05	9 28 50	3428.2	-36.76	177.36
53.05	8 15 2	4428.16	-25.18	201.04	270.42	51.05	9 28 50	3428.2	-36.76	177.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2716	TRA	-.6246	TC3	-.1294	BAU	.7400	SGT	1194.2	SGR	3762.3	SG3	1300.0	ST	24.4	SR	108.5	SS	130.7
RDE	1.5967	RRA	1.0806	RC3	-2.7619	FAU	.24573	RRT	-.5920	RRF	.9977	RTF	-.5812	CRT	-.8793	CRS	-.9992	C8T	.8602
FDE	7.0370	FRA	4.0664	FC	-10.6271	BSP	6597	SGB	3947.3	R23	-.0609	R13	.9959	LSA	169.9	MSA	12.4	SSA	.5
BDE	1.6196	BRA	1.2481	BC3	2.7650	FSP	2193	SG1	3832.6	SG2	944.9	THA	101.34	EL1	108.6	EL2	11.4	ALF	101.50

LAUNCH DATE JUL 9 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 519.402 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.826	GAL	-3.07	AZL	85.61	HCA	163.87	SMA	198.78	ECC	.24055	INC	4.3925
RP	235.24	LAP	1.22	LOP	90.57	VP	21.463	GAP	9.11	AZP	94.22	TAL	344.09	TAP	147.96	RCA	150.96	APO	246.59
RC	186.232	GL	33.44	GP	-38.90	ZAL	112.18	ZAP	114.08	ETS	203.42	ZAE	135.82	ETE	243.62	ZAC	47.49	ETC	288.36

V1 29.292 V2 23.369 LVI 18.18

PLANETOCENTRIC CONIC

C3	20.752	VHL	4.555	DLA	47.25	RAL	27.00	RAD	6643.2	VEL	11.864	PTH	6.88	VHP	3.300	DPA	-24.35	RAP	45.09

ECC 1.3418

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 33 55	4378.54	-29.64	200.42	274.33	50.91	9 46 53	3378.5	-42.83	175.10
50.43	8 0 53	4460.93	-25.70	204.61	270.59	48.88	9 15 14	3460.9	-40.05	181.29
50.43	8 0 53	4460.93	-25.70	204.61	270.59	48.88	9 15 14	3460.9	-40.05	181.29
50.43	8 0 53	4460.93	-25.70	204.61	270.59	48.88	9 15 14	3460.9	-40.05	181.29
50.43	8 0 53	4460.93	-25.70	204.61	270.59	48.88	9 15 14	3460.9	-40.05	181.29
50.43	8 0 53	4460.93	-25.70	204.61	270.59	48.88	9 15 14	3460.9	-40.05	181.29
50.43	8 0 53	4460.93	-25.70	204.61	270.59	48.88	9 15 14	3460.9	-40.05	181.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2143	TRA	-.5768	TC3	-.2110	BAU	.7874	SGT	1118.8	SGR	3998.3	SG3	1261.2	ST	20.9	SR	118.8	SS	133.0
RDE	1.8250	RRA	1.0887	RC3	-2.8302	FAU	.23865	RRT	-.5094	RRF	.9981	RTF	-.4973	CRT	-.8164	CRS	-.9995	C8T	.7973
FDE	7.2281	FRA	3.7447	FC	-9.9561	BSP	6944	SGB	4151.9	R23	-.0485	R13	.9970	LSA	179.1	MSA	12.7	SSA	.5
BDE	1.8378	BRA	1.2320	BC3	2.8360	FSP	2133	SG1	4041.1	SG2	952.6	THA	98.89	EL1	120.0	EL2	12.0	ALF	98.28

LAUNCH DATE JUL 9 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 523.183 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.818	GAL	-3.06	AZL	85.24	HCA	164.84	SMA	198.62	ECC	.23994	INC	4.7582
RP	235.59	LAP	1.24	LOP	91.54	VP	21.412	GAP	8.86	AZP	94.59	TAL	344.07	TAP	148.01	RCA	150.96	APO	246.28
RC	189.197	GL	38.73	GP	-40.88	ZAL	111.68	ZAP	112.11	ETS	202.94	ZAE	133.43	ETE	242.25	ZAC	48.78	ETC	288.98

V1 29.292 V2 23.332 LVI 19.96

PLANETOCENTRIC CONIC

C3	21.665	VHL	4.655	DLA	49.36	RAL	25.66	RAD	6643.6	VEL	11.902	PTH	6.91	VHP	3.359	DPA	-26.41	RAP	45.38

ECC 1.3566

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
47.69	7 46 16	4494.03	-26.15	208.31	270.76	46.51	9 1 10	3494.0	-41.34	185.46
47.69	7 46 16	4494.03	-26.15	208.31	270.76	46.51	9 1 10	3494.0	-41.34	185.46
47.69	7 46 16	4494.03	-26.15	208.31	270.76	46.51	9 1 10	3494.0	-41.34	185.46
47.69	7 46 16	4494.03	-26.15	208.31	270.76	46.51	9 1 10	3494.0	-41.34	185.46
47.69	7 46 16	4494.03	-26.15	208.31	270.76	46.51	9 1 10	3494.0	-41.34	185.46
47.69	7 46 16	4494.03	-26.15	208.31	270.76	46.51	9 1 10	3494.0	-41.34	185.46
47.69	7 46 16	4494.03	-26.15	208.31	270.76	46.51	9 1 10	3494.0	-41.34	185.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1474	TRA	-.5313	TC3	-.2935	BAU	.8380	SGT	1056.4	SGR	4239.6	SG3	1210.0	ST	17.6	SR	132.0	SS	134.6
RDE	2.0854	RRA	1.0849	RC3	-2.8783	FAU	.22968	RRT	-.4003	RRF	.9985	RTF	-.3870	CRT	-.7001	CRS	-.9996	C8T	.6806
FDE	7.3720	FRA	3.3788	FC	-9.1768	BSP	7307	SGB	4369.2	R23	-.0376	R13	.9979	LSA	188.9	MSA	13.0	SSA	.4
BDE	2.0906	BRA	1.2080	BC3	2.8932	FSP	2050	SG1	4261.8	SG2	963.0	THA	96.00	EL1	132.6	EL2	12.5	ALF	95.38

LAUNCH DATE JUL 8 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 526.964 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.810	GAL	-3.06	AZL	84.83	HCA	165.81	SMA	198.47	ECC	.23938	INC	5.1718
RP	235.94	LAP	1.27	LOP	92.52	VP	21.361	GAP	8.62	AZP	95.01	TAL	344.05	TAP	149.86	RCA	150.96	APO	245.98
RC	192.165	GL	38.20	GP	-42.94	ZAL	111.06	ZAP	110.15	ETS	202.38	ZAE	130.97	ETE	240.93	ZAC	43.96	ETC	289.70

V1 29.292 V2 23.297 LVI 21.82

PLANETOCENTRIC CONIC

C3	22.806	VHL	4.776	DLA	51.63	RAL	24.11	RAD	6644.1	VEL	11.950	PTH	6.98	VHP	3.436	DPA	-28.53	RAP	45.73

ECC 1.3783

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.82	7 30 57	4527.82	-26.47	212.15	270.90	43.91	8 46 25	3527.8	-42.58	189.95
44.82	7 30 57	4527.82	-26.47	212.15	270.90	43.91	8 46 25	3527.8	-42.58	189.95
44.82	7 30 57	4527.82	-26.47	212.15	270.90	43.91	8 46 25	3527.8	-42.58	189.95
44.82	7 30 57	4527.82	-26.47	212.15	270.90	43.91	8 46 25	3527.8	-42.58	189.95
44.82	7 30 57	4527.82	-26.47	212.15	270.90	43.91	8 46 25	3527.8	-42.58	189.95
44.82	7 30 57	4527.82	-26.47	212.15	270.90	43.91	8 46 25	3527.8	-42.58	189.95
44.82	7 30 57	4527.82	-26.47	212.15	270.90	43.91	8 46 25	3527.8	-42.58	189.95

DIFFERENTIAL CORRECTIONS

TDE	-.0670	TRA	-.4871	TC3	-.3693	BAU	.8915
RDE	2.3876	RRA	1.0688	RC3	-2.9005	FAU	.21855
FDE	7.4683	FRA	2.9809	FC3	-8.2962	BSP	7699
BDE	2.3885	BRA	1.1746	BC3	2.9239	FSP	1949

MID-COURSE EXECUTION ACCURACY

SGT	1008.6	SGR	4488.6	SG3	1147.1		
RRT	-.2646	RRF	.9988	RTF	-.2501		
SGB	4600.5	R23	-.0281	R13	.9985		
SG1	4496.9	SG2	970.8	THA	93.57		

ORBIT DETERMINATION ACCURACY

ST	14.7	SR	146.6	SS	135.5
CRT	-.4694	CRS	-.9997	CST	.4495
LSA	199.7	MSA	13.2	SSA	.3
EL1	146.8	EL2	13.0	ALF	92.71

LAUNCH DATE JUL 9 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 530.746 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.803	GAL	-3.06	AZL	84.36	HCA	166.78	SMA	198.34	ECC	.23867	INC	5.6429
RP	236.29	LAP	1.29	LOP	93.49	VP	21.312	GAP	8.38	AZP	95.49	TAL	344.02	TAP	150.80	RCA	150.96	APO	245.72
RC	195.134	GL	40.86	GP	-45.08	ZAL	110.39	ZAP	108.20	ETS	201.74	ZAE	128.46	ETE	239.64	ZAC	42.11	ETC	290.50

V1 29.292 V2 23.261 LVI 23.76

PLANETOCENTRIC CONIC

C3	24.242	VHL	4.924	DLA	54.05	RAL	22.27	RAD	6644.7	VEL	12.009	PTH	7.00	VHP	3.537	DPA	-30.72	RAP	46.14

ECC 1.3990

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.81	7 14 39	4562.69	-26.64	216.13	270.95	41.06	8 30 42	3562.7	-43.73	194.80
41.81	7 14 39	4562.69	-26.64	216.13	270.95	41.06	8 30 42	3562.7	-43.73	194.80
41.81	7 14 39	4562.69	-26.64	216.13	270.95	41.06	8 30 42	3562.7	-43.73	194.80
41.81	7 14 39	4562.69	-26.64	216.13	270.95	41.06	8 30 42	3562.7	-43.73	194.80
41.81	7 14 39	4562.69	-26.64	216.13	270.95	41.06	8 30 42	3562.7	-43.73	194.80
41.81	7 14 39	4562.69	-26.64	216.13	270.95	41.06	8 30 42	3562.7	-43.73	194.80
41.81	7 14 39	4562.69	-26.64	216.13	270.95	41.06	8 30 42	3562.7	-43.73	194.80

DIFFERENTIAL CORRECTIONS

TDE	.0293	TRA	-.4454	TC3	-.4383	BAU	.9497
RDE	2.7344	RRA	1.0309	RC3	-2.8974	FAU	.20576
FDE	7.4895	FRA	2.5411	FC3	-7.3480	BSP	8073
BDE	2.7345	BRA	1.1230	BC3	2.9304	FSP	1818

MID-COURSE EXECUTION ACCURACY

SGT	983.2	SGR	4737.2	SG3	1071.1		
RRT	-.0996	RRF	.9990	RTF	-.0842		
SGB	4838.1	R23	-.0198	R13	.9989		
SG1	4738.2	SG2	978.1	THA	91.24		

ORBIT DETERMINATION ACCURACY

ST	13.4	SR	162.1	SS	135.2
CRT	-.0609	CRS	-.9998	CST	.0424
LSA	211.1	MSA	13.5	SSA	.3
EL1	162.1	EL2	13.3	ALF	90.29

LAUNCH DATE JUL 9 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 534.526 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.797	GAL	-3.06	AZL	83.81	HCA	167.74	SMA	198.21	ECC	.23841	INC	6.1655
RP	236.63	LAP	1.31	LOP	94.46	VP	21.263	GAP	8.13	AZP	96.05	TAL	343.99	TAP	151.73	RCA	150.96	APO	245.47
RC	198.104	GL	43.72	GP	-47.28	ZAL	109.64	ZAP	106.27	ETS	201.01	ZAE	125.90	ETE	238.36	ZAC	40.21	ETC	291.41

V1 29.292 V2 23.226 LVI 25.76

PLANETOCENTRIC CONIC

C3	26.069	VHL	5.106	DLA	56.63	RAL	20.06	RAD	6645.4	VEL	12.084	PTH	7.06	VHP	3.666	DPA	-32.97	RAP	46.64

ECC 1.4290

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.66	6 57 1	4599.08	-26.60	220.27	270.82	37.96	8 13 40	3599.1	-44.72	200.06
38.66	6 57 1	4599.08	-26.60	220.27	270.82	37.96	8 13 40	3599.1	-44.72	200.06
38.66	6 57 1	4599.08	-26.60	220.27	270.82	37.96	8 13 40	3599.1	-44.72	200.06
38.66	6 57 1	4599.08	-26.60	220.27	270.82	37.96	8 13 40	3599.1	-44.72	200.06
38.66	6 57 1	4599.08	-26.60	220.27	270.82	37.96	8 13 40	3599.1	-44.72	200.06
38.66	6 57 1	4599.08	-26.60	220.27	270.82	37.96	8 13 40	3599.1	-44.72	200.06
38.66	6 57 1	4599.08	-26.60	220.27	270.82	37.96	8 13 40	3599.1	-44.72	200.06

DIFFERENTIAL CORRECTIONS

TDE	.1441	TRA	-.4082	TC3	-.4994	BAU	1.0084
RDE	3.1483	RRA	.9761	RC3	-2.8499	FAU	.19024
FDE	7.4521	FRA	2.0937	FC3	-6.3179	BSP	8539
BDE	3.1516	BRA	1.0580	BC3	2.8933	FSP	1684

MID-COURSE EXECUTION ACCURACY

SGT	989.7	SGR	4991.6	SG3	984.3		
RRT	.0804	RRF	.9992	RTF	.0263		
SGB	5088.8	R23	-.0127	R13	.9993		
SG1	4992.2	SG2	986.4	THA	89.05		

ORBIT DETERMINATION ACCURACY

ST	14.9	SR	179.2	SS	134.0
CRT	.3966	CRS	-.9999	CST	-.4106
LSA	223.9	MSA	13.7	SSA	.2
EL1	179.3	EL2	13.7	ALF	88.10

LAUNCH DATE JUL 8 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 538.306 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.791	GAL	-3.06	AZL	83.18	HCA	168.70	SMA	198.10	ECC	.23799	INC	6.8166
RP	236.98	LAP	1.33	LOP	95.43	VP	21.216	GAP	7.89	AZP	96.69	TAL	343.95	TAP	152.65	RCA	150.95	APO	245.25
RC	201.073	GL	46.80	GP	-49.54	ZAL	108.79	ZAP	104.38	ETS	200.18	ZAE	123.31	ETE	237.08	ZAC	38.28	ETC	292.45

V1 29.292 V2 23.191 LVI 27.82

PLANETOCENTRIC CONIC

C3	28.423	VHL	5.331	DLA	59.37	RAL	17.34	RAD	6646.4	VEL	12.181	PTH	7.14	VHP	3.829	DPA	-35.27	RAP	47.22

ECC 1.4678

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.35	6 37 29	4637.52	-26.27	224.55	270.36	34.63	7 54 47	3637.5	-45.47	205.78
35.35	6 37 29	4637.52	-26.27	224.55	270.36	34.63	7 54 47	3637.5	-45.47	205.78
35.35	6 37 29	4637.52	-26.27	224.55	270.36	34.63	7 54 47	3637.5	-45.47	205.78
35.35	6 37 29	4637.52	-26.27	224.55	270.36	34.63	7 54 47	3637.5	-45.47	205.78
35.35	6 37 29	4637.52	-26.27	224.55	270.36	34.63	7 54 47	3637.5	-45.47	205.78
35.35	6 37 29	4637.52	-26.27	224.55	270.36	34.63	7 54 47	3637.5	-45.47	205.78
35.35	6 37 29	4637.52	-26.27	224.55	270.36	34.63	7 54 47	3637.5	-45.47	205.78

DIFFERENTIAL CORRECTIONS

TDE	.2825	TRA	-.3769	TC3	-.5484	BAU	1.0742
RDE	3.6293	RRA	.8862	RC3	-2.7732	FAU	.17354
FDE	7.3070	FRA	1.6207	FC3	-5.2859	BSP	8934
BDE	3.6403	BRA	.9630	BC3	2.8269	FSP	1516

MID-COURSE EXECUTION ACCURACY

SGT	1032.4	SGR	5239.3	SG3	885.8		
RRT	.2639	RRF	.9994	RTF	.2799		
SGB	5340.1	R23	-.0065	R13	.9995		
SG1	5246.7	SG2	994.4	THA	86.91		

ORBIT DETERMINATION ACCURACY

ST	19.3	SR	197.1	SS	131.0
CRT	.6906	CRS	-.9999	CST	-.6999
LSA	237.0	MSA	14.0	SSA	.2
EL1	197.5	EL2	13.9	ALF	86.11

LAUNCH DATE JUL 9 1973 FLIGHT TIME 230.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 542.083 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.786 GAL -3.07 AZL 82.44 HCA 169.65 SMA 198.00 ECC .23761 INC 7.5609 V1 29.292
RP 237.31 LAP 1.35 LOP 96.39 VP 21.171 GAP 7.65 AZP 97.44 TAL 343.91 TAP 153.57 RCA 150.95 APO 245.04 V2 23.157
RC 204.040 GL 50.13 GP -51.84 ZAL 107.83 ZAP 102.53 ETS 199.25 ZAE 120.71 ETE 235.79 ZAC 36.34 ETC 293.63 LVI 29.93

PLANETOCENTRIC CONIC

C3 31.506 VHL 5.613 DLA 62.25 RAL 13.91 RAD 6647.6 VEL 12.306 PTH 7.24 VHP 4.036 DPA -37.59 RAP 47.90 ECC 1.5185

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.91	6 15 16	4678.68	-25.58	228.93	269.34	31.07	7 33 14	3678.7	-45.87	211.93
31.91	6 15 16	4678.68	-25.58	228.93	269.34	31.07	7 33 14	3678.7	-45.87	211.93
31.91	6 15 16	4678.68	-25.58	228.93	269.34	31.07	7 33 14	3678.7	-45.87	211.93
31.91	6 15 16	4678.68	-25.58	228.93	269.34	31.07	7 33 14	3678.7	-45.87	211.93
31.91	6 15 16	4678.68	-25.58	228.93	269.34	31.07	7 33 14	3678.7	-45.87	211.93
31.91	6 15 16	4678.68	-25.58	228.93	269.34	31.07	7 33 14	3678.7	-45.87	211.93
31.91	6 15 16	4678.68	-25.58	228.93	269.34	31.07	7 33 14	3678.7	-45.87	211.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4499 TRA -.3528 TC3 -.5827 BAU 1.1430 SGT 1112.2 SGR 5484.1 SG3 778.4 ST 25.7 SR 216.2 SS 126.4
RDE 4.2059 RRA .7620 RC3-2.6503 FAU .15486 RRT .4304 RRF .9995 RTF .4464 CRT .8342 CRS -.9999 CST -.8402
FDE 7.0592 FRA 1.1563 FC3-4.2554 BSP 9383 SGB 5595.8 R23 -.0015 R13 .9997 LSA 251.3 MSA 14.1 SSA .1
BDE 4.2298 BRA .8397 BC3 2.7136 FSP 1341 SG1 5505.7 SG2 1000.0 THA 84.84 EL1 217.2 EL2 14.1 ALF 84.30

LAUNCH DATE JUL 9 1973 FLIGHT TIME 252.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 545.857 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.781 GAL -3.07 AZL 81.55 HCA 170.60 SMA 197.90 ECC .23728 INC 8.4515 V1 29.292
RP 237.65 LAP 1.38 LOP 97.35 VP 21.126 GAP 7.41 AZP 98.34 TAL 343.87 TAP 154.47 RCA 150.95 APO 244.86 V2 23.123
RC 207.005 GL 53.71 GP -54.17 ZAL 106.76 ZAP 100.75 ETS 198.20 ZAE 118.12 ETE 234.46 ZAC 34.39 ETC 294.95 LVI 32.06

PLANETOCENTRIC CONIC

C3 35.629 VHL 5.969 DLA 65.27 RAL 9.45 RAD 6649.1 VEL 12.471 PTH 7.37 VHP 4.299 DPA -39.91 RAP 48.68 ECC 1.5864

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.36	5 49 6	4723.33	-24.42	233.34	267.38	27.35	7 7 50	3723.3	-45.77	218.43
28.36	5 49 6	4723.33	-24.42	233.34	267.38	27.35	7 7 50	3723.3	-45.77	218.43
28.36	5 49 6	4723.33	-24.42	233.34	267.38	27.35	7 7 50	3723.3	-45.77	218.43
28.36	5 49 6	4723.33	-24.42	233.34	267.38	27.35	7 7 50	3723.3	-45.77	218.43
28.36	5 49 6	4723.33	-24.42	233.34	267.38	27.35	7 7 50	3723.3	-45.77	218.43
28.36	5 49 6	4723.33	-24.42	233.34	267.38	27.35	7 7 50	3723.3	-45.77	218.43
28.36	5 49 6	4723.33	-24.42	233.34	267.38	27.35	7 7 50	3723.3	-45.77	218.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .6500 TRA -.3391 TC3 -.6005 BAU 1.2197 SGT 1228.2 SGR 5717.6 SG3 663.7 ST 33.3 SR 235.7 SS 119.3
RDE 4.8928 RRA .5853 RC3-2.4892 FAU .13507 RRT .5718 RRF .9996 RTF .5880 CRT .9032 CRS -.9999 CST -.9074
FDE 6.6737 FRA .7046 FC3-3.2820 BSP 9806 SGB 5848.1 R23 .0019 R13 .9998 LSA 265.9 MSA 14.2 SSA .1
BDE 4.9358 BRA .6764 BC3 2.5606 FSP 1150 SG1 5762.0 SG2 999.9 THA 82.78 EL1 237.7 EL2 14.2 ALF 82.70

LAUNCH DATE JUL 9 1973 FLIGHT TIME 276.00 ARRIVAL DATE APR 11 1974

HELIOCENTRIC CONIC DISTANCE 629.521 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.764 GAL -3.66 AZL 98.76 HCA 191.38 SMA 197.58 ECC .23846 INC 8.7593 V1 29.292
RP 243.98 LAP 1.72 LOP 117.90 VP 20.401 GAP 2.43 AZP 81.41 TAL 340.80 TAP 172.18 RCA 150.47 APO 244.69 V2 22.487
RC 269.924 GL -53.71 GP 50.48 ZAL 109.44 ZAP 81.82 ETS 192.38 ZAE 103.27 ETE 166.56 ZAC 137.88 ETC 291.39 LVI -72.24

PLANETOCENTRIC CONIC

C3 38.163 VHL 6.176 DLA -33.84 RAL 63.20 RAD 6650.0 VEL 12.572 PTH 7.44 VHP 3.638 DPA 49.10 RAP 345.33 ECC 1.6281

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 53 47	2574.79	-11.11	69.63	291.40	136.57	19 36 42	1574.8	7.26	53.86
60.00	20 30 59	2316.00	-3.03	84.03	299.08	130.21	21 9 35	1316.0	12.98	35.94
70.00	23 18 39	1820.83	10.30	23.89	308.91	122.75	23 49 0	820.8	22.76	2.47
70.60	0 1 22	1702.35	14.07	17.07	311.31	121.10	0 29 48	702.3	25.59	354.66
70.60	0 1 22	1702.35	14.07	17.07	311.31	121.10	0 29 48	702.3	25.59	354.66
70.60	0 1 22	1702.35	14.07	17.07	311.31	121.10	0 29 48	702.3	25.59	354.66
110.00	4 22 1	8155.69	10.30	290.72	308.91	122.75	6 4 37	8155.7	22.76	269.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.9959 TRA 3.7123 TC3-2.4933 BAU 1.7120 SGT 5486.3 SGR 5899.3 SG3 934.4 ST 111.6 SR 87.0 SS 49.2
RDE 1.0694 RRA-4.2599 RC3 2.2458 FAU .20760 RRT -.9806 RRF -.9968 RTF .1788 CRT -.9318 CRS .9973 CST -.9025
FDE-1.7183 FRA 8.0386 FC3-4.7095 BSP 13284 SGB 7836.2 R23 .0975 R13 -.9937 LSA 147.0 MSA 29.0 SSA .3
BDE 8.2644 BRA 8.6808 BC3 3.3886 FSP 1672 SG1 7798.1 SG2 772.8 THA 134.43 EL1 139.2 EL2 29.3 ALF 142.56

LAUNCH DATE JUL 9 1973 FLIGHT TIME 278.00 ARRIVAL DATE APR 13 1974

HELIOCENTRIC CONIC DISTANCE 633.278 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.766 GAL -3.70 AZL 98.17 HCA 192.28 SMA 197.62 ECC .23876 INC 8.1705 V1 29.292
RP 244.22 LAP 1.73 LOP 118.81 VP 20.379 GAP 2.21 AZP 82.01 TAL 340.64 TAP 172.92 RCA 150.44 APO 244.80 V2 22.464
RC 272.618 GL -51.40 GP 48.84 ZAL 110.44 ZAP 80.56 ETS 193.09 ZAE 102.69 ETE 166.21 ZAC 136.14 ETC 290.67 LVI -70.84

PLANETOCENTRIC CONIC

C3 35.384 VHL 5.948 DLA -31.67 RAL 62.33 RAD 6649.0 VEL 12.460 PTH 7.36 VHP 3.470 DPA 47.36 RAP 346.73 ECC 1.5818

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 36 11	2608.83	-12.79	71.13	288.62	136.23	19 19 40	1608.8	5.56	55.30
60.00	20 5 2	2372.41	-5.50	56.74	295.52	129.99	20 44 34	1372.4	10.57	38.76
70.00	22 12 0	1998.61	3.62	33.33	302.38	123.98	22 45 19	998.6	17.04	13.08
78.12	0 26 53	1592.29	13.88	8.51	308.69	118.75	0 53 26	592.3	24.51	345.74
78.12	0 26 53	1592.29	13.88	8.51	308.69	118.75	0 53 26	592.3	24.51	345.74
78.12	0 26 53	1592.29	13.88	8.51	308.69	118.75	0 53 26	592.3	24.51	345.74
110.00	3 15 23	1045.43	3.62	322.25	302.38	123.98	3 32 48	45.4	17.04	302.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.9137 TRA 3.7599 TC3-2.7432 BAU 1.6883 SGT 5671.4 SGR 5410.7 SG3 1044.3 ST 112.3 SR 83.2 SS 51.6
RDE .9679 RRA-4.0479 RC3 2.2878 FAU .22586 RRT -.9811 RRF -.9984 RTF .9792 CRT -.9328 CRS .9963 CST -.8984
FDE-1.7418 FRA 8.8327 FC3-5.5308 BSP 13492 SGB 7838.4 R23 .1031 R13 -.9931 LSA 146.1 MSA 29.0 SSA .3
BDE 2.1448 BRA 5.5247 BC3 3.5720 FSP 1906 SG1 7801.2 SG2 761.9 THA 136.37 EL1 137.6 EL2 24.5 ALF 144.04

LAUNCH DATE JUL 9 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 15 1974

HELIOCENTRIC CONIC DISTANCE 637.037 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.768 GAL -3.73 AZL 97.66 HCA 193.18 SMA 197.66 ECC .23909 INC 7.6619 V1 29.292
RP 244.45 LAP 1.74 LOP 119.72 VP 20.357 GAP 1.99 AZP 82.54 TAL 340.46 TAP 173.65 RCA 150.40 APO 244.92 V2 22.441
RC 275.292 GL -49.26 GP 46.65 ZAL 111.38 ZAP 79.28 ETS 193.72 ZAE 102.00 ETE 169.78 ZAC 134.45 ETC 290.03 LVI -68.86

PLANETOCENTRIC CONIC

C3 33.105 VHL 5.754 DLA -29.64 RAL 61.54 RAD 6648.2 VEL 12.370 PTH 7.29 VHP 3.332 DPA 45.66 RAP 347.99 ECC 1.5448

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 21 8	2640.31	-14.34	72.52	286.38	135.87	19 5 8	1640.3	3.99	56.62
60.00	19 43 49	2420.34	-7.59	59.06	292.72	129.70	20 24 9	1420.3	8.50	41.12
70.00	21 35 21	2092.25	.05	38.22	298.47	124.15	22 10 13	1092.3	13.77	18.37
80.00	0 28 49	1560.61	10.62	4.33	304.86	118.07	0 54 49	560.6	21.25	342.00
80.74	1 4 48	1445.54	13.57	357.35	306.42	116.60	1 28 53	445.5	23.37	334.30
100.00	3 11 40	1035.08	10.62	325.70	304.86	118.07	3 28 55	35.1	21.25	303.37
110.00	2 38 43	1139.07	.05	327.14	298.47	124.15	2 57 42	139.1	13.77	307.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.8447 TRA 3.8037 TC3-3.0005 BAU 1.6812 SGT 5855.6 SGR 5222.3 SG3 1147.3 ST 112.9 SR 79.5 SS 53.6
RDE .8891 RRA-3.8347 RC3 2.3295 FAU .24459 RRT -.9820 RRF -.9983 RTF .9800 CRT -.9358 CRS .9952 CST -.8968
FDE-1.7680 FRA 9.5234 FC3-6.3962 BSP 13441 SGB 7846.0 R23 .1074 R13 -.9925 LSA 145.3 MSA 28.7 SSA .3
BDE 2.0478 BRA 5.4012 BC3 3.7986 FSP 2084 SG1 7811.1 SG2 739.8 THA 138.33 EL1 136.1 EL2 23.2 ALF 145.46

LAUNCH DATE JUL 9 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 17 1974

HELIOCENTRIC CONIC DISTANCE 640.796 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.771 GAL -3.77 AZL 97.22 HCA 194.08 SMA 197.71 ECC .23943 INC 7.2182 V1 29.292
RP 244.68 LAP 1.75 LOP 120.63 VP 20.336 GAP 1.77 AZP 83.00 TAL 340.29 TAP 174.37 RCA 150.37 APO 245.05 V2 22.418
RC 277.948 GL -47.27 GP 44.84 ZAL 112.26 ZAP 77.99 ETS 194.29 ZAE 101.23 ETE 171.26 ZAC 132.81 ETC 289.47 LVI -67.21

PLANETOCENTRIC CONIC

C3 31.283 VHL 5.593 DLA -27.74 RAL 60.88 RAD 6647.5 VEL 12.297 PTH 7.23 VHP 3.218 DPA 44.00 RAP 349.11 ECC 1.5148

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 8 4	2669.77	-15.77	73.85	284.56	135.49	18 52 34	1669.8	2.51	57.86
60.00	19 25 56	2462.66	-9.43	61.13	290.49	129.37	20 6 58	1462.7	6.66	43.18
70.00	21 8 1	2162.47	-2.63	41.88	295.58	124.06	21 44 3	1162.5	11.24	22.23
80.00	23 18 17	1754.64	4.23	15.19	299.83	119.58	23 47 31	754.6	15.96	353.97
90.00	1 29 16	1344.81	8.66	347.44	302.23	117.03	1 51 43	344.8	19.04	325.22
100.00	2 5 4	1229.11	4.23	336.55	299.83	119.58	2 25 34	229.1	15.96	315.33
110.00	2 11 23	1209.29	-2.63	330.80	295.58	124.06	2 31 32	209.3	11.24	311.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7767 TRA 3.8574 TC3-3.2509 BAU 1.6780 SGT 6039.0 SGR 5034.3 SG3 1242.8 ST 113.1 SR 75.8 SS 55.1
RDE .8144 RRA-3.6380 RC3 2.3515 FAU .26181 RRT -.9829 RRF -.9981 RTF .9807 CRT -.9386 CRS .9936 CST -.8945
FDE-1.7576 FRA10.1484 FC3-7.2455 BSP 13438 SGB 7862.2 R23 .1109 R13 -.9920 LSA 144.1 MSA 28.4 SSA .4
BDE 1.9544 BRA 5.3024 BC3 4.0122 FSP 2248 SG1 7829.6 SG2 714.8 THA 140.27 EL1 134.4 EL2 22.0 ALF 146.83

LAUNCH DATE JUL 9 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 19 1974

HELIOCENTRIC CONIC DISTANCE 644.554 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.773 GAL -3.81 AZL 96.83 HCA 194.98 SMA 197.76 ECC .23979 INC 6.8275 V1 29.292
RP 244.90 LAP 1.76 LOP 121.53 VP 20.316 GAP 1.54 AZP 83.40 TAL 340.11 TAP 175.09 RCA 150.34 APO 245.18 V2 22.397
RC 280.584 GL -45.42 GP 43.10 ZAL 113.10 ZAP 76.69 ETS 194.80 ZAE 100.38 ETE 172.64 ZAC 131.24 ETC 288.96 LVI -65.61

PLANETOCENTRIC CONIC

C3 29.788 VHL 5.458 DLA -25.95 RAL 60.32 RAD 6646.9 VEL 12.236 PTH 7.19 VHP 3.123 DPA 42.39 RAP 350.12 ECC 1.4902

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 56 37	2697.56	-17.11	75.12	283.07	135.10	18 41 35	1697.6	1.11	59.02
60.00	19 10 33	2500.92	-11.07	63.02	288.68	129.00	19 52 14	1500.9	4.99	45.03
70.00	20 45 57	2220.44	-4.84	44.92	293.33	123.85	21 22 57	1220.4	9.10	25.35
80.00	22 42 39	1855.18	.83	20.71	296.85	119.85	23 13 34	855.2	12.91	359.88
90.00	0 35 8	1505.09	3.60	356.50	298.38	118.07	1 0 13	505.1	14.79	335.06
100.00	1 29 26	1329.65	.83	342.08	296.85	119.85	1 51 36	329.6	12.91	321.25
110.00	1 49 19	1267.26	-4.84	333.84	293.33	123.85	2 10 26	267.3	9.10	314.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7126 TRA 3.9156 TC3-3.4974 BAU 1.6792 SGT 6221.4 SGR 4847.3 SG3 1330.0 ST 113.2 SR 72.1 SS 56.2
RDE .7443 RRA-3.4556 RC3 2.3551 FAU .27736 RRT -.9836 RRF -.9980 RTF .9813 CRT -.9409 CRS .9920 CST -.8909
FDE-1.7132 FRA10.7077 FC3-8.0610 BSP 13462 SGB 7886.8 R23 .1142 R13 -.9914 LSA 142.8 MSA 28.2 SSA .4
BDE 1.8673 BRA 5.2224 BC3 4.2164 FSP 2403 SG1 7856.4 SG2 692.1 THA 142.19 EL1 132.6 EL2 20.9 ALF 148.18

LAUNCH DATE JUL 9 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 21 1974

HELIOCENTRIC CONIC DISTANCE 648.311 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.776 GAL -3.85 AZL 96.48 HCA 195.88 SMA 197.81 ECC .24017 INC 6.4806 V1 29.292
RP 245.11 LAP 1.77 LOP 122.44 VP 20.297 GAP 1.32 AZP 83.76 TAL 339.92 TAP 175.80 RCA 150.30 APO 245.32 V2 22.375
RC 283.198 GL -43.69 GP 41.43 ZAL 113.89 ZAP 75.39 ETS 195.25 ZAE 99.46 ETE 173.92 ZAC 129.72 ETC 288.52 LVI -64.06

PLANETOCENTRIC CONIC

C3 28.552 VHL 5.343 DLA -24.27 RAL 59.85 RAD 6646.4 VEL 12.186 PTH 7.15 VHP 3.044 DPA 40.84 RAP 351.04 ECC 1.4699

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 46 29	2723.91	-18.38	76.35	281.87	134.69	18 31 53	1723.9	-.21	60.12
60.00	18 57 7	2536.06	-12.57	64.78	287.22	128.61	19 39 23	1536.1	3.45	46.71
70.00	20 27 24	2270.63	-6.73	47.57	291.54	123.56	21 5 15	1270.6	7.22	28.03
80.00	22 16 2	1930.64	-1.73	24.86	294.63	119.81	22 48 13	930.6	10.53	4.21
90.00	0 2 4	1601.37	.50	1.88	295.87	118.28	0 28 45	601.4	12.01	340.76
100.00	1 2 50	1405.11	-1.73	346.22	294.63	119.81	1 26 15	405.1	10.53	325.58
110.00	1 30 47	1317.44	-6.73	336.49	291.54	123.56	1 52 44	317.4	7.22	316.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6513 TRA 3.9790 TC3-3.7372 BAU 1.6836 SGT 6402.5 SGR 4662.8 SG3 1408.7 ST 113.1 SR 68.6 SS 57.0
RDE .6800 RRA-3.2866 RC3 2.3422 FAU .29116 RRT -.9842 RRF -.9977 RTF .9818 CRT -.9432 CRS .9899 CST -.8867
FDE-1.6422 FRA11.2050 FC3-8.8282 BSP 13508 SGB 7920.4 R23 .1171 R13 -.9908 LSA 141.3 MSA 28.2 SSA .4
BDE 1.7858 BRA 5.1608 BC3 4.4105 FSP 2543 SG1 7892.0 SG2 670.1 THA 144.07 EL1 130.8 EL2 19.7 ALF 149.47

LAUNCH DATE JUL 9 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 23 1974

HELIOCENTRIC CONIC DISTANCE 652.067 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.779	GAL	-3.89	AZL	96.17	HCA	196.78	SMA	197.87	ECC	.24097	INC	6.1706	V1	29.292
RP	245.32	LAP	1.78	LOP	123.34	VP	20.279	GAP	1.11	AZP	84.09	TAL	339.73	TAP	176.51	RCA	150.27	APO	245.47	V2	22.354
RC	285.791	GL	-42.07	GP	39.83	ZAL	114.65	ZAP	74.10	ETS	195.64	ZAE	98.49	ETE	175.12	ZAC	128.26	ETC	288.12	LVI	-62.56

PLANETOCENTRIC CONIC

C3	27.522	VHL	5.246	DLA	-22.69	RAL	59.46	RAD	6646.0	VEL	12.144	PTH	7.11	VHP	2.979	DPA	39.36	RAP	351.88	ECC	1.4529

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 37 27	2749.01	-19.58	77.53	280.89	134.27	18 23 16	1749.0	-1.47	61.17
60.00	18 45 16	2568.68	-13.95	66.43	286.04	128.20	19 28 4	1568.7	2.01	48.28
70.00	20 11 27	2315.31	-8.41	49.94	290.10	123.22	20 50 2	1315.3	5.54	30.39
80.00	21 54 28	1992.92	-3.83	28.28	292.91	119.63	22 27 41	992.9	8.51	7.73
90.00	23 32 52	1675.52	-1.69	6.01	293.98	118.22	24 0 47	675.5	9.78	345.06
100.00	0 41 15	1467.39	-3.83	349.65	292.91	119.63	1 5 43	467.4	8.51	329.10
110.00	1 14 49	1362.13	-8.41	338.86	290.10	123.22	1 37 31	362.1	5.54	319.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.5912	TRA	4.0478	TC3-3.9684	BAU	1.6903	SGT	6581.6	SGR	4481.2	SG3	1478.6	ST	112.9	SR	65.2	SS	57.6
RDE .6214	RRA-3.1295	RC3 2.3143	FAU .30309	SGB	7962.4	R23	.1194	R13	-.9903	LSA	139.8	MSA	28.2	SSA	.5
FDE-1.5482	FRA11.6426	FC3-9.5339	BSP 13587	SG1	7936.0	SG2	648.2	THA	145.90	EL1	129.1	EL2	18.5	ALF	150.70
BDE 1.7082	BRA 5.1165	BC3 4.5939	FSP 2672																

LAUNCH DATE JUL 9 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 25 1974

HELIOCENTRIC CONIC DISTANCE 655.822 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.782	GAL	-3.93	AZL	95.89	HCA	197.68	SMA	197.93	ECC	.24098	INC	5.8916	V1	29.292
RP	245.53	LAP	1.79	LOP	124.24	VP	20.261	GAP	.89	AZP	84.38	TAL	339.53	TAP	177.21	RCA	150.23	APO	245.62	V2	22.334
RC	288.361	GL	-40.56	GP	38.31	ZAL	115.37	ZAP	72.82	ETS	195.99	ZAE	97.47	ETE	176.22	ZAC	126.86	ETC	287.77	LVI	-61.12

PLANETOCENTRIC CONIC

C3	26.659	VHL	5.163	DLA	-21.20	RAL	59.13	RAD	6645.7	VEL	12.109	PTH	7.08	VHP	2.924	DPA	37.94	RAP	352.65	ECC	1.4387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 29 21	2772.97	-20.71	78.66	280.11	133.84	18 15 34	1773.0	-2.68	62.17
60.00	18 34 42	2599.21	-15.23	68.00	285.08	127.77	19 18 1	1599.2	.67	49.73
70.00	19 57 28	2355.86	-9.91	52.12	288.94	122.85	20 36 44	1355.9	4.00	32.52
80.00	21 36 14	2046.77	-5.63	31.26	291.54	119.37	22 10 21	1046.8	6.74	10.74
90.00	23 12 8	1737.42	-3.88	9.47	292.51	118.03	23 41 6	737.4	7.87	348.61
100.00	0 23 2	1521.24	-5.63	352.63	291.54	119.37	0 48 23	521.2	6.74	332.11
110.00	1 0 51	1402.68	-9.91	341.04	288.94	122.85	1 24 13	402.7	4.00	321.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.5345	TRA	4.1184	TC3-4.1943	BAU	1.7012	SGT	6759.4	SGR	4304.6	SG3	1540.4	ST	112.7	SR	62.0	SS	58.0
RDE .5699	RRA-2.9816	RC3 2.2783	FAU .31378	SGB	8013.7	R23	.1210	R13	-.9898	LSA	138.3	MSA	28.1	SSA	.8
FDE-1.4419	FRA12.0171	FC-10.1897	BSP 13669	SG1	7989.2	SG2	625.9	THA	147.67	EL1	127.8	EL2	17.3	ALF	151.66
BDE 1.6369	BRA 5.0644	BC3 4.7731	FSP 2783																

LAUNCH DATE JUL 9 1973 FLIGHT TIME 292.00 ARRIVAL DATE APR 27 1974

HELIOCENTRIC CONIC DISTANCE 659.576 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.785	GAL	-3.98	AZL	95.64	HCA	198.57	SMA	197.99	ECC	.24141	INC	5.8391	V1	29.292
RP	245.73	LAP	1.79	LOP	125.14	VP	20.245	GAP	.67	AZP	84.65	TAL	339.33	TAP	177.90	RCA	150.19	APO	245.78	V2	22.314
RC	290.907	GL	-39.13	GP	36.86	ZAL	116.06	ZAP	71.55	ETS	196.29	ZAE	96.42	ETE	177.24	ZAC	125.53	ETC	287.48	LVI	-59.74

PLANETOCENTRIC CONIC

C3	25.932	VHL	5.092	DLA	-19.80	RAL	58.86	RAD	6645.4	VEL	12.079	PTH	7.06	VHP	2.879	DPA	36.89	RAP	353.36	ECC	1.4288

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 22 3	2793.92	-21.79	79.60	279.49	133.40	18 8 39	1793.9	-3.83	63.13
60.00	18 25 12	2627.87	-16.43	69.49	284.32	127.33	19 9 0	1628.0	-.60	51.11
70.00	19 48 8	2393.14	-11.28	54.14	288.01	122.48	20 24 58	1393.1	2.58	34.48
80.00	21 20 27	2094.67	-7.23	33.92	290.48	119.08	21 55 22	1094.7	5.14	13.40
90.00	22 54 30	1791.30	-5.59	12.50	291.34	117.77	23 24 21	791.3	6.18	351.66
100.00	0 7 15	1589.14	-7.23	355.29	290.48	119.08	0 33 24	589.1	5.14	334.77
110.00	0 40 27	1439.96	-11.28	343.05	288.01	122.48	1 12 27	440.0	2.58	323.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.4798	TRA	4.1926	TC3-4.4123	BAU	1.7144	SGT	6938.4	SGR	4133.1	SG3	1594.1	ST	112.4	SR	59.0	SS	58.2
RDE .5238	RRA-2.8438	RC3 2.2327	FAU .32288	SGB	8073.6	R23	.1220	R13	-.9893	LSA	136.8	MSA	28.2	SSA	.8
FDE-1.3804	FRA12.3388	FC-10.7792	BSP 13771	SG1	8050.9	SG2	604.7	THA	148.38	EL1	128.9	EL2	16.2	ALF	152.97
BDE 1.5693	BRA 5.0661	BC3 4.9450	FSP 2880																

LAUNCH DATE JUL 9 1973 FLIGHT TIME 294.00 ARRIVAL DATE APR 29 1974

HELIOCENTRIC CONIC DISTANCE 663.329 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.788	GAL	-4.02	AZL	95.41	HCA	199.46	SMA	198.05	ECC	.24186	INC	5.4098	V1	29.292
RP	245.93	LAP	1.80	LOP	126.03	VP	20.229	GAP	.45	AZP	84.90	TAL	339.13	TAP	178.59	RCA	150.15	APO	246.98	V2	22.295
RC	293.430	GL	-37.79	GP	35.48	ZAL	116.73	ZAP	70.31	ETS	196.54	ZAE	98.34	ETE	178.18	ZAC	124.28	ETC	287.17	LVI	-58.42

PLANETOCENTRIC CONIC

C3	25.319	VHL	5.032	DLA	-18.47	RAL	58.64	RAD	6645.1	VEL	12.054	PTH	7.04	VHP	2.841	DPA	35.30	RAP	354.01	ECC	1.4187

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 18 26	2817.94	-22.82	80.89	279.08	132.96	18 2 24	1817.9	-4.93	64.08
60.00	18 18 38	2658.19	-17.54	70.92	283.71	126.86	19 0 53	1658.2	-1.80	52.41
70.00	19 34 0	2427.77	-12.54	56.03	287.26	122.03	20 14 27	1427.8	1.26	36.26
80.00	21 6 33	2138.07	-8.65	36.38	289.58	118.69	21 48 11	1138.1	3.68	18.60
90.00	22 39 8	1839.41	-7.11	15.22	290.41	117.44	23 9 48	839.4	4.65	354.37
100.00	23 49 28	1612.58	-8.65	357.72	289.58	118.69	24 16 18	612.5	3.68	337.17
110.00	0 37 22	1474.59	-12.54	344.95	287.26	122.03	1 1 56	474.6	1.26	325.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.4236	TRA	4.2714	TC3-4.6192	BAU	1.7285	SGT	7108.4	SGR	3966.0	SG3	1639.7	ST	112.0	SR	56.1	SS	58.3
RDE .4808	RRA-2.7160	RC3 2.1769	FAU .33012	SGB	8140.0	R23	.1225	R13	-.9886	LSA	135.2	MSA	28.3	SSA	.8
FDE-1.1808	FRA12.6140	FC-11.2880	BSP 13924	SG1	8118.9	SG2	585.0	THA	151.03	EL1	124.3	EL2	15.0	ALF	154.01
BDE 1.5028	BRA 5.0617	BC3 5.1064	FSP 2973																

LAUNCH DATE JUL 9 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 1 1974

HELIOCENTRIC CONIC DISTANCE 667.080 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.792 GAL -4.07 AZL 95.20 HCA 200.36 SMA 198.12 ECC .24232 INC 5.1996 V1 29.292
RP 246.12 LAP 1.81 LOP 126.93 VP 20.214 GAP .23 AZP 85.12 TAL 338.92 TAP 179.27 RCA 150.11 APO 246.12 V2 22.276
RC 295.928 GL -36.53 GP 34.16 ZAL 117.37 ZAP 88.09 ETS 196.77 ZAE 94.23 ETE 179.04 ZAC 123.03 ETC 286.92 LVI -57.15

PLANETOCENTRIC CONIC

C3 24.800 VHL 4.980 DLA -17.20 RAL 58.46 RAD 6644.9 VEL 12.032 PTH 7.02 VHP 2.811 DPA 34.07 RAP 354.63 ECC 1.4081

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 9 25	2839.11	-23.79	81.95	278.66	132.50	17 56 44	1839.1	-5.99	64.95
60.00	18 8 50	2681.07	-18.60	72.30	283.24	126.42	18 53 31	1681.1	-2.93	53.64
70.00	19 23 59	2460.17	-13.70	57.82	286.68	121.59	20 4 59	1460.2	.02	37.97
80.00	20 54 9	2177.94	-9.95	38.60	288.89	118.30	21 30 27	1177.9	2.34	17.99
90.00	22 25 32	1883.14	-8.47	17.71	289.67	117.08	22 56 55	883.1	3.25	356.82
100.00	23 37 1	1652.41	-9.95	359.97	288.89	118.30	24 4 33	652.4	2.34	339.36
110.00	0 27 21	1506.99	-13.70	346.74	286.68	121.59	0 52 28	507.0	.02	326.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3721 TRA 4.3501 TC3-4.8214 BAU 1.7460 SGT 7280.3 SGR 3605.2 SG3 1678.1 ST 111.6 SR 53.5 SS 58.3
RDE .4450 RRA-2.5947 RC3 2.1182 FAU .33639 RRT -.9859 RRF -.9959 RTF .9835 CRT -.9590 CRS .9700 CST -.8616
FDE-1.0465 FRA12.8358 FC-11.7428 BSP 14049 SGB 8214.8 R23 .1221 R13 -.9884 LSA 133.9 MSA 28.3 SSA .6
BDE 1.4425 BRA 5.0652 BC3 5.2662 FSP 3041 SG1 8195.3 SG2 565.2 THA 152.60 EL1 123.0 EL2 13.8 ALF 154.98

LAUNCH DATE JUL 9 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 3 1974

HELIOCENTRIC CONIC DISTANCE 670.836 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.795 GAL -4.11 AZL 95.01 HCA 201.25 SMA 198.18 ECC .24280 INC 5.0068 V1 29.292
RP 246.30 LAP 1.81 LOP 127.83 VP 20.199 GAP .02 AZP 85.33 TAL 338.70 TAP 179.95 RCA 150.06 APO 246.30 V2 22.258
RC 298.401 GL -35.34 GP 32.91 ZAL 117.99 ZAP 87.89 ETS 196.95 ZAE 93.11 ETE 179.84 ZAC 121.86 ETC 286.69 LVI -55.95

PLANETOCENTRIC CONIC

C3 24.362 VHL 4.936 DLA -16.01 RAL 58.32 RAD 6644.7 VEL 12.014 PTH 7.01 VHP 2.786 DPA 32.90 RAP 355.21 ECC 1.4009

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 3 55	2859.50	-24.73	82.99	278.41	132.04	17 51 34	1859.5	-7.01	65.81
60.00	18 1 44	2705.74	-19.59	73.63	282.90	125.95	18 46 49	1705.7	-4.02	54.83
70.00	19 14 53	2490.69	-14.79	59.52	286.23	121.14	19 56 24	1490.7	-1.14	39.57
80.00	20 42 59	2214.93	-11.13	40.71	288.35	117.88	21 19 54	1214.9	1.08	20.02
90.00	22 13 21	1923.39	-9.71	20.02	289.09	116.69	22 45 25	923.4	1.96	359.07
100.00	23 25 51	1689.40	-11.13	2.08	288.35	117.88	23 54 0	689.4	1.08	341.39
110.00	0 18 15	1537.51	-14.79	348.44	286.23	121.14	0 43 53	537.5	-1.14	328.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.3228 TRA 4.4291 TC3-5.0180 BAU 1.7663 SGT 7450.2 SGR 3650.1 SG3 1709.6 ST 111.3 SR 51.0 SS 58.3
RDE .4142 RRA-2.4800 RC3 2.0567 FAU .34163 RRT -.9861 RRF -.9954 RTF .9837 CRT -.9634 CRS .9636 CST -.8569
FDE -.9102 FRA13.0088 FC-12.1403 BSP 14174 SGB 8296.3 R23 .1209 R13 -.9881 LSA 132.6 MSA 28.3 SSA .6
BDE 1.3861 BRA 5.0762 BC3 5.4231 FSP 3095 SG1 8278.3 SG2 546.4 THA 154.09 EL1 121.8 EL2 12.5 ALF 155.89

LAUNCH DATE JUL 9 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 5 1974

HELIOCENTRIC CONIC DISTANCE 674.578 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.799 GAL -4.16 AZL 94.83 HCA 202.14 SMA 198.25 ECC .24329 INC 4.8293 V1 29.292
RP 246.48 LAP 1.82 LOP 128.72 VP 20.186 GAP -.20 AZP 85.53 TAL 338.49 TAP 180.63 RCA 150.02 APO 246.48 V2 22.241
RC 300.850 GL -34.21 GP 31.72 ZAL 118.59 ZAP 86.72 ETS 197.11 ZAE 91.97 ETE 180.57 ZAC 120.75 ETC 286.49 LVI -54.79

PLANETOCENTRIC CONIC

C3 23.992 VHL 4.898 DLA -14.87 RAL 58.21 RAD 6644.6 VEL 11.999 PTH 6.99 VHP 2.767 DPA 31.80 RAP 355.76 ECC 1.3948

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 58 52	2879.18	-25.62	84.01	278.25	131.57	17 46 52	1879.2	-7.99	66.65
60.00	17 55 13	2729.36	-20.53	74.92	282.65	125.48	18 40 42	1729.4	-5.05	55.96
70.00	19 6 34	2519.57	-15.80	61.15	285.89	120.68	19 48 34	1519.6	-2.25	41.07
80.00	20 32 51	2249.52	-12.23	42.69	287.94	117.45	21 10 21	1249.5	-.09	21.92
90.00	22 2 21	1960.80	-10.85	22.18	288.65	116.28	22 35 2	960.8	.75	1.16
100.00	23 15 43	1723.99	-12.23	4.06	287.94	117.45	23 44 27	724.0	-.09	343.29
110.00	0 9 57	1566.39	-15.80	350.07	285.89	120.68	0 36 3	566.4	-2.25	329.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.2713 TRA 4.5143 TC3-5.2006 BAU 1.7858 SGT 7616.8 SGR 3500.5 SG3 1734.5 ST 110.9 SR 48.7 SS 58.2
RDE .3855 RRA-2.3744 RC3 1.9879 FAU .34505 RRT -.9861 RRF -.9947 RTF .9839 CRT -.9678 CRS .9561 CST -.8519
FDE -.7609 FRA13.1539 FC-12.4508 BSP 14368 SGB 8382.7 R23 .1192 R13 -.9877 LSA 131.4 MSA 28.5 SSA .6
BDE 1.3284 BRA 5.1006 BC3 5.5676 FSP 3152 SG1 8366.0 SG2 529.7 THA 155.52 EL1 120.6 EL2 11.3 ALF 156.79

LAUNCH DATE JUL 9 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 7 1974

HELIOCENTRIC CONIC DISTANCE 678.324 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.802 GAL -4.21 AZL 94.66 HCA 203.03 SMA 198.32 ECC .24379 INC 4.6650 V1 29.292
RP 246.65 LAP 1.82 LOP 129.61 VP 20.173 GAP -.42 AZP 85.71 TAL 338.27 TAP 181.30 RCA 149.97 APO 246.67 V2 22.224
RC 303.274 GL -33.14 GP 30.59 ZAL 119.17 ZAP 85.58 ETS 197.24 ZAE 90.83 ETE 181.23 ZAC 119.68 ETC 286.30 LVI -53.69

PLANETOCENTRIC CONIC

C3 23.681 VHL 4.866 DLA -13.78 RAL 58.14 RAD 6644.4 VEL 11.986 PTH 6.98 VHP 2.752 DPA 30.76 RAP 356.29 ECC 1.3897

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 15	2898.19	-26.48	85.02	278.17	131.09	17 42 33	1898.2	-8.94	67.46
60.00	17 49 13	2752.00	-21.42	76.18	282.50	124.99	18 35 5	1752.0	-6.04	57.05
70.00	18 58 57	2547.02	-16.74	62.71	285.66	120.21	19 41 24	1547.0	-3.29	42.51
80.00	20 23 35	2282.07	-13.24	44.58	287.64	117.01	21 1 37	1282.1	-1.19	23.71
90.00	21 52 19	1995.83	-11.90	24.22	288.32	115.85	22 25 35	995.8	-.38	3.11
100.00	23 6 27	1756.55	-13.24	5.95	287.64	117.01	23 35 44	756.5	-1.19	345.08
110.00	0 2 19	1593.84	-16.74	351.63	285.66	120.21	0 28 53	593.8	-3.29	331.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.2226 TRA 4.5985 TC3-5.3784 BAU 1.8079 SGT 7781.5 SGR 3356.6 SG3 1753.2 ST 110.6 SR 46.6 SS 58.1
RDE .3615 RRA-2.2738 RC3 1.9186 FAU .34764 RRT -.9860 RRF -.9940 RTF .9840 CRT -.9725 CRS .9475 CST -.8474
FDE -.6167 FRA13.2557 FC-12.7089 BSP 14540 SGB 8474.6 R23 .1169 R13 -.9874 LSA 130.3 MSA 28.6 SSA .7
BDE 1.2750 BRA 5.1300 BC3 5.7104 FSP 3189 SG1 8459.0 SG2 514.1 THA 156.87 EL1 119.6 EL2 10.0 ALF 157.56

LAUNCH DATE JUL 9 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 9 1974

HELIOCENTRIC CONIC DISTANCE 682.070 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.806	GAL	-4.26	AZL	94.81	HCA	203.92	SMA	198.40	ECC	.24431	INC	4.5124	V1	29.292
RP	246.82	LAP	1.83	LOP	130.50	VP	20.161	GAP	-.63	AZP	85.87	TAL	338.04	TAP	181.96	RCA	149.93	APO	246.87	V2	22.207
RC	305.875	GL	-32.13	GP	29.52	ZAL	119.74	ZAP	64.46	ETS	197.34	ZAE	89.69	ETE	181.65	ZAC	118.67	ETC	286.13	LVI	-52.64

PLANETOCENTRIC CONIC

C3 23.422 VHL 4.840 DLA -12.75 RAL 58.09 RAD 6644.3 VEL 11.975 PTH 6.97 VHP 2.741 DPA 29.77 RAP 356.79 ECC 1.3855

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 49 59	2918.59	-27.30	86.00	278.16	130.61	17 38 36	1916.6	-9.85	68.25
60.00	17 43 41	2773.78	-22.26	77.40	282.43	124.50	18 29 55	1773.8	-6.99	58.11
70.00	18 51 55	2573.21	-17.63	64.22	285.51	119.73	19 34 48	1573.2	-4.29	43.88
80.00	20 15 5	2312.88	-14.19	46.38	287.43	116.55	20 53 38	1312.9	-2.23	25.40
90.00	21 43 7	2028.84	-12.87	26.15	288.09	115.40	22 16 56	1028.8	-1.44	4.96
100.00	22 57 57	1787.35	-14.19	7.75	287.43	116.55	23 27 44	787.3	-2.23	346.77
110.00	23 51 21	1620.03	-17.63	353.14	285.51	119.73	24 18 21	620.0	-4.29	332.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1760	TRA	4.6835	TC3	-5.5506	BAU	1.8320	SGT	7944.9	SGR	3219.2	SG3	1766.9	ST	110.4	SR	44.6	SS	58.0
RDE	.3416	RRA	-2.1789	RC3	1.8496	FAU	.34953	RRT	-.9859	RRF	-.9932	RTF	.9842	CRT	-.9774	CRS	.9377	CST	-.8436
FDE	-.4779	FRA	13.3227	FC	-12.9194	BSP	14704	SGB	8572.3	R23	.1137	R13	-.9871	LSA	129.3	NSA	28.6	SSA	.7
BDE	1.2246	BRA	5.1655	BC3	5.8507	FSP	3213	SG1	8557.7	SG2	499.5	THA	158.15	EL1	118.7	EL2	8.8	ALF	158.32

LAUNCH DATE JUL 9 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 11 1974

HELIOCENTRIC CONIC DISTANCE 685.813 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.810	GAL	-4.31	AZL	94.37	HCA	204.81	SMA	198.47	ECC	.24484	INC	4.3704	V1	29.292
RP	246.98	LAP	1.83	LOP	131.39	VP	20.150	GAP	-.65	AZP	86.03	TAL	337.81	TAP	182.62	RCA	149.88	APO	247.07	V2	22.191
RC	308.047	GL	-31.17	GP	28.50	ZAL	120.29	ZAP	63.37	ETS	197.42	ZAE	88.54	ETE	182.41	ZAC	117.69	ETC	285.98	LVI	-51.64

PLANETOCENTRIC CONIC

C3 23.207 VHL 4.817 DLA -11.78 RAL 58.08 RAD 6644.2 VEL 11.966 PTH 6.97 VHP 2.734 DPA 28.84 RAP 357.28 ECC 1.3819

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 46 4	2934.42	-28.08	86.97	278.22	130.13	17 34 58	1934.4	-10.74	69.02
60.00	17 38 34	2794.77	-23.07	78.59	282.42	124.01	18 25 9	1794.8	-7.91	59.13
70.00	18 45 25	2598.27	-18.47	65.68	285.45	119.25	19 28 43	1598.3	-5.24	45.20
80.00	20 7 14	2342.15	-15.07	48.10	287.31	116.08	20 46 16	1342.2	-3.22	27.01
90.00	21 34 39	2060.11	-13.77	28.00	287.95	114.94	22 8 59	1060.1	-2.45	6.70
100.00	22 50 6	1816.62	-15.07	9.47	287.31	116.08	23 20 22	816.6	-3.22	348.38
110.00	23 44 51	1645.09	-18.47	354.60	285.45	119.25	24 12 16	645.1	-5.24	334.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1299	TRA	4.7707	TC3	-5.7143	BAU	1.8569	SGT	8106.0	SGR	3087.8	SG3	1775.6	ST	110.2	SR	42.8	SS	57.9
RDE	.3245	RRA	-2.0900	RC3	1.7793	FAU	.35040	RRT	-.9857	RRF	-.9923	RTF	.9843	CRT	-.9822	CRS	.9267	CST	-.8401
FDE	-.3409	FRA	13.3635	FC	-13.0714	BSP	14893	SGB	8674.2	R23	.1099	R13	-.9869	LSA	128.4	NSA	28.7	SSA	.7
BDE	1.1756	BRA	5.2084	BC3	5.9849	FSP	3232	SG1	8660.6	SG2	486.6	THA	159.35	EL1	118.0	EL2	7.5	ALF	159.04

LAUNCH DATE JUL 9 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 13 1974

HELIOCENTRIC CONIC DISTANCE 689.555 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.814	GAL	-4.36	AZL	94.24	HCA	205.69	SMA	198.55	ECC	.24539	INC	4.2377	V1	29.292
RP	247.14	LAP	1.84	LOP	132.28	VP	20.139	GAP	-1.06	AZP	86.18	TAL	337.58	TAP	183.27	RCA	149.83	APO	247.27	V2	22.176
RC	310.395	GL	-30.25	GP	27.53	ZAL	120.83	ZAP	62.30	ETS	197.49	ZAE	87.40	ETE	182.92	ZAC	116.77	ETC	285.85	LVI	-50.69

PLANETOCENTRIC CONIC

C3 23.033 VHL 4.799 DLA -10.81 RAL 58.08 RAD 6644.2 VEL 11.959 PTH 6.96 VHP 2.730 DPA 27.96 RAP 357.75 ECC 1.3791

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 42 26	2951.72	-28.84	87.93	278.34	129.64	17 31 37	1951.7	-11.59	69.78
60.00	17 33 50	2815.03	-23.83	79.75	282.48	123.51	18 20 48	1815.0	-8.79	60.12
70.00	18 39 22	2622.33	-19.27	67.09	285.45	118.76	19 23 8	1622.3	-6.18	46.47
80.00	19 59 57	2370.08	-15.90	49.76	287.26	115.61	20 39 27	1370.1	-4.16	28.55
90.00	21 26 49	2089.85	-14.62	29.78	287.88	114.48	22 1 39	1089.9	-3.40	8.37
100.00	22 42 49	1844.55	-15.90	11.13	287.26	115.61	23 13 34	844.6	-4.16	349.82
110.00	23 38 49	1669.15	-19.27	356.01	285.45	118.76	24 6 38	669.1	-6.18	335.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.0842	TRA	4.8598	TC3	-5.8697	BAU	1.8824	SGT	8264.5	SGR	2981.8	SG3	1779.8	ST	110.0	SR	41.1	SS	57.8
RDE	.3099	RRA	-2.0063	RC3	1.7083	FAU	.35035	RRT	-.9854	RRF	-.9918	RTF	.9844	CRT	-.9867	CRS	.9142	CST	-.8370
FDE	-.2852	FRA	13.3788	FC	-13.1686	BSP	15087	SGB	8779.2	R23	.1056	R13	-.9868	LSA	127.7	NSA	28.8	SSA	.8
BDE	1.1276	BRA	5.2874	BC3	6.1132	FSP	3242	SG1	8766.3	SG2	475.6	THA	160.49	EL1	117.3	EL2	6.3	ALF	159.73

LAUNCH DATE JUL 9 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC DISTANCE 693.296 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.818	GAL	-4.41	AZL	94.11	HCA	206.58	SMA	198.63	ECC	.24595	INC	4.1135	V1	29.292
RP	247.29	LAP	1.84	LOP	133.17	VP	20.129	GAP	-1.28	AZP	86.32	TAL	337.35	TAP	183.92	RCA	149.78	APO	247.48	V2	22.161
RC	312.717	GL	-29.38	GP	26.60	ZAL	121.36	ZAP	61.27	ETS	197.53	ZAE	86.26	ETE	183.40	ZAC	115.88	ETC	288.72	LVI	-49.78

PLANETOCENTRIC CONIC

C3 22.893 VHL 4.788 DLA -9.81 RAL 58.10 RAD 6644.1 VEL 11.953 PTH 6.95 VHP 2.720 DPA 27.14 RAP 358.21 ECC 1.3788

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 38 4	2968.54	-29.56	88.87	278.31	129.14	17 28 32	1968.5	-12.42	70.51
60.00	17 29 25	2834.63	-24.56	80.90	282.60	123.01	18 16 39	1834.6	-9.63	61.08
70.00	18 33 45	2645.48	-20.02	68.47	285.51	118.27	19 17 50	1645.5	-7.02	47.69
80.00	19 53 11	2398.62	-16.68	51.36	287.28	115.13	20 33 8	1398.6	-5.06	30.03
90.00	21 19 32	2118.25	-15.42	31.48	287.88	114.01	21 54 50	1118.3	-4.31	9.98
100.00	22 36 3	1871.29	-16.68	12.73	287.28	115.13	23 7 14	871.3	-5.06	351.39
110.00	23 33 11	1692.29	-20.02	357.38	285.51	118.27	24 1 24	692.3	-7.02	336.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.0398	TRA	4.9488	TC3	-6.0189	BAU	1.9092	SGT	8421.1	SGR	2841.5	SG3	1779.6	ST	110.0	SR	39.5	SS	57.6
RDE	.2983	RRA	-1.9270	RC3	1.6367	FAU	.34975	RRT	-.9850	RRF	-.9901	RTF	.9845	CRT	-.9910	CRS	.9003	CST	-.8349
FDE	-.0783	FRA	13.3677	FC	-13.2264	BSP	15280	SGB	8867.6	R23	.1004	R13	-.9864	LSA	127.0	NSA	28.9	SSA	.8
BDE	1.0818	BRA	5.3108	BC3	6.2380	FSP	3242	SG1	8875.4	SG2	465.6	THA	161.56	EL1	116.7	EL2	5.0	ALF	160.38

LAUNCH DATE JUL 9 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 17 1974

HELIOCENTRIC CONIC DISTANCE 697.035 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.822 GAL -4.47 AZL 94.00 HCA 207.46 SMA 198.71 ECC .24652 INC 3.9968 V1 29.292
RP 247.44 LAP 1.84 LOP 134.05 VP 20.120 GAP -1.49 AZP 86.45 TAL 337.11 TAP 184.57 RCA 149.72 APO 247.70 V2 22.147
RC 315.013 GL -28.54 GP 25.72 ZAL 121.88 ZAP 60.26 ETS 197.57 ZAE 85.13 ETE 183.83 ZAC 115.03 ETC 285.61 LVI -48.91

PLANETOCENTRIC CONIC

C3 22.784 VHL 4.773 DLA -9.04 RAL 58.15 RAD 6644.1 VEL 11.949 PTH 6.95 VHP 2.729 DPA 26.36 RAP 358.66 ECC 1.3750

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 35 57	2984.90	-30.26	89.80	278.73	128.64	17 25 42	1984.9	-13.23	71.24
60.00	17 25 18	2853.63	-25.26	82.02	282.77	122.51	18 12 52	1853.6	-10.45	62.02
70.00	18 28 30	2667.80	-20.73	69.80	285.62	117.77	19 12 58	1667.8	-7.86	48.88
80.00	19 46 52	2422.49	-17.41	52.91	287.35	114.64	20 27 15	1422.5	-5.92	31.45
90.00	21 12 44	2145.47	-16.16	33.13	287.94	113.53	21 48 29	1145.5	-5.18	11.49
100.00	22 29 44	1896.96	-17.41	14.28	287.35	114.64	23 1 21	897.0	-5.92	352.82
110.00	23 27 57	1714.62	-20.73	358.72	285.62	117.77	23 56 31	714.6	-7.86	337.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.9956 TRA 5.0407 TC3-6.1593 BAU 1.9360 SGT 8575.4 SGR 2726.3 SG3 1775.8 ST 110.0 SR 38.0 SS 57.5
RDE .2883 RRA-1.8530 RC3 1.5680 FAU .34812 RRT -.9844 RRF -.9887 RTF .9846 CRT -.9945 CRS .8847 CST -.8326
FDE .0501 FRA13.3422 FC-13.2273 BSP 15495 SGB 8998.4 R23 .0954 R13 -.9862 LSA 126.5 MSA 29.0 SSA .8
BDE 1.0365 BRA 5.3705 BC3 6.3558 FSP 3242 SG1 8986.7 SG2 458.4 THA 162.58 EL1 116.3 EL2 3.8 ALF 161.00

LAUNCH DATE JUL 9 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC DISTANCE 700.772 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.826 GAL -4.52 AZL 93.89 HCA 208.35 SMA 198.79 ECC .24711 INC 3.8870 V1 29.292
RP 247.58 LAP 1.84 LOP 134.94 VP 20.112 GAP -1.70 AZP 86.58 TAL 336.86 TAP 185.21 RCA 149.67 APO 247.92 V2 22.133
RC 317.282 GL -27.75 GP 24.89 ZAL 122.39 ZAP 59.28 ETS 197.58 ZAE 84.01 ETE 184.23 ZAC 114.21 ETC 285.51 LVI -48.08

PLANETOCENTRIC CONIC

C3 22.704 VHL 4.765 DLA -8.20 RAL 58.21 RAD 6644.0 VEL 11.945 PTH 6.95 VHP 2.733 DPA 25.62 RAP 359.11 ECC 1.3737

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 33 3	3000.83	-30.94	90.72	278.99	128.14	17 23 4	2000.8	-14.01	71.94
60.00	17 21 28	2872.06	-25.93	83.12	282.98	122.00	18 9 20	1872.1	-11.24	62.94
70.00	18 23 36	2689.38	-21.41	71.11	285.79	117.27	19 8 25	1689.4	-8.66	50.03
80.00	19 40 58	2447.19	-18.11	54.42	287.48	114.15	20 21 45	1447.2	-6.74	32.82
90.00	21 6 22	2171.61	-16.87	34.73	288.05	113.04	21 42 34	1171.6	-6.01	12.96
100.00	22 23 49	1921.66	-18.11	15.79	287.48	114.15	22 55 51	921.7	-6.74	354.19
110.00	23 23 2	1736.20	-21.41	.03	285.79	117.27	23 51 58	736.2	-8.66	338.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.9531 TRA 5.1323 TC3-6.2950 BAU 1.9643 SGT 8728.0 SGR 2616.7 SG3 1768.9 ST 110.1 SR 36.7 SS 57.4
RDE .2811 RRA-1.7824 RC3 1.5003 FAU .34627 RRT -.9837 RRF -.9873 RTF .9846 CRT -.9973 CRS .8677 CST -.8315
FDE .1665 FRA13.2924 FC-13.2034 BSP 15698 SGB 9111.8 R23 .0895 R13 -.9861 LSA 126.1 MSA 29.1 SSA .9
BDE .9937 BRA 5.4330 BC3 6.4713 FSP 3231 SG1 9100.6 SG2 451.7 THA 163.53 EL1 116.0 EL2 2.6 ALF 161.61

LAUNCH DATE JUL 9 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC DISTANCE 704.507 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.831 GAL -4.58 AZL 93.78 HCA 209.23 SMA 198.88 ECC .24770 INC 3.7834 V1 29.292
RP 247.71 LAP 1.85 LOP 135.82 VP 20.105 GAP -1.92 AZP 86.70 TAL 336.62 TAP 185.85 RCA 149.61 APO 248.14 V2 22.120
RC 319.522 GL -26.98 GP 24.09 ZAL 122.90 ZAP 58.32 ETS 197.59 ZAE 82.90 ETE 184.59 ZAC 113.43 ETC 285.41 LVI -47.28

PLANETOCENTRIC CONIC

C3 22.650 VHL 4.759 DLA -7.40 RAL 58.29 RAD 6644.0 VEL 11.943 PTH 6.95 VHP 2.738 DPA 24.94 RAP 359.55 ECC 1.3728

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 30 21	3016.37	-31.59	91.64	279.29	127.63	17 20 38	2016.4	-14.77	72.64
60.00	17 17 53	2889.97	-26.58	84.20	283.24	121.49	18 6 3	1890.0	-12.01	63.83
70.00	18 19 0	2710.27	-22.06	72.39	286.00	116.76	19 4 10	1710.3	-9.44	51.15
80.00	19 35 25	2471.03	-18.77	55.88	287.65	113.66	20 16 36	1471.0	-7.53	34.15
90.00	21 0 25	2196.80	-17.53	36.28	288.21	112.55	21 37 2	1196.8	-6.80	14.38
100.00	22 18 17	1945.50	-18.77	17.25	287.65	113.66	22 50 42	945.5	-7.53	356.52
110.00	23 18 26	1757.09	-22.06	1.30	286.00	116.76	23 47 43	757.1	-9.44	340.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.9097 TRA 5.2268 TC3-6.4219 BAU 1.9925 SGT 8878.3 SGR 2512.1 SG3 1759.0 ST 110.2 SR 35.4 SS 57.3
RDE .2751 RRA-1.7161 RC3 1.4332 FAU .34374 RRT -.9828 RRF -.9856 RTF .9847 CRT -.9991 CRS .8490 CST -.8308
FDE .2826 FRA13.2304 FC-13.1383 BSP 15918 SGB 9226.8 R23 .0834 R13 -.9859 LSA 125.8 MSA 29.2 SSA .9
BDE .9504 BRA 5.5011 BC3 6.5799 FSP 3216 SG1 9216.0 SG2 446.7 THA 164.42 EL1 115.7 EL2 1.5 ALF 162.19

LAUNCH DATE JUL 9 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 23 1974

HELIOCENTRIC CONIC DISTANCE 708.241 EARTH TO MARS

RL 152.09 LAL .00 LOL 286.65 VL 32.835 GAL -4.64 AZL 93.69 HCA 210.11 SMA 198.96 ECC .24831 INC 3.6855 V1 29.292
RP 247.84 LAP 1.85 LOP 136.71 VP 20.098 GAP -2.13 AZP 86.81 TAL 336.37 TAP 186.48 RCA 149.56 APO 248.37 V2 22.107
RC 321.734 GL -26.25 GP 23.34 ZAL 123.39 ZAP 57.39 ETS 197.58 ZAE 81.80 ETE 184.93 ZAC 112.68 ETC 285.33 LVI -46.53

PLANETOCENTRIC CONIC

C3 22.619 VHL 4.756 DLA -6.82 RAL 58.39 RAD 6644.0 VEL 11.942 PTH 6.94 VHP 2.745 DPA 24.29 RAP 359.99 ECC 1.3723

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 27 51	3031.54	-32.21	92.54	279.63	127.12	17 18 23	2031.5	-15.51	73.32
60.00	17 14 31	2907.41	-27.19	85.26	283.54	120.97	18 2 59	1907.4	-12.75	64.71
70.00	18 14 41	2730.53	-22.67	73.64	286.25	116.25	19 0 11	1730.5	-10.19	52.24
80.00	19 30 12	2494.09	-19.39	57.31	287.87	113.16	20 11 46	1494.1	-8.29	35.44
90.00	20 54 48	2221.13	-18.16	37.78	288.41	112.06	21 31 49	1221.1	-7.56	15.76
100.00	22 13 4	1968.56	-19.39	18.68	287.87	113.16	22 45 53	968.6	-8.29	356.81
110.00	23 14 7	1777.38	-22.67	2.55	286.25	116.25	23 43 44	777.4	-10.19	341.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.8679 TRA 5.3216 TC3-6.5429 BAU 2.0213 SGT 9026.7 SGR 2412.3 SG3 1746.4 ST 110.4 SR 34.3 SS 57.2
RDE .2710 RRA-1.6533 RC3 1.3675 FAU .34069 RRT -.9818 RRF -.9838 RTF .9847 CRT -.9996 CRS .8285 CST -.8302
FDE .3908 FRA13.1536 FC-13.0397 BSP 16135 SGB 9343.4 R23 .0773 R13 -.9857 LSA 125.6 MSA 29.4 SSA .9
BDE .9092 BRA 5.5725 BC3 6.6843 FSP 3196 SG1 9332.9 SG2 443.5 THA 165.26 EL1 115.6 EL2 .9 ALF 162.76

LAUNCH DATE JUL 9 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 25 1974

HELIOCENTRIC CONIC DISTANCE 711.973 EARTH TO MARS

RL	152.09	LAL	.00	LOL	286.65	VL	32.839	GAL	-4.69	AZL	93.59	HCA	210.99	SMA	199.05	ECC	.24894	INC	3.5927	V1	29.292
RP	247.97	LAP	1.85	LOP	137.59	VP	20.092	GAP	-2.34	AZP	86.92	TAL	336.12	TAP	187.11	RCA	149.50	APO	248.60	V2	22.095
RC	323.917	GL	-25.55	GP	22.62	ZAL	123.88	ZAP	56.49	ETS	197.57	ZAE	80.71	ETE	185.23	ZAC	111.96	ETC	285.25	LVI	-45.80

PLANETOCENTRIC CONIC

C3	22.609	VHL	4.755	DLA	-5.88	RAL	58.50	RAD	6644.0	VEL	11.941	PTH	6.94	VHP	2.754	DPA	23.68	RAP	.42	ECC	1.3721

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 25 31	3046.37	-32.82	93.43	280.01	126.61	17 16 17	2046.4	-16.22	74.00
60.00	17 11 22	2924.40	-27.78	86.31	283.87	120.46	18 0 7	1924.4	-13.47	65.57
70.00	18 10 37	2750.22	-23.26	74.86	286.54	115.74	18 56 27	1750.2	-10.91	53.31
80.00	19 25 18	2516.42	-19.98	58.70	288.13	112.66	20 7 14	1516.4	-9.02	36.70
90.00	20 49 31	2244.66	-18.75	39.25	288.66	111.56	21 26 56	1244.7	-8.30	17.10
100.00	22 8 9	1990.89	-19.98	20.07	288.13	112.66	22 41 20	990.9	-9.02	358.07
110.00	23 10 3	1797.04	-23.26	3.78	286.54	115.74	23 40 0	797.0	-10.91	342.22

DIFFERENTIAL CORRECTIONS

TDE	-.8266	TRA	5.4181	TC3	-6.6577	BAU	2.0506
RDE	.2684	RRA	-1.5941	RC3	1.3036	FAU	.33724
FDE	.4941	FRA	13.0662	FC	-12.9132	BSP	16358
BDE	.8690	BRA	5.6477	BC3	6.7841	FSP	3173

MID-COURSE EXECUTION ACCURACY

SGT	9173.5	SGR	2317.4	SG3	1731.6		
RRT	-.9805	RRF	-.9817	RTF	.9847		
SGB	9461.7	R23	.0710	R13	-.9856		
SG1	9451.4	SG2	441.6	THA	166.06		

ORBIT DETERMINATION ACCURACY

ST	110.7	SR	33.2	SS	57.1		
CRT	-.9987	CRS	.8064	CST	-.8303		
LSA	125.5	MSA	29.5	SSA	.9		
EL1	115.6	EL2	1.6	ALF	163.32		

LAUNCH DATE JUL 10 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 357.116 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 34.793 GAL -5.37 AZL 90.24 HCA 114.88 SMA 248.21 ECC .39674 INC .2430 V1 29.293
RP 217.98 LAP -.22 LOP 42.49 VP 26.134 GAP 22.36 AZP 89.90 TAL 340.99 TAP 95.87 RCA 149.73 APO 346.68 V2 25.208
RC 74.281 GL -1.35 GP -5.28 ZAL 120.98 ZAP 171.25 ETS 218.67 ZAE 169.49 ETE 331.50 ZAC 79.51 ETC 283.48 LVI -13.75

PLANETOCENTRIC CONIC

C3 38.921 VHL 6.239 DLA 16.06 RAL 46.52 RAD 6650.3 VEL 12.601 PTH 7.46 VHP 7.953 DPA 8.01 RAP 35.28 ECC 1.6405

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 11 27	3622.35	-47.46	139.67	296.02	93.87	15 11 50	2622.4	-40.42	107.29
60.00	14 32 44	3565.72	-40.30	134.92	296.37	90.20	15 32 9	2565.7	-35.81	104.77
70.00	15 3 58	3473.79	-34.06	127.31	296.20	87.31	16 1 51	2473.8	-31.60	98.85
80.00	15 52 20	3322.18	-29.52	115.47	295.86	85.32	16 47 43	2322.2	-28.46	88.09
90.00	17 4 47	3088.33	-27.80	98.11	295.69	84.57	17 56 16	2088.3	-27.26	71.12
100.00	18 35 12	2796.65	-29.52	76.84	295.86	85.32	19 21 49	1796.6	-28.46	49.46
110.00	20 3 24	2520.61	-34.06	56.22	296.20	87.31	20 45 25	1520.6	-31.60	27.77

DIFFERENTIAL CORRECTIONS

TDE -.4846 TRA-1.6414 TC3 .1241 BAU .0764
RDE -.5634 RRA .2760 RC3 -.0784 FAU .05981
FDE .5623 FRA 1.7114 FC3-1.3303 BSP .2675
BDE .7431 BRA 1.6645 BC3 .1468 FSP 273

MID-COURSE EXECUTION ACCURACY

SGT 1638.0 SGR 589.0 SG3 206.2
RRT -.2060 RRF .2324 RTF -.7808
SGB 1740.6 R23 -.0501 R13 .7826
SG1 1643.1 SG2 574.5 THA 175.17

ORBIT DETERMINATION ACCURACY

ST 32.4 SR 26.2 SS 24.5
CRT .5693 CRS .6106 CST .9966
LSA 44.2 MSA 19.5 SSA 1.3
EL1 37.2 EL2 18.7 ALF 34.67

LAUNCH DATE JUL 10 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 359.771 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 34.682 GAL -5.26 AZL 90.21 HCA 116.02 SMA 244.69 ECC .38782 INC .2049 V1 29.293
RP 218.35 LAP -.18 LOP 43.63 VP 25.947 GAP 22.01 AZP 89.91 TAL 341.07 TAP 97.10 RCA 149.79 APO 339.58 V2 25.168
RC 75.647 GL -1.16 GP -5.46 ZAL 120.86 ZAP 170.55 ETS 216.82 ZAE 168.72 ETE 332.06 ZAC 79.26 ETC 283.46 LVI -13.48

PLANETOCENTRIC CONIC

C3 37.321 VHL 6.109 DLA 16.21 RAL 46.35 RAD 6649.7 VEL 12.538 PTH 7.41 VHP 7.730 DPA 7.99 RAP 35.72 ECC 1.6142

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 10 8	3614.87	-47.42	138.95	294.94	94.43	15 10 22	2614.9	-40.19	106.73
60.00	14 31 12	3558.77	-40.30	134.33	295.37	90.60	15 30 31	2558.8	-35.65	104.25
70.00	15 2 11	3467.56	-34.08	126.82	295.25	87.60	15 59 59	2467.6	-31.50	98.39
80.00	15 50 19	3316.74	-29.55	115.07	294.93	85.53	16 45 35	2316.7	-28.40	87.70
90.00	17 2 38	3083.28	-27.83	97.74	294.76	84.75	17 54 2	2083.3	-27.21	70.75
100.00	18 33 11	2791.21	-29.55	76.44	294.93	85.53	19 19 42	1791.2	-28.40	49.07
110.00	20 1 37	2514.38	-34.08	55.74	295.25	87.60	20 43 32	1514.4	-31.50	27.31

DIFFERENTIAL CORRECTIONS

TDE -.4763 TRA-1.6287 TC3 .1546 BAU .0886
RDE -.5457 RRA .2779 RC3 -.0874 FAU .06194
FDE .5946 FRA 1.7802 FC3-1.4368 BSP .2636
BDE .7243 BRA 1.6522 BC3 .1776 FSP 296

MID-COURSE EXECUTION ACCURACY

SGT 1663.1 SGR 589.0 SG3 218.8
RRT -.2280 RRF .2506 RTF -.7945
SGB 1764.3 R23 -.0465 R13 .7963
SG1 1669.2 SG2 571.4 THA 174.77

ORBIT DETERMINATION ACCURACY

ST 32.7 SR 25.9 SS 25.6
CRT .5601 CRS .6120 CST .9960
LSA 44.8 MSA 19.6 SSA 1.2
EL1 37.2 EL2 18.9 ALF 33.65

LAUNCH DATE JUL 10 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 362.526 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 34.577 GAL -5.15 AZL 90.17 HCA 117.16 SMA 241.45 ECC .37937 INC .1655 V1 29.293
RP 218.71 LAP -.15 LOP 44.76 VP 25.767 GAP 21.66 AZP 89.92 TAL 341.17 TAP 98.32 RCA 149.85 APO 333.05 V2 25.127
RC 77.098 GL -.96 GP -5.64 ZAL 120.73 ZAP 169.83 ETS 215.23 ZAE 167.99 ETE 332.39 ZAC 79.00 ETC 283.43 LVI -13.20

PLANETOCENTRIC CONIC

C3 35.029 VHL 5.986 DLA 16.37 RAL 46.16 RAD 6649.2 VEL 12.479 PTH 7.37 VHP 7.514 DPA 7.95 RAP 36.15 ECC 1.5896

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 8 43	3607.85	-47.38	138.27	293.88	94.94	15 8 51	2607.8	-39.96	106.20
60.00	14 29 34	3552.31	-40.29	133.78	294.39	90.97	15 28 47	2552.3	-35.49	103.77
70.00	15 0 18	3461.87	-34.09	126.38	294.31	87.86	15 58 0	2461.9	-31.41	97.97
80.00	15 48 9	3311.89	-29.58	114.71	294.01	85.71	16 43 21	2311.9	-28.35	87.35
90.00	17 0 21	3078.86	-27.86	97.42	293.85	84.91	17 51 40	2078.9	-27.17	70.44
100.00	18 31 1	2786.37	-29.58	76.08	294.01	85.71	19 17 27	1786.4	-28.35	48.72
110.00	19 59 44	2508.69	-34.09	55.30	294.31	87.86	20 41 33	1508.7	-31.41	26.89

DIFFERENTIAL CORRECTIONS

TDE -.4805 TRA-1.6279 TC3 .1732 BAU .0952
RDE -.5285 RRA .2798 RC3 -.0976 FAU .06444
FDE .6232 FRA 1.8459 FC3-1.5570 BSP .2753
BDE .7143 BRA 1.6517 BC3 .1988 FSP 316

MID-COURSE EXECUTION ACCURACY

SGT 1700.6 SGR 589.5 SG3 232.2
RRT -.2442 RRF .2714 RTF -.8190
SGB 1799.9 R23 -.0532 R13 .8011
SG1 1707.5 SG2 569.4 THA 174.55

ORBIT DETERMINATION ACCURACY

ST 33.5 SR 25.6 SS 26.5
CRT .5584 CRS .6110 CST .9960
LSA 45.8 MSA 19.5 SSA 1.3
EL1 37.7 EL2 18.9 ALF 32.07

LAUNCH DATE JUL 10 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 365.371 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 34.477 GAL -5.04 AZL 90.13 HCA 118.29 SMA 238.46 ECC .37136 INC .1255 V1 29.293
RP 219.08 LAP -.11 LOP 45.89 VP 25.594 GAP 21.32 AZP 89.94 TAL 341.26 TAP 99.55 RCA 149.91 APO 327.01 V2 25.087
RC 78.631 GL -.74 GP -5.84 ZAL 120.59 ZAP 169.09 ETS 213.87 ZAE 167.32 ETE 332.52 ZAC 78.73 ETC 283.41 LVI -12.91

PLANETOCENTRIC CONIC

C3 34.432 VHL 5.868 DLA 16.54 RAL 45.95 RAD 6648.7 VEL 12.423 PTH 7.33 VHP 7.306 DPA 7.90 RAP 36.58 ECC 1.5667

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 7 12	3601.28	-47.34	137.64	292.84	95.43	15 7 14	2601.3	-39.75	105.72
60.00	14 27 50	3546.34	-40.28	133.27	293.42	91.32	15 26 57	2546.3	-35.35	103.33
70.00	14 58 17	3456.71	-34.11	125.98	293.38	88.10	15 55 54	2456.7	-31.32	97.60
80.00	15 45 52	3307.63	-29.60	114.39	293.10	85.88	16 40 59	2307.6	-28.30	87.04
90.00	16 57 55	3075.05	-27.88	97.15	292.94	85.05	17 49 10	2075.1	-27.13	70.17
100.00	18 28 43	2782.10	-29.60	75.76	293.10	85.88	19 15 6	1782.1	-28.30	48.41
110.00	19 57 44	2503.53	-34.11	54.89	293.38	88.10	20 39 27	1503.5	-31.32	26.51

DIFFERENTIAL CORRECTIONS

TDE -.4837 TRA-1.6255 TC3 .1940 BAU .1023
RDE -.5115 RRA .2822 RC3 -.1087 FAU .06705
FDE .6546 FRA 1.9145 FC3-1.6858 BSP .2650
BDE .7040 BRA 1.6498 BC3 .2223 FSP 337

MID-COURSE EXECUTION ACCURACY

SGT 1736.8 SGR 590.2 SG3 246.3
RRT -.2624 RRF .2934 RTF -.8041
SGB 1834.3 R23 -.0592 R13 .8065
SG1 1744.5 SG2 567.0 THA 174.30

ORBIT DETERMINATION ACCURACY

ST 34.3 SR 25.3 SS 27.4
CRT .5557 CRS .6101 CST .9959
LSA 46.8 MSA 19.4 SSA 1.3
EL1 38.2 EL2 18.9 ALF 30.56

LAUNCH DATE JUL 10 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 368.298 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	34.383	GAL	-4.94	AZL	90.09	HCA	119.42	SMA	238.70	ECC	.36375	INC	.0848	V1	29.293
RP	219.45	LAP	-.08	LOP	47.02	VP	25.426	GAP	20.98	AZP	89.98	TAL	341.37	TAP	100.78	RCA	149.96	APO	321.43	V2	25.046
RC	80.245	GL	-.51	GP	-6.05	ZAL	120.44	ZAP	168.34	ETS	212.70	ZAE	166.71	ETE	332.49	ZAC	78.45	ETC	283.39	LVI	-12.62

PLANETOCENTRIC CONIC

C3	33.125	VHL	5.755	DLA	16.72	RAL	45.74	RAD	6646.2	VEL	12.371	PTH	7.29	VHP	7.104	DPA	7.83	RAP	37.00	ECC	1.5451

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 5 37	3595.18	-47.30	137.06	291.83	95.88	15 5 32	2595.2	-39.55	105.27
60.00	14 26 0	3540.87	-40.27	132.81	292.47	91.63	15 25 1	2540.9	-35.22	102.92
70.00	14 56 10	3452.11	-34.12	125.62	292.47	88.31	15 53 42	2452.1	-31.24	97.26
80.00	15 43 26	3303.99	-29.62	114.12	292.21	86.02	16 38 30	2304.0	-28.25	86.78
90.00	16 55 20	3071.89	-27.90	96.92	292.05	85.16	17 46 32	2071.9	-27.10	69.94
100.00	18 26 17	2778.46	-29.62	75.49	292.21	86.02	19 12 36	1778.5	-28.25	48.15
110.00	19 55 36	2498.93	-34.12	54.53	292.47	88.31	20 37 15	1498.9	-31.24	26.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4859	TRA	-1.6213	TC3	.2168	BAU	.1099	SGT	1771.0	SGR	591.2	SG3	261.1	ST	35.0	SR	25.0	SS	28.4
RDE	-.4946	RRA	.2851	RC3	-.1208	FAU	.06975	RRT	-.2826	RRF	.3168	RTF	-.8098	CRT	.5518	CRS	.6089	CST	.9957
FDE	.6883	FRA	1.9863	FC3	-1.8230	BSP	2935	SGB	1867.1	R23	-.0647	R13	.8124	LSA	47.8	MSA	19.4	SSA	1.3
BDE	.6933	BRA	1.6462	BC3	.2482	FSP	360	SG1	1779.7	SG2	564.3	THA	174.01	EL1	38.6	EL2	18.9	ALF	29.11

LAUNCH DATE JUL 10 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 371.299 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	34.293	GAL	-4.84	AZL	90.05	HCA	120.54	SMA	233.14	ECC	.35654	INC	.0437	V1	29.293
RP	219.62	LAP	-.04	LOP	48.14	VP	25.264	GAP	20.64	AZP	89.98	TAL	341.47	TAP	102.01	RCA	150.02	APO	316.26	V2	25.005
RC	81.936	GL	-.27	GP	-6.26	ZAL	120.29	ZAP	167.57	ETS	211.68	ZAE	166.16	ETE	332.30	ZAC	78.17	ETC	283.36	LVI	-12.32

PLANETOCENTRIC CONIC

C3	31.901	VHL	5.648	DLA	16.90	RAL	45.51	RAD	6647.7	VEL	12.322	PTH	7.25	VHP	6.908	DPA	7.75	RAP	37.41	ECC	1.5250

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 3 55	3589.56	-47.26	136.52	290.85	96.29	15 3 45	2589.6	-39.36	104.86
60.00	14 24 4	3535.93	-40.26	132.39	291.54	91.92	15 23 0	2535.9	-35.10	102.56
70.00	14 53 55	3448.08	-34.12	125.30	291.57	88.50	15 51 23	2448.1	-31.17	96.97
80.00	15 40 51	3300.98	-29.63	113.90	291.32	86.14	16 35 52	2301.0	-28.22	86.57
90.00	16 52 36	3069.40	-27.91	96.74	291.18	85.25	17 43 45	2069.4	-27.07	69.76
100.00	18 23 43	2775.46	-29.63	75.27	291.32	86.14	19 9 58	1775.5	-28.22	47.94
110.00	19 53 21	2494.90	-34.12	54.22	291.57	88.50	20 34 56	1494.9	-31.17	25.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4882	TRA	-1.6164	TC3	.2411	BAU	.1176	SGT	1804.5	SGR	592.6	SG3	276.9	ST	35.7	SR	24.7	SS	29.5
RDE	-.4776	RRA	.2884	RC3	-.1340	FAU	.07259	RRT	-.3042	RRF	.3415	RTF	-.8154	CRT	.5475	CRS	.6077	CST	.9955
FDE	.7252	FRA	2.0610	FC3	-1.9700	BSP	3013	SGB	1899.4	R23	-.0702	R13	.8183	LSA	48.8	MSA	19.2	SSA	1.3
BDE	.6830	BRA	1.6419	BC3	.2758	FSP	385	SG1	1814.5	SG2	561.4	THA	173.69	EL1	39.1	EL2	18.8	ALF	27.67

LAUNCH DATE JUL 10 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 374.367 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	34.207	GAL	-4.74	AZL	90.00	HCA	121.66	SMA	230.77	ECC	.34969	INC	.0000	V1	29.293
RP	220.19	LAP	-.00	LOP	49.26	VP	25.107	GAP	20.31	AZP	90.00	TAL	341.59	TAP	103.25	RCA	150.07	APO	311.47	V2	24.964
RC	83.701	GL	-.02	GP	-6.49	ZAL	120.12	ZAP	166.78	ETS	210.79	ZAE	165.65	ETE	331.98	ZAC	77.88	ETC	283.34	LVI	-12.01

PLANETOCENTRIC CONIC

C3	30.756	VHL	5.546	DLA	17.10	RAL	45.27	RAD	6647.3	VEL	12.278	PTH	7.22	VHP	6.718	DPA	7.66	RAP	37.80	ECC	1.5062

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 2 9	3584.45	-47.22	136.03	289.90	96.66	15 1 53	2584.5	-39.19	104.49
60.00	14 22 1	3531.54	-40.25	132.02	290.64	92.17	15 20 53	2531.5	-34.99	102.24
70.00	14 51 32	3444.66	-34.13	125.04	290.69	88.66	15 48 57	2444.7	-31.11	96.72
80.00	15 38 7	3298.66	-29.64	113.73	290.48	86.23	16 33 6	2298.7	-28.19	86.40
90.00	16 49 41	3067.63	-27.92	96.61	290.31	85.32	17 40 49	2067.6	-27.06	69.64
100.00	18 20 59	2773.13	-29.64	75.10	290.48	86.23	19 7 12	1773.1	-28.19	47.77
110.00	19 50 58	2491.48	-34.13	53.95	290.69	88.66	20 32 30	1491.5	-31.11	25.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4898	TRA	-1.6102	TC3	.2671	BAU	.1256	SGT	1838.6	SGR	594.8	SG3	293.4	ST	36.4	SR	24.3	SS	30.6
RDE	-.4609	RRA	.2923	RC3	-.1484	FAU	.07560	RRT	-.3275	RRF	.3578	RTF	-.8209	CRT	.5422	CRS	.6058	CST	.9953
FDE	.7637	FRA	2.1378	FC3	-2.1281	BSP	3082	SGB	1930.5	R23	-.0787	R13	.8241	LSA	49.5	MSA	19.1	SSA	1.4
BDE	.6728	BRA	1.6365	BC3	.3086	FSP	411	SG1	1847.9	SG2	588.4	THA	173.33	EL1	39.5	EL2	18.8	ALF	26.28

LAUNCH DATE JUL 10 1973 FLIGHT TIME 140.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 377.496 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	34.126	GAL	-4.65	AZL	89.96	HCA	122.77	SMA	228.87	ECC	.34319	INC	.0363	V1	29.293
RP	220.87	LAP	.03	LOP	50.38	VP	24.955	GAP	19.98	AZP	90.02	TAL	341.70	TAP	104.48	RCA	150.12	APO	307.01	V2	24.923
RC	85.536	GL	.25	GP	-6.73	ZAL	119.98	ZAP	165.98	ETS	210.02	ZAE	165.21	ETE	331.82	ZAC	77.58	ETC	283.33	LVI	-11.69

PLANETOCENTRIC CONIC

C3	29.683	VHL	5.448	DLA	17.31	RAL	45.01	RAD	6646.9	VEL	12.232	PTH	7.18	VHP	6.836	DPA	7.88	RAP	38.19	ECC	1.4888

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 0 17	3579.86	-47.18	138.59	288.97	97.00	14 59 56	2579.9	-39.04	104.18
60.00	14 19 52	3527.70	-40.24	131.69	289.76	92.39	15 18 40	2527.7	-34.88	101.96
70.00	14 49 1	3441.88	-34.13	124.62	289.84	88.78	15 46 23	2441.9	-31.06	96.52
80.00	15 35 14	3297.04	-29.65	113.61	289.61	86.29	16 30 11	2297.0	-28.17	86.28
90.00	16 46 37	3066.61	-27.93	96.53	289.47	85.38	17 37 44	2066.6	-27.08	69.56
100.00	18 16 6	2771.81	-29.65	74.98	289.61	86.29	19 4 17	1771.8	-28.17	47.68
110.00	19 46 26	2488.69	-34.13	53.74	289.84	88.78	20 29 56	1488.7	-31.06	25.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4914	TRA	-1.6031	TC3	.2940	BAU	.1336	SGT	1867.8	SGR	597.3	SG3	310.9	ST	37.0	SR	23.9	SS	31.7
RDE	-.4441	RRA	.2967	RC3	-.1640	FAU	.07874	RRT	-.3523	RRF	.3884	RTF	-.8263	CRT	.5361	CRS	.6037	CST	.9950
FDE	.8086	FRA	2.2178	FC3	-2.2966	BSP	3180	SGB	1960.7	R23	-.0812	R13	.8299	LSA	50.8	MSA	19.0	SSA	1.4
BDE	.6623	BRA	1.6303	BC3	.3367	FSP	439	SG1	1880.8	SG2	585.2	THA	172.98	EL1	39.9	EL2	18.7	ALF	24.80

LAUNCH DATE JUL 10 1973 FLIGHT TIME 142.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 380.681 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	34.049	GAL	-4.55	AZL	89.92	HCA	123.89	SMA	226.52	ECC	.33702	INC	.0822	V1	29.293
RP	220.95	LAP	.07	LOP	51.49	VP	24.808	GAP	19.65	AZP	90.05	TAL	341.82	TAP	105.71	RCA	150.18	APO	302.86	V2	24.882
RC	87.440	GL	.53	GP	-6.98	ZAL	119.77	ZAP	165.16	ETS	209.35	ZAE	164.82	ETE	330.94	ZAC	77.27	ETC	283.31	LVI	-11.37

PLANETOCENTRIC CONIC

C3	28.679	VHL	5.355	DLA	17.53	RAL	44.75	RAD	6646.5	VEL	12.191	PTH	7.15	VHP	6.358	DPA	7.42	RAP	38.57	ECC	1.4720

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 58 19	3575.81	-47.18	135.21	288.08	97.29	14 57 55	2575.8	-38.90	103.87
60.00	14 17 36	3524.46	-40.23	131.41	288.90	92.58	15 16 21	2524.5	-34.81	101.72
70.00	14 46 23	3439.74	-34.14	124.65	289.00	88.88	15 43 42	2439.7	-31.03	96.36
80.00	15 32 11	3296.17	-29.65	113.55	288.78	86.32	16 27 8	2296.2	-28.16	86.22
90.00	16 43 23	3066.38	-27.93	96.52	288.63	85.36	17 34 29	2066.4	-27.04	69.55
100.00	18 15 3	2770.64	-29.65	74.91	288.78	86.32	19 1 14	1770.6	-28.16	47.59
110.00	19 45 49	2486.56	-34.14	53.57	289.00	88.88	20 27 16	1486.6	-31.03	25.28

DIFFERENTIAL CORRECTIONS

TDE	-.4934	TRA	-1.5955	TC3	.3214	BAU	.1415												
RDE	-.4272	RRA	.3016	RC3	-.1811	FAU	.08205												
FDE	.8508	FRA	2.3005	FC3	-2.4768	BSP	3219												
BDE	.6526	BRA	1.6238	BC3	.3689	FSP	469												

MID-COURSE EXECUTION ACCURACY

SGT	1897.8	SGR	600.9	SG3	329.3						
RRT	-.3782	RRF	.4244	RTF	-.8314						
SGB	1990.7	R23	-.0873	R13	.8353						
SG1	1912.6	SG2	551.9	THA	172.55						

ORBIT DETERMINATION ACCURACY

ST	37.7	SR	23.4	SS	32.9						
CRT	.5294	CRS	.6008	CST	.9946						
LSA	51.9	MSA	18.8	SSA	1.4						
EL1	40.3	EL2	18.6	ALF	23.51						

LAUNCH DATE JUL 10 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 383.917 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.976	GAL	-4.46	AZL	89.87	HCA	124.99	SMA	224.61	ECC	.33117	INC	.1274	V1	29.293
RP	221.33	LAP	.10	LOP	52.60	VP	24.666	GAP	19.32	AZP	90.07	TAL	341.94	TAP	106.94	RCA	150.23	APO	298.99	V2	24.840
RC	89.407	GL	.82	GP	-7.24	ZAL	119.58	ZAP	164.32	ETS	208.76	ZAE	164.48	ETE	330.24	ZAC	76.96	ETC	283.30	LVI	-11.04

PLANETOCENTRIC CONIC

C3	27.739	VHL	5.267	DLA	17.76	RAL	44.48	RAD	6646.1	VEL	12.153	PTH	7.12	VHP	6.186	DPA	7.27	RAP	38.94	ECC	1.4585

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 56 16	3572.32	-47.12	134.88	287.21	97.55	14 55 48	2572.3	-38.78	103.62
60.00	14 15 13	3521.82	-40.22	131.19	288.07	92.73	15 13 55	2521.8	-34.74	101.53
70.00	14 43 36	3438.29	-34.14	124.54	288.18	88.95	15 40 54	2438.3	-31.00	96.26
80.00	15 28 59	3296.06	-29.65	113.54	287.96	86.33	16 23 55	2296.1	-28.16	86.21
90.00	16 39 57	3066.97	-27.92	96.56	287.82	85.34	17 31 4	2067.0	-27.05	69.59
100.00	18 11 50	2770.54	-29.65	74.91	287.96	86.33	18 58 1	1770.5	-28.16	47.88
110.00	19 43 2	2485.11	-34.14	53.46	288.18	88.95	20 24 27	1485.1	-31.00	25.17

DIFFERENTIAL CORRECTIONS

TDE	-.4951	TRA	-1.5871	TC3	.3499	BAU	.1494												
RDE	-.4104	RRA	.3071	RC3	-.1996	FAU	.08553												
FDE	.8987	FRA	2.3859	FC3	-2.6693	BSP	3283												
BDE	.6431	BRA	1.6165	BC3	.4029	FSP	501												

MID-COURSE EXECUTION ACCURACY

SGT	1926.9	SGR	605.5	SG3	348.7						
RRT	-.4055	RRF	.4546	RTF	-.8363						
SGB	2019.8	R23	-.0935	R13	.8406						
SG1	1943.8	SG2	548.6	THA	172.11						

ORBIT DETERMINATION ACCURACY

ST	38.3	SR	22.9	SS	34.1						
CRT	.5215	CRS	.5971	CST	.9943						
LSA	53.0	MSA	18.6	SSA	1.4						
EL1	40.6	EL2	18.4	ALF	22.14						

LAUNCH DATE JUL 10 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 387.200 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.906	GAL	-4.38	AZL	89.83	HCA	126.10	SMA	222.63	ECC	.32561	INC	.1732	V1	29.293
RP	221.71	LAP	.14	LOP	53.70	VP	24.528	GAP	19.00	AZP	90.10	TAL	342.06	TAP	108.16	RCA	150.27	APO	295.39	V2	24.799
RC	91.436	GL	1.13	GP	-7.52	ZAL	119.39	ZAP	163.46	ETS	208.24	ZAE	164.19	ETE	329.40	ZAC	76.63	ETC	283.26	LVI	-10.69

PLANETOCENTRIC CONIC

C3	26.858	VHL	5.182	DLA	18.00	RAL	44.20	RAD	6645.8	VEL	12.117	PTH	7.09	VHP	6.020	DPA	7.10	RAP	39.30	ECC	1.4420

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 54 6	3569.39	-47.09	134.60	286.38	97.76	14 53 36	2569.4	-38.68	103.41
60.00	14 12 44	3519.81	-40.22	131.02	287.26	92.85	15 11 23	2519.8	-34.69	101.38
70.00	14 40 40	3437.55	-34.14	124.48	287.39	88.98	15 37 58	2437.5	-30.99	96.20
80.00	15 25 35	3296.77	-29.65	113.59	287.17	86.30	16 20 32	2296.8	-28.17	86.26
90.00	16 36 19	3068.43	-27.92	96.67	287.02	85.29	17 27 28	2068.4	-27.07	69.69
100.00	18 8 27	2771.24	-29.65	74.96	287.17	86.30	18 54 38	1771.2	-28.17	47.63
110.00	19 40 6	2484.37	-34.14	53.40	287.39	88.98	20 21 31	1484.4	-30.99	25.12

DIFFERENTIAL CORRECTIONS

TDE	-.4971	TRA	-1.5776	TC3	.3793	BAU	.1574												
RDE	-.3934	RRA	.3131	RC3	-.2196	FAU	.08918												
FDE	.9501	FRA	2.4738	FC3	-2.8748	BSP	3343												
BDE	.6339	BRA	1.6084	BC3	.4383	FSP	534												

MID-COURSE EXECUTION ACCURACY

SGT	1954.5	SGR	611.2	SG3	369.1						
RRT	-.4337	RRF	.4859	RTF	-.$\frac{1}{2}$11						
SGB	2047.8	R23	-.1001	R13	.8458						
SG1	1973.9	SG2	545.3	THA	171.63						

ORBIT DETERMINATION ACCURACY

ST	38.9	SR	22.4	SS	35.4						
CRT	.5128	CRS	.5926	CST	.9939						
LSA	54.1	MSA	18.3	SSA	1.4						
EL1	41.0	EL2	18.3	ALF	20.77						

LAUNCH DATE JUL 10 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 390.525 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.840	GAL	-4.29	AZL	89.78	HCA	127.20	SMA	221.17	ECC	.32034	INC	.2201	V1	29.293
RP	222.09	LAP	.18	LOP	54.80	VP	24.394	GAP	18.68	AZP	90.13	TAL	342.19	TAP	109.39	RCA	150.32	APO	292.02	V2	24.757
RC	93.523	GL	1.46	GP	-7.81	ZAL	119.20	ZAP	162.59	ETS	207.79	ZAE	163.94	ETE	328.45	ZAC	76.29	ETC	283.27	LVI	-10.34

PLANETOCENTRIC CONIC

C3	26.033	VHL	5.102	DLA	18.26	RAL	43.91	RAD	6645.4	VEL	12.083	PTH	7.06	VHP	5.859	DPA	6.92	RAP	39.65	ECC	1.4284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 51 52	3567.05	-47.07	134.38	285.59	97.93	14 51 19	2567.0	-38.60	103.25
60.00	14 10 7	3518.44	-40.21	130.90	286.49	92.92	15 8 45	2518.4	-34.66	101.29
70.00	14 37 36	3437.54	-34.14	124.48	286.61	88.98	15 34 53	2437.5	-30.99	96.20
80.00	15 22 0	3298.33	-29.64	113.71	286.39	86.24	16 16 59	2298.3	-28.19	86.38
90.00	16 32 29	3070.81	-27.90	96.84	286.25	85.20	17 23 40	2070.8	-27.09	69.86
100.00	18 4 52	2772.80	-29.64	75.07	286.39	86.24	18 51 5	1772.8	-28.19	47.74
110.00	19 37 2	2484.36	-34.14	53.40	286.61	88.98	20 18 26	1484.4	-30.99	25.12

DIFFERENTIAL CORRECTIONS

TDE	-.4990	TRA	-1.5876	TC3	.4086	BAU	.1652												
RDE	-.3763	RRA	.3199	RC3	-.2416	FAU	.09302												
FDE	1.0030	FRA	2.5655	FC3	-3.0934	BSP	3403												
BDE	.6250	BRA	1.5999	BC3	.4747	FSP	570												

MID-COURSE EXECUTION ACCURACY

SGT	1980.9	SGR	618.4	SG3	390.6						
RRT	-.4630	RRF	.5182	RTF	-.8455						
SGB	2075.2	R23	-.1072	R13	.8508						
SG1	2003.2	SG2	542.0	THA	171.12						

ORBIT DETERMINATION ACCURACY

ST	39.5	SR	21.9	SS	36.8						
CRT	.5024	CRS	.5866	CST	.9935						
LSA	55.3	MSA	18.1	SSA	1.4						
EL1	41.4	EL2	18.1	ALF	19.40						

LAUNCH DATE JUL 10 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 7 1973

DISTANCE 393.889

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.778	GAL	-4.21	AZL	89.73	HCA	128.30	SMA	219.62	ECC	.31533	INC	.2685
RP	222.48	LAP	.21	LOP	55.90	VP	24.265	GAP	18.37	AZP	90.17	TAL	342.32	TAP	110.61	RCA	150.37	APO	288.87
RC	95.665	GL	1.80	GP	-8.12	ZAL	119.00	ZAP	161.70	ETS	207.39	ZAE	163.74	ETE	327.35	ZAC	75.94	ETC	283.27

VI	29.293																		
V2	24.715																		
LVI	-9.98																		

PLANETOCENTRIC CONIC

C3	25.261	VHL	5.026	DLA	18.54	RAL	43.61	RAD	6645.1	VEL	12.051	PTH	7.04	VHP	5.703	DPA	6.71	RAP	39.98
ECC	1.4157																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 49 31	3565.31	-47.05	134.21	284.83	98.05	14 48 56	2565.3	-38.54	103.12
60.00	14 7 23	3517.74	-40.21	130.84	285.74	92.96	15 6 0	2517.7	-34.64	101.23
70.00	14 34 22	3438.30	-34.14	124.54	285.87	88.95	15 31 40	2438.3	-31.00	96.26
80.00	15 18 14	3300.78	-29.63	113.89	285.64	86.14	16 13 15	2300.8	-28.22	86.55
90.00	16 26 27	3074.14	-27.88	97.08	285.49	85.08	17 19 41	2074.1	-27.12	70.10
100.00	18 1 6	2775.25	-29.63	75.26	285.64	86.14	18 47 21	1775.2	-28.22	47.92
110.00	19 33 48	2485.12	-34.14	53.46	285.87	88.95	20 15 13	1485.1	-31.00	25.17

DIFFERENTIAL CORRECTIONS

TDE	-.5015	TRA	-1.5576	TC3	.4376	BAU	.1728
RDE	-.3590	RRA	.3272	RC3	-.2653	FAU	.09704
FDE	1.0642	FRA	2.6601	FC3	-3.3257	BSP	3464
BDE	.6167	BRA	1.5916	BC3	.5118	FSP	607

MID-COURSE EXECUTION ACCURACY

SGT	2006.9	SGR	627.2	SG3	413.3		
RRT	-.4927	RRF	.5511	RTF	-.6495		
SG8	2102.7	R23	-.1149	R13	.8553		
SG1	2032.4	SG2	539.0	THA	170.58		

ORBIT DETERMINATION ACCURACY

ST	40.1	SR	21.3	SS	38.2
CRT	.4906	CRS	.5792	CST	.9931
LSA	56.6	MSA	17.8	SSA	1.5
EL1	41.7	EL2	17.8	ALF	18.00

LAUNCH DATE JUL 10 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 9 1973

DISTANCE 397.289

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.718	GAL	-4.13	AZL	89.68	HCA	129.39	SMA	218.17	ECC	.31058	INC	.3161
RP	222.86	LAP	.25	LOP	56.99	VP	24.138	GAP	18.05	AZP	90.20	TAL	342.44	TAP	111.83	RCA	150.41	APO	285.93
RC	97.660	GL	2.16	GP	-8.44	ZAL	118.80	ZAP	160.78	ETS	207.05	ZAE	163.58	ETE	326.13	ZAC	75.58	ETC	283.26

VI	29.293																		
V2	24.673																		
LVI	-9.61																		

PLANETOCENTRIC CONIC

C3	24.538	VHL	4.954	DLA	18.82	RAL	43.31	RAD	6644.8	VEL	12.021	PTH	7.01	VHP	5.552	DPA	6.48	RAP	40.31
ECC	1.4038																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 47 4	3564.20	-47.04	134.11	284.10	98.13	14 46 28	2564.2	-38.50	103.04
60.00	14 4 31	3517.74	-40.21	130.84	285.02	92.96	15 3 8	2517.7	-34.64	101.23
70.00	14 30 58	3439.85	-34.14	124.66	285.14	88.88	15 28 18	2439.9	-31.03	96.37
80.00	15 14 15	3304.15	-29.61	114.14	284.91	86.01	16 9 20	2304.2	-28.26	86.79
90.00	16 24 10	3078.48	-27.86	97.40	284.75	84.93	17 15 28	2078.5	-27.16	70.41
100.00	17 57 7	2778.63	-29.61	75.51	284.91	86.01	18 43 26	1778.6	-28.26	48.16
110.00	19 30 24	2486.67	-34.14	53.58	285.14	88.88	20 11 31	1486.7	-31.03	25.29

DIFFERENTIAL CORRECTIONS

TDE	-.5034	TRA	-1.5457	TC3	.4671	BAU	.1805
RDE	-.3418	RRA	.3351	RC3	-.2910	FAU	.10125
FDE	1.1273	FRA	2.7567	FC3	-3.5721	BSP	3518
BDE	.6083	BRA	1.5816	BC3	.5503	FSP	646

MID-COURSE EXECUTION ACCURACY

SGT	2030.0	SGR	637.8	SG3	436.9		
RRT	-.5229	RRF	.5844	RTF	-.8533		
SG8	2127.9	R23	-.1228	R13	.8599		
SG1	2059.3	SG2	536.0	THA	169.99		

ORBIT DETERMINATION ACCURACY

ST	40.6	SR	20.7	SS	39.7
CRT	.4766	CRS	.5701	CST	.9926
LSA	57.8	MSA	17.6	SSA	1.8
EL1	42.1	EL2	17.6	ALF	18.61

LAUNCH DATE JUL 10 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 11 1973

DISTANCE 400.723

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.662	GAL	-4.06	AZL	89.63	HCA	130.48	SMA	218.81	ECC	.30807	INC	.3689
RP	223.25	LAP	.28	LOP	58.08	VP	24.017	GAP	17.74	AZP	90.24	TAL	342.57	TAP	113.05	RCA	150.48	APO	287.17
RC	100.104	GL	2.54	GP	-8.78	ZAL	118.60	ZAP	159.85	ETS	206.75	ZAE	163.48	ETE	324.78	ZAC	75.21	ETC	283.26

VI	29.293																		
V2	24.631																		
LVI	-9.23																		

PLANETOCENTRIC CONIC

C3	23.862	VHL	4.885	DLA	19.13	RAL	43.00	RAD	6644.8	VEL	11.993	PTH	6.99	VHP	5.406	DPA	6.23	RAP	40.62
ECC	1.3987																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 44 31	3563.73	-47.04	134.06	283.42	98.17	14 43 54	2563.7	-38.48	103.01
60.00	14 1 31	3518.48	-40.21	130.90	284.33	92.92	15 0 9	2518.4	-34.66	101.29
70.00	14 27 24	3442.24	-34.13	124.85	284.48	88.77	15 24 46	2442.2	-31.07	96.54
80.00	15 10 3	3308.52	-29.59	114.46	284.19	85.84	16 5 12	2308.5	-28.31	87.11
90.00	16 19 38	3083.90	-27.82	97.79	284.03	84.73	17 11 2	2083.9	-27.22	70.80
100.00	17 52 55	2782.99	-29.59	75.83	284.19	85.84	18 39 18	1783.0	-28.31	48.48
110.00	19 26 50	2489.06	-34.13	53.76	284.48	88.77	20 8 19	1489.1	-31.07	25.46

DIFFERENTIAL CORRECTIONS

TDE	-.5060	TRA	-1.5336	TC3	.4980	BAU	.1881
RDE	-.3236	RRA	.3438	RC3	-.3188	FAU	.10367
FDE	1.1981	FRA	2.8570	FC3	-3.8339	BSP	3872
BDE	.6006	BRA	1.5717	BC3	.5896	FSP	686

MID-COURSE EXECUTION ACCURACY

SGT	2052.3	SGR	650.8	SG3	461.9		
RRT	-.5530	RRF	.6178	RTF	-.9.68		
SG8	2153.0	R23	-.1314	R13	.8641		
SG1	2085.9	SG2	533.3	THA	169.38		

ORBIT DETERMINATION ACCURACY

ST	41.2	SR	20.0	SS	41.2
CRT	.4604	CRS	.5586	CST	.9921
LSA	59.1	MSA	17.3	SSA	1.8
EL1	42.4	EL2	17.3	ALF	19.20

LAUNCH DATE JUL 10 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 13 1973

DISTANCE 404.187

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.606	GAL	-3.99	AZL	89.58	HCA	131.56	SMA	215.84	ECC	.30178	INC	.4215
RP	223.64	LAP	.32	LOP	59.17	VP	23.899	GAP	17.44	AZP	90.28	TAL	342.70	TAP	114.26	RCA	150.49	APO	280.86
RC	102.307	GL	2.94	GP	-9.14	ZAL	118.39	ZAP	158.90	ETS	206.49	ZAE	163.36	ETE	323.24	ZAC	74.82	ETC	283.26

VI	29.293																		
V2	24.580																		
LVI	-8.83																		

PLANETOCENTRIC CONIC

C3	23.226	VHL	4.820	DLA	19.48	RAL	42.67	RAD	6644.2	VEL	11.967	PTH	6.97	VHP	5.268	DPA	5.96	RAP	40.91
ECC	1.3823																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 41 51	3563.88	-47.04	134.08	282.76	98.16	14 41 15	2563.9	-38.49	103.02
60.00	13 58 22	3519.86	-40.22	131.02	283.67	92.84	14 57 2	2519.9	-34.69	101.39
70.00	14 23 39	3445.48	-34.13	125.10	283.77	88.62	15 21 4	2445.5	-31.13	96.78
80.00	15 5 37	3313.87	-29.57	114.86	283.50	85.64	16 0 51	2313.9	-28.37	87.49
90.00	16 14 50	3090.41	-27.78	98.26	283.32	84.50	17 6 21	2090.4	-27.26	71.27
100.00	17 48 29	2788.35	-29.57	76.22	283.50	85.64	18 34 57	1788.3	-28.37	48.86
110.00	19 23 5	2492.27	-34.13	54.02	283.77	88.62	20 4 37	1492.3	-31.13	25.69

DIFFERENTIAL CORRECTIONS

TDE	-.4944	TRA	-1.5068	TC3	.5488	BAU	.2020
RDE	-.3055	RRA	.3832	RC3	-.3490	FAU	.11033
FDE	1.2668	FRA	2.9591	FC3	-4.1120	BSP	3451
BDE	.5812	BRA	1.5477	BC3	.6504	FSP	730

MID-COURSE EXECUTION ACCURACY

SGT	2057.8	SGR	665.8	SG3	488.0		
RRT	-.5915	RRF	.6510	RTF	-.8664		
SG8	2162.8	R23	-.1270	R13	.8741		
SG1	2097.7	SG2	526.6	THA	168.42		

ORBIT DETERMINATION ACCURACY

ST	40.9	SR	19.4	SS	42.8
CRT	.4327	CRS	.5444	CST	.9905
LSA	59.9	MSA	17.0	SSA	1.8
EL1	42.0	EL2	17.0	ALF	13.89

LAUNCH DATE JUL 10 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 407.678 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.887	GAL	-3.92	AZL	89.52	HCA	132.64	SMA	214.38	ECC	.29772	INC	.4737
RP	224.03	LAP	.35	LOP	60.25	VP	23.784	GAP	17.13	AZP	90.32	TAL	342.82	TAP	115.46	RCA	150.53	APO	278.16
RC	104.738	GL	3.35	GP	-9.52	ZAL	118.19	ZAP	187.92	ETS	206.27	ZAE	163.28	ETE	321.57	ZAC	74.41	ETC	283.27

V1	29.293																		
V2	24.548																		
LVI	-8.42																		

PLANETOCENTRIC CONIC

C3	22.638	VHL	4.758	DLA	19.79	RAL	42.35	RAD	6644.0	VEL	11.943	PTH	6.95	VHP	5.129	DPA	5.66	RAP	41.20

ECC	1.3726																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 39 5	3564.76	-47.05	134.16	282.16	98.09	14 38 29	2564.8	-38.52	103.08
60.00	13 55 6	3522.09	-40.22	131.21	283.05	92.71	14 53 48	2522.1	-34.75	101.55
70.00	14 10 42	3449.62	-34.12	125.42	283.12	88.43	15 17 12	2449.6	-31.20	97.08
80.00	15 0 56	3320.38	-29.53	115.34	282.83	85.39	15 56 16	2320.4	-28.44	87.96
90.00	16 9 45	3098.19	-27.73	98.82	282.65	84.22	17 1 24	2098.2	-27.35	71.82
100.00	17 43 48	2794.85	-29.53	76.70	282.83	85.39	18 30 23	1794.9	-28.44	49.33
110.00	19 19 9	2496.44	-34.12	54.34	283.12	88.43	20 0 45	1496.4	-31.20	26.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5029	TRA	-1.4989	TC3	.5667	BAU	.2067	SGT	2082.7	SGR	683.6	SG3	515.3	ST	41.8	SR	18.6	SS	44.4
RDE	-.2667	RRA	.3634	RC3	-.3815	FAU	.11514	RRT	-.6173	RRF	.6834	RTF	-.8667	CRT	.4132	CRS	.5267	CST	.9904
FDE	1.3449	FRA	3.0851	FC3	-4.4035	BSP	3577	SGB	2192.0	R23	-.1420	R13	.8756	LSA	61.5	MSA	16.7	SSA	1.5
BDE	.5789	BRA	1.5423	BC3	.6831	FSP	777	SG1	2127.8	SG2	526.4	THA	167.79	EL1	42.6	EL2	16.6	ALF	12.35

LAUNCH DATE JUL 10 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 411.195 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.509	GAL	-3.85	AZL	89.47	HCA	133.72	SMA	213.23	ECC	.29387	INC	.5314
RP	224.42	LAP	.38	LOP	61.33	VP	23.672	GAP	16.83	AZP	90.37	TAL	342.94	TAP	116.67	RCA	150.57	APO	275.90
RC	107.119	GL	3.78	GP	-9.92	ZAL	117.98	ZAP	156.92	ETS	206.08	ZAE	163.23	ETE	319.73	ZAC	74.00	ETC	283.28

V1	29.293																		
V2	24.506																		
LVI	-8.00																		

PLANETOCENTRIC CONIC

C3	22.086	VHL	4.700	DLA	20.15	RAL	42.02	RAD	6643.8	VEL	11.920	PTH	6.93	VHP	4.997	DPA	5.33	RAP	41.47

ECC	1.3635																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 36 11	3566.33	-47.06	134.31	281.59	97.98	14 35 38	2566.3	-38.57	103.20
60.00	13 51 40	3525.11	-40.23	131.47	282.46	92.54	14 50 25	2525.1	-34.83	101.77
70.00	14 15 34	3454.74	-34.11	125.82	282.51	88.19	15 13 9	2454.7	-31.29	97.45
80.00	14 55 59	3328.05	-29.49	115.90	282.19	85.09	15 51 27	2328.0	-28.53	88.52
90.00	16 4 22	3107.27	-27.67	99.48	281.99	83.90	16 56 9	2107.3	-27.43	72.48
100.00	17 38 50	2802.52	-29.49	77.27	282.19	85.09	18 25 33	1802.5	-28.53	49.89
110.00	19 15 0	2501.55	-34.11	54.74	282.51	88.19	19 56 42	1501.6	-31.29	26.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5089	TRA	-1.4880	TC3	.5876	BAU	.2127	SGT	2103.3	SGR	704.4	SG3	543.9	ST	42.5	SR	17.9	SS	46.2
RDE	-.2675	RRA	.3745	RC3	-.4166	FAU	.12020	RRT	-.6437	RRF	.7150	RTF	-.8678	CRT	.3873	CRS	.5048	CST	.9902
FDE	1.4282	FRA	3.1739	FC3	-4.7118	BSP	3671	SGB	2218.1	R23	-.1554	R13	.8779	LSA	63.1	MSA	16.3	SSA	1.5
BDE	.5749	BRA	1.5344	BC3	.7203	FSP	825	SG1	2154.8	SG2	526.2	THA	167.05	EL1	43.1	EL2	16.2	ALF	10.81

LAUNCH DATE JUL 10 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 414.735 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.463	GAL	-3.79	AZL	89.41	HCA	134.80	SMA	212.19	ECC	.29022	INC	.5886
RP	224.81	LAP	.42	LOP	62.40	VP	23.564	GAP	16.83	AZP	90.42	TAL	343.07	TAP	117.88	RCA	150.61	APO	273.77
RC	109.544	GL	4.24	GP	-10.34	ZAL	117.78	ZAP	155.90	ETS	205.92	ZAE	163.18	ETE	317.73	ZAC	73.86	ETC	283.29

V1	29.293																		
V2	24.464																		
LVI	-7.56																		

PLANETOCENTRIC CONIC

C3	21.572	VHL	4.645	DLA	20.82	RAL	41.68	RAD	6643.5	VEL	11.898	PTH	6.91	VHP	4.870	DPA	4.98	RAP	41.73

ECC	1.3580																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 33 11	3568.62	-47.08	134.53	281.06	97.81	14 32 40	2568.6	-38.65	103.36
60.00	13 48 5	3528.95	-40.25	131.80	281.90	92.32	14 46 54	2529.0	-34.92	102.05
70.00	14 11 12	3460.84	-34.10	126.30	281.92	87.91	15 8 53	2460.8	-31.39	97.90
80.00	14 50 43	3336.95	-29.43	116.56	281.56	84.75	15 46 20	2336.9	-28.62	89.16
90.00	15 58 38	3117.73	-27.59	100.24	281.35	83.53	16 50 35	2117.7	-27.51	73.23
100.00	17 33 35	2811.42	-29.43	77.93	281.56	84.75	18 20 27	1811.4	-28.62	50.53
110.00	19 10 39	2507.66	-34.10	55.22	281.92	87.91	19 52 26	1507.7	-31.39	26.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5136	TRA	-1.4744	TC3	.6098	BAU	.2193	SGT	2119.9	SGR	728.4	SG3	573.6	ST	43.0	SR	17.1	SS	48.0
RDE	-.2676	RRA	.3864	RC3	-.4548	FAU	.12548	RRT	-.6697	RRF	.7488	RTF	-.8893	CRT	.3846	CRS	.4769	CST	.9897
FDE	1.5182	FRA	3.2849	FC3	-5.0389	BSP	3744	SGB	2241.6	R23	-.1677	R13	.8808	LSA	64.8	MSA	16.0	SSA	1.6
BDE	.5701	BRA	1.5242	BC3	.7608	FSP	876	SG1	2178.9	SG2	526.3	THA	166.22	EL1	43.8	EL2	15.8	ALF	9.24

LAUNCH DATE JUL 10 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 418.298 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.419	GAL	-3.78	AZL	89.38	HCA	135.87	SMA	211.20	ECC	.28675	INC	.6482
RP	225.20	LAP	.45	LOP	63.47	VP	23.488	GAP	16.84	AZP	90.47	TAL	343.19	TAP	119.08	RCA	150.64	APO	271.77
RC	112.011	GL	4.71	GP	-10.78	ZAL	117.87	ZAP	154.88	ETS	205.78	ZAE	163.14	ETE	315.84	ZAC	73.11	ETC	283.31

V1	29.293																		
V2	24.422																		
LVI	-7.11																		

PLANETOCENTRIC CONIC

C3	21.092	VHL	4.593	DLA	20.92	RAL	41.34	RAD	6643.3	VEL	11.878	PTH	6.89	VHP	4.748	DPA	4.89	RAP	41.98

ECC	1.3471																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 30 3	3571.66	-47.11	134.82	280.58	97.59	14 29 34	2571.7	-38.76	103.58
60.00	13 44 19	3533.68	-40.26	132.20	281.36	92.08	14 43 13	2533.7	-35.04	102.39
70.00	14 6 37	3467.99	-34.08	126.86	281.35	87.58	15 4 29	2468.0	-31.81	98.42
80.00	14 45 9	3347.17	-29.37	117.31	280.96	84.36	15 40 56	2347.2	-28.73	89.90
90.00	15 52 31	3129.70	-27.49	101.10	280.73	83.11	16 44 40	2129.7	-27.61	74.09
100.00	17 28 1	2821.64	-29.37	78.68	280.96	84.36	18 15 2	1821.6	-28.73	51.27
110.00	19 6 3	2514.81	-34.08	55.77	281.35	87.58	19 47 58	1514.8	-31.81	27.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5171	TRA	-1.4589	TC3	.6325	BAU	.2268	SGT	2133.2	SGR	755.9	SG3	605.0	ST	43.5	SR	16.3	SS	49.9
RDE	-.2270	RRA	.3992	RC3	-.4953	FAU	.13097	RRT	-.6949	RRF	.7739	RTF	-.8710	CRT	.3138	CRS	.4419	CST	.9892
FDE	1.6139	FRA	3.3981	FC3	-5.3787	BSP	3798	SGB	2263.2	R23	-.1794	R13	.8840	LSA	66.4	MSA	15.6	SSA	1.6
BDE	.5647	BRA	1.5125	BC3	.8033	FSP	928	SG1	2201.0	SG2	526.8	THA	165.31	EL1	43.9	EL2	15.3	ALF	7.63

LAUNCH DATE JUL 10 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 421.881 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.378	GAL	-3.66	AZL	89.29	HCA	136.83	SMA	210.28	ECC	.28346	INC	.7099
RP	225.59	LAP	.48	LOP	64.54	VP	23.356	GAP	15.94	AZP	90.52	TAL	343.31	TAP	120.24	RCA	150.67	APO	269.89
RC	114.516	GL	5.21	GP	-11.25	ZAL	117.37	ZAP	153.77	ETS	205.67	ZAE	163.10	ETE	313.18	ZAC	72.63	ETC	283.34

V1 29.293 V2 24.380 LVI -6.64

PLANETOCENTRIC CONIC

C3	20.646	VHL	4.544	DLA	21.34	RAL	40.99	RAD	6643.1	VEL	11.860	PTH	6.87	VHP	4.629	DPA	4.18	RAP	42.21

ECC 1.3398

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 26 46	3575.48	-47.14	135.18	280.14	97.32	14 26 22	2575.5	-38.89	103.85
60.00	13 40 23	3539.25	-40.27	132.67	280.89	91.73	14 39 22	2539.3	-35.18	102.81
70.00	14 1 46	3476.25	-34.05	127.50	280.81	87.20	14 59 42	2476.3	-31.64	99.03
80.00	14 39 13	3358.82	-29.29	118.17	280.38	83.92	15 35 12	2358.8	-28.84	90.75
90.00	15 45 58	3143.31	-27.38	102.08	280.12	82.63	16 38 22	2143.3	-27.71	75.08
100.00	17 22 5	2833.30	-29.29	79.53	280.38	83.92	18 9 18	1833.3	-28.84	52.12
110.00	19 1 12	2523.07	-34.05	56.42	280.81	87.20	19 43 15	1523.1	-31.64	27.95

DIFFERENTIAL CORRECTIONS

TDE	-.5206	TRA	-1.4425	TC3	.6539	BAU	.2340
RDE	-.2054	RRA	.4130	RC3	-.5393	FAU	.13667
FDE	1.7175	FRA	3.5149	FC3	-5.7310	BSP	3852
BDE	.5597	BRA	1.5005	BC3	.6476	FSP	984

MID-COURSE EXECUTION ACCURACY

SGT	2144.2	SGR	787.4	SG3	637.6		
RRT	-.7186	RRF	.6007	RTF	-.6727		
SGB	2284.2	R23	-.1909	R13	.8874		
SG1	2222.3	SG2	528.3	THA	164.31		

ORBIT DETERMINATION ACCURACY

ST	44.0	SR	15.4	SS	52.0
CRT	.2629	CRS	.3975	C3T	.9886
LSA	68.1	MSA	15.2	SSA	1.6
EL1	44.2	EL2	14.8	ALF	5.94

LAUNCH DATE JUL 10 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 425.482 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.339	GAL	-3.61	AZL	89.23	HCA	137.99	SMA	209.41	ECC	.28035	INC	.7737
RP	225.98	LAP	.52	LOP	65.60	VP	23.256	GAP	15.65	AZP	90.58	TAL	343.42	TAP	121.42	RCA	150.70	APO	268.12
RC	117.057	GL	5.73	GP	-11.74	ZAL	117.16	ZAP	152.67	ETS	205.58	ZAE	163.05	ETE	310.63	ZAC	72.14	ETC	283.36

V1 29.293 V2 24.338 LVI -6.15

PLANETOCENTRIC CONIC

C3	20.232	VHL	4.498	DLA	21.79	RAL	40.64	RAD	6642.9	VEL	11.842	PTH	6.86	VHP	4.515	DPA	3.73	RAP	42.42

ECC 1.3330

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 23 22	3580.10	-47.18	135.62	279.74	96.98	14 23 2	2580.1	-39.04	104.18
60.00	13 36 14	3545.80	-40.28	133.23	280.43	91.35	14 35 20	2545.8	-35.34	103.29
70.00	13 56 39	3485.69	-34.02	128.23	280.31	86.77	14 54 45	2485.7	-31.79	99.72
80.00	14 32 54	3372.03	-29.19	119.14	279.82	83.42	15 29 6	2372.0	-28.97	91.71
90.00	15 38 57	3158.74	-27.24	103.18	279.54	82.09	16 31 36	2158.7	-27.81	76.19
100.00	17 15 46	2846.50	-29.19	80.50	279.82	83.42	18 3 12	1846.5	-28.97	53.08
110.00	18 56 5	2532.50	-34.02	57.15	280.31	86.77	19 38 18	1532.5	-31.79	28.64

DIFFERENTIAL CORRECTIONS

TDE	-.5231	TRA	-1.4237	TC3	.6739	BAU	.2417
RDE	-.1829	RRA	.4277	RC3	-.5865	FAU	.14258
FDE	1.8274	FRA	3.6314	FC3	-6.1008	BSP	3888
BDE	.5541	BRA	1.4866	BC3	.8934	FSP	1041

MID-COURSE EXECUTION ACCURACY

SGT	2150.8	SGR	822.8	SG3	671.2		
RRT	-.7406	RRF	.6255	RTF	-.6742		
SGB	2302.8	R23	-.2019	R13	.8909		
SG1	2240.8	SG2	530.6	THA	163.21		

ORBIT DETERMINATION ACCURACY

ST	44.4	SR	14.6	SS	54.1
CRT	.1997	CRS	.3415	C3T	.9880
LSA	69.9	MSA	14.9	SSA	1.6
EL1	44.5	EL2	14.3	ALF	4.20

LAUNCH DATE JUL 10 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 429.100 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.302	GAL	-3.55	AZL	89.16	HCA	139.05	SMA	208.60	ECC	.27739	INC	.8403
RP	226.37	LAP	.55	LOP	66.66	VP	23.159	GAP	15.36	AZP	90.63	TAL	343.53	TAP	122.39	RCA	150.73	APO	266.46
RC	119.633	GL	6.28	GP	-12.26	ZAL	116.96	ZAP	151.54	ETS	205.51	ZAE	162.97	ETE	307.90	ZAC	71.62	ETC	283.40

V1 29.293 V2 24.297 LVI -5.64

PLANETOCENTRIC CONIC

C3	19.849	VHL	4.455	DLA	22.25	RAL	40.28	RAD	6642.8	VEL	11.826	PTH	6.85	VHP	4.406	DPA	3.25	RAP	42.62

ECC 1.3267

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 19 48	3585.57	-47.23	136.14	279.39	96.58	14 19 33	2585.6	-39.23	104.57
60.00	13 31 54	3553.33	-40.29	133.67	280.02	90.91	14 31 7	2553.3	-35.52	103.65
70.00	13 51 14	3496.38	-33.97	129.07	279.82	86.28	14 49 30	2496.4	-31.95	100.51
80.00	14 26 8	3386.92	-29.07	120.23	279.28	82.86	15 22 35	2386.9	-29.09	92.80
90.00	15 31 24	3176.16	-27.07	104.43	278.97	81.49	16 24 20	2176.2	-27.91	77.46
100.00	17 9 0	2861.40	-29.07	81.59	279.28	82.86	17 56 41	1861.4	-29.09	54.17
110.00	18 50 40	2543.20	-33.97	57.98	279.82	86.28	19 33 3	1543.2	-31.95	29.43

DIFFERENTIAL CORRECTIONS

TDE	-.5259	TRA	-1.4048	TC3	.6907	BAU	.2493
RDE	-.1598	RRA	.4437	RC3	-.6371	FAU	.14863
FDE	1.9467	FRA	3.7519	FC3	-6.4827	BSP	3932
BDE	.5495	BRA	1.4732	BC3	.9396	FSP	1102

MID-COURSE EXECUTION ACCURACY

SGT	2155.6	SGR	862.7	SG3	706.2		
RRT	-.7606	RRF	.6481	RTF	-.6754		
SGB	2321.8	R23	-.2130	R13	.8943		
SG1	2259.5	SG2	534.4	THA	162.03		

ORBIT DETERMINATION ACCURACY

ST	44.7	SR	13.8	SS	56.3
CRT	.1206	CRS	.2695	C3T	.9873
LSA	71.7	MSA	14.5	SSA	1.6
EL1	44.8	EL2	13.7	ALF	2.35

LAUNCH DATE JUL 10 1973 FLIGHT TIME 172.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 432.734 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.267	GAL	-3.50	AZL	89.09	HCA	140.11	SMA	207.83	ECC	.27460	INC	.9092
RP	226.76	LAP	.58	LOP	67.72	VP	23.085	GAP	15.08	AZP	90.70	TAL	343.64	TAP	123.75	RCA	150.76	APO	264.90
RC	122.240	GL	6.85	GP	-12.81	ZAL	116.76	ZAP	150.38	ETS	205.45	ZAE	162.87	ETE	304.99	ZAC	71.08	ETC	283.44

V1 29.293 V2 24.255 LVI -5.11

PLANETOCENTRIC CONIC

C3	19.494	VHL	4.415	DLA	22.75	RAL	39.92	RAD	6642.6	VEL	11.811	PTH	6.83	VHP	4.300	DPA	2.74	RAP	42.81

ECC 1.3208

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 16 4	3591.91	-47.28	136.74	279.09	96.12	14 15 56	2591.9	-39.44	105.03
60.00	13 27 20	3561.90	-40.30	134.60	279.64	90.42	14 26 42	2561.9	-35.72	104.48
70.00	13 45 29	3508.41	-33.92	130.00	279.37	85.73	14 43 58	2508.4	-32.13	101.41
80.00	14 18 53	3403.69	-28.92	121.45	278.75	82.23	15 15 36	2403.7	-29.23	94.03
90.00	15 23 14	3195.90	-26.86	105.84	278.40	80.81	16 16 30	2195.9	-28.02	78.89
100.00	17 1 44	2878.16	-28.92	82.82	278.75	82.23	17 49 43	1878.2	-29.23	55.40
110.00	18 44 55	2555.23	-33.92	58.92	279.37	85.73	19 27 31	1555.2	-32.13	30.33

DIFFERENTIAL CORRECTIONS

TDE	-.5277	TRA	-1.3841	TC3	.7069	BAU	.2578
RDE	-.1343	RRA	.4306	RC3	-.6918	FAU	.15500
FDE	2.0724	FRA	3.8717	FC3	-6.8835	BSP	3970
BDE	.5445	BRA	1.4588	BC3	.9891	FSP	1165

MID-COURSE EXECUTION ACCURACY

SGT	2156.9	SGR	907.5	SG3	742.5		
RRT	-.7787	RRF	.6687	RTF	-.8765		
SGB	2340.0	R23	-.2235	R13	.8980		
SG1	2277.0	SG2	539.3	THA	160.74		

ORBIT DETERMINATION ACCURACY

ST	45.0	SR	13.1	SS	58.6
CRT	.0229	CRS	.1789	C3T	.9865
LSA	73.7	MSA	14.2	SSA	1.6
EL1	45.0	EL2	13.1	ALF	.42

LAUNCH DATE JUL 10 1973 FLIGHT TIME 174.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 436.383 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.233	GAL	-3.45	AZL	89.02	HCA	141.16	SMA	207.11	ECC	.27195	INC	.9811
RP	227.15	LAP	.62	LOP	68.77	VP	22.973	GAP	14.79	AZP	90.76	TAL	343.75	TAP	124.91	RCA	150.79	APO	263.44
RC	124.878	GL	7.45	GP	-13.39	ZAL	116.56	ZAP	149.20	ETS	205.41	ZAE	162.72	ETE	301.92	ZAC	70.52	ETC	283.49

V1	29.293																		
V2	24.214																		
LVI	-4.86																		

PLANETOCENTRIC CONIC

C3	19.169	VHL	4.378	DLA	23.27	RAL	39.85	RAD	6642.8	VEL	11.798	PTH	6.82	VHP	4.199	DPA	2.18	RAP	42.99
ECC	1.3185																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 12 10	3599.17	-47.33	137.44	278.83	95.58	14 12 9	2599.2	-39.68	108.56
60.00	13 22 31	3571.58	-40.30	136.42	279.30	89.66	14 22 3	2571.6	-35.94	105.21
70.00	13 39 23	3521.90	-33.84	131.05	278.94	85.11	14 38 5	2521.9	-32.32	102.41
80.00	14 11 3	3422.54	-28.74	122.82	278.24	81.53	15 8 6	2422.5	-29.36	98.41
90.00	15 14 20	3218.22	-26.61	107.42	277.85	80.06	16 7 58	2218.2	-28.11	80.52
100.00	16 53 55	2897.02	-28.74	84.19	278.24	81.53	17 42 12	1897.0	-29.36	56.78
110.00	18 38 49	2568.72	-33.84	59.96	278.94	85.11	19 21 38	1568.7	-32.32	31.33

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.5301	TRA	-1.3627	TC3	.7187	BAU	.2662	SGT	2155.4	SGR	957.3	SG3	779.9			ST	45.3	SR	12.5
RDE	-.1078	RRA	.4787	RC3	-.7502	FAU	.16148	RRT	-.7945	RRF	.8871	RTF	-.8771			CRT	-.0959	CRS	.0655
FDE	2.2088	FRA	3.9927	FC3	-7.2931	BSP	4007	SGB	2358.4	R23	-.2336	R13	.9016			LSA	75.7	MSA	13.8
BDE	.5410	BRA	1.4443	BC3	1.0389	FSP	1230	SG1	2294.3	SG2	546.1	THA	159.34			EL1	45.3	EL2	12.4

SS	61.0
CST	.9858
SSA	1.6
ALF	178.37

LAUNCH DATE JUL 10 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 440.046 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.202	GAL	-3.41	AZL	88.94	HCA	142.21	SMA	206.44	ECC	.26944	INC	1.0559
RP	227.54	LAP	.65	LOP	69.82	VP	22.883	GAP	14.51	AZP	90.83	TAL	343.85	TAP	126.06	RCA	150.82	APO	262.06
RC	127.544	GL	8.08	GP	-14.00	ZAL	116.36	ZAP	147.97	ETS	205.38	ZAE	162.53	ETE	298.69	ZAC	69.93	ETC	283.54

V1	29.293																		
V2	24.172																		
LVI	-3.98																		

PLANETOCENTRIC CONIC

C3	18.870	VHL	4.344	DLA	23.82	RAL	39.17	RAD	6642.3	VEL	11.785	PTH	6.81	VHP	4.102	DPA	1.59	RAP	43.15
ECC	1.3105																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 8 4	3607.37	-47.36	138.23	278.63	94.98	14 8 11	2607.4	-39.94	106.17
60.00	13 17 26	3582.41	-40.29	136.34	278.99	89.24	14 17 3	2582.4	-36.19	106.02
70.00	13 32 52	3536.94	-33.75	132.21	278.53	84.43	14 31 49	2536.9	-32.52	103.54
80.00	14 2 34	3443.73	-28.52	124.36	277.74	80.75	14 59 58	2443.7	-29.50	96.97
90.00	15 4 34	3243.55	-26.30	109.21	277.30	79.22	15 58 38	2243.5	-28.19	82.36
100.00	16 45 26	2918.20	-28.52	85.72	277.74	80.75	17 34 5	1918.2	-29.50	58.34
110.00	18 32 18	2583.76	-33.75	61.13	278.53	84.43	19 15 22	1583.8	-32.52	32.46

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.5223	TRA	-1.3297	TC3	.7483	BAU	.2790	SGT	2138.4	SGR	1012.6	SG3	818.3			ST	44.9	SR	12.0
RDE	-.0804	RRA	.4970	RC3	-.8145	FAU	.16850	RRT	-.8131	RRF	.9034	RTF	-.8810			CRT	-.2361	CRS	-.0670
FDE	2.3465	FRA	4.1041	FC3	-7.7307	BSP	3924	SGB	2366.1	R23	-.2339	R13	.9081			LSA	77.4	MSA	13.5
BDE	.5285	BRA	1.4196	BC3	1.1060	FSP	1288	SG1	2301.8	SG2	547.6	THA	157.61			EL1	45.0	EL2	11.7

SS	63.3
CST	.9842
SSA	1.6
ALF	176.12

LAUNCH DATE JUL 10 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 443.720 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.172	GAL	-3.36	AZL	88.87	HCA	143.25	SMA	205.80	ECC	.26707	INC	1.1341
RP	227.93	LAP	.68	LOP	70.86	VP	22.796	GAP	14.23	AZP	90.91	TAL	343.95	TAP	127.20	RCA	150.84	APO	260.76
RC	130.237	GL	8.74	GP	-14.65	ZAL	116.16	ZAP	146.72	ETS	205.36	ZAE	162.27	ETE	295.36	ZAC	69.31	ETC	283.60

V1	29.293																		
V2	24.131																		
LVI	-3.38																		

PLANETOCENTRIC CONIC

C3	18.599	VHL	4.313	DLA	24.40	RAL	38.79	RAD	6642.2	VEL	11.774	PTH	6.80	VHP	4.010	DPA	.96	RAP	43.29
ECC	1.3061																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 3 46	3616.62	-47.43	139.11	278.48	94.30	14 4 2	2616.6	-40.24	108.86
60.00	13 12 3	3594.52	-40.28	137.37	278.72	88.54	14 11 58	2594.5	-36.45	106.94
70.00	13 25 54	3553.74	-33.63	133.51	278.16	83.67	14 25 8	2553.7	-32.74	104.80
80.00	13 53 20	3467.67	-28.24	126.08	277.25	79.88	14 51 8	2467.7	-29.62	98.74
90.00	14 53 45	3272.57	-25.92	111.25	276.74	78.27	15 48 17	2272.6	-28.26	84.48
100.00	16 36 12	2942.14	-28.24	87.45	277.25	79.88	17 25 14	1942.1	-29.62	60.11
110.00	18 25 20	2600.56	-33.63	62.43	278.16	83.67	19 8 41	1600.6	-32.74	33.72

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.5308	TRA	-1.3135	TC3	.7367	BAU	.2854	SGT	2138.4	SGR	1073.2	SG3	857.6			ST	45.5	SR	11.9
RDE	-.0500	RRA	.5180	RC3	-.8801	FAU	.17508	RRT	-.8207	RRF	.9177	RTF	-.8778			CRT	-.3867	CRS	-.2248
FDE	2.5048	FRA	4.2283	FC3	-8.1493	BSP	4053	SGB	2392.6	R23	-.2496	R13	.9097			LSA	80.0	MSA	13.1
BDE	.5332	BRA	1.4119	BC3	1.1478	FSP	1363	SG1	2325.2	SG2	563.8	THA	156.12			EL1	45.7	EL2	10.9

SS	66.1
CST	.9839
SSA	1.6
ALF	173.86

LAUNCH DATE JUL 10 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 447.405 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.143	GAL	-3.32	AZL	88.78	HCA	144.29	SMA	205.20	ECC	.26482	INC	1.2161
RP	228.32	LAP	.71	LOP	71.90	VP	22.711	GAP	13.96	AZP	90.99	TAL	344.04	TAP	128.34	RCA	150.86	APO	259.55
RC	132.954	GL	9.44	GP	-15.33	ZAL	115.97	ZAP	145.44	ETS	205.35	ZAE	161.94	ETE	291.93	ZAC	68.66	ETC	283.67

V1	29.293																		
V2	24.090																		
LVI	-2.75																		

PLANETOCENTRIC CONIC

C3	18.354	VHL	4.284	DLA	25.01	RAL	38.40	RAD	6642.1	VEL	11.763	PTH	6.79	VHP	3.921	DPA	.28	RAP	43.43
ECC	1.3021																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 59 14	3626.94	-47.48	140.11	278.38	93.53	13 59 41	2626.9	-40.57	107.63
60.00	13 6 21	3607.96	-40.25	138.51	278.49	87.76	14 6 29	2608.0	-36.74	107.97
70.00	13 18 25	3572.43	-33.48	134.95	277.80	82.83	14 17 57	2572.4	-32.95	106.22
80.00	13 43 10	3494.77	-27.90	128.02	276.75	78.92	14 41 25	2494.8	-29.73	100.75
90.00	14 41 35	3306.10	-25.43	113.58	276.17	77.19	15 36 41	2306.1	-28.28	86.93
100.00	16 26 2	2969.24	-27.90	89.39	276.75	78.92	17 15 31	1969.2	-29.73	62.12
110.00	18 17 51	2619.24	-33.48	63.86	277.80	82.83	19 1 31	1619.2	-32.95	35.13

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.5335	TRA	-1.2894	TC3	.7355	BAU	.2951	SGT	2127.7	SGR	1140.0	SG3	898.0			ST	45.7	SR	12.1
RDE	-.0176	RRA	.5398	RC3	-.9515	FAU	.18202	RRT	-.8298	RRF	.9303	RTF	-.8768			CRT	-.5445	CRS	-.3887
FDE	2.6715	FRA	4.3460	FC3	-8.5856	BSP	4103	SGB	2413.9	R23	-.2577	R13	.9134			LSA	82.5	MSA	12.8
BDE	.5338	BRA	1.3978	BC3	1.2026	FSP	1433	SG1	2343.8	SG2	577.6	THA	154.36			EL1	46.2	EL2	10.0

SS	68.8
CST	.9832
SSA	1.6
ALF	171.41

LAUNCH DATE JUL 10 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 451.103 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.117	GAL	-3.28	AZL	88.70	HCA	145.33	SMA	204.64	ECC	.28269	INC	1.3020	V1	29.293
RP	228.70	LAP	.74	LOP	72.94	VP	22.629	GAP	13.68	AZP	91.07	TAL	344.13	TAP	129.46	RCA	150.88	APO	258.40	V2	24.049
RC	135.694	GL	10.16	GP	-16.06	ZAL	115.77	ZAP	144.11	ETS	205.34	ZAE	161.52	ETE	288.43	ZAC	67.98	ETC	283.75	LVI	-2.09

PLANETOCENTRIC CONIC

C3	18.133	VHL	4.258	DLA	25.66	RAL	38.00	RAD	6642.0	VEL	11.754	PTH	6.78	VHP	3.837	DPA	-.45	RAP	43.54	ECC	1.2984

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 54 27	3638.37	-47.52	141.21	278.33	92.68	13 55 5	2638.4	-40.92	108.50
60.00	13 0 17	3622.81	-40.20	139.78	278.29	86.91	14 0 40	2622.8	-37.04	109.11
70.00	13 10 20	3593.19	-33.30	136.54	277.45	81.91	14 10 13	2593.2	-33.18	107.80
80.00	13 31 51	3525.66	-27.48	130.22	276.24	77.84	14 30 37	2525.7	-29.81	103.04
90.00	14 27 38	3345.49	-24.81	116.30	275.55	75.97	15 23 23	2345.5	-28.25	89.81
100.00	16 14 43	3000.13	-27.48	91.59	276.24	77.84	17 4 43	2000.1	-29.81	64.41
110.00	18 9 47	2640.01	-33.30	65.45	277.45	81.91	18 53 47	1640.0	-33.18	36.71

DIFFERENTIAL CORRECTIONS

TDE	-.5185	TRA	-1.2474	TC3	.7653	BAU	.3112												
RDE	.0154	RRA	.5610	RC3	-1.0308	FAU	.18964												
FDE	2.8325	FRA	4.4451	FC3	-9.0537	BSP	3965												
BDE	.5187	BRA	1.3677	BC3	1.2838	FSP	1492												

MID-COURSE EXECUTION ACCURACY

SGT	2092.4	SGR	1213.4	SG3	938.6				
RRT	-.8452	RRF	.9411	RTF	-.8816				
SGB	2418.8	R23	-.2495	R13	.9216				
SG1	2348.8	SG2	577.8	THA	152.05				

ORBIT DETERMINATION ACCURACY

ST	44.7	SR	12.7	SS	71.4				
CRT	-.6855	CRS	-.5363	CST	.9808				
LSA	84.2	MSA	12.6	SSA	1.5				
EL1	45.6	EL2	9.0	ALF	160.54				

LAUNCH DATE JUL 10 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 454.807 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.091	GAL	-3.25	AZL	88.61	HCA	146.36	SMA	204.11	ECC	.28069	INC	1.3921	V1	29.293
RP	229.09	LAP	.77	LOP	73.98	VP	22.548	GAP	13.41	AZP	91.16	TAL	344.21	TAP	130.58	RCA	150.90	APO	257.33	V2	24.008
RC	138.457	GL	10.92	GP	-16.82	ZAL	115.58	ZAP	142.76	ETS	205.34	ZAE	161.02	ETE	284.93	ZAC	67.26	ETC	283.84	LVI	-1.39

PLANETOCENTRIC CONIC

C3	17.941	VHL	4.236	DLA	26.34	RAL	37.60	RAD	6641.9	VEL	11.746	PTH	6.77	VHP	3.757	DPA	-1.22	RAP	43.65	ECC	1.2953

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 49 24	3651.07	-47.55	142.44	278.34	91.74	13 50 16	2651.1	-41.31	109.47
60.00	12 53 50	3639.29	-40.13	141.17	278.14	85.96	13 54 29	2639.3	-37.37	110.39
70.00	13 1 35	3616.43	-33.06	138.31	277.12	80.89	14 1 51	2616.4	-33.40	109.57
80.00	13 19 6	3561.42	-26.94	132.74	275.72	76.62	14 18 28	2561.4	-29.86	105.70
90.00	14 11 8	3393.31	-23.98	119.56	274.87	74.54	15 7 42	2393.3	-28.12	93.30
100.00	16 1 58	3035.89	-26.94	94.11	275.72	76.62	16 52 34	2035.9	-29.86	67.07
110.00	18 1 1	2663.25	-33.06	67.23	277.12	80.89	18 45 25	1663.2	-33.40	38.49

DIFFERENTIAL CORRECTIONS

TDE	-.5333	TRA	-1.2349	TC3	.7234	BAU	.3174												
RDE	.0545	RRA	.5871	RC3	-1.1079	FAU	.19608												
FDE	3.0333	FRA	4.5702	FC3	-9.4620	BSP	4181												
BDE	.5361	BRA	1.3674	BC3	1.3232	FSP	1579												

MID-COURSE EXECUTION ACCURACY

SGT	2090.6	SGR	1292.9	SG3	980.1				
RRT	-.8436	RRF	.9504	RTF	-.8742				
SGB	2458.1	R23	-.2662	R13	.9223				
SG1	2381.3	SG2	609.5	THA	150.31				

ORBIT DETERMINATION ACCURACY

ST	45.6	SR	13.9	SS	74.7				
CRT	-.7993	CRS	-.6734	CST	.9811				
LSA	87.8	MSA	12.2	SSA	1.6				
EL1	47.0	EL2	8.1	ALF	165.93				

LAUNCH DATE JUL 10 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 458.522 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.067	GAL	-3.21	AZL	88.51	HCA	147.39	SMA	203.62	ECC	.28080	INC	1.4870	V1	29.293
RP	229.48	LAP	.80	LOP	75.01	VP	22.470	GAP	13.14	AZP	91.25	TAL	344.29	TAP	131.69	RCA	150.92	APO	256.31	V2	23.967
RC	141.241	GL	11.73	GP	-17.63	ZAL	115.38	ZAP	141.36	ETS	205.34	ZAE	160.42	ETE	281.44	ZAC	66.51	ETC	283.94	LVI	-.66

PLANETOCENTRIC CONIC

C3	17.773	VHL	4.218	DLA	27.06	RAL	37.19	RAD	6641.8	VEL	11.739	PTH	6.77	VHP	3.682	DPA	-2.04	RAP	43.75	ECC	1.2925

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 44 3	3665.04	-47.57	143.79	278.41	90.70	13 45 8	2665.0	-41.72	110.56
60.00	12 46 54	3657.45	-40.03	142.71	278.01	84.93	13 47 51	2657.4	-37.71	111.81
70.00	12 52 1	3642.36	-32.76	140.27	276.80	79.76	13 52 43	2642.4	-33.62	111.57
80.00	13 4 24	3603.44	-26.24	135.67	275.14	75.23	14 4 28	2603.4	-29.83	108.82
90.00	13 30 29	3454.51	-22.81	123.66	274.05	72.81	14 48 4	2454.5	-27.80	97.75
100.00	15 47 16	3077.92	-26.24	97.04	275.14	75.23	16 38 34	2077.9	-29.83	70.19
110.00	17 51 27	2689.18	-32.76	69.19	276.80	79.76	18 36 16	1689.2	-33.62	40.48

DIFFERENTIAL CORRECTIONS

TDE	-.5274	TRA	-1.2008	TC3	.7225	BAU	.3319												
RDE	.0943	RRA	.6119	RC3	-1.1955	FAU	.20382												
FDE	3.2252	FRA	4.6672	FC3	-9.9136	BSP	4169												
BDE	.5388	BRA	1.3477	BC3	1.3969	FSP	1647												

MID-COURSE EXECUTION ACCURACY

SGT	2060.0	SGR	1380.1	SG3	1021.6				
RRT	-.8503	RRF	.9584	RTF	-.8740				
SGB	2479.5	R23	-.2631	R13	.9283				
SG1	2389.9	SG2	623.4	THA	147.91				

ORBIT DETERMINATION ACCURACY

ST	45.2	SR	15.5	SS	77.7				
CRT	-.8811	CRS	-.7728	CST	.9795				
LSA	90.4	MSA	12.0	SSA	1.8				
EL1	47.2	EL2	7.0	ALF	162.81				

LAUNCH DATE JUL 10 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 462.245 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	33.048	GAL	-3.18	AZL	88.41	HCA	148.42	SMA	203.18	ECC	.27702	INC	1.5869	V1	29.293
RP	229.86	LAP	.83	LOP	76.03	VP	22.393	GAP	12.87	AZP	91.35	TAL	344.37	TAP	132.79	RCA	150.94	APO	255.37	V2	23.927
RC	144.046	GL	12.57	GP	-18.48	ZAL	115.19	ZAP	139.93	ETS	205.34	ZAE	159.71	ETE	278.01	ZAC	65.72	ETC	284.05	LVI	.10

PLANETOCENTRIC CONIC

C3	17.631	VHL	4.199	DLA	27.82	RAL	36.77	RAD	6641.8	VEL	11.733	PTH	6.76	VHP	3.611	DPA	-2.92	RAP	43.83	ECC	1.2902

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 38 21	3680.43	-47.57	145.28	278.53	89.55	13 39 42	2680.4	-42.16	111.77
60.00	12 39 27	3677.51	-39.90	144.40	277.92	83.79	13 40 44	2677.5	-38.06	113.40
70.00	12 41 28	3671.53	-32.39	142.47	276.47	78.51	13 42 40	2671.5	-33.62	113.62
80.00	12 46 53	3654.55	-25.31	139.18	274.47	73.61	13 47 47	2654.6	-29.69	112.61
90.00	13 20 33	3545.67	-20.85	129.62	272.89	70.45	14 19 38	2545.7	-27.05	104.31
100.00	15 29 44	3129.03	-25.31	100.85	274.47	73.61	16 21 54	2129.0	-29.69	73.98
110.00	17 40 55	2718.35	-32.39	71.38	276.47	78.51	18 26 13	1718.4	-33.62	42.74

DIFFERENTIAL CORRECTIONS

TDE	-.5305	TRA	-1.1755	TC3	.6927	BAU	.3440												
RDE	.1391	RRA	.6396	RC3	-1.2845	FAU	.21032												
FDE	3.4395	FRA	4.7700	FC3	-10.3271	BSP	4275												
BDE	.5484	BRA	1.3382	BC3	1.4594	FSP	1727												

MID-COURSE EXECUTION ACCURACY

SGT	2037.6	SGR	1474.3	SG3	1063.1				
RRT	-.8504	RRF	.9652	RTF	-.8691				
SGB	2515.0	R23	-.2658	R13	.9324				
SG1	2429.4	SG2	650.5	THA	145.58				

ORBIT DETERMINATION ACCURACY

ST	45.3	SR	17.7	SS	81.0				
CRT	-.9349	CRS	-.8466	CST	.9786				
LSA	93.7	MSA	11.7	SSA	1.5				
EL1	48.2	EL2	5.9	ALF	159.66				

LAUNCH DATE JUL 10 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 465.975 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 33.023 GAL -3.15 AZL 88.31 HCA 149.44 SMA 202.71 ECC .25533 INC 1.6925 V1 29.293
RP 230.25 LAP .86 LOP 77.06 VP 22.319 GAP 12.61 AZP 91.46 TAL 344.43 TAP 133.88 RCA 150.95 APO 254.47 V2 23.887
RC 146.670 GL 13.46 GP -19.38 ZAL 115.00 ZAP 138.46 ETS 205.33 ZAE 156.90 ETE 274.67 ZAC 64.89 ETC 284.17 LVI .90

PLANETOCENTRIC CONIC

C3 17.516 VHL 4.185 DLA 28.63 RAL 36.33 RAD 6641.7 VEL 11.728 PTH 6.76 VHP 3.544 DPA -3.85 RAP 43.81 ECC 1.2883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 16	3697.33	-47.55	146.91	278.71	88.30	13 33 53	2697.3	-42.63	113.12
60.00	12 31 24	3699.65	-39.72	146.25	277.85	82.54	13 33 4	2699.7	-38.42	116.17
70.00	12 29 44	3704.85	-31.91	144.92	276.12	77.13	13 31 29	2704.5	-33.99	116.38
80.00	12 24 36	3720.72	-23.96	143.63	273.61	71.63	13 26 37	2720.7	-29.33	117.49
85.34	11 55 18	3815.20	-17.53	147.98	271.01	66.99	12 58 54	2815.2	-25.50	123.71
100.00	15 7 28	3195.19	-23.96	105.00	273.61	71.63	16 0 43	2195.2	-29.33	78.86
110.00	17 29 11	2751.37	-31.91	73.84	276.12	77.13	18 15 2	1751.4	-33.99	45.30

DIFFERENTIAL CORRECTIONS

TDE -.5276 TRA-1.1430 TC3 .6693 BAU .3592
RDE .1873 RRA .6676 RC3-1.3801 FAU .21729
FDE 3.6609 FRA 4.8558 FC-10.7396 BSP 4328
BDE .5598 BRA 1.3237 BC3 1.5339 FSP 1800

MID-COURSE EXECUTION ACCURACY

SGT 2003.4 SGR 1576.2 SG3 1104.1
RRT -.8514 RRF .9709 RTF -.8655
SGB 2549.2 R23 -.2615 R13 .9380
SG1 2458.5 SG2 673.7 THA 142.94

ORBIT DETERMINATION ACCURACY

ST 44.9 SR 20.3 SS 84.4
CRT -.9677 CRS -.8968 CST .9772
LSA 97.0 MSA 11.5 SSA 1.5
EL1 49.1 EL2 4.7 ALF 156.18

LAUNCH DATE JUL 10 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 469.712 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 33.003 GAL -3.12 AZL 88.20 HCA 150.46 SMA 202.30 ECC .25374 INC 1.8044 V1 29.293
RP 230.63 LAP .89 LOP 78.08 VP 22.246 GAP 12.34 AZP 91.57 TAL 344.50 TAP 134.96 RCA 150.97 APO 253.64 V2 23.847
RC 149.713 GL 14.39 GP -20.33 ZAL 114.81 ZAP 136.95 ETS 205.32 ZAE 157.98 ETE 271.44 ZAC 64.02 ETC 284.31 LVI 1.78

PLANETOCENTRIC CONIC

C3 17.429 VHL 4.175 DLA 29.48 RAL 35.88 RAD 6641.7 VEL 11.724 PTH 6.76 VHP 3.483 DPA -4.84 RAP 43.97 ECC 1.2868

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 25 45	3715.89	-47.50	148.70	278.95	86.92	13 27 41	2715.9	-43.12	114.63
60.00	12 22 39	3724.16	-39.48	148.29	277.80	81.17	13 24 43	2724.2	-38.78	117.15
70.00	12 16 29	3742.35	-31.31	147.70	275.74	75.59	13 18 52	2742.3	-34.11	119.33
80.00	11 50 39	3823.81	-21.59	150.36	272.26	68.86	12 54 23	2823.8	-28.37	125.00
81.29	11 21 0	3918.76	-18.05	155.85	270.71	66.28	12 26 19	2918.8	-26.26	131.54
100.00	14 33 31	3298.29	-21.59	111.73	272.26	68.86	15 28 29	2298.3	-28.37	86.37
110.00	17 15 56	2789.17	-31.31	76.62	275.74	75.59	18 2 25	1789.2	-34.11	48.24

DIFFERENTIAL CORRECTIONS

TDE -.5234 TRA-1.1097 TC3 .6403 BAU .3759
RDE .2399 RRA .6970 RC3-1.4806 FAU .22409
FDE 3.8933 FRA 4.9318 FC-11.1312 BSP 4390
BDE .5758 BRA 1.3105 BC3 1.6131 FSP 1872

MID-COURSE EXECUTION ACCURACY

SGT 1965.5 SGR 1686.5 SG3 1144.2
RRT -.8508 RRF .9758 RTF -.8610
SGB 2589.9 R23 -.2545 R13 .9438
SG1 2493.9 SG2 698.5 THA 140.12

ORBIT DETERMINATION ACCURACY

ST 44.5 SR 23.4 SS 87.8
CRT -.9862 CRS -.9305 CST .9756
LSA 100.5 MSA 11.4 SSA 1.4
EL1 50.1 EL2 3.4 ALF 152.47

LAUNCH DATE JUL 10 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 473.455 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.984 GAL -3.09 AZL 88.08 HCA 151.48 SMA 201.92 ECC .25225 INC 1.9230 V1 29.293
RP 231.01 LAP .92 LOP 79.10 VP 22.175 GAP 12.08 AZP 91.69 TAL 344.55 TAP 136.03 RCA 150.98 APO 252.85 V2 23.807
RC 152.572 GL 15.38 GP -21.34 ZAL 114.61 ZAP 135.41 ETS 205.30 ZAE 156.94 ETE 288.34 ZAC 63.10 ETC 284.46 LVI 2.64

PLANETOCENTRIC CONIC

C3 17.370 VHL 4.168 DLA 30.39 RAL 35.42 RAD 6641.6 VEL 11.722 PTH 6.75 VHP 3.426 DPA -5.89 RAP 44.03 ECC 1.2859

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 18 44	3736.27	-47.41	150.66	279.24	85.41	13 21 0	2736.3	-43.64	116.32
60.00	12 13 5	3751.35	-39.18	150.54	277.76	79.68	13 15 36	2751.3	-39.14	119.38
70.00	12 1 13	3786.37	-30.52	150.89	275.28	73.86	13 4 20	2786.4	-34.15	122.76
78.39	10 57 5	3988.40	-18.59	161.28	270.44	65.52	12 3 33	2988.4	-27.06	136.95
78.39	10 57 5	3988.40	-18.59	161.28	270.44	65.52	12 3 33	2988.4	-27.06	136.95
78.39	10 57 5	3988.40	-18.59	161.28	270.44	65.52	12 3 33	2988.4	-27.06	136.95
110.00	17 0 40	2833.19	-30.52	79.81	275.28	73.86	17 47 53	1833.2	-34.15	51.68

DIFFERENTIAL CORRECTIONS

TDE -.5174 TRA-1.0743 TC3 .6068 BAU .3944
RDE .2975 RRA .7272 RC3-1.5864 FAU .23073
FDE 4.1352 FRA 4.9918 FC-11.5001 BSP 4459
BDE .5968 BRA 1.2973 BC3 1.6985 FSP 1941

MID-COURSE EXECUTION ACCURACY

SGT 1921.7 SGR 1805.3 SG3 1183.1
RRT -.8486 RRF .9798 RTF -.8655
SGB 2636.7 R23 -.2444 R13 .9499
SG1 2535.4 SG2 723.9 THA 137.11

ORBIT DETERMINATION ACCURACY

ST 43.9 SR 26.9 SS 91.3
CRT -.9953 CRS -.9530 CST .9737
LSA 104.2 MSA 11.3 SSA 1.4
EL1 51.4 EL2 2.2 ALF 148.53

LAUNCH DATE JUL 10 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 477.204 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.966 GAL -3.07 AZL 87.95 HCA 152.49 SMA 201.58 ECC .25085 INC 2.0493 V1 29.293
RP 231.39 LAP .95 LOP 80.11 VP 22.106 GAP 11.82 AZP 91.82 TAL 344.61 TAP 137.10 RCA 150.99 APO 252.11 V2 23.767
RC 155.447 GL 16.42 GP -22.41 ZAL 114.41 ZAP 133.82 ETS 205.27 ZAE 155.78 ETE 265.41 ZAC 62.13 ETC 284.63 LVI 3.58

PLANETOCENTRIC CONIC

C3 17.341 VHL 4.164 DLA 31.35 RAL 34.94 RAD 6641.6 VEL 11.721 PTH 6.75 VHP 3.374 DPA -7.00 RAP 44.09 ECC 1.2854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 11 9	3758.65	-47.26	152.81	279.57	83.76	13 13 47	2758.6	-44.17	118.21
60.00	12 2 32	3781.65	-38.78	153.02	277.72	78.04	13 5 33	2781.6	-39.49	121.88
70.00	11 43 5	3839.12	-29.46	154.63	274.70	71.88	12 47 4	2839.1	-34.07	126.88
75.88	10 37 7	4045.02	-19.15	165.81	270.20	64.70	11 44 32	3045.0	-27.90	141.45
75.88	10 37 7	4045.02	-19.15	165.81	270.20	64.70	11 44 32	3045.0	-27.90	141.45
75.88	10 37 7	4045.02	-19.15	165.81	270.20	64.70	11 44 32	3045.0	-27.90	141.45
110.00	16 42 31	2885.94	-29.46	83.55	274.70	71.88	17 30 37	1885.9	-34.07	55.80

DIFFERENTIAL CORRECTIONS

TDE -.5093 TRA-1.0371 TC3 .5678 BAU .4147
RDE .3610 RRA .7584 RC3-1.6965 FAU .23700
FDE 4.3879 FRA 5.0358 FC-11.8321 BSP 4537
BDE .6242 BRA 1.2848 BC3 1.7890 FSP 2007

MID-COURSE EXECUTION ACCURACY

SGT 1872.5 SGR 1932.8 SG3 1220.0
RRT -.8448 RRF .9832 RTF -.8489
SGB 2691.1 R23 -.2315 R13 .9562
SG1 2584.7 SG2 749.2 THA 133.93

ORBIT DETERMINATION ACCURACY

ST 43.1 SR 30.9 SS 95.0
CRT -.9985 CRS -.9681 CST .9715
LSA 108.2 MSA 11.2 SSA 1.3
EL1 53.0 EL2 1.4 ALF 144.33

LAUNCH DATE JUL 10 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 480.958 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.949 GAL -3.05 AZL 87.82 HCA 153.50 SMA 201.21 ECC .24952 INC 2.1039 V1 29.293
RP 231.77 LAP .97 LOP 81.12 VP 22.038 GAP 11.56 AZP 91.95 TAL 344.65 TAP 138.15 RCA 151.01 APO 251.42 V2 23.728
RC 158.336 GL 17.52 GP -23.53 ZAL 114.20 ZAP 132.19 ETS 205.23 ZAE 154.51 ETE 262.63 ZAC 61.11 ETC 284.81 LVI 4.57

PLANETOCENTRIC CONIC

C3 17.344 VHL 4.165 DLA 32.36 RAL 34.43 RAD 6641.6 VEL 11.721 PTH 6.75 VHP 3.328 DPA -8.18 RAP 44.14 ECC 1.2854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 2 53	3783.26	-47.06	155.15	279.95	81.97	13 5 57	2783.3	-44.72	120.32
60.00	11 50 46	3815.61	-38.26	155.76	277.65	76.24	12 54 22	2815.6	-39.80	124.71
70.00	11 20 18	3905.79	-27.96	159.24	273.87	69.53	12 25 24	2905.8	-33.74	132.06
73.57	10 19 24	4094.16	-19.73	169.85	270.00	63.81	11 27 38	3094.2	-28.78	145.45
73.57	10 19 24	4094.16	-19.73	169.85	270.00	63.81	11 27 38	3094.2	-28.78	145.45
73.57	10 19 24	4094.16	-19.73	169.85	270.00	63.81	11 27 38	3094.2	-28.78	145.45
110.00	16 19 45	2952.61	-27.96	88.15	273.87	69.53	17 8 57	1952.6	-33.74	60.97

DIFFERENTIAL CORRECTIONS

TDE -.4972 TRA -.9964 TC3 .5273 BAU .4375
RDE .4303 RRA .7896 RC3-1.8118 FAU .24296
FDE 4.6455 FRA 5.0563 FC-12.1277 BSP 4606
BDE .6576 BRA 1.2713 BC3 1.8869 FSP 2064

MID-COURSE EXECUTION ACCURACY

SGT 1615.1 SGR 2069.2 SG3 1254.2
RRT -.8400 RRF .9861 RTF -.8416
SGB 2752.5 R23 -.2152 R13 .9626
SG1 2642.2 SG2 771.3 THA 130.55

ORBIT DETERMINATION ACCURACY

ST 42.0 SR 35.4 SS 98.6
CRT -.9980 CRS -.9782 CST .9686
LSA 112.3 MSA 11.2 SSA 1.3
EL1 54.9 EL2 1.7 ALF 139.87

LAUNCH DATE JUL 10 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 484.717 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.933 GAL -3.03 AZL 87.67 HCA 154.51 SMA 200.90 ECC .24826 INC 2.3280 V1 29.293
RP 232.14 LAP 1.00 LOP 82.13 VP 21.972 GAP 11.30 AZP 92.10 TAL 344.69 TAP 139.20 RCA 151.02 APO 250.77 V2 23.689
RC 161.238 GL 18.69 GP -24.72 ZAL 113.99 ZAP 130.52 ETS 205.17 ZAE 153.13 ETE 260.02 ZAC 60.04 ETC 285.02 LVI 5.62

PLANETOCENTRIC CONIC

C3 17.382 VHL 4.169 DLA 33.44 RAL 33.90 RAD 6641.6 VEL 11.722 PTH 6.75 VHP 3.287 DPA -9.43 RAP 44.18 ECC 1.2861

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 53 51	3810.39	-46.77	157.71	280.35	80.02	12 57 21	2810.4	-45.27	122.70
60.00	11 37 31	3854.03	-37.60	158.80	277.53	74.27	12 41 45	2854.0	-40.07	127.94
70.00	10 47 31	4002.40	-25.49	165.66	272.48	66.46	11 54 13	3002.4	-32.85	139.45
71.36	10 3 7	4138.50	-20.32	173.56	269.62	62.85	11 12 5	3138.5	-29.70	149.16
71.36	10 3 7	4138.50	-20.32	173.56	269.82	62.85	11 12 5	3138.5	-29.70	149.16
71.36	10 3 7	4138.50	-20.32	173.56	269.82	62.85	11 12 5	3138.5	-29.70	149.16
110.00	15 46 57	3049.22	-25.49	94.58	272.48	66.46	16 37 47	2049.2	-32.85	68.37

DIFFERENTIAL CORRECTIONS

TDE -.4785 TRA -.9497 TC3 .4911 BAU .4635
RDE .5058 RRA .8199 RC3-1.9333 FAU .24870
FDE 4.9037 FRA 5.0467 FC-12.3872 BSP 4645
BDE .6963 BRA 1.2547 BC3 1.9947 FSP 2107

MID-COURSE EXECUTION ACCURACY

SGT 1745.4 SGR 2214.8 SG3 1285.0
RRT -.8354 RRF .9885 RTF -.8345
SGB 2819.9 R23 -.1950 R13 .9691
SG1 2708.6 SG2 784.5 THA 126.97

ORBIT DETERMINATION ACCURACY

ST 40.4 SR 40.3 SS 102.1
CRT -.9948 CRS -.9849 CST .9646
LSA 116.4 MSA 11.2 SSA 1.2
EL1 57.0 EL2 2.9 ALF 135.07

LAUNCH DATE JUL 10 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 488.478 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.919 GAL -3.01 AZL 87.52 HCA 155.51 SMA 200.60 ECC .24713 INC 2.4626 V1 29.293
RP 232.51 LAP 1.03 LOP 83.13 VP 21.908 GAP 11.04 AZP 92.26 TAL 344.72 TAP 140.23 RCA 151.02 APO 250.17 V2 23.650
RC 164.150 GL 19.93 GP -25.97 ZAL 113.76 ZAP 128.81 ETS 205.08 ZAE 151.64 ETE 257.59 ZAC 58.92 ETC 285.24 LVI 6.72

PLANETOCENTRIC CONIC

C3 17.460 VHL 4.178 DLA 34.59 RAL 33.34 RAD 6641.7 VEL 11.726 PTH 6.76 VHP 3.252 DPA -10.74 RAP 44.24 ECC 1.2873

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 43 54	3840.40	-46.37	160.50	280.78	77.90	12 47 54	2840.4	-45.82	125.39
60.00	11 22 19	3898.09	-36.73	162.22	277.33	72.10	12 27 17	2898.1	-40.25	131.68
69.20	9 47 52	4179.31	-20.92	177.08	269.69	61.81	10 57 31	3179.3	-30.67	152.67
69.20	9 47 52	4179.31	-20.92	177.08	269.69	61.81	10 57 31	3179.3	-30.67	152.67
69.20	9 47 52	4179.31	-20.92	177.08	269.69	61.81	10 57 31	3179.3	-30.67	152.67
69.20	9 47 52	4179.31	-20.92	177.08	269.69	61.81	10 57 31	3179.3	-30.67	152.67
69.20	9 47 52	4179.31	-20.92	177.08	269.69	61.81	10 57 31	3179.3	-30.67	152.67

DIFFERENTIAL CORRECTIONS

TDE -.4757 TRA -.9205 TC3 .4057 BAU .4866
RDE .5953 RRA .8562 RC3-2.0450 FAU .25218
FDE 5.2035 FRA 5.0489 FC-12.5043 BSP 4903
BDE .7621 BRA 1.2571 BC3 2.0848 FSP 2181

MID-COURSE EXECUTION ACCURACY

SGT 1700.3 SGR 2370.8 SG3 1312.7
RRT -.8182 RRF .9905 RTF -.8264
SGB 2917.5 R23 -.1821 R13 .9736
SG1 2797.4 SG2 828.4 THA 123.76

ORBIT DETERMINATION ACCURACY

ST 39.9 SR 46.2 SS 106.4
CRT -.9905 CRS -.9897 CST .9623
LSA 122.2 MSA 11.2 SSA 1.1
EL1 60.9 EL2 4.2 ALF 130.81

LAUNCH DATE JUL 10 1973 FLIGHT TIME 204.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 492.244 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.905 GAL -2.99 AZL 87.35 HCA 156.51 SMA 200.32 ECC .24604 INC 2.6489 V1 29.293
RP 232.89 LAP 1.06 LOP 84.13 VP 21.846 GAP 10.79 AZP 92.43 TAL 344.75 TAP 141.26 RCA 151.03 APO 249.61 V2 23.612
RC 167.073 GL 21.24 GP -27.28 ZAL 113.53 ZAP 127.07 ETS 204.97 ZAE 150.03 ETE 255.31 ZAC 57.74 ETC 285.49 LVI 7.88

PLANETOCENTRIC CONIC

C3 17.579 VHL 4.193 DLA 35.81 RAL 32.75 RAD 6641.7 VEL 11.731 PTH 6.76 VHP 3.224 DPA -12.13 RAP 44.29 ECC 1.2893

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 32 50	3873.71	-45.86	163.55	281.19	75.61	12 37 23	2873.7	-46.35	128.43
60.00	11 4 28	3949.60	-35.58	166.11	276.95	69.67	12 10 17	2949.6	-40.29	136.06
67.06	9 33 18	4217.58	-21.54	180.48	269.59	60.68	10 43 36	3217.6	-31.69	156.07
67.06	9 33 18	4217.58	-21.54	180.48	269.59	60.68	10 43 36	3217.6	-31.69	156.07
67.06	9 33 18	4217.58	-21.54	180.48	269.59	60.68	10 43 36	3217.6	-31.69	156.07
67.06	9 33 18	4217.58	-21.54	180.48	269.59	60.68	10 43 36	3217.6	-31.69	156.07
67.06	9 33 18	4217.58	-21.54	180.48	269.59	60.68	10 43 36	3217.6	-31.69	156.07

DIFFERENTIAL CORRECTIONS

TDE -.4586 TRA -.8788 TC3 .3415 BAU .5154
RDE .6910 RRA .8888 RC3-2.1661 FAU .25583
FDE 5.4850 FRA 5.0014 FC-12.5990 BSP 5060
BDE .8293 BRA 1.2499 BC3 2.1928 FSP 2223

MID-COURSE EXECUTION ACCURACY

SGT 1633.2 SGR 2536.5 SG3 1335.2
RRT -.8037 RRF .9921 RTF -.8004
SGB 3016.8 R23 -.1628 R13 .9787
SG1 2894.1 SG2 851.7 THA 120.25

ORBIT DETERMINATION ACCURACY

ST 38.4 SR 52.4 SS 110.3
CRT -.9844 CRS -.9929 CST .9575
LSA 127.5 MSA 11.3 SSA 1.0
EL1 64.7 EL2 5.5 ALF 126.14

LAUNCH DATE JUL 10 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 498.014 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.691	GAL	-2.98	AZL	87.17	HCA	157.50	SNA	200.06	ECC	.24503	INC	2.8285	V1	29.293
RP	233.25	LAP	1.08	LOP	85.13	VP	21.784	GAP	10.53	AZP	92.61	TAL	344.77	TAP	142.28	RCA	151.04	APO	249.08	V2	23.573
RC	170.003	GL	22.63	GP	-28.67	ZAL	113.28	ZAP	125.29	ETS	204.83	ZAE	148.32	ETE	253.19	ZAC	56.50	ETC	285.77	LVI	9.11

PLANETOCENTRIC CONIC

C3	17.747	VHL	4.213	DLA	37.10	RAL	32.11	RAD	6641.8	VEL	11.738	PTH	6.77	VHP	3.203	DPA	-13.59	RAP	44.35	ECC	1.2921

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 20 23	3910.91	-45.17	166.87	281.55	73.12	12 25 34	2910.9	-46.83	131.69
60.00	10 42 39	4011.96	-34.01	170.65	276.29	66.93	11 49 31	3012.0	-40.11	141.35
64.91	9 19 15	4253.95	-22.17	183.79	269.53	59.45	10 30 9	3253.9	-32.75	159.40
64.91	9 19 15	4253.95	-22.17	183.79	269.53	59.45	10 30 9	3253.9	-32.75	159.40
64.91	9 19 15	4253.95	-22.17	183.79	269.53	59.45	10 30 9	3253.9	-32.75	159.40
64.91	9 19 15	4253.95	-22.17	183.79	269.53	59.45	10 30 9	3253.9	-32.75	159.40
64.91	9 19 15	4253.95	-22.17	183.79	269.53	59.45	10 30 9	3253.9	-32.75	159.40

DIFFERENTIAL CORRECTIONS

TDE	-.4582	TRA	-.8356	TC3	.2711	BAU	.5464
RDE	.7976	RRA	.9203	RC3	-2.2870	FAU	.25844
FDE	5.7680	FRA	4.9216	FC	-12.6075	BSP	5238
BDE	.9100	BRA	1.2431	BC3	2.3030	FSP	2255

MID-COURSE EXECUTION ACCURACY

SGT	1561.3	SGR	2711.6	SG3	1351.9
RRT	-.7849	RRF	.9935	RTF	-.7802
SGB	3129.0	R23	-.1433	R13	.9831
SG1	3004.7	SG2	873.1	THA	116.76

ORBIT DETERMINATION ACCURACY

ST	36.7	SR	59.2	SS	114.1
CRT	-.9767	CRS	-.9951	CST	.9514
LSA	133.2	MSA	11.4	SSA	1.0
EL1	69.3	EL2	6.7	ALF	121.51

LAUNCH DATE JUL 10 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 499.786 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.879	GAL	-2.97	AZL	86.98	HCA	158.50	SNA	199.81	ECC	.24408	INC	3.0233	V1	29.293
RP	233.62	LAP	1.11	LOP	86.13	VP	21.725	GAP	10.28	AZP	92.81	TAL	344.79	TAP	143.29	RCA	151.04	APO	248.59	V2	23.536
RC	172.941	GL	24.11	GP	-30.14	ZAL	113.01	ZAP	123.47	ETS	204.66	ZAE	146.50	ETE	251.22	ZAC	55.20	ETC	286.08	LVI	10.40

PLANETOCENTRIC CONIC

C3	17.969	VHL	4.239	DLA	38.48	RAL	31.43	RAD	6641.9	VEL	11.747	PTH	6.78	VHP	3.189	DPA	-15.13	RAP	44.43	ECC	1.2957

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 6 13	3952.80	-44.26	170.51	281.81	70.44	12 12 6	2952.8	-47.23	135.86
60.00	10 13 58	4093.09	-31.70	176.29	275.07	63.69	11 22 11	3093.1	-39.47	148.15
62.73	9 5 33	4288.78	-22.81	187.06	269.52	58.12	10 17 2	3288.8	-33.85	162.71
62.73	9 5 33	4288.78	-22.81	187.06	269.52	58.12	10 17 2	3288.8	-33.85	162.71
62.73	9 5 33	4288.78	-22.81	187.06	269.52	58.12	10 17 2	3288.8	-33.85	162.71
62.73	9 5 33	4288.78	-22.81	187.06	269.52	58.12	10 17 2	3288.8	-33.85	162.71
62.73	9 5 33	4288.78	-22.81	187.06	269.52	58.12	10 17 2	3288.8	-33.85	162.71

DIFFERENTIAL CORRECTIONS

TDE	-.4136	TRA	-.7919	TC3	.1962	BAU	.5796
RDE	.9176	RRA	.9516	RC3	-2.4047	FAU	.25973
FDE	6.0533	FRA	4.8147	FC	-12.5134	BSP	5450
BDE	1.0068	BRA	1.2360	BC3	2.4127	FSP	2281

MID-COURSE EXECUTION ACCURACY

SGT	1486.5	SGR	2897.4	SG3	1362.3
RRT	-.7614	RRF	.9948	RTF	-.7554
SGB	3256.4	R23	-.1241	R13	.9868
SG1	3132.0	SG2	891.5	THA	113.34

ORBIT DETERMINATION ACCURACY

ST	34.7	SR	66.8	SS	117.9
CRT	-.9670	CRS	-.9966	CST	.9433
LSA	139.4	MSA	11.6	SSA	.9
EL1	74.8	EL2	7.9	ALF	116.97

LAUNCH DATE JUL 10 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 503.561 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.868	GAL	-2.96	AZL	86.76	HCA	159.48	SNA	199.59	ECC	.24320	INC	3.2352	V1	29.293
RP	233.99	LAP	1.13	LOP	87.12	VP	21.667	GAP	10.03	AZP	93.03	TAL	344.80	TAP	144.29	RCA	151.05	APO	248.13	V2	23.498
RC	175.886	GL	25.69	GP	-31.67	ZAL	112.72	ZAP	121.63	ETS	204.45	ZAE	144.58	ETE	249.38	ZAC	53.83	ETC	286.43	LVI	11.76

PLANETOCENTRIC CONIC

C3	18.256	VHL	4.273	DLA	39.96	RAL	30.69	RAD	6642.0	VEL	11.759	PTH	6.79	VHP	3.183	DPA	-16.75	RAP	44.52	ECC	1.3004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 49 49	4000.51	-43.11	174.50	281.89	67.54	11 56 29	3000.5	-47.50	140.44
60.00	9 25 17	4228.86	-27.26	185.04	272.19	59.09	10 35 46	3228.9	-37.45	159.12
60.51	8 52 5	4322.46	-23.44	190.32	269.54	56.67	10 4 7	3322.5	-35.00	166.04
60.51	8 52 5	4322.46	-23.44	190.32	269.54	56.67	10 4 7	3322.5	-35.00	166.04
60.51	8 52 5	4322.46	-23.44	190.32	269.54	56.67	10 4 7	3322.5	-35.00	166.04
60.51	8 52 5	4322.46	-23.44	190.32	269.54	56.67	10 4 7	3322.5	-35.00	166.04
60.51	8 52 5	4322.46	-23.44	190.32	269.54	56.67	10 4 7	3322.5	-35.00	166.04

DIFFERENTIAL CORRECTIONS

TDE	-.3816	TRA	-.7440	TC3	.1238	BAU	.6169
RDE	1.0495	RRA	.9779	RC3	-2.5246	FAU	.26034
FDE	6.3197	FRA	4.6571	FC	-12.3460	BSP	5646
BDE	1.1167	BRA	1.2288	BC3	2.5277	FSP	2281

MID-COURSE EXECUTION ACCURACY

SGT	1402.6	SGR	3092.2	SG3	1364.7
RRT	-.7321	RRF	.9955	RTF	-.7248
SGB	3395.4	R23	-.1051	R13	.9900
SG1	3273.3	SG2	902.6	THA	109.95

ORBIT DETERMINATION ACCURACY

ST	32.2	SR	75.0	SS	121.4
CRT	-.9540	CRS	-.9976	CST	.9315
LSA	145.8	MSA	11.7	SSA	.8
EL1	81.1	EL2	8.9	ALF	112.56

LAUNCH DATE JUL 10 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 507.337 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.857	GAL	-2.95	AZL	86.53	HCA	160.47	SNA	199.38	ECC	.24238	INC	3.4669	V1	29.293
RP	234.35	LAP	1.16	LOP	88.11	VP	21.610	GAP	9.78	AZP	93.27	TAL	344.81	TAP	145.28	RCA	151.05	APO	247.70	V2	23.461
RC	178.838	GL	27.38	GP	-33.29	ZAL	112.41	ZAP	119.75	ETS	204.19	ZAE	142.57	ETE	247.66	ZAC	52.40	ETC	286.81	LVI	13.19

PLANETOCENTRIC CONIC

C3	18.617	VHL	4.315	DLA	41.53	RAL	29.88	RAD	6642.2	VEL	11.774	PTH	6.80	VHP	3.187	DPA	-18.45	RAP	44.63	ECC	1.3064

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 30 22	4055.88	-41.58	178.93	281.67	64.40	11 37 58	3055.9	-47.57	145.79
58.22	8 38 42	4355.36	-24.07	193.61	269.61	55.08	9 51 17	3355.4	-36.19	169.43
58.22	8 38 42	4355.36	-24.07	193.61	269.61	55.08	9 51 17	3355.4	-36.19	169.43
58.22	8 38 42	4355.36	-24.07	193.61	269.61	55.08	9 51 17	3355.4	-36.19	169.43
58.22	8 38 42	4355.36	-24.07	193.61	269.61	55.08	9 51 17	3355.4	-36.19	169.43
58.22	8 38 42	4355.36	-24.07	193.61	269.61	55.08	9 51 17	3355.4	-36.19	169.43
58.22	8 38 42	4355.36	-24.07	193.61	269.61	55.08	9 51 17	3355.4	-36.19	169.43

DIFFERENTIAL CORRECTIONS

TDE	-.3507	TRA	-.7022	TC3	.0339	BAU	.6546
RDE	1.2022	RRA	1.0052	RC3	-2.6300	FAU	.25859
FDE	6.5951	FRA	4.4821	FC	-12.0249	BSP	5946
BDE	1.2523	BRA	1.2262	BC3	2.6302	FSP	2286

MID-COURSE EXECUTION ACCURACY

SGT	1330.0	SGR	3298.3	SG3	1359.5
RRT	-.6908	RRF	.9963	RTF	-.6825
SGB	3556.4	R23	-.0887	R13	.9924
SG1	3434.4	SG2	923.5	THA	106.82

ORBIT DETERMINATION ACCURACY

ST	29.9	SR	84.3	SS	125.0
CRT	-.9377	CRS	-.9983	CST	.9165
LSA	153.2	MSA	11.9	SSA	.7
EL1	88.8	EL2	9.8	ALF	108.61

LAUNCH DATE JUL 10 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 511.115 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.847 GAL -2.94 AZL 86.28 HCA 161.45 SMA 199.18 ECC .24162 INC 3.7213 V1 29.293
RP 234.71 LAP 1.18 LOP 89.09 VP 21.554 GAP 9.53 AZP 93.53 TAL 344.80 TAP 146.26 RCA 151.05 APO 247.31 V2 23.424
RC 181.791 GL 29.18 GP -34.98 ZAL 112.06 ZAP 117.85 ETS 203.89 ZAE 140.46 ETE 246.04 ZAC 50.91 ETC 287.24 LVI 14.69

PLANETOCENTRIC CONIC

C3 19.067 VHL 4.367 DLA 43.21 RAL 28.98 RAD 6642.4 VEL 11.793 PTH 6.82 VHP 3.200 DPA -20.22 RAP 44.77 ECC 1.3138

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 6 26	4122.10	-39.51	183.93	280.95	60.97	11 15 8	3122.1	-47.29	152.17
55.86	8 25 18	4387.72	-24.68	196.93	269.71	53.34	9 38 26	3387.7	-37.42	172.92
55.86	8 25 18	4387.72	-24.68	196.93	269.71	53.34	9 38 26	3387.7	-37.42	172.92
55.86	8 25 18	4387.72	-24.68	196.93	269.71	53.34	9 38 26	3387.7	-37.42	172.92
55.86	8 25 18	4387.72	-24.68	196.93	269.71	53.34	9 38 26	3387.7	-37.42	172.92
55.86	8 25 18	4387.72	-24.68	196.93	269.71	53.34	9 38 26	3387.7	-37.42	172.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3095 TRA -.6561 TC3 -.0510 BAU .6962 SGT 1249.7 SGR 3512.0 SG3 1344.1 ST 26.9 SR 94.2 SS 128.2
RDE 1.3716 RRA 1.0255 RC3-2.7306 FAU .25565 RRT -.6391 RRF .9970 RTF -.6296 CRT -.9128 CRS -.9988 CST .8925
FDE 6.8410 FRA 4.2547 FC-11.6078 BSP 6224 SGB 3727.7 R23 -.0730 R13 .9944 LSA 160.9 MSA 12.2 SSA .6
BDE 1.4061 BRA 1.2174 BC3 2.7311 FSP 2263 SG1 3606.4 SG2 935.5 THA 103.75 EL1 97.4 EL2 10.6 ALF 104.81

LAUNCH DATE JUL 10 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 514.895 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.838 GAL -2.93 AZL 86.00 HCA 162.43 SMA 199.00 ECC .24092 INC 4.0023 V1 29.293
RP 235.06 LAP 1.21 LOP 90.08 VP 21.500 GAP 9.29 AZP 93.82 TAL 344.80 TAP 147.23 RCA 151.06 APO 246.94 V2 23.367
RC 184.750 GL 31.11 GP -36.75 ZAL 111.68 ZAP 115.94 ETS 203.53 ZAE 138.26 ETE 244.52 ZAC 49.35 ETC 287.72 LVI 16.27

PLANETOCENTRIC CONIC

C3 19.624 VHL 4.430 DLA 45.00 RAL 27.98 RAD 6642.7 VEL 11.817 PTH 6.84 VHP 3.225 DPA -22.07 RAP 44.94 ECC 1.3230

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 34 55	4206.32	-36.56	189.82	279.29	57.12	10 45 1	3206.3	-46.39	160.10
53.42	8 11 45	4419.84	-25.25	200.34	269.85	51.43	9 25 25	3419.8	-38.68	176.55
53.42	8 11 45	4419.84	-25.25	200.34	269.85	51.43	9 25 25	3419.8	-38.68	176.55
53.42	8 11 45	4419.84	-25.25	200.34	269.85	51.43	9 25 25	3419.8	-38.68	176.55
53.42	8 11 45	4419.84	-25.25	200.34	269.85	51.43	9 25 25	3419.8	-38.68	176.55
53.42	8 11 45	4419.84	-25.25	200.34	269.85	51.43	9 25 25	3419.8	-38.68	176.55
53.42	8 11 45	4419.84	-25.25	200.34	269.85	51.43	9 25 25	3419.8	-38.68	176.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2614 TRA -.6104 TC3 -.1370 BAU .7405 SGT 1172.9 SGR 3734.9 SG3 1316.7 ST 23.8 SR 105.2 SS 131.0
RDE 1.5640 RRA 1.0402 RC3-2.8190 FAU .25094 RRT -.5719 RRF .9975 RTF -.5611 CRT -.8740 CRS -.9992 CST .8541
FDE 7.0660 FRA 3.9881 FC-11.0705 BSP 6535 SGB 3914.6 R23 -.0590 R13 .9958 LSA 169.2 MSA 12.4 SSA .6
BDE 1.5857 BRA 1.2061 BC3 2.8223 FSP 2224 SG1 3798.7 SG2 946.0 THA 100.86 EL1 107.2 EL2 11.3 ALF 101.32

LAUNCH DATE JUL 10 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 518.676 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.829 GAL -2.93 AZL 85.69 HCA 163.41 SMA 198.83 ECC .24027 INC 4.3142 V1 29.293
RP 235.42 LAP 1.23 LOP 91.05 VP 21.448 GAP 9.04 AZP 94.14 TAL 344.78 TAP 148.19 RCA 151.06 APO 246.60 V2 23.351
RC 187.714 GL 33.18 GP -38.60 ZAL 111.25 ZAP 114.00 ETS 203.10 ZAE 135.99 ETE 243.08 ZAC 47.73 ETC 288.26 LVI 17.93

PLANETOCENTRIC CONIC

C3 20.313 VHL 4.507 DLA 46.91 RAL 26.86 RAD 6643.0 VEL 11.846 PTH 6.86 VHP 3.264 DPA -24.00 RAP 45.15 ECC 1.3343

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 43 55	4336.72	-31.41	196.01	275.24	52.23	9 56 12	3336.7	-43.89	171.64
50.87	7 57 57	4451.91	-25.78	203.82	270.01	49.34	9 12 9	3451.9	-39.95	180.35
50.87	7 57 57	4451.91	-25.78	203.82	270.01	49.34	9 12 9	3451.9	-39.95	180.35
50.87	7 57 57	4451.91	-25.78	203.82	270.01	49.34	9 12 9	3451.9	-39.95	180.35
50.87	7 57 57	4451.91	-25.78	203.82	270.01	49.34	9 12 9	3451.9	-39.95	180.35
50.87	7 57 57	4451.91	-25.78	203.82	270.01	49.34	9 12 9	3451.9	-39.95	180.35
50.87	7 57 57	4451.91	-25.78	203.82	270.01	49.34	9 12 9	3451.9	-39.95	180.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2040 TRA -.5650 TC3 -.2219 BAU .7880 SGT 1101.3 SGR 3988.0 SG3 1282.0 ST 20.4 SR 117.0 SS 133.3
RDE 1.7814 RRA 1.0464 RC3-2.8932 FAU .24481 RRT -.4840 RRF .9980 RTF -.4719 CRT -.8069 CRS -.9994 CST .7870
FDE 7.2547 FRA 3.8788 FC-10.4210 BSP 6656 SGB 4118.1 R23 -.0466 R13 .9970 LSA 170.1 MSA 12.7 SSA .6
BDE 1.7930 BRA 1.1692 BC3 2.9017 FSP 2162 SG1 4002.9 SG2 954.6 THA 98.12 EL1 110.2 EL2 11.9 ALF 98.10

LAUNCH DATE JUL 10 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 522.457 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.821 GAL -2.93 AZL 85.34 HCA 164.38 SMA 198.67 ECC .23967 INC 4.6830 V1 29.293
RP 235.77 LAP 1.25 LOP 92.03 VP 21.398 GAP 8.80 AZP 94.49 TAL 344.77 TAP 149.18 RCA 151.06 APO 246.29 V2 23.318
RC 190.680 GL 35.40 GP -40.83 ZAL 110.78 ZAP 112.07 ETS 202.61 ZAE 133.84 ETE 241.71 ZAC 46.04 ETC 288.86 LVI 18.66

PLANETOCENTRIC CONIC

C3 21.168 VHL 4.601 DLA 48.98 RAL 25.87 RAD 6643.4 VEL 11.881 PTH 6.89 VHP 3.310 DPA -26.01 RAP 46.41 ECC 1.3483

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.21	7 43 41	4484.29	-26.24	207.43	270.18	47.06	8 58 25	3484.3	-41.22	184.40
48.21	7 43 41	4484.29	-26.24	207.43	270.18	47.06	8 58 25	3484.3	-41.22	184.40
48.21	7 43 41	4484.29	-26.24	207.43	270.18	47.06	8 58 25	3484.3	-41.22	184.40
48.21	7 43 41	4484.29	-26.24	207.43	270.18	47.06	8 58 25	3484.3	-41.22	184.40
48.21	7 43 41	4484.29	-26.24	207.43	270.18	47.06	8 58 25	3484.3	-41.22	184.40
48.21	7 43 41	4484.29	-26.24	207.43	270.18	47.06	8 58 25	3484.3	-41.22	184.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1366 TRA -.5209 TC3 -.3055 BAU .8373 SGT 1041.2 SGR 4202.5 SG3 1233.9 ST 17.1 SR 130.0 SS 135.1
RDE 2.0320 RRA 1.0443 RC3-2.8432 FAU .23573 RRT -.3717 RRF .9984 RTF -.3584 CRT -.8617 CRS -.9996 CST .8613
FDE 7.4116 FRA 3.3367 FC3-9.6423 BSP 7232 SGB 4329.5 R23 -.0357 R13 .9978 LSA 187.9 MSA 12.9 SSA .4
BDE 2.0366 BRA 1.1670 BC3 2.9590 FSP 2090 SG1 4221.2 SG2 962.3 THA 95.55 EL1 130.6 EL2 12.5 ALF 95.17

LAUNCH DATE JUL 10 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 526.239 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.814 GAL -2.93 AZL 84.94 HCA 165.35 SMA 198.53 ECC .23913 INC 5.0355 V1 29.293
RP 236.12 LAP 1.28 LOP 93.01 VP 21.346 GAP 8.55 AZP 94.89 TAL 344.74 TAP 150.09 RCA 151.05 APO 246.00 V2 23.279
RC 193.649 GL 37.78 GP -42.53 ZAL 110.24 ZAP 110.13 ETS 202.05 ZAE 131.23 ETE 240.38 ZAC 44.30 ETC 289.54 LVI 21.47

PLANETOCENTRIC CONIC

C3 22.224 VHL 4.714 DLA 51.14 RAL 24.09 RAD 6643.8 VEL 11.925 PTH 6.93 VHP 3.389 DPA -28.08 RAP 45.73 ECC 1.3687

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.43	7 28 49	4517.23	-26.59	211.16	270.32	44.55	8 44 6	3517.2	-42.45	188.73
45.43	7 28 49	4517.23	-26.59	211.16	270.32	44.55	8 44 6	3517.2	-42.45	188.73
45.43	7 28 49	4517.23	-26.59	211.16	270.32	44.55	8 44 6	3517.2	-42.45	188.73
45.43	7 28 49	4517.23	-26.59	211.16	270.32	44.55	8 44 6	3517.2	-42.45	188.73
45.43	7 28 49	4517.23	-26.59	211.16	270.32	44.55	8 44 6	3517.2	-42.45	188.73
45.43	7 28 49	4517.23	-26.59	211.16	270.32	44.55	8 44 6	3517.2	-42.45	188.73
45.43	7 28 49	4517.23	-26.59	211.16	270.32	44.55	8 44 6	3517.2	-42.45	188.73

DIFFERENTIAL CORRECTIONS

TDE -.0569 TRA -.4789 TC3 -.3847 BAU .8905
RDE 2.3178 RRA 1.0278 RC3-2.9724 FAU .22524
FDE 7.5129 FRA 2.9543 FC3-8.7744 BSP 7600
BDE 2.3185 BRA 1.1339 BC3 2.9972 FSP 1989

MID-COURSE EXECUTION ACCURACY

SGT 998.5 SGR 4444.6 SG3 1173.8
RRT -.2311 RRF .9987 RTF -.2168
SGB 4555.4 R23 -.0263 R13 .9984
SG1 4450.9 SG2 970.1 THA 93.12

ORBIT DETERMINATION ACCURACY

ST 14.3 SR 144.0 SS 136.1
CRT -.4356 CRS -.9997 CST .4151
LSA 198.2 MSA 13.2 SSA .4
EL1 144.2 EL2 12.9 ALF 92.51

LAUNCH DATE JUL 10 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 530.020 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.807 GAL -2.93 AZL 84.50 HCA 166.31 SMA 198.40 ECC .23863 INC 5.5008 V1 29.293
RP 236.46 LAP 1.30 LOP 93.98 VP 21.297 GAP 8.31 AZP 95.35 TAL 344.72 TAP 151.03 RCA 151.05 APO 245.74 V2 23.244
RC 196.619 GL 40.33 GP -44.60 ZAL 109.64 ZAP 108.21 ETS 201.41 ZAE 128.76 ETE 239.09 ZAC 42.50 ETC 290.31 LVI 23.34

PLANETOCENTRIC CONIC

C3 23.547 VHL 4.853 DLA 53.47 RAL 22.34 RAD 6644.4 VEL 11.980 PTH 6.98 VHP 3.482 DPA -30.22 RAP 46.11 ECC 1.3875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.52	7 13 5	4551.08	-26.79	215.04	270.39	41.82	8 28 56	3551.1	-43.61	193.39
42.52	7 13 5	4551.08	-26.79	215.04	270.39	41.82	8 28 56	3551.1	-43.61	193.39
42.52	7 13 5	4551.08	-26.79	215.04	270.39	41.82	8 28 56	3551.1	-43.61	193.39
42.52	7 13 5	4551.08	-26.79	215.04	270.39	41.82	8 28 56	3551.1	-43.61	193.39
42.52	7 13 5	4551.08	-26.79	215.04	270.39	41.82	8 28 56	3551.1	-43.61	193.39
42.52	7 13 5	4551.08	-26.79	215.04	270.39	41.82	8 28 56	3551.1	-43.61	193.39
42.52	7 13 5	4551.08	-26.79	215.04	270.39	41.82	8 28 56	3551.1	-43.61	193.39

DIFFERENTIAL CORRECTIONS

TDE .0371 TRA -.4398 TC3 -.4592 BAU .9454
RDE 2.6507 RRA .9965 RC3-2.9680 FAU .21235
FDE 7.5609 FRA 2.5457 FC3-7.8074 BSP 8005
BDE 2.6509 BRA 1.0893 BC3 3.0033 FSP 1874

MID-COURSE EXECUTION ACCURACY

SGT 980.7 SGR 4690.5 SG3 1101.8
RRT -.0661 RRF .9989 RTF -.0510
SGB 4791.9 R23 -.0180 R13 .9989
SG1 4691.0 SG2 976.5 THA 90.83

ORBIT DETERMINATION ACCURACY

ST 13.3 SR 159.3 SS 136.2
CRT -.0200 CRS -.9998 CST .0010
LSA 209.6 MSA 13.4 SSA .3
EL1 159.3 EL2 13.3 ALF 90.10

LAUNCH DATE JUL 10 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 533.801 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.801 GAL -2.93 AZL 83.99 HCA 167.27 SMA 198.27 ECC .23818 INC 6.0106 V1 29.293
RP 236.81 LAP 1.32 LOP 94.94 VP 21.249 GAP 8.07 AZP 95.86 TAL 344.68 TAP 151.96 RCA 151.05 APO 245.50 V2 23.209
RC 199.589 GL 43.09 GP -46.75 ZAL 108.96 ZAP 106.31 ETS 200.68 ZAE 126.25 ETE 237.82 ZAC 40.66 ETC 291.18 LVI 25.29

PLANETOCENTRIC CONIC

C3 25.217 VHL 5.022 DLA 55.96 RAL 20.26 RAD 6645.1 VEL 12.049 PTH 7.03 VHP 3.600 DPA -32.41 RAP 46.56 ECC 1.4150

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.47	6 56 7	4586.31	-26.81	219.06	270.31	38.85	8 12 34	3586.3	-44.63	198.45
39.47	6 56 7	4586.31	-26.81	219.06	270.31	38.85	8 12 34	3586.3	-44.63	198.45
39.47	6 56 7	4586.31	-26.81	219.06	270.31	38.85	8 12 34	3586.3	-44.63	198.45
39.47	6 56 7	4586.31	-26.81	219.06	270.31	38.85	8 12 34	3586.3	-44.63	198.45
39.47	6 56 7	4586.31	-26.81	219.06	270.31	38.85	8 12 34	3586.3	-44.63	198.45
39.47	6 56 7	4586.31	-26.81	219.06	270.31	38.85	8 12 34	3586.3	-44.63	198.45
39.47	6 56 7	4586.31	-26.81	219.06	270.31	38.85	8 12 34	3586.3	-44.63	198.45

DIFFERENTIAL CORRECTIONS

TDE .1497 TRA -.4048 TC3 -.5232 BAU 1.0054
RDE 3.0344 RRA .9428 RC3-2.9359 FAU .19790
FDE 7.5281 FRA 2.1092 FC3-6.7944 BSP 8404
BDE 3.0381 BRA 1.0260 BC3 2.9822 FSP 1733

MID-COURSE EXECUTION ACCURACY

SGT 993.0 SGR 4937.0 SG3 1018.0
RRT .1132 RRF .9992 RTF .1287
SGB 5035.8 R23 -.0109 R13 .9992
SG1 4936.3 SG2 986.4 THA 88.64

ORBIT DETERMINATION ACCURACY

ST 15.1 SR 175.6 SS 135.1
CRT .4257 CRS -.9999 CST -.4400
LSA 221.6 MSA 13.7 SSA .3
EL1 175.7 EL2 13.6 ALF 87.90

LAUNCH DATE JUL 10 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 537.581 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.795 GAL -2.93 AZL 83.40 HCA 168.23 SMA 198.16 ECC .23777 INC 6.6005 V1 29.293
RP 237.14 LAP 1.34 LOP 95.91 VP 21.203 GAP 7.83 AZP 96.46 TAL 344.65 TAP 152.88 RCA 151.05 APO 245.28 V2 23.174
RC 202.557 GL 46.05 GP -48.95 ZAL 108.20 ZAP 104.44 ETS 199.86 ZAE 123.71 ETE 236.55 ZAC 38.78 ETC 292.17 LVI 27.29

PLANETOCENTRIC CONIC

C3 27.349 VHL 5.230 DLA 58.59 RAL 17.73 RAD 6646.0 VEL 12.137 PTH 7.11 VHP 3.749 DPA -34.65 RAP 47.10 ECC 1.4501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.28	6 37 29	4623.39	-26.57	223.22	269.96	35.64	7 54 33	3623.4	-45.44	203.93
36.28	6 37 29	4623.39	-26.57	223.22	269.96	35.64	7 54 33	3623.4	-45.44	203.93
36.28	6 37 29	4623.39	-26.57	223.22	269.96	35.64	7 54 33	3623.4	-45.44	203.93
36.28	6 37 29	4623.39	-26.57	223.22	269.96	35.64	7 54 33	3623.4	-45.44	203.93
36.28	6 37 29	4623.39	-26.57	223.22	269.96	35.64	7 54 33	3623.4	-45.44	203.93
36.28	6 37 29	4623.39	-26.57	223.22	269.96	35.64	7 54 33	3623.4	-45.44	203.93
36.28	6 37 29	4623.39	-26.57	223.22	269.96	35.64	7 54 33	3623.4	-45.44	203.93

DIFFERENTIAL CORRECTIONS

TDE .2852 TRA -.3742 TC3 -.5752 BAU 1.0671
RDE 3.4875 RRA .8652 RC3-2.8612 FAU .18120
FDE 7.4162 FRA 1.6647 FC3-5.7361 BSP 8849
BDE 3.4992 BRA .9427 BC3 2.9184 FSP 1582

MID-COURSE EXECUTION ACCURACY

SGT 1038.5 SGR 5183.0 SG3 923.6
RRT .2904 RRF .9993 RTF .3058
SGB 5286.0 R23 -.0048 R13 .9995
SG1 5192.1 SG2 992.0 THA 86.54

ORBIT DETERMINATION ACCURACY

ST 19.6 SR 193.0 SS 132.7
CRT .7048 CRS -.9999 CST -.7142
LSA 234.7 MSA 13.9 SSA .2
EL1 193.5 EL2 13.9 ALF 85.89

LAUNCH DATE JUL 10 1973 FLIGHT TIME 230.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 541.358 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.780 GAL -2.94 AZL 82.71 HCA 169.18 SMA 198.06 ECC .23740 INC 7.2907 V1 29.293
RP 237.48 LAP 1.36 LOP 96.87 VP 21.157 GAP 7.39 AZP 97.16 TAL 344.60 TAP 153.79 RCA 151.04 APO 245.08 V2 23.140
RC 205.523 GL 48.23 GP -51.19 ZAL 107.34 ZAP 102.62 ETS 198.95 ZAE 121.16 ETE 235.27 ZAC 36.88 ETC 293.28 LVI 29.34

PLANETOCENTRIC CONIC

C3 30.112 VHL 5.487 DLA 61.37 RAL 14.57 RAD 6647.0 VEL 12.249 PTH 7.20 VHP 3.937 DPA -36.91 RAP 47.73 ECC 1.4956

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.96	6 16 30	4662.91	-26.00	227.49	269.13	32.22	7 34 13	3662.9	-45.95	209.84
32.96	6 16 30	4662.91	-26.00	227.49	269.13	32.22	7 34 13	3662.9	-45.95	209.84
32.96	6 16 30	4662.91	-26.00	227.49	269.13	32.22	7 34 13	3662.9	-45.95	209.84
32.96	6 16 30	4662.91	-26.00	227.49	269.13	32.22	7 34 13	3662.9	-45.95	209.84
32.96	6 16 30	4662.91	-26.00	227.49	269.13	32.22	7 34 13	3662.9	-45.95	209.84
32.96	6 16 30	4662.91	-26.00	227.49	269.13	32.22	7 34 13	3662.9	-45.95	209.84
32.96	6 16 30	4662.91	-26.00	227.49	269.13	32.22	7 34 13	3662.9	-45.95	209.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4480 TRA -.3520 TC3 -.6138 BAU 1.1367 SGT 1122.1 SGR 5420.5 SG3 819.0 ST 26.0 SR 211.1 SS 128.4
RDE 4.0154 RRA .7477 RC3-2.7562 FAU .16347 RRT .4505 RRF .9995 RTF .4657 CRT .8392 CRS -.9999 CST -.8453
FDE 7.1892 FRA 1.2062 FC3-4.6999 BSP 9227 SGB 5535.5 R23 .0004 R13 .9996 LSA 248.0 MSA 14.1 SSA .2
BDE 4.0401 BRA .8265 BC3 2.8237 FSP 1403 SG1 5444.9 SG2 997.3 THA 84.49 EL1 212.2 EL2 14.1 ALF 84.07

LAUNCH DATE JUL 10 1973 FLIGHT TIME 232.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC DISTANCE 545.134 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.785 GAL -2.94 AZL 81.89 HCA 170.13 SMA 197.97 ECC .23707 INC 8.1105 V1 29.293
RP 237.81 LAP 1.39 LOP 97.83 VP 21.113 GAP 7.35 AZP 97.99 TAL 344.56 TAP 154.69 RCA 151.04 APO 244.90 V2 23.106
RC 208.485 GL 52.66 GP -53.46 ZAL 106.37 ZAP 100.87 ETS 197.92 ZAE 118.62 ETE 233.97 ZAC 34.97 ETC 294.53 LVI 31.41

PLANETOCENTRIC CONIC

C3 33.761 VHL 5.810 DLA 64.27 RAL 10.52 RAD 6648.4 VEL 12.396 PTH 7.31 VHP 4.175 DPA -39.19 RAP 48.46 ECC 1.5556

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.53	5 52 9	4705.49	-25.03	231.82	267.53	28.62	7 10 35	3705.5	-46.02	216.12
29.53	5 52 9	4705.49	-25.03	231.82	267.53	28.62	7 10 35	3705.5	-46.02	216.12
29.53	5 52 9	4705.49	-25.03	231.82	267.53	28.62	7 10 35	3705.5	-46.02	216.12
29.53	5 52 9	4705.49	-25.03	231.82	267.53	28.62	7 10 35	3705.5	-46.02	216.12
29.53	5 52 9	4705.49	-25.03	231.82	267.53	28.62	7 10 35	3705.5	-46.02	216.12
29.53	5 52 9	4705.49	-25.03	231.82	267.53	28.62	7 10 35	3705.5	-46.02	216.12
29.53	5 52 9	4705.49	-25.03	231.82	267.53	28.62	7 10 35	3705.5	-46.02	216.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .6399 TRA -.3377 TC3 -.6339 BAU 1.2094 SGT 1236.6 SGR 5652.9 SG3 707.4 ST 33.6 SR 230.0 SS 122.2
RDE 4.6469 RRA .5915 RC3-2.6033 FAU .14389 RRT .5850 RRF .9995 RTF .6001 CRT .9058 CRS -.9999 CST -.9100
FDE 6.8474 FRA .7705 FC3-3.6898 BSP 9667 SGB 5786.6 R23 .0040 R13 .9997 LSA 262.3 MSA 14.1 SSA .1
BDE 4.6908 BRA .8811 BC3 2.6794 FSP 1220 SG1 5700.5 SG2 994.6 THA 82.48 EL1 232.1 EL2 14.1 ALF 82.43

LAUNCH DATE JUL 10 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC DISTANCE 548.905 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.781 GAL -2.95 AZL 80.90 HCA 171.08 SMA 197.89 ECC .23678 INC 9.0989 V1 29.293
RP 238.14 LAP 1.41 LOP 98.79 VP 21.070 GAP 7.11 AZP 98.99 TAL 344.51 TAP 155.58 RCA 151.03 APO 244.74 V2 23.073
RC 211.443 GL 56.34 GP -55.73 ZAL 105.29 ZAP 99.19 ETS 196.79 ZAE 116.11 ETE 232.83 ZAC 33.09 ETC 295.94 LVI 33.50

PLANETOCENTRIC CONIC

C3 36.690 VHL 6.220 DLA 67.27 RAL 5.17 RAD 6650.2 VEL 12.592 PTH 7.45 VHP 4.477 DPA -41.45 RAP 49.30 ECC 1.6367

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.03	5 22 51	4751.95	-23.54	236.10	264.66	24.93	6 42 3	3752.0	-45.51	222.63
26.03	5 22 51	4751.95	-23.54	236.10	264.66	24.93	6 42 3	3752.0	-45.51	222.63
26.03	5 22 51	4751.95	-23.54	236.10	264.66	24.93	6 42 3	3752.0	-45.51	222.63
26.03	5 22 51	4751.95	-23.54	236.10	264.66	24.93	6 42 3	3752.0	-45.51	222.63
26.03	5 22 51	4751.95	-23.54	236.10	264.66	24.93	6 42 3	3752.0	-45.51	222.63
26.03	5 22 51	4751.95	-23.54	236.10	264.66	24.93	6 42 3	3752.0	-45.51	222.63
26.03	5 22 51	4751.95	-23.54	236.10	264.66	24.93	6 42 3	3752.0	-45.51	222.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .6615 TRA -.3405 TC3 -.6403 BAU 1.2028 SGT 1306.8 SGR 5670.5 SG3 590.7 ST 41.5 SR 248.6 SS 113.8
RDE 5.3068 RRA .3731 RC3-2.4159 FAU .12358 RRT .6893 RRF .9996 RTF .7152 CRT .9389 CRS-1.0000 CST -.9422
FDE 6.3466 FRA .3583 FC3-2.7652 BSP 10035 SGB 6032.0 R23 .0054 R13 .9998 LSA 276.9 MSA 14.1 SSA .1
BDE 5.4672 BRA .8052 BC3 2.4993 FSP 1021 SG1 5950.0 SG2 991.3 THA 80.49 EL1 251.6 EL2 14.1 ALF 81.06

LAUNCH DATE JUL 10 1973 FLIGHT TIME 270.00 ARRIVAL DATE APR 14 1974

HELIOCENTRIC CONIC DISTANCE 638.848 EARTH TO MARS

RL 188.09 LAL .00 LOL 287.60 VL 32.772 GAL -3.07 AZL 98.83 HCA 191.79 SMA 197.72 ECC .23860 INC 8.6344 V1 29.293
RP 244.34 LAP 1.74 LOP 110.27 VP 20.374 GAP 2.18 AZP 81.64 TAL 341.89 TAP 173.00 RCA 150.84 APO 244.59 V2 22.488
RC 273.987 GL -83.07 GP 49.83 ZAL 109.20 ZAP 80.78 ETS 193.39 ZAE 108.25 ETE 166.13 ZAC 137.28 ETC 291.14 LVI -71.68

PLANETOCENTRIC CONIC

C3 36.870 VHL 6.072 DLA -33.24 RAL 63.00 RAD 6649.6 VEL 12.520 PTH 7.40 VHP 3.880 DPA 46.88 RAP 345.87 ECC 1.6068

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 44 48	2560.81	-11.42	69.90	290.43	136.81	19 27 50	1560.9	6.96	54.12
60.00	20 19 30	2328.66	-3.60	54.66	297.66	130.17	20 58 19	1328.9	12.43	36.59
70.00	22 49 14	1887.38	7.02	27.46	306.37	123.38	23 20 41	887.4	20.71	6.54
71.75	0 3 27	1671.74	14.15	14.74	310.37	120.40	0 31 19	671.7	25.40	352.20
71.75	0 3 27	1671.74	14.15	14.74	310.37	120.40	0 31 19	671.7	25.40	352.20
71.75	0 3 27	1671.74	14.15	14.74	310.37	120.40	0 31 19	671.7	25.40	352.20
110.00	3 52 36	6222.24	7.02	294.26	306.37	123.38	5 36 19	5222.2	20.71	273.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.0567 TRA 3.7736 TC3-2.6648 BAU 1.7248 SGT 5689.7 SGR 5500.4 SG3 962.2 ST 116.3 SR 86.6 SS 50.3
RDE 1.0862 RRA-4.1212 RC3 2.2670 FAU .21188 RRT -.9809 RRF -.9984 RTF .9791 CRT -.9376 CRS .9969 CST -.9077
FDE-1.6160 FRA 0.1512 FC3-4.9751 BSP 13648 SGB 7913.8 R23 .1024 R13 -.9931 LSA 150.9 MSA 28.5 SSA .3
BDE 2.3277 BRA 5.5879 BC3 3.4991 FSP 1760 SG1 7876.0 SG2 772.0 THA 135.99 EL1 143.0 EL2 24.5 ALF 143.84

LAUNCH DATE JUL 10 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 16 1974

HELIOCENTRIC CONIC DISTANCE 636.304 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.774	GAL	-3.61	AZL	97.98	HCA	192.69	SMA	197.76	ECC	.23892	INC	7.9794
RP	244.56	LAP	1.75	LOP	120.17	VP	20.353	GAP	1.93	AZP	82.21	TAL	341.12	TAP	173.81	RCA	150.51	APO	245.01
RC	276.623	GL	-50.84	GP	47.91	ZAL	110.15	ZAP	79.51	ETS	194.05	ZAE	101.59	ETE	169.72	ZAC	135.56	ETC	290.45

V1	29.293																		
V2	22.430																		
LVI	-69.97																		

PLANETOCENTRIC CONIC

C3	34.295	VHL	5.856	DLA	-31.13	RAL	62.12	RAD	6648.6	VEL	12.418	PTH	7.33	VHP	3.425	DPA	46.83	RAP	347.23

ECC	1.9644																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 20 11	2614.00	-13.05	71.35	287.85	136.17	19 11 45	1614.0	5.30	55.51
60.00	19 55 16	2382.25	-5.93	57.21	294.58	129.94	20 34 58	1382.3	10.14	39.25
70.00	21 57 19	2023.06	2.69	34.61	301.06	124.06	22 31 2	1023.1	16.20	14.48
76.41	0 31 5	1556.42	13.92	5.82	307.89	118.13	0 57 1	556.4	24.29	342.94
76.41	0 31 5	1556.42	13.92	5.82	307.89	118.13	0 57 1	556.4	24.29	342.94
76.41	0 31 5	1556.42	13.92	5.82	307.89	118.13	0 57 1	556.4	24.29	342.94
110.00	3 0 41	1069.90	2.69	323.53	301.06	124.06	3 18 31	69.9	16.20	303.40

DIFFERENTIAL CORRECTIONS

TDE-1.9832	TRA 3.8088	TC3-2.9291	BAU 1.7154		
RDE 1.0018	RRA-3.8969	RC3 2.3278	FAU .23164		
FDE-1.8776	FRA 8.8511	FC3-5.8476	BSP 13576		
BDE 2.2218	BRA 5.4491	BC3 3.7415	FSP 1935		

MID-COURSE EXECUTION ACCURACY

SGT 5872.6	SGR 5313.6	SG3 1067.4			
RRT -.9821	RRF -.9983	RTF .9800			
SGB 7919.7	R23 .1062	R13 -.9927			
SG1 7884.6	SG2 745.0	THA 137.91			

ORBIT DETERMINATION ACCURACY

ST 117.1	SR 83.0	SS 52.6			
CRT -.9410	CRS .9961	CST -.9074			
LSA 150.2	MSA 28.0	SSA .3			
EL1 141.6	EL2 23.2	ALF 145.23			

LAUNCH DATE JUL 10 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 18 1974

HELIOCENTRIC CONIC DISTANCE 640.059 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.777	GAL	-3.65	AZL	97.50	HCA	193.59	SMA	197.81	ECC	.23927	INC	7.4975
RP	244.79	LAP	1.76	LOP	121.08	VP	20.332	GAP	1.71	AZP	82.71	TAL	340.94	TAP	174.53	RCA	150.48	APO	245.14
RC	279.268	GL	-48.76	GP	46.06	ZAL	111.06	ZAP	78.21	ETS	194.64	ZAE	100.85	ETE	171.21	ZAC	133.90	ETC	289.84

V1	29.293																		
V2	22.407																		
LVI	-68.31																		

PLANETOCENTRIC CONIC

C3	32.221	VHL	5.676	DLA	-29.15	RAL	61.39	RAD	6647.9	VEL	12.335	PTH	7.26	VHP	3.298	DPA	45.16	RAP	348.44

ECC	1.5303																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 13 52	2644.80	-14.55	72.73	285.76	135.81	18 57 56	1644.8	3.76	56.81
60.00	19 35 14	2428.32	-7.94	59.45	291.98	129.64	20 15 42	1428.3	8.15	41.51
70.00	21 24 2	2108.32	-.57	39.06	297.53	124.15	21 59 10	1108.3	13.20	19.26
80.00	0 0 7	1631.63	8.32	8.35	302.96	118.78	0 27 18	631.6	19.41	346.47
82.61	1 14 57	1391.55	13.57	353.36	305.74	116.05	1 38 9	391.5	23.14	330.22
100.00	2 42 58	1106.10	8.32	329.71	302.96	118.78	3 1 25	106.1	19.41	307.84
110.00	2 27 24	1155.14	-.57	327.97	297.53	124.15	2 46 39	155.1	13.20	308.18

DIFFERENTIAL CORRECTIONS

TDE-1.9084	TRA 3.8580	TC3-3.1870	BAU 1.7043		
RDE .9035	RRA-3.7083	RC3 2.3444	FAU .24780		
FDE-1.8525	FRA 8.5343	FC3-6.6580	BSP 13724		
BDE 2.1115	BRA 5.3512	BC3 3.9564	FSP 2148		

MID-COURSE EXECUTION ACCURACY

SGT 6056.7	SGR 5126.9	SG3 1165.8			
RRT -.9821	RRF -.9982	RTF .9800			
SGB 7935.3	R23 .1122	R13 -.9919			
SG1 7900.7	SG2 739.5	THA 139.84			

ORBIT DETERMINATION ACCURACY

ST 117.4	SR 78.9	SS 54.2			
CRT -.9406	CRS .9948	CST -.9010			
LSA 148.8	MSA 28.3	SSA .4			
EL1 139.6	EL2 22.5	ALF 146.71			

LAUNCH DATE JUL 10 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 20 1974

HELIOCENTRIC CONIC DISTANCE 643.818 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.779	GAL	-3.68	AZL	97.08	HCA	194.49	SMA	197.86	ECC	.23962	INC	7.0753
RP	245.01	LAP	1.77	LOP	121.98	VP	20.313	GAP	1.49	AZP	83.15	TAL	340.76	TAP	175.25	RCA	150.45	APO	245.27
RC	281.893	GL	-46.82	GP	44.28	ZAL	111.91	ZAP	76.91	ETS	195.16	ZAE	100.03	ETE	172.61	ZAC	132.29	ETC	289.30

V1	29.293																		
V2	22.386																		
LVI	-66.68																		

PLANETOCENTRIC CONIC

C3	30.529	VHL	5.525	DLA	-27.29	RAL	60.77	RAD	6647.2	VEL	12.266	PTH	7.21	VHP	3.192	DPA	43.53	RAP	349.54

ECC	1.5024																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 1 23	2673.67	-15.96	74.03	284.06	135.44	18 45 57	1673.7	2.31	58.02
60.00	19 18 13	2469.29	-9.71	61.46	289.90	129.31	19 59 23	1469.3	6.37	43.50
70.00	20 58 29	2174.46	-3.09	42.51	294.85	124.03	21 34 44	1174.5	10.80	22.88
80.00	23 4 36	1779.68	3.38	16.57	298.87	119.68	23 34 16	779.7	15.21	355.45
90.00	1 8 3	1394.25	7.12	350.25	300.91	117.44	1 31 17	394.3	17.79	328.31
100.00	1 51 24	1254.15	3.38	337.93	298.87	119.68	2 12 18	254.2	15.21	316.82
110.00	2 1 52	1221.27	-3.09	331.43	294.85	124.03	2 22 13	221.3	10.80	311.79

DIFFERENTIAL CORRECTIONS

TDE-1.8436	TRA 3.9035	TC3-3.4466	BAU 1.7088		
RDE .8401	RRA-3.5067	RC3 2.3769	FAU .26588		
FDE-1.8715	FRA10.0778	FC3-7.5399	BSP 13569		
BDE 2.0260	BRA 5.2473	BC3 4.1867	FSP 2264		

MID-COURSE EXECUTION ACCURACY

SGT 6237.7	SGR 4939.8	SG3 1256.5			
RRT -.9836	RRF -.9980	RTF .9812			
SGB 7956.8	R23 .1136	R13 -.9916			
SG1 7925.8	SG2 701.0	THA 141.73			

ORBIT DETERMINATION ACCURACY

ST 117.6	SR 75.4	SS 55.6			
CRT -.9452	CRS .9939	CST -.9018			
LSA 147.8	MSA 27.6	SSA .4			
EL1 138.1	EL2 21.0	ALF 147.98			

LAUNCH DATE JUL 10 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 22 1974

HELIOCENTRIC CONIC DISTANCE 647.574 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.782	GAL	-3.72	AZL	96.70	HCA	195.38	SMA	197.91	ECC	.24000	INC	6.7020
RP	245.22	LAP	1.77	LOP	122.89	VP	20.294	GAP	1.27	AZP	83.54	TAL	340.58	TAP	175.96	RCA	150.41	APO	245.41
RC	284.497	GL	-45.02	GP	42.57	ZAL	112.72	ZAP	75.61	ETS	195.63	ZAE	99.14	ETE	173.91	ZAC	130.73	ETC	288.82

V1	29.293																		
V2	22.365																		
LVI	-65.10																		

PLANETOCENTRIC CONIC

C3	29.135	VHL	5.398	DLA	-25.55	RAL	60.26	RAD	6646.7	VEL	12.210	PTH	7.16	VHP	3.103	DPA	41.96	RAP	350.53

ECC	1.4795																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 50 24	2701.01	-17.28	75.28	282.68	135.05	18 35 25	1701.0	.94	59.16
60.00	19 3 31	2506.58	-11.32	63.30	288.21	128.94	19 45 17	1506.6	4.74	45.30
70.00	20 37 35	2230.00	-5.20	45.42	292.76	123.80	21 14 45	1230.0	8.74	25.87
80.00	22 32 3	1871.72	.27	21.62	296.15	119.86	23 3 15	871.7	12.40	.83
90.00	0 22 34	1527.97	2.87	357.78	297.59	118.15	0 48 2	528.0	14.15	336.43
100.00	1 18 51	1346.19	.27	342.99	296.15	119.86	1 41 17	346.2	12.40	322.20
110.00	1 40 57	1276.82	-5.20	334.34	292.76	123.80	2 2 14	276.8	8.74	314.78

DIFFERENTIAL CORRECTIONS

TDE-1.7761	TRA 3.9623	TC3-3.6939	BAU 1.7098		
RDE .7655	RRA-3.3346	RC3 2.3713	FAU .28021		
FDE-1.8120	FRA10.6028	FC3-8.3263	BSP 13651		
BDE 1.9340	BRA 5.1788	BC3 4.3895	FSP 2419		

MID-COURSE EXECUTION ACCURACY

SGT 6417.7	SGR 4754.4	SG3 1338.8			
RRT -.9841	RRF -.9978	RTF .9817			
SGB 7987.0	R23 .1168	R13 -.9910			
SG1 7957.9	SG2 680.3	THA 143.60			

ORBIT DETERMINATION ACCURACY

ST 117.5	SR 71.6	SS 56.5			
CRT -.9467	CRS .9916	CST -.8973			
LSA 146.2	MSA 27.5	SSA .4			
EL1 136.2	EL2 19.9	ALF 149.29			

LAUNCH DATE JUL 10 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 24 1974

HELIOCENTRIC CONIC DISTANCE 681.330 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.785 GAL -3.76 AZL 96.37 HCA 198.28 SNA 197.97 ECC .24039 INC 6.3694 V1 29.293
RP 245.43 LAP 1.78 LOP 123.79 VP 20.276 GAP 1.05 AZP 83.66 TAL 340.38 TAP 176.66 RCA 150.38 APO 245.56 V2 22.344
RC 287.079 GL -43.33 GP 40.94 ZAL 113.49 ZAP 74.31 ETS 196.03 ZAE 98.19 ETE 175.12 ZAC 129.24 ETC 288.39 LVI -63.57

PLANETOCENTRIC CONIC

C3 27.978 VHL 5.289 DLA -23.90 RAL 59.82 RAD 6646.2 VEL 12.163 PTH 7.13 VHP 3.030 DPA 40.45 RAP 351.43 ECC 1.4605

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 40 40	2726.98	-18.53	76.49	281.55	134.64	18 26 7	1727.0	-.37	60.25
60.00	18 50 36	2540.96	-12.78	65.03	286.84	128.55	19 32 57	1541.0	3.23	46.95
70.00	20 19 32	2278.54	-7.03	47.99	291.08	123.51	20 57 51	1278.5	6.93	28.45
80.00	22 7 2	1943.13	-2.15	25.54	294.10	119.79	22 39 26	943.1	10.13	4.92
90.00	23 48 7	1617.11	-.01	2.75	295.29	118.28	24 15 4	617.1	11.55	341.68
100.00	0 53 50	1417.60	-2.15	346.91	294.10	119.79	1 17 28	417.6	10.13	326.29
110.00	1 23 14	1325.36	-7.03	336.91	291.08	123.51	1 45 20	325.4	6.93	317.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7136 TRA 4.0232 TC3-3.9372 BAU 1.7160 SGT 6596.6 SGR 4572.5 SG3 1413.0 ST 117.3 SR 68.1 SS 57.2
RDE .7005 RRA-3.1722 RC3 2.3549 FAU .29333 RRT -.9847 RRF -.9976 RTF .9821 CRT -.9487 CRS .9894 CST -.8928
FDE-1.7373 FRA11.0595 FC3-9.0767 BSP 13700 SGB 8026.4 R23 .1193 R13 -.9904 LSA 144.6 MSA 27.5 SSA .4
BDE 1.8512 BRA 5.1234 BC3 4.5877 FSP 2549 SG1 7999.4 SG2 658.1 THA 145.42 EL1 134.3 EL2 18.8 ALF 150.54

LAUNCH DATE JUL 10 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 26 1974

HELIOCENTRIC CONIC DISTANCE 655.084 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.788 GAL -3.81 AZL 96.07 HCA 197.17 SNA 198.03 ECC .24080 INC 6.0712 V1 29.293
RP 245.63 LAP 1.79 LOP 124.69 VP 20.259 GAP .84 AZP 84.20 TAL 340.19 TAP 177.36 RCA 150.34 APO 245.71 V2 22.324
RC 289.637 GL -41.74 GP 39.37 ZAL 114.22 ZAP 73.03 ETS 196.39 ZAE 97.19 ETE 176.24 ZAC 127.60 ETC 288.01 LVI -62.10

PLANETOCENTRIC CONIC

C3 27.011 VHL 5.197 DLA -22.35 RAL 59.46 RAD 6645.8 VEL 12.123 PTH 7.09 VHP 2.968 DPA 39.00 RAP 352.26 ECC 1.4445

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 31 57	2751.76	-19.71	77.66	280.64	134.23	18 17 49	1751.8	-1.61	61.28
60.00	18 39 10	2572.99	-14.14	66.65	285.73	128.14	19 22 3	1573.0	1.82	48.48
70.00	20 4 32	2322.05	-8.66	50.30	289.74	123.17	20 43 14	1322.0	5.28	30.75
80.00	21 46 29	2002.97	-4.17	28.84	292.49	119.59	22 19 52	1003.0	8.18	8.30
90.00	23 24 15	1687.64	-2.28	6.69	293.54	118.20	23 52 23	687.6	9.41	345.76
100.00	0 33 17	1477.44	-4.17	350.20	292.49	119.59	0 57 54	477.4	8.18	329.66
110.00	1 7 54	1368.87	-8.66	339.22	289.74	123.17	1 30 43	368.9	5.28	319.67

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6517 TRA 4.0902 TC3-4.1711 BAU 1.7242 SGT 6773.7 SGR 4394.4 SG3 1478.8 ST 117.0 SR 64.6 SS 57.6
RDE .6399 RRA-3.0225 RC3 2.3236 FAU .30456 RRT -.9850 RRF -.9973 RTF .9824 CRT -.9507 CRS .9866 CST -.8874
FDE-1.6346 FRA11.4642 FC3-9.7618 BSP 13793 SGB 8074.2 R23 .1214 R13 -.9899 LSA 142.9 MSA 27.6 SSA .5
BDE 1.7713 BRA 5.0857 BC3 4.7747 FSP 2670 SG1 8049.0 SG2 637.4 THA 147.19 EL1 132.5 EL2 17.7 ALF 151.73

LAUNCH DATE JUL 10 1973 FLIGHT TIME 292.00 ARRIVAL DATE APR 28 1974

HELIOCENTRIC CONIC DISTANCE 658.837 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.791 GAL -3.85 AZL 95.80 HCA 198.07 SNA 198.09 ECC .24123 INC 5.8020 V1 29.293
RP 245.83 LAP 1.80 LOP 125.59 VP 20.243 GAP .62 AZP 84.48 TAL 339.99 TAP 178.06 RCA 150.30 APO 245.87 V2 22.305
RC 292.172 GL -40.26 GP 37.88 ZAL 114.93 ZAP 71.76 ETS 196.69 ZAE 96.16 ETE 177.28 ZAC 126.43 ETC 287.67 LVI -60.66

PLANETOCENTRIC CONIC

C3 26.197 VHL 5.118 DLA -20.88 RAL 59.16 RAD 6645.5 VEL 12.090 PTH 7.07 VHP 2.918 DPA 37.62 RAP 353.02 ECC 1.4311

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 24 7	2775.45	-20.83	78.80	279.92	133.80	18 10 23	1775.5	-2.80	62.27
60.00	18 28 57	2603.05	-15.39	68.19	284.84	127.72	19 12 20	1603.1	.50	49.92
70.00	19 51 3	2361.71	-10.13	52.43	288.65	122.79	20 30 25	1361.7	3.78	32.83
80.00	21 28 59	2055.18	-5.91	31.72	291.22	119.32	22 3 15	1055.2	6.46	11.21
90.00	23 4 26	1747.30	-4.19	10.03	292.16	117.99	23 33 34	747.3	7.56	349.17
100.00	0 15 47	1529.65	-5.91	353.09	291.22	119.32	0 41 17	529.7	6.46	332.58
110.00	0 54 25	1408.53	-10.13	341.35	288.65	122.79	1 17 54	408.5	3.78	321.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.5940 TRA 4.1580 TC3-4.3995 BAU 1.7360 SGT 6948.7 SGR 4219.9 SG3 1536.2 ST 116.6 SR 61.4 SS 57.8
RDE .5874 RRA-2.8806 RC3 2.2834 FAU .31441 RRT -.9854 RRF -.9970 RTF .9827 CRT -.9532 CRS .9832 CST -.8821
FDE-1.5239 FRA11.8057 FC-10.3903 BSP 13890 SGB 8129.7 R23 .1227 R13 -.9894 LSA 141.2 MSA 27.6 SSA .5
BDE 1.6988 BRA 5.0583 BC3 4.9567 FSP 2777 SG1 8106.3 SG2 616.5 THA 148.90 EL1 130.7 EL2 16.6 ALF 152.86

LAUNCH DATE JUL 10 1973 FLIGHT TIME 294.00 ARRIVAL DATE APR 30 1974

HELIOCENTRIC CONIC DISTANCE 662.589 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.794 GAL -3.89 AZL 95.56 HCA 198.96 SNA 198.15 ECC .24167 INC 5.5578 V1 29.293
RP 246.02 LAP 1.80 LOP 126.48 VP 20.227 GAP .40 AZP 84.74 TAL 339.78 TAP 178.74 RCA 150.27 APO 246.04 V2 22.286
RC 294.682 GL -38.86 GP 36.46 ZAL 115.61 ZAP 70.51 ETS 196.96 ZAE 95.09 ETE 178.24 ZAC 125.11 ETC 287.36 LVI -59.33

PLANETOCENTRIC CONIC

C3 25.511 VHL 5.051 DLA -19.50 RAL 58.92 RAD 6645.2 VEL 12.061 PTH 7.04 VHP 2.875 DPA 36.30 RAP 353.73 ECC 1.4198

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 17 3	2798.17	-21.90	79.91	279.35	133.36	18 3 41	1798.2	-3.94	63.22
60.00	18 19 45	2631.42	-16.57	69.67	284.13	127.28	19 3 37	1631.4	-.75	51.27
70.00	19 39 3	2398.31	-11.47	54.42	287.78	122.39	20 19 1	1398.3	2.39	34.75
80.00	21 13 45	2101.90	-7.46	34.33	290.19	118.99	21 48 47	1101.9	4.90	13.80
90.00	22 47 27	1799.65	-5.86	12.97	291.07	117.72	23 17 27	799.7	5.91	352.13
100.00	0 0 33	1576.37	-7.46	355.69	290.19	118.99	0 26 50	576.4	4.90	335.17
110.00	0 42 25	1445.13	-11.47	343.34	287.78	122.39	1 6 30	445.1	2.39	323.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.5375 TRA 4.2295 TC3-4.6194 BAU 1.7503 SGT 7122.0 SGR 4051.6 SG3 1586.1 ST 116.1 SR 58.4 SS 57.9
RDE .5404 RRA-2.7486 RC3 2.2354 FAU .32288 RRT -.9857 RRF -.9966 RTF .9830 CRT -.9560 CRS .9791 CST -.8766
FDE-1.3998 FRA12.0980 FC-10.9570 BSP 13998 SGB 8193.8 R23 .1234 R13 -.9889 LSA 139.6 MSA 27.6 SSA .5
BDE 1.6297 BRA 5.0442 BC3 5.1319 FSP 2867 SG1 8172.1 SG2 595.8 THA 150.55 EL1 129.1 EL2 15.4 ALF 153.91

LAUNCH DATE JUL 10 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 2 1974

HELIOCENTRIC CONIC DISTANCE 666.340 EARTH TO MARS

RL	152.08	LAL	.00	LOL	287.60	VL	32.798	GAL	-3.94	AZL	95.34	HCA	199.85	SMA	198.22	ECC	.24213	INC	5.3352	V1	29.293
RP	246.21	LAP	1.81	LOP	127.38	VP	20.212	GAP	.18	AZP	84.98	TAL	339.57	TAP	179.43	RCA	150.22	APO	246.21	V2	22.267
RC	297.167	GL	-37.54	GP	35.10	ZAL	116.26	ZAP	68.29	ETS	197.18	ZAE	94.00	ETE	179.11	ZAC	123.85	ETC	287.09	LVI	-58.03

PLANETOCENTRIC CONIC

C3	24.931	VHL	4.993	DLA	-18.18	RAL	58.72	RAD	6645.0	VEL	12.038	PTH	7.03	VHP	2.841	DPA	35.04	RAP	354.39	ECC	1.4103

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 10 38	2820.00	-22.91	80.99	278.91	132.91	17 57 38	1820.0	-5.04	64.14
60.00	18 11 26	2658.32	-17.67	71.09	283.57	126.83	18 55 44	1658.3	-1.93	52.56
70.00	19 28 17	2432.39	-12.71	56.28	287.09	121.97	20 8 49	1432.4	1.08	36.52
80.00	21 0 17	2144.42	-8.86	36.71	289.38	118.63	21 36 2	1144.4	3.47	16.15
90.00	22 32 35	1846.67	-7.34	15.63	290.20	117.39	23 3 22	846.7	4.42	354.78
100.00	23 43 9	1618.90	-8.86	358.08	289.38	118.63	24 10 8	618.9	3.47	337.52
110.00	0 31 39	1479.21	-12.71	345.20	287.09	121.97	0 56 18	479.2	1.08	325.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4822	TRA	4.3041	TC3	-4.8300	BAU	1.7662	SGT	7292.6	SGR	3887.8	SG3	1628.2	ST	115.6	SR	55.6	SS	57.9
RDE	.4987	RRA	-2.6246	RC3	2.1798	FAU	.32983	RRT	-.9859	RRF	-.9961	RTF	.9833	CRT	-.9592	CRS	.9743	CST	-.6711
FDE	-1.2665	FRA	12.3409	FC	-11.4534	BSP	14133	SGB	8264.2	R23	.1233	R13	-.9885	LSA	138.0	MSA	27.7	SSA	.6
BDE	1.5638	BRA	5.0412	BC3	5.2991	FSP	2944	SG1	8244.2	SG2	575.7	THA	152.13	EL1	127.5	EL2	14.2	ALF	154.90

LAUNCH DATE JUL 10 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 4 1974

HELIOCENTRIC CONIC DISTANCE 670.087 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.801	GAL	-3.99	AZL	95.13	HCA	200.74	SMA	198.29	ECC	.24260	INC	5.1313	V1	29.293
RP	246.39	LAP	1.82	LOP	128.27	VP	20.198	GAP	-.03	AZP	85.20	TAL	339.36	TAP	180.10	RCA	150.18	APO	246.39	V2	22.249
RC	299.628	GL	-36.30	GP	33.81	ZAL	116.89	ZAP	68.08	ETS	197.37	ZAE	92.89	ETE	179.92	ZAC	122.65	ETC	286.85	LVI	-56.78

PLANETOCENTRIC CONIC

C3	24.440	VHL	4.944	DLA	-16.94	RAL	58.56	RAD	6644.8	VEL	12.017	PTH	7.01	VHP	2.813	DPA	33.85	RAP	355.01	ECC	1.4022

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 4 47	2841.01	-23.88	82.05	278.59	132.46	17 52 8	1841.0	-6.09	65.03
60.00	18 3 51	2683.93	-18.71	72.45	283.14	126.37	18 48 35	1683.9	-3.06	53.78
70.00	19 18 32	2464.36	-13.85	58.05	286.55	121.53	19 59 36	1464.4	-.14	38.19
80.00	20 48 14	2183.61	-10.13	38.93	288.74	118.24	21 24 38	1183.6	2.14	18.30
90.00	22 19 23	1889.57	-8.67	18.08	289.51	117.02	22 50 53	889.6	3.05	357.18
100.00	23 31 6	1658.08	-10.13	.29	288.74	118.24	23 58 44	658.1	2.14	339.67
110.00	0 21 54	1511.18	-13.85	346.97	286.55	121.53	0 47 6	511.2	-.14	327.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4277	TRA	4.3822	TC3	-5.0314	BAU	1.7837	SGT	7461.5	SGR	3730.3	SG3	1663.4	ST	115.1	SR	52.9	SS	57.8
RDE	.4611	RRA	-2.5095	RC3	2.1181	FAU	.33535	RRT	-.9860	RRF	-.9956	RTF	.9835	CRT	-.9627	CRS	.9685	CST	-.8652
FDE	-1.1230	FRA	12.5453	FC	-11.8792	BSP	14292	SGB	8342.0	R23	.1227	R13	-.9881	LSA	136.4	MSA	27.8	SSA	.6
BDE	1.5003	BRA	5.0499	BC3	5.4591	FSP	3015	SG1	8323.4	SG2	557.3	THA	153.63	EL1	126.0	EL2	13.1	ALF	155.83

LAUNCH DATE JUL 10 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 6 1974

HELIOCENTRIC CONIC DISTANCE 673.837 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.805	GAL	-4.03	AZL	94.94	HCA	201.63	SMA	198.36	ECC	.24308	INC	4.9437	V1	29.293
RP	246.57	LAP	1.82	LOP	129.17	VP	20.185	GAP	-.25	AZP	85.40	TAL	339.14	TAP	180.78	RCA	150.14	APO	246.57	V2	22.232
RC	302.065	GL	-35.12	GP	32.59	ZAL	117.51	ZAP	66.90	ETS	197.53	ZAE	91.76	ETE	180.66	ZAC	121.50	ETC	286.63	LVI	-55.60

PLANETOCENTRIC CONIC

C3	24.024	VHL	4.901	DLA	-15.75	RAL	58.44	RAD	6644.6	VEL	12.000	PTH	6.99	VHP	2.790	DPA	32.72	RAP	355.59	ECC	1.3954

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 59 26	2861.27	-24.81	83.08	278.37	132.00	17 47 7	1861.3	-7.10	65.89
60.00	17 56 55	2708.40	-19.69	73.78	282.83	125.90	18 42 3	1708.4	-4.14	54.95
70.00	19 9 40	2494.53	-14.92	59.74	286.14	121.08	19 51 14	1494.5	-1.29	39.77
80.00	20 37 21	2220.07	-11.30	41.00	288.24	117.82	21 14 21	1220.1	.91	20.31
90.00	22 7 31	1929.18	-9.89	20.35	288.97	116.63	22 39 41	929.2	1.77	359.40
100.00	23 20 13	1694.54	-11.30	2.37	288.24	117.82	23 48 28	694.5	.91	341.67
110.00	0 13 2	1541.35	-14.92	348.66	286.14	121.08	0 38 43	541.3	-1.29	328.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.3755	TRA	4.4611	TC3	-5.2250	BAU	1.8030	SGT	7627.5	SGR	3577.7	SG3	1691.6	ST	114.6	SR	50.5	SS	57.6
RDE	.4289	RRA	-2.4005	RC3	2.0525	FAU	.33964	RRT	-.9861	RRF	-.9950	RTF	.9837	CRT	-.9666	CRS	.9617	CST	-.8598
FDE	-.9606	FRA	12.7035	FC	-12.2393	BSP	14451	SGB	8424.9	R23	.1213	R13	-.9877	LSA	135.0	MSA	27.9	SSA	.6
BDE	1.4408	BRA	5.0659	BC3	5.6137	FSP	3069	SG1	8407.6	SG2	539.6	THA	155.07	EL1	124.6	EL2	11.9	ALF	156.70

LAUNCH DATE JUL 10 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 677.584 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.809	GAL	-4.08	AZL	94.77	HCA	202.52	SMA	198.43	ECC	.24358	INC	4.7704	V1	29.293
RP	246.74	LAP	1.83	LOP	130.06	VP	20.172	GAP	-.46	AZP	85.59	TAL	338.92	TAP	181.44	RCA	150.10	APO	246.76	V2	22.215
RC	304.476	GL	-34.01	GP	31.42	ZAL	118.10	ZAP	65.75	ETS	197.66	ZAE	90.63	ETE	181.34	ZAC	120.40	ETC	286.43	LVI	-54.46

PLANETOCENTRIC CONIC

C3	23.673	VHL	4.866	DLA	-14.63	RAL	58.35	RAD	6644.4	VEL	11.986	PTH	6.98	VHP	2.773	DPA	31.64	RAP	356.15	ECC	1.3896

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 31	2880.84	-25.70	84.10	278.24	131.53	17 42 32	1880.8	-8.08	66.72
60.00	17 50 33	2731.83	-20.62	75.06	282.62	125.42	18 36 5	1731.8	-5.16	56.08
70.00	19 1 33	2523.13	-15.92	61.35	285.84	120.62	19 43 36	1523.1	-2.38	41.26
80.00	20 27 27	2254.24	-12.38	42.97	287.86	117.39	21 5 1	1254.2	-.25	22.18
90.00	21 56 46	1966.08	-11.01	22.48	288.57	116.21	22 29 33	966.1	.58	1.45
100.00	23 10 19	1728.71	-12.38	4.33	287.86	117.39	23 39 8	728.7	-.25	343.55
110.00	0 4 55	1569.95	-15.92	350.27	285.84	120.62	0 31 5	569.9	-2.38	330.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.3254	TRA	4.5409	TC3	-5.4131	BAU	1.8249	SGT	7792.6	SGR	3432.0	SG3	1714.2	ST	114.1	SR	48.2	SS	57.5
RDE	.4012	RRA	-2.2978	RC3	1.9860	FAU	.34311	RRT	-.9861	RRF	-.9944	RTF	.9838	CRT	-.9709	CRS	.9540	CST	-.8547
FDE	-.8391	FRA	12.8237	FC	-12.5477	BSP	14609	SGB	8514.8	R23	.1192	R13	-.9874	LSA	133.7	MSA	28.0	SSA	.7
BDE	1.3848	BRA	5.0892	BC3	5.7659	FSP	3110	SG1	8498.8	SG2	523.0	THA	156.43	EL1	123.4	EL2	10.7	ALF	157.51

LAUNCH DATE JUL 10 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 681.329 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.812	GAL	-4.13	AZL	94.61	HCA	203.41	SMA	198.50	ECC	.24410	INC	4.6098	V1	29.293
RP	246.90	LAP	1.83	LOP	130.95	VP	20.161	GAP	-.66	AZP	85.77	TAL	338.69	TAP	182.11	RCA	150.05	APO	246.96	V2	22.199
RC	308.863	GL	-32.96	GP	30.31	ZAL	118.68	ZAP	64.63	ETS	197.76	ZAE	89.49	ETE	181.87	ZAC	119.35	ETC	286.25	LVI	-53.38

PLANETOCENTRIC CONIC

C3	23.379	VHL	4.835	DLA	-13.55	RAL	58.29	RAD	6644.3	VEL	11.973	PTH	6.97	VHP	2.759	DPA	30.63	RAP	356.69	ECC	1.3848

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 50 1	2899.76	-26.55	85.10	278.18	131.05	17 38 21	1899.8	-9.02	67.53
60.00	17 44 42	2754.34	-21.51	76.31	282.49	124.94	18 30 36	1754.3	-6.15	57.17
70.00	18 54 5	2550.35	-16.86	62.90	285.63	120.15	19 36 35	1550.4	-3.42	42.68
80.00	20 18 24	2286.46	-13.38	44.83	287.59	116.94	20 56 30	1286.5	-1.34	23.95
90.00	21 46 58	2000.72	-12.04	24.50	288.27	115.78	22 20 19	1000.7	-.83	3.39
100.00	23 1 15	1760.93	-13.38	6.20	287.59	116.94	23 30 36	760.9	-1.34	345.32
110.00	23 53 31	1597.17	-16.86	351.82	285.63	120.15	24 20 9	597.2	-3.42	331.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE-1.2761	TRA 4.6225	TC3-5.5925	BAU 1.8477			SGT 7955.0	SGR 3291.7	SG3 1731.0		ST 113.7	SR 46.1	SS 57.3	
RDE .3769	RRA-2.2015	RC3 1.9166	FAU .34542			RRT -.9860	RRF -.9936	RTF .9840		CRT -.9752	CRS .9449	CST -.8496	
FDE -.6953	FRA12.9116	FC-12.7912	BSP 14776			SGB 8609.1	R23 .1166	R13 -.9871		LSA 132.5	MSA 28.1	SSA .7	
BDE 1.3306	BRA 5.1200	BC3 5.9118	FSP 3143			SG1 8594.1	SG2 508.3	THA 157.72		EL1 122.3	EL2 9.5	ALF 158.28	

LAUNCH DATE JUL 10 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 685.072 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.816	GAL	-4.18	AZL	94.46	HCA	204.30	SMA	198.58	ECC	.24462	INC	4.4607	V1	29.293
RP	247.06	LAP	1.83	LOP	131.84	VP	20.150	GAP	-.69	AZP	85.93	TAL	338.46	TAP	182.76	RCA	150.00	APO	247.16	V2	22.183
RC	309.224	GL	-31.95	GP	29.26	ZAL	119.24	ZAP	63.53	ETS	197.85	ZAE	88.38	ETE	182.54	ZAC	118.35	ETC	286.09	LVI	-52.38

PLANETOCENTRIC CONIC

C3	23.133	VHL	4.810	DLA	-12.52	RAL	58.26	RAD	6644.2	VEL	11.963	PTH	6.96	VHP	2.780	DPA	29.67	RAP	357.20	ECC	1.3807

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 45 52	2918.09	-27.36	86.08	278.20	130.57	17 34 30	1918.1	-9.93	68.32
60.00	17 38 17	2776.00	-22.38	77.52	282.44	124.45	18 25 33	1776.0	-7.09	58.22
70.00	18 47 12	2576.36	-17.74	64.40	285.51	119.67	19 30 8	1576.4	-4.41	44.05
80.00	20 10 3	2317.00	-14.31	46.62	287.42	116.49	20 48 40	1317.0	-2.37	25.63
90.00	21 37 57	2033.42	-13.00	26.42	288.07	115.34	22 11 51	1033.4	-1.59	5.21
100.00	22 52 58	1791.46	-14.31	7.99	287.42	116.49	23 22 47	791.5	-2.37	346.99
110.00	23 46 38	1623.18	-17.74	353.32	285.51	119.67	24 13 41	623.2	-4.41	332.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE-1.2283	TRA 4.7063	TC3-5.7640	BAU 1.8718			SGT 8115.8	SGR 3157.7	SG3 1742.7		ST 113.3	SR 44.2	SS 57.1	
RDE .3565	RRA-2.1110	RC3 1.8463	FAU .34683			RRT -.9858	RRF -.9928	RTF .9841		CRT -.9708	CRS .9347	CST -.8483	
FDE -.5566	FRA12.9701	FC-12.8798	BSP 14956			SGB 8708.4	R23 .1131	R13 -.9868		LSA 131.4	MSA 28.2	SSA .7	
BDE 1.2790	BRA 5.1580	BC3 6.0824	FSP 3166			SG1 8694.3	SG2 494.7	THA 158.94		EL1 121.3	EL2 8.3	ALF 159.00	

LAUNCH DATE JUL 10 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 688.814 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.820	GAL	-4.24	AZL	94.32	HCA	205.16	SMA	198.66	ECC	.24816	INC	4.3218	V1	29.293
RP	247.22	LAP	1.84	LOP	132.72	VP	20.140	GAP	-1.11	AZP	86.09	TAL	338.23	TAP	183.42	RCA	149.98	APO	247.36	V2	22.168
RC	311.559	GL	-31.00	GP	28.26	ZAL	119.80	ZAP	62.46	ETS	197.91	ZAE	87.22	ETE	183.06	ZAC	117.39	ETC	286.98	LVI	-51.37

PLANETOCENTRIC CONIC

C3	22.930	VHL	4.789	DLA	-11.54	RAL	58.26	RAD	6644.1	VEL	11.955	PTH	6.96	VHP	2.744	DPA	28.77	RAP	357.70	ECC	1.3774

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 42 1	2935.87	-26.15	87.05	278.28	130.09	17 30 57	1935.9	-10.81	69.09
60.00	17 34 17	2796.90	-23.15	78.71	282.46	123.96	18 20 54	1796.9	-8.00	59.23
70.00	18 40 49	2601.28	-18.57	65.85	285.47	119.19	19 24 10	1601.3	-5.35	45.36
80.00	20 2 21	2346.06	-15.19	48.33	287.32	116.02	20 41 27	1346.1	-3.35	27.22
90.00	21 29 39	2064.43	-13.90	28.26	287.95	114.88	22 4 3	1064.4	-2.59	6.94
100.00	22 45 13	1820.53	-15.19	9.70	287.32	116.02	23 15 34	820.5	-3.35	348.59
110.00	23 40 15	1648.10	-18.57	354.77	285.47	119.19	24 7 44	648.1	-5.35	334.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE-1.1810	TRA 4.7910	TC3-5.9279	BAU 1.8970			SGT 8274.0	SGR 3028.9	SG3 1749.5		ST 113.0	SR 42.4	SS 56.9	
RDE .3387	RRA-2.0256	RC3 1.7754	FAU .34735			RRT -.9855	RRF -.9918	RTF .9842		CRT -.9842	CRS .9231	CST -.8411	
FDE -.4178	FRA13.0000	FC-13.1143	BSP 15140			SGB 8811.0	R23 .1092	R13 -.9866		LSA 130.4	MSA 28.4	SSA .8	
BDE 1.2286	BRA 5.2016	BC3 6.1880	FSP 3179			SG1 8797.7	SG2 482.9	THA 160.10		EL1 120.5	EL2 7.0	ALF 159.68	

LAUNCH DATE JUL 10 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC DISTANCE 692.554 EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.824	GAL	-4.29	AZL	94.19	HCA	206.07	SMA	198.74	ECC	.24872	INC	4.1913	V1	29.293
RP	247.37	LAP	1.84	LOP	133.61	VP	20.130	GAP	-1.32	AZP	86.23	TAL	338.00	TAP	184.08	RCA	149.90	APO	247.57	V2	22.154
RC	313.868	GL	-30.09	GP	27.30	ZAL	120.34	ZAP	61.42	ETS	197.95	ZAE	86.09	ETE	183.54	ZAC	116.47	ETC	285.81	LVI	-50.43

PLANETOCENTRIC CONIC

C3	22.765	VHL	4.771	DLA	-10.60	RAL	58.28	RAD	6644.0	VEL	11.948	PTH	6.95	VHP	2.740	DPA	27.92	RAP	358.19	ECC	1.3747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 38 29	2953.13	-28.90	88.01	278.42	129.60	17 27 42	1953.1	-11.66	69.84
60.00	17 29 38	2817.09	-23.91	79.87	282.54	123.46	18 16 35	1817.1	-8.88	60.22
70.00	18 34 54	2625.22	-19.36	67.26	285.49	118.70	19 18 39	1625.2	-6.26	46.62
80.00	19 55 12	2373.82	-16.01	49.98	287.29	115.54	20 34 48	1373.8	-4.29	28.76
90.00	21 21 56	2093.98	-14.74	30.02	287.91	114.41	21 56 50	1094.0	-3.53	8.60
100.00	22 38 4	1848.29	-16.01	11.35	287.29	115.54	23 8 52	848.3	-4.29	350.12
110.00	23 34 20	1672.04	-19.36	356.18	285.49	118.70	24 2 12	672.0	-6.26	335.54

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE-1.1347	TRA 4.8777	TC3-6.0833	BAU 1.9227			SGT 8430.0	SGR 2905.9	SG3 1752.1		ST 112.7	SR 40.7	SS 56.8	
RDE .3240	RRA-1.9453	RC3 1.7042	FAU .34703			RRT -.9851	RRF -.9907	RTF .9843		CRT -.9884	CRS .9101	CST -.8376	
FDE -.2848	FRA13.0077	FC-13.1972	BSP 15338			SGB 8916.8	R23 .1046	R13 -.9863		LSA 129.5	MSA 28.5	SSA .8	
BDE 1.1800	BRA 5.2513	BC3 6.3175	FSP 3186			SG1 8904.3	SG2 472.5	THA 161.19		EL1 119.7	EL2 5.8	ALF 160.32	

LAUNCH DATE JUL 16 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 696.293 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.828 GAL -4.34 AZL 94.07 HCA 206.95 SMA 198.82 ECC .24628 INC 4.0693 V1 29.293
RP 247.51 LAP 1.84 LOP 134.50 VP 20.122 GAP -1.53 AZP 86.37 TAL 337.76 TAP 184.71 RCA 149.85 APO 247.78 V2 22.140
RC 316.151 GL -29.23 GP 26.40 ZAL 120.87 ZAP 60.40 ETS 197.98 ZAE 84.96 ETE 183.99 ZAC 115.59 ETC 285.69 LVI -49.53

PLANETOCENTRIC CONIC

C3 22.634 VHL 4.758 DLA -9.70 RAL 58.31 RAD 6644.0 VEL 11.942 PTH 6.95 VHP 2.740 DPA 27.12 RAP 358.66 ECC 1.3725

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 35 11	2969.92	-29.62	88.95	278.61	128.10	17 24 41	1969.9	-12.49	70.57
60.00	17 25 18	2836.64	-24.64	81.01	282.68	122.96	18 12 35	1836.6	-9.72	61.18
70.00	18 29 22	2648.28	-20.11	66.63	285.57	118.20	19 13 30	1648.3	-7.13	47.84
80.00	19 48 33	2400.42	-16.78	51.58	287.33	115.06	20 28 33	1400.4	-5.18	30.23
90.00	21 14 46	2122.23	-15.53	31.72	287.93	113.94	21 50 9	1122.2	-4.44	10.18
100.00	22 31 25	1874.89	-16.78	12.95	287.33	115.06	23 2 40	874.9	-5.18	351.59
110.00	23 28 49	1695.10	-20.11	357.55	285.57	118.20	23 57 4	695.1	-7.13	336.76

DIFFERENTIAL CORRECTIONS

TDE-1.0883 TRA 4.9664 TC3-6.2305 BAU 1.9490
RDE .3112 RRA-1.8699 RC3 1.6331 FAU .34594
FDE -.1517 FRA12.9959 FC-13.2320 BSP 15554
BDE 1.1319 BRA 5.3068 BC3 6.4410 FSP 3191

MID-COURSE EXECUTION ACCURACY

SGT 8583.8 SGR 2788.4 SG3 1750.9
RRT -.9848 RRF -.9894 RTF .9843
SGB 9025.4 R23 .0996 R13 -.9861
SG1 9013.4 SG2 464.0 THA 162.21

ORBIT DETERMINATION ACCURACY

ST 112.5 SR 39.1 SS 56.6
CRT -.9922 CRS .8954 CST -.6344
LSA 128.7 HSA 28.6 SSA .8
EL1 119.0 EL2 4.6 ALF 160.93

LAUNCH DATE JUL 18 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC DISTANCE 700.030 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.833 GAL -4.40 AZL 93.95 HCA 207.84 SMA 198.90 ECC .24686 INC 3.9546 V1 29.293
RP 247.65 LAP 1.85 LOP 135.38 VP 20.114 GAP -1.75 AZP 86.50 TAL 337.51 TAP 185.35 RCA 149.80 APO 248.00 V2 22.126
RC 318.406 GL -28.40 GP 25.54 ZAL 121.39 ZAP 59.41 ETS 198.00 ZAE 83.85 ETE 184.39 ZAC 114.75 ETC 285.58 LVI -48.67

PLANETOCENTRIC CONIC

C3 22.533 VHL 4.747 DLA -8.83 RAL 58.37 RAD 6643.9 VEL 11.938 PTH 6.94 VHP 2.741 DPA 26.36 RAP 359.13 ECC 1.3708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 32 8	2986.26	-30.32	89.88	278.85	128.60	17 21 55	1986.3	-13.29	71.30
60.00	17 21 16	2855.60	-25.34	82.13	282.87	122.45	18 8 52	1855.6	-10.54	62.12
70.00	18 24 13	2670.54	-20.82	69.97	285.71	117.71	19 8 43	1670.5	-7.96	49.02
80.00	19 42 20	2425.99	-17.51	53.12	287.43	114.57	20 22 46	1426.0	-6.03	31.64
90.00	21 8 5	2149.32	-16.27	33.36	288.01	113.46	21 43 54	1149.3	-5.30	11.70
100.00	22 25 12	1900.46	-17.51	14.49	287.43	114.57	22 56 52	900.5	-6.03	353.01
110.00	23 23 39	1717.36	-20.82	358.89	285.71	117.71	23 52 16	717.4	-7.96	337.94

DIFFERENTIAL CORRECTIONS

TDE-1.0430 TRA 5.0563 TC3-6.3710 BAU 1.9762
RDE .3009 RRA-1.7986 RC3 1.5633 FAU .34427
FDE -.0245 FRA12.9636 FC-13.2273 BSP 15763
BDE 1.0855 BRA 5.3667 BC3 6.5600 FSP 3186

MID-COURSE EXECUTION ACCURACY

SGT 8735.9 SGR 2676.1 SG3 1746.2
RRT -.9840 RRF -.9881 RTF .9844
SGB 9136.6 R23 .0942 R13 -.9859
SG1 9125.2 SG2 456.8 THA 163.18

ORBIT DETERMINATION ACCURACY

ST 112.4 SR 37.7 SS 56.4
CRT -.9954 CRS .8792 CST -.8317
LSA 128.1 HSA 28.8 SSA .8
EL1 118.5 EL2 3.4 ALF 161.52

LAUNCH DATE JUL 10 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 703.766 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.837 GAL -4.45 AZL 93.85 HCA 208.72 SMA 198.98 ECC .24745 INC 3.8465 V1 29.293
RP 247.78 LAP 1.85 LOP 136.27 VP 20.107 GAP -1.96 AZP 86.63 TAL 337.27 TAP 185.98 RCA 149.75 APO 248.22 V2 22.113
RC 320.632 GL -27.61 GP 24.72 ZAL 121.90 ZAP 58.45 ETS 198.00 ZAE 82.74 ETE 184.76 ZAC 113.95 ETC 285.48 LVI -47.85

PLANETOCENTRIC CONIC

C3 22.459 VHL 4.739 DLA -8.00 RAL 58.45 RAD 6643.9 VEL 11.935 PTH 6.94 VHP 2.745 DPA 25.65 RAP 359.59 ECC 1.3696

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 29 19	3002.19	-30.99	90.80	279.12	128.10	17 19 21	2002.2	-14.07	72.00
60.00	17 17 30	2874.01	-26.00	83.23	283.10	121.94	18 5 24	1874.0	-11.33	63.03
70.00	18 19 23	2692.07	-21.50	71.27	285.89	117.20	19 4 15	1692.1	-8.76	50.17
80.00	19 36 31	2450.62	-18.20	54.63	287.57	114.08	20 17 21	1450.6	-6.85	33.01
90.00	21 1 49	2175.38	-16.97	34.96	288.14	112.97	21 38 5	1175.4	-6.13	13.17
100.00	22 19 23	1925.09	-18.20	16.00	287.57	114.08	22 51 28	925.1	-6.85	354.38
110.00	23 18 49	1738.69	-21.50	.19	285.89	117.20	23 47 48	738.9	-8.76	339.09

DIFFERENTIAL CORRECTIONS

TDE -.9994 TRA 5.1462 TC3-6.5089 BAU 2.0044
RDE .2932 RRA-1.7309 RC3 1.4853 FAU .34218
FDE .0926 FRA12.9120 FC-13.1900 BSP 15965
BDE 1.0415 BRA 5.4295 BC3 6.6755 FSP 3171

MID-COURSE EXECUTION ACCURACY

SGT 8885.9 SGR 2569.0 SG3 1738.4
RRT -.9832 RRF -.9865 RTF .9844
SGB 9249.9 R23 .0883 R13 -.9857
SG1 9238.9 SG2 451.0 THA 164.09

ORBIT DETERMINATION ACCURACY

ST 112.3 SR 36.4 SS 56.3
CRT -.9979 CRS .8615 CST -.8300
LSA 127.6 HSA 28.9 SSA .9
EL1 118.1 EL2 2.2 ALF 162.08

LAUNCH DATE JUL 10 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 24 1974

HELIOCENTRIC CONIC DISTANCE 707.500 EARTH TO MARS

RL 152.09 LAL .00 LOL 287.60 VL 32.841 GAL -4.51 AZL 93.74 HCA 209.60 SMA 199.07 ECC .24806 INC 3.7444 V1 29.293
RP 247.91 LAP 1.85 LOP 137.15 VP 20.100 GAP -2.17 AZP 86.74 TAL 337.02 TAP 186.62 RCA 149.69 APO 248.45 V2 22.101
RC 322.829 GL -26.85 GP 23.94 ZAL 122.41 ZAP 57.52 ETS 197.99 ZAE 81.64 ETE 185.10 ZAC 113.17 ETC 285.39 LVI -47.07

PLANETOCENTRIC CONIC

C3 22.410 VHL 4.734 DLA -7.20 RAL 58.54 RAD 6643.9 VEL 11.933 PTH 6.94 VHP 2.751 DPA 24.99 RAP .05 ECC 1.3688

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 26 41	3017.73	-31.64	91.72	279.44	127.59	17 16 58	2017.7	-14.83	72.70
60.00	17 13 59	2891.91	-26.64	84.31	283.37	121.43	18 2 11	1891.9	-12.09	63.93
70.00	18 14 51	2712.93	-22.14	72.55	286.12	116.69	19 0 4	1712.9	-9.54	51.29
80.00	19 31 3	2474.40	-18.86	56.09	287.77	113.59	20 12 17	1474.4	-7.64	34.34
90.00	20 55 56	2200.50	-17.63	36.50	288.32	112.48	21 32 37	1200.5	-6.92	14.59
100.00	22 13 55	1948.88	-18.86	17.46	287.77	113.59	22 46 24	948.9	-7.64	355.71
110.00	23 14 18	1759.75	-22.14	1.47	286.12	116.69	23 43 37	759.7	-9.54	340.21

DIFFERENTIAL CORRECTIONS

TDE -.9559 TRA 5.2388 TC3-6.6322 BAU 2.0326
RDE .2869 RRA-1.6675 RC3 1.4276 FAU .33936
FDE .2076 FRA12.8501 FC-13.1097 BSP 16190
BDE .9980 BRA 5.4978 BC3 6.7841 FSP 3159

MID-COURSE EXECUTION ACCURACY

SGT 9034.0 SGR 2466.9 SG3 1727.7
RRT -.9822 RRF -.9848 RTF .9844
SGB 9364.8 R23 .0824 R13 -.9856
SG1 9354.1 SG2 447.2 THA 164.95

ORBIT DETERMINATION ACCURACY

ST 112.4 SR 35.2 SS 56.1
CRT -.9993 CRS .8420 CST -.8285
LSA 127.2 HSA 29.0 SSA .9
EL1 117.7 EL2 1.2 ALF 162.63

LAUNCH DATE JUL 10 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 26 1974

DISTANCE 711.232

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.09	LAL	.00	LOL	287.60	VL	32.846	GAL	-4.57	AZL	93.65	HCA	210.48	SMA	199.16	ECC	.24867	INC	3.6478	VI	29.293
RP	248.03	LAP	1.85	LOP	138.03	VP	20.094	GAP	-2.38	AZP	86.86	TAL	336.76	TAP	187.24	RCA	149.63	APO	248.68	V2	22.089
RC	324.897	GL	-26.12	GP	23.19	ZAL	122.91	ZAP	56.61	ETS	197.97	ZAE	80.55	ETE	185.41	ZAC	112.43	ETC	285.31	LVI	-46.32

PLANETOCENTRIC CONIC

C3	22.384	VHL	4.731	DLA	-6.43	RAL	58.64	RAD	6643.9	VEL	11.932	PTH	6.94	VHP	2.759	DPA	24.36	RAP	.50	ECC	1.3684

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT A&C	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 24 14	3032.91	-32.27	92.62	279.80	127.08	17 14 47	2032.9	-15.57	73.39
60.00	17 10 41	2909.34	-27.26	85.36	283.69	120.91	17 59 10	1909.3	-12.83	64.80
70.00	18 10 36	2733.17	-22.75	73.80	286.39	116.18	18 56 9	1733.2	-10.29	52.36
80.00	19 25 54	2497.42	-19.48	57.52	288.00	113.09	20 7 32	1497.4	-8.40	35.63
90.00	20 50 24	2224.78	-18.25	38.01	288.54	111.98	21 27 29	1224.8	-7.68	15.97
100.00	22 8 46	1971.89	-19.48	18.89	288.00	113.09	22 41 38	971.9	-8.40	357.00
110.00	23 10 2	1779.99	-22.75	2.72	286.39	116.18	23 39 42	780.0	-10.29	341.30

DIFFERENTIAL CORRECTIONS

TDE	-.9137	TRA	5.3316	TC3	-6.7542	BAU	2.0620
RDE	.2827	RRA	-1.6069	RC3	1.3632	FAU	.33648
FDE	.3138	FRA	12.7706	FC	-13.0129	BSP	16397
BDE	.9565	BRA	5.5685	BC3	6.8904	FSP	3134

MID-COURSE EXECUTION ACCURACY

SGT	9180.8	SGR	2369.8	SG3	1714.9				
RRT	-.9812	RRF	-.9828	RTF	.9845				
SGB	9481.8	R23	.0759	R13	-.9854				
SG1	9471.4	SG2	443.8	THA	185.76				

ORBIT DETERMINATION ACCURACY

ST	112.5	SR	34.1	SS	56.0				
CRT	-.9995	CRS	.8209	CST	-.8279				
LSA	126.9	HSA	29.1	SSA	.9				
EL1	117.5	EL2	1.0	ALF	163.16				

LAUNCH DATE JUL 11 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 12 1973

HELIOCENTRIC CONIC DISTANCE 353.847 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	34.890	GAL	-5.29	AZL	90.26	HCA	113.36	SMA	251.36	ECC	.40394	INC	.2604
RP	217.81	LAP	-.24	LOP	41.92	VP	26.281	GAP	22.62	AZP	89.90	TAL	341.30	TAP	94.86	RCA	149.82	APO	352.89
RC	73.631	GL	-1.44	GP	-5.16	ZAL	120.16	ZAP	171.81	ETS	220.82	ZAE	169.67	ETE	331.96	ZAC	79.60	ETC	283.47

V1 29.294 V2 25.227 LVI -13.83

PLANETOCENTRIC CONIC

C3	39.713	VHL	6.302	DLA	16.02	RAL	46.68	RAD	6650.6	VEL	12.633	PTH	7.48	VHP	8.120	DPA	8.13	RAP	35.30

ECC 1.6536

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 8 20	3626.51	-47.47	140.07	298.64	93.56	15 8 46	2626.5	-40.55	107.60
60.00	14 29 40	3569.71	-40.30	135.26	296.95	89.97	15 29 9	2569.7	-35.90	105.07
70.00	15 0 58	3477.57	-34.05	127.60	296.75	87.14	15 58 56	2477.6	-31.66	99.13
80.00	15 49 25	3325.72	-29.50	115.73	296.39	85.18	16 44 51	2325.7	-28.50	88.35
90.00	17 1 54	3091.75	-27.77	98.36	296.21	84.45	17 53 26	2091.8	-27.29	71.36
100.00	18 32 17	2800.19	-29.50	77.10	296.39	85.18	19 18 57	1800.2	-28.50	49.72
110.00	20 0 24	2524.39	-34.05	56.52	296.75	87.14	20 42 29	1524.4	-31.66	28.04

DIFFERENTIAL CORRECTIONS

TDE	-.4760	TRA	-1.6161	TC3	.1170	BAU	.0734
RDE	-.5765	RRA	.2729	RC3	-.0737	FAU	.05817
FDE	.5322	FRA	1.6252	FC3	-1.2680	BSP	2597
BDE	.7476	BRA	1.6390	BC3	.1383	FSP	257

MID-COURSE EXECUTION ACCURACY

SGT	1595.6	SGR	591.6	SG3	196.1		
RRT	-.1922	RRF	.2172	RTF	-.7718		
SGB	1701.8	R23	-.0472	R13	.7735		
SG1	1600.3	SG2	578.9	THA	175.31		

ORBIT DETERMINATION ACCURACY

ST	31.5	SR	26.5	SS	23.5
CRT	.5726	CRS	.6133	CST	.9965
LSA	43.2	NSA	19.5	SSA	1.2
EL1	36.7	EL2	18.7	ALF	36.50

LAUNCH DATE JUL 11 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 356.118 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	34.774	GAL	-5.18	AZL	90.22	HCA	114.50	SMA	247.59	ECC	.39463	INC	.2226
RP	218.16	LAP	-.20	LOP	43.06	VP	26.089	GAP	22.27	AZP	89.91	TAL	341.59	TAP	96.09	RCA	149.88	APO	345.29
RC	74.953	GL	-1.25	GP	-5.35	ZAL	120.04	ZAP	171.13	ETS	218.67	ZAE	168.87	ETE	332.59	ZAC	79.35	ETC	283.45

V1 29.294 V2 25.188 LVI -13.56

PLANETOCENTRIC CONIC

C3	38.044	VHL	6.168	DLA	16.16	RAL	46.50	RAD	6650.0	VEL	12.567	PTH	7.44	VHP	7.892	DPA	8.11	RAP	35.75

ECC 1.6261

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 7 2	3618.66	-47.44	139.31	295.53	94.15	15 7 21	2618.7	-40.31	107.01
60.00	14 28 10	3562.38	-40.30	134.64	295.92	90.39	15 27 33	2562.4	-35.73	104.52
70.00	14 59 14	3470.93	-34.07	127.08	295.77	87.45	15 57 5	2470.9	-31.56	98.64
80.00	15 47 27	3319.84	-29.53	115.30	295.44	85.41	16 42 47	2319.8	-28.44	87.92
90.00	16 59 49	3086.25	-27.81	97.96	295.27	84.65	17 51 16	2086.3	-27.24	70.97
100.00	18 30 19	2794.31	-29.53	76.66	295.44	85.41	19 16 53	1794.3	-28.44	49.29
110.00	19 58 41	2517.75	-34.07	56.00	295.77	87.45	20 40 39	1517.7	-31.56	27.56

DIFFERENTIAL CORRECTIONS

TDE	-.4766	TRA	-1.6126	TC3	.1380	BAU	.0817
RDE	-.5591	RRA	.2740	RC3	-.0825	FAU	.06039
FDE	.5590	FRA	1.6866	FC3	-1.3741	BSP	2689
BDE	.7347	BRA	1.6358	BC3	.1607	FSP	276

MID-COURSE EXECUTION ACCURACY

SGT	1630.2	SGR	591.9	SG3	208.1		
RRT	-.2081	RRF	.2350	RTF	-.7798		
SGB	1734.3	R23	-.0506	R13	.7817		
SG1	1635.5	SG2	577.0	THA	175.06		

ORBIT DETERMINATION ACCURACY

ST	32.2	SR	26.3	SS	24.4
CRT	.5694	CRS	.6136	CST	.9964
LSA	44.0	NSA	19.5	SSA	1.3
EL1	37.1	EL2	18.8	ALF	35.09

LAUNCH DATE JUL 11 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 358.798 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	34.665	GAL	-5.07	AZL	90.18	HCA	115.64	SMA	244.12	ECC	.38580	INC	.1839
RP	218.53	LAP	-.17	LOP	44.19	VP	25.903	GAP	21.92	AZP	89.92	TAL	341.68	TAP	97.32	RCA	149.94	APO	338.30
RC	76.362	GL	-1.05	GP	-5.53	ZAL	119.91	ZAP	170.42	ETS	216.84	ZAE	168.12	ETE	332.99	ZAC	79.09	ETC	283.42

V1 29.294 V2 25.148 LVI -13.29

PLANETOCENTRIC CONIC

C3	36.483	VHL	6.040	DLA	16.31	RAL	46.31	RAD	6649.4	VEL	12.505	PTH	7.39	VHP	7.670	DPA	8.08	RAP	36.19

ECC 1.6004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 8 39	3611.22	-47.40	138.60	294.43	94.70	15 5 50	2611.2	-40.07	106.45
60.00	14 28 35	3555.48	-40.29	134.05	294.90	90.79	15 25 50	2555.5	-35.57	104.01
70.00	14 57 24	3464.76	-34.09	126.60	294.80	87.73	15 55 9	2464.8	-31.45	98.19
80.00	15 45 21	3314.47	-29.56	114.90	294.49	85.62	16 40 36	2314.5	-28.38	87.54
90.00	16 57 36	3081.28	-27.84	97.60	294.33	84.83	17 48 57	2081.3	-27.19	70.61
100.00	18 28 13	2788.94	-29.56	76.27	294.49	85.62	19 14 42	1788.9	-28.38	48.91
110.00	19 56 50	2511.58	-34.09	55.52	294.80	87.73	20 38 42	1511.6	-31.45	27.10

DIFFERENTIAL CORRECTIONS

TDE	-.4682	TRA	-1.5995	TC3	.1693	BAU	.0939
RDE	-.5416	RRA	.2759	RC3	-.0918	FAU	.06256
FDE	.5907	FRA	1.7535	FC3	-1.4049	BSP	2627
BDE	.7159	BRA	1.6232	BC3	.1926	FSP	299

MID-COURSE EXECUTION ACCURACY

SGT	1654.8	SGR	592.1	SG3	220.9		
RRT	-.2302	RRF	.2534	RTF	-.[illegible]32		
SGB	1757.6	R23	-.0471	R13	.7951		
SG1	1661.2	SG2	574.0	THA	174.65		

ORBIT DETERMINATION ACCURACY

ST	32.5	SR	26.0	SS	23.4
CRT	.5602	CRS	.6150	CST	.9957
LSA	44.6	NSA	19.6	SSA	1.3
EL1	37.1	EL2	18.9	ALF	34.09

LAUNCH DATE JUL 11 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 361.576 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	34.561	GAL	-4.96	AZL	90.15	HCA	116.77	SMA	240.93	ECC	.37743	INC	.1447
RP	218.89	LAP	-.13	LOP	45.33	VP	25.725	GAP	21.58	AZP	89.93	TAL	341.76	TAP	98.55	RCA	150.00	APO	331.86
RC	77.855	GL	-.85	GP	-5.72	ZAL	119.76	ZAP	169.70	ETS	215.27	ZAE	167.42	ETE	333.18	ZAC	78.83	ETC	283.40

V1 29.294 V2 25.107 LVI -13.01

PLANETOCENTRIC CONIC

C3	35.027	VHL	5.918	DLA	16.47	RAL	46.11	RAD	6648.9	VEL	12.447	PTH	7.35	VHP	7.456	DPA	8.04	RAP	36.62

ECC 1.5784

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 4 10	3604.25	-47.36	137.93	293.36	95.21	15 4 14	2604.3	-39.84	105.94
60.00	14 24 53	3549.08	-40.29	133.51	293.91	91.16	15 24 2	2549.1	-35.42	103.53
70.00	14 55 27	3459.13	-34.10	126.16	293.85	87.99	15 53 6	2459.1	-31.36	97.77
80.00	15 43 8	3309.71	-29.59	114.55	293.56	85.80	16 38 17	2309.7	-28.32	87.19
90.00	16 55 14	3076.95	-27.87	97.28	293.40	84.98	17 46 31	2076.9	-27.15	70.30
100.00	18 26 0	2784.18	-29.59	75.92	293.56	85.80	19 12 24	1784.2	-28.32	48.56
110.00	19 54 53	2505.95	-34.10	55.08	293.85	87.99	20 36 39	1506.0	-31.36	26.69

DIFFERENTIAL CORRECTIONS

TDE	-.4726	TRA	-1.5985	TC3	.1886	BAU	.1005
RDE	-.5247	RRA	.2776	RC3	-.1024	FAU	.06511
FDE	.6197	FRA	1.8180	FC3	-1.6092	BSP	2740
BDE	.7061	BRA	1.6224	BC3	.2146	FSP	319

MID-COURSE EXECUTION ACCURACY

SGT	1692.1	SGR	592.7	SG3	234.3		
RRT	-.2465	RRF	.2742	RTF	-.7978		
SGB	1792.9	R23	-.0538	R13	.8000		
SG1	1699.2	SG2	572.0	THA	174.43		

ORBIT DETERMINATION ACCURACY

ST	33.3	SR	25.7	SS	26.3
CRT	.5588	CRS	.6143	CST	.9957
LSA	45.6	NSA	19.5	SSA	1.3
EL1	37.6	EL2	18.9	ALF	32.50

LAUNCH DATE JUL 11 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 364.441 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	34.462	GAL	-4.88	AZL	90.11	HCA	117.90	SMA	237.99	ECC	.36950	INC	.1049
RP	219.26	LAP	-.09	LOP	46.46	VP	25.552	GAP	21.23	AZP	89.95	TAL	341.88	TAP	99.78	RCA	150.05	APO	325.92
RC	79.428	GL	-.63	GP	-5.92	ZAL	119.61	ZAP	168.96	ETS	213.92	ZAE	166.78	ETE	333.21	ZAC	78.56	ETC	283.37

V1 29.294 V2 25.067 LVI -12.72

PLANETOCENTRIC CONIC

C3	33.664	VHL	5.802	DLA	16.64	RAL	45.89	RAD	6648.4	VEL	12.392	PTH	7.31	VHP	7.249	DPA	7.99	RAP	37.04

ECC 1.8540

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 2 36	3597.74	-47.32	137.30	292.32	95.69	15 2 34	2597.7	-39.63	105.46
60.00	14 23 6	3543.17	-40.28	133.00	292.93	91.80	15 22 9	2543.2	-35.27	103.09
70.00	14 53 22	3454.05	-34.11	125.77	292.91	88.22	15 50 56	2454.1	-31.27	97.40
80.00	15 40 46	3305.53	-29.61	114.24	292.64	85.96	16 35 51	2305.5	-28.27	86.89
90.00	16 52 44	3073.23	-27.89	97.02	292.49	85.11	17 43 57	2073.2	-27.11	70.04
100.00	18 23 38	2760.00	-29.61	75.61	292.64	85.96	19 9 58	1760.0	-28.27	48.26
110.00	19 52 49	2500.87	-34.11	54.69	292.91	88.22	20 34 30	1500.9	-31.27	26.32

DIFFERENTIAL CORRECTIONS

TDE	-.4755	TRA	-1.5954	TC3	.2109	BAU	.1079
RDE	-.5078	RRA	.2801	RC3	-.1140	FAU	.06776
FDE	.6512	FRA	1.8851	FC3	-1.7426	BSP	2834
BDE	.6957	BRA	1.6199	BC3	.2397	FSP	341

MID-COURSE EXECUTION ACCURACY

SGT	1727.5	SGR	593.6	SG3	248.6				
RRT	-.2650	RRF	.2963	RTF	-.8031				
SGB	1826.7	R23	-.0596	R13	.8056				
SG1	1735.6	SG2	569.7	THA	174.17				

ORBIT DETERMINATION ACCURACY

ST	34.1	SR	25.4	SS	27.2
CRT	.5559	CRS	.6138	C&T	.9955
LSA	46.6	MSA	19.5	SSA	1.3
EL1	38.1	EL2	18.9	ALF	31.00

LAUNCH DATE JUL 11 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 367.387 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	34.368	GAL	-4.76	AZL	90.07	HCA	119.02	SMA	235.28	ECC	.36197	INC	.0633
RP	219.63	LAP	-.06	LOP	47.58	VP	25.385	GAP	20.89	AZP	89.97	TAL	341.99	TAP	101.02	RCA	150.10	APO	320.42
RC	81.081	GL	-.39	GP	-6.12	ZAL	119.45	ZAP	168.21	ETS	212.75	ZAE	166.20	ETE	333.09	ZAC	78.28	ETC	283.35

V1 29.294 V2 25.026 LVI -12.42

PLANETOCENTRIC CONIC

C3	32.390	VHL	5.691	DLA	16.82	RAL	45.66	RAD	6647.9	VEL	12.341	PTH	7.27	VHP	7.049	DPA	7.92	RAP	37.45

ECC 1.5330

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 0 57	3691.70	-47.27	136.72	291.30	96.13	15 0 48	2591.7	-39.43	105.02
60.00	14 21 12	3537.78	-40.27	132.55	291.98	91.81	15 20 10	2837.8	-35.14	102.70
70.00	14 51 11	3449.53	-34.12	125.42	291.99	88.43	15 48 40	2449.5	-31.20	97.07
80.00	15 38 15	3301.98	-29.62	113.98	291.74	86.10	16 33 17	2302.0	-28.23	86.64
90.00	16 50 4	3070.17	-27.91	96.79	291.59	85.22	17 41 15	2070.2	-27.08	69.82
100.00	18 21 7	2776.45	-29.62	75.34	291.74	86.10	19 7 24	1776.5	-28.23	48.01
110.00	19 50 37	2496.35	-34.12	54.33	291.99	88.43	20 32 13	1496.3	-31.20	25.99

DIFFERENTIAL CORRECTIONS

TDE	-.4781	TRA	-1.5910	TC3	.2348	BAU	.1154
RDE	-.4910	RRA	.2830	RC3	-.1266	FAU	.07051
FDE	.6853	FRA	1.9549	FC3	-1.8848	BSP	2919
BDE	.6854	BRA	1.6159	BC3	.2665	FSP	364

MID-COURSE EXECUTION ACCURACY

SGT	1761.5	SGR	594.7	SG3	263.6				
RRT	-.2849	RRF	.3196	RTF	-.8086				
SGB	1859.2	R23	-.0653	R13	.8114				
SG1	1770.6	SG2	567.2	THA	173.87				

ORBIT DETERMINATION ACCURACY

ST	34.8	SR	25.1	SS	28.2
CRT	.5527	CRS	.6131	C&T	.9954
LSA	47.6	MSA	19.4	SSA	1.3
EL1	38.5	EL2	18.9	ALF	29.54

LAUNCH DATE JUL 11 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 370.404 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	34.279	GAL	-4.66	AZL	90.02	HCA	120.18	SMA	232.74	ECC	.35483	INC	.0198
RP	220.00	LAP	-.02	LOP	48.70	VP	25.224	GAP	20.56	AZP	89.99	TAL	342.11	TAP	102.25	RCA	150.16	APO	315.32
RC	82.809	GL	-.15	GP	-6.34	ZAL	119.28	ZAP	167.43	ETS	211.74	ZAE	165.67	ETE	332.83	ZAC	78.00	ETC	283.33

V1 29.294 V2 24.985 LVI -12.12

PLANETOCENTRIC CONIC

C3	31.197	VHL	5.585	DLA	17.01	RAL	45.42	RAD	6647.5	VEL	12.293	PTH	7.23	VHP	6.855	DPA	7.83	RAP	37.86

ECC 1.5134

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 59 12	3586.16	-47.23	136.20	290.31	96.54	14 58 58	2586.2	-39.25	104.62
60.00	14 19 12	3532.91	-40.26	132.13	291.04	92.09	15 18 5	2532.9	-35.02	102.34
70.00	14 48 52	3445.59	-34.13	125.11	291.09	88.61	15 46 17	2445.6	-31.13	96.78
80.00	15 35 36	3299.09	-29.64	113.78	290.85	86.21	16 30 36	2299.1	-28.20	86.43
90.00	16 47 16	3067.80	-27.92	96.62	290.70	85.31	17 38 23	2067.8	-27.06	69.65
100.00	18 18 28	2773.56	-29.64	75.13	290.85	86.21	19 4 42	1773.6	-28.20	47.80
110.00	19 48 18	2492.41	-34.13	54.03	291.09	88.61	20 29 30	1492.4	-31.13	25.70

DIFFERENTIAL CORRECTIONS

TDE	-.4802	TRA	-1.5857	TC3	.2598	BAU	.1232
RDE	-.4744	RRA	.2863	RC3	-.1403	FAU	.07342
FDE	.7218	FRA	2.0278	FC3	-2.0374	BSP	2997
BDE	.6750	BRA	1.6113	BC3	.2953	FSP	389

MID-COURSE EXECUTION ACCURACY

SGT	1794.5	SGR	596.4	SG3	279.4				
RRT	-.3087	RRF	.3448	RTF	-.7942				
SGB	1891.0	R23	-.0708	R13	.8172				
SG1	1804.8	SG2	564.4	THA	173.55				

ORBIT DETERMINATION ACCURACY

ST	35.5	SR	24.8	SS	29.3
CRT	.5483	CRS	.6120	C&T	.9951
LSA	48.5	MSA	19.3	SSA	1.3
EL1	38.9	EL2	18.9	ALF	28.10

LAUNCH DATE JUL 11 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 373.488 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	34.195	GAL	-4.56	AZL	89.98	HCA	121.26	SMA	230.40	ECC	.34805	INC	.0186
RP	220.36	LAP	.02	LOP	49.82	VP	25.066	GAP	20.22	AZP	90.01	TAL	342.22	TAP	103.49	RCA	150.21	APO	310.59
RC	84.610	GL	.11	GP	-6.57	ZAL	119.10	ZAP	166.64	ETS	210.86	ZAE	165.20	ETE	332.44	ZAC	77.71	ETC	283.31

V1 29.294 V2 24.944 LVI -11.81

PLANETOCENTRIC CONIC

C3	30.081	VHL	5.485	DLA	17.21	RAL	45.18	RAD	6647.0	VEL	12.248	PTH	7.19	VHP	6.867	DPA	7.73	RAP	38.25

ECC 1.4981

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 57 22	3581.12	-47.19	135.72	289.35	96.90	14 57 3	2581.1	-39.08	104.25
60.00	14 17 5	3528.60	-40.24	131.77	290.13	92.34	15 15 54	2528.6	-34.91	102.03
70.00	14 46 25	3442.27	-34.13	124.85	290.20	88.77	15 43 47	2442.3	-31.07	96.55
80.00	15 32 48	3296.87	-29.65	113.60	289.97	86.29	16 27 45	2296.9	-28.17	86.27
90.00	16 44 17	3066.16	-27.93	96.50	289.83	85.37	17 35 23	2066.2	-27.04	69.53
100.00	18 15 40	2771.34	-29.65	74.97	289.97	86.29	19 1 52	1771.3	-28.17	47.64
110.00	19 45 51	2489.09	-34.13	53.77	290.20	88.77	20 27 20	1489.1	-31.07	25.46

DIFFERENTIAL CORRECTIONS

TDE	-.4820	TRA	-1.5791	TC3	.2869	BAU	.1312
RDE	-.4577	RRA	.2901	RC3	-.1553	FAU	.07646
FDE	.7611	FRA	2.1030	FC3	-2.2005	BSP	3087
BDE	.6647	BRA	1.6055	BC3	.3262	FSP	416

MID-COURSE EXECUTION ACCURACY

SGT	1826.1	SGR	598.6	SG3	296.1				
RRT	-.3300	RRF	.3707	RTF	-.8199				
SGB	1921.7	R23	-.0761	R13	.8232				
SG1	1837.9	SG2	561.5	THA	173.19				

ORBIT DETERMINATION ACCURACY

ST	36.1	SR	24.4	SS	30.4
CRT	.5433	CRS	.6106	C&T	.9949
LSA	49.6	MSA	19.1	SSA	1.4
EL1	39.3	EL2	18.8	ALF	26.70

LAUNCH DATE JUL 11 1973 FLIGHT TIME 140.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 376.831 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	34.114	GAL	-4.47	AZL	89.94	HCA	122.38	SMA	228.23	ECC	.34162	INC	.0593
V1	29.294	RP	220.76	LAP	.05	LOP	50.93	VP	24.917	GAP	19.89	AZP	90.03	TAL	342.34	TAP	104.72	RCA	150.26
APO	306.19	V2	24.902	RC	86.480	GL	.38	GP	-6.81	ZAL	118.92	ZAP	165.84	ETS	210.09	ZAE	164.79	ETE	331.93
ZAC	77.41	ETC	283.29	LVI	-11.50														

PLANETOCENTRIC CONIC

C3	29.036	VHL	5.388	DLA	17.42	RAL	44.90	RAD	6646.6	VEL	12.206	PTH	7.16	VHP	6.485	DPA	7.62	RAP	38.64
ECC	1.4779																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 55 26	3576.62	-47.15	135.29	288.42	97.23	14 55 3	2576.6	-38.93	103.93
60.00	14 14 52	3524.86	-40.23	131.45	289.24	92.55	15 13 37	2524.9	-34.82	101.75
70.00	14 43 50	3439.58	-34.14	124.64	289.33	88.89	15 41 10	2439.6	-31.02	96.35
80.00	15 29 51	3295.38	-29.65	113.49	289.11	86.35	16 24 46	2295.4	-28.15	86.16
90.00	16 41 8	3065.27	-27.93	96.44	288.97	85.40	17 32 14	2065.3	-27.03	69.47
100.00	18 12 43	2769.85	-29.65	74.86	289.11	86.35	18 58 53	1769.8	-28.15	47.53
110.00	19 43 17	2486.40	-34.14	53.56	289.33	88.89	20 24 43	1486.4	-31.02	25.27

DIFFERENTIAL CORRECTIONS

TDE	-.4839	TRA	-1.5716	TC3	.3150	BAU	.1392												

MID-COURSE EXECUTION ACCURACY

SGT	1856.7	SGR	601.5	SG3	313.8														

ORBIT DETERMINATION ACCURACY

ST	36.8	SR	24.0	SS	31.5														

RDE	-.4411	RRA	.2944	RC3	-.1716	FAU	.07967	RRT	-.3546	RRF	.3983	RTF	-.8252	CRT	.5377	CRS	.6087	CST	.9945
FDE	.8030	FRA	2.1804	FC3	-2.3755	BSP	3133	SGB	1951.7	R23	-.0818	R13	.8289	LSA	50.6	MSA	19.0	SSA	1.4
BDE	.6548	BRA	1.5990	BC3	.3587	FSP	444	SG1	1870.1	SG2	558.4	THA	172.80	EL1	39.7	EL2	18.7	ALF	25.31

LAUNCH DATE JUL 11 1973 FLIGHT TIME 142.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 379.829 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	34.038	GAL	-4.38	AZL	89.90	HCA	123.49	SMA	226.21	ECC	.33552	INC	.1040
V1	29.294	RP	221.14	LAP	.09	LOP	52.04	VP	24.771	GAP	19.56	AZP	90.06	TAL	342.47	TAP	105.96	RCA	150.31
APO	302.10	V2	24.861	RC	88.416	GL	.67	GP	-7.07	ZAL	118.73	ZAP	165.01	ETS	209.41	ZAE	164.42	ETE	331.30
ZAC	77.10	ETC	283.27	LVI	-11.17														

PLANETOCENTRIC CONIC

C3	28.058	VHL	5.297	DLA	17.64	RAL	44.62	RAD	6646.2	VEL	12.166	PTH	7.13	VHP	6.309	DPA	7.48	RAP	39.01
ECC	1.4618																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 53 25	3572.65	-47.12	134.91	287.52	97.52	14 52 57	2572.7	-38.79	103.65
60.00	14 12 33	3521.71	-40.22	131.18	288.37	92.74	15 11 14	2521.7	-34.74	101.52
70.00	14 41 8	3437.56	-34.14	124.48	288.49	88.98	15 38 25	2437.6	-30.99	96.20
80.00	15 26 44	3294.62	-29.66	113.43	288.27	86.38	16 21 39	2294.6	-28.14	86.11
90.00	16 37 49	3065.17	-27.93	96.43	288.13	85.40	17 28 54	2065.2	-27.03	69.46
100.00	18 9 36	2769.10	-29.66	74.80	288.27	86.38	18 55 45	1769.1	-28.14	47.48
110.00	19 40 34	2484.38	-34.14	53.40	288.49	88.98	20 21 58	1484.4	-30.99	25.12

DIFFERENTIAL CORRECTIONS

TDE	-.4856	TRA	-1.5636	TC3	.3435	BAU	.1471												

MID-COURSE EXECUTION ACCURACY

SGT	1886.2	SGR	605.3	SG3	332.3														

ORBIT DETERMINATION ACCURACY

ST	37.4	SR	23.5	SS	32.7														

RDE	-.4245	RRA	.2992	RC3	-.1892	FAU	.08302	RRT	-.3806	RRF	.4272	RTF	-.8304	CRT	.5311	CRS	.6062	CST	.9942
FDE	.8481	FRA	2.2613	FC3	-2.5618	BSP	3200	SGB	1981.0	R23	-.0877	R13	.8344	LSA	51.6	MSA	18.8	SSA	1.4
BDE	.6450	BRA	1.5919	BC3	.3922	FSP	475	SG1	1901.6	SG2	555.2	THA	172.38	EL1	40.1	EL2	18.6	ALF	23.93

LAUNCH DATE JUL 11 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 383.076 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.966	GAL	-4.29	AZL	89.85	HCA	124.59	SMA	224.32	ECC	.32973	INC	.1485
V1	29.294	RP	221.52	LAP	.12	LOP	53.15	VP	24.630	GAP	19.24	AZP	90.08	TAL	342.59	TAP	107.19	RCA	150.36
APO	298.29	V2	24.819	RC	90.414	GL	.97	GP	-7.33	ZAL	118.53	ZAP	164.17	ETS	208.82	ZAE	164.11	ETE	330.55
ZAC	76.79	ETC	283.26	LVI	-10.84														

PLANETOCENTRIC CONIC

C3	27.142	VHL	5.210	DLA	17.87	RAL	44.34	RAD	6645.9	VEL	12.128	PTH	7.10	VHP	6.139	DPA	7.33	RAP	39.37
ECC	1.4487																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 51 18	3569.24	-47.09	134.59	286.65	97.77	14 50 47	2569.2	-38.67	103.40
60.00	14 10 6	3519.17	-40.22	130.97	287.54	92.88	15 8 45	2519.2	-34.68	101.34
70.00	14 38 17	3436.22	-34.14	124.38	287.66	89.05	15 35 33	2436.2	-30.96	96.11
80.00	15 23 27	3294.65	-29.66	113.43	287.45	86.38	16 18 21	2294.7	-28.14	86.11
90.00	16 34 19	3065.91	-27.93	96.46	287.31	85.38	17 25 25	2065.9	-27.04	69.51
100.00	18 6 19	2769.13	-29.66	74.80	287.45	86.38	18 52 28	1769.1	-28.14	47.48
110.00	19 37 43	2483.04	-34.14	53.29	287.66	89.05	20 19 6	1483.0	-30.96	25.02

DIFFERENTIAL CORRECTIONS

TDE	-.4877	TRA	-1.5549	TC3	.3727	BAU	.1550												

MID-COURSE EXECUTION ACCURACY

SGT	1914.9	SGR	610.1	SG3	351.9														

ORBIT DETERMINATION ACCURACY

ST	38.0	SR	23.0	SS	34.0														

RDE	-.4078	RRA	.3046	RC3	-.2085	FAU	.08655	RRT	-.4077	RRF	.4573	RTF	-.8353	CRT	.5238	CRS	.6029	CST	.9938
FDE	.8966	FRA	2.3447	FC3	-2.7607	BSP	3260	SGB	2009.7	R23	-.0940	R13	.8397	LSA	52.8	MSA	18.6	SSA	1.4
BDE	.6357	BRA	1.5845	BC3	.4270	FSP	506	SG1	1932.5	SG2	552.0	THA	171.94	EL1	40.5	EL2	18.4	ALF	22.54

LAUNCH DATE JUL 11 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 386.369 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.897	GAL	-4.21	AZL	89.81	HCA	125.70	SMA	222.57	ECC	.32423	INC	.1945
V1	29.294	RP	221.90	LAP	.16	LOP	54.25	VP	24.492	GAP	18.92	AZP	90.11	TAL	342.72	TAP	108.42	RCA	150.40
APO	294.73	V2	24.778	RC	92.473	GL	1.28	GP	-7.61	ZAL	118.33	ZAP	163.31	ETS	208.30	ZAE	163.85	ETE	329.67
ZAC	76.46	ETC	283.25	LVI	-10.49														

PLANETOCENTRIC CONIC

C3	26.285	VHL	5.127	DLA	18.12	RAL	44.05	RAD	6645.5	VEL	12.093	PTH	7.07	VHP	5.974	DPA	7.16	RAP	39.73
ECC	1.4326																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 49 5	3566.41	-47.06	134.32	285.82	97.97	14 48 32	2566.4	-38.58	103.20
60.00	14 7 33	3517.26	-40.21	130.80	286.73	92.99	15 6 10	2517.3	-34.63	101.20
70.00	14 35 17	3435.59	-34.14	124.33	286.86	89.07	15 32 33	2435.6	-30.95	96.06
80.00	15 19 59	3295.50	-29.65	113.50	286.65	86.35	16 14 54	2295.5	-28.15	86.17
90.00	16 30 37	3067.52	-27.92	96.60	286.51	85.32	17 21 44	2067.5	-27.06	69.63
100.00	18 2 51	2769.97	-29.65	74.87	286.65	86.35	18 49 1	1770.0	-28.15	47.54
110.00	19 34 44	2482.41	-34.14	53.25	286.86	89.07	20 16 6	1482.4	-30.95	24.98

DIFFERENTIAL CORRECTIONS

TDE	-.4901	TRA	-1.5456	TC3	.4024	BAU	.1627												

MID-COURSE EXECUTION ACCURACY

SGT	1942.5	SGR	616.1	SG3	372.5														

ORBIT DETERMINATION ACCURACY

ST	38.6	SR	22.5	SS	35.3														

RDE	-.3910	RRA	.3105	RC3	-.2293	FAU	.09027	RRT	-.4356	RRF	.4885	RTF	-.8398	CRT	.5155	CRS	.5988	CST	.9934
FDE	.9486	FRA	2.4307	FC3	-2.9731	BSP	3326	SGB	2037.8	R23	-.1009	R13	.8448	LSA	53.9	MSA	18.4	SSA	1.4
BDE	.6270	BRA	1.5765	BC3	.4631	FSP	541	SG1	1962.5	SG2	548.9	THA	171.46	EL1	40.8	EL2	18.3	ALF	21.15

LAUNCH DATE JUL 11 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 389.704 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.831	GAL	-4.12	AZL	89.76	HCA	126.79	SMA	220.93	ECC	.31901	INC	.2414	V1	29.294
RP	222.26	LAP	.19	LOP	35.35	VP	24.360	GAP	18.60	AZP	90.14	TAL	342.85	TAP	109.64	RCA	150.45	APO	291.41	V2	24.736
RC	94.587	GL	1.62	GP	-7.90	ZAL	118.13	ZAP	162.43	ETS	207.85	ZAE	163.63	ETE	328.67	ZAC	76.12	ETC	283.24	LVI	-10.14

PLANETOCENTRIC CONIC

C3	25.482	VHL	5.048	DLA	18.38	RAL	43.75	RAD	6645.2	VEL	12.080	PTH	7.04	VHP	5.814	DPA	6.97	RAP	40.07	ECC	1.4194

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 46 47	3564.17	-47.04	134.10	285.02	98.14	14 46 11	2564.2	-38.50	103.04
60.00	14 4 52	3516.00	-40.20	130.70	285.94	93.06	15 3 28	2516.0	-34.60	101.11
70.00	14 32 9	3435.71	-34.14	124.34	286.08	89.07	15 29 24	2435.7	-30.95	96.07
80.00	15 16 20	3297.20	-29.65	113.62	285.87	86.28	16 11 17	2297.2	-28.17	86.29
90.00	16 26 42	3070.05	-27.91	96.78	285.72	85.23	17 17 52	2070.0	-27.08	69.81
100.00	17 59 12	2771.67	-29.65	74.99	285.87	86.28	18 45 24	1771.7	-28.17	47.66
110.00	19 31 35	2482.52	-34.14	53.25	286.08	89.07	20 12 58	1482.5	-30.95	24.99

DIFFERENTIAL CORRECTIONS

TDE	-.4920	TRA	-1.5357	TC3	.4324	BAU	.1705									ST	39.2	SR	22.0	SS	36.6
RDE	-.3741	RRA	.3171	RC3	-.2520	FAU	.09416									CRT	.5054	CRS	.5931	CBT	.9930
FDE	1.0037	FRA	2.5199	FC3	-3.1990	BSP	3384									LSA	55.1	MSA	18.1	SSA	1.4
BDE	.6181	BRA	1.5681	BC3	.5004	FSP	576									EL1	41.2	EL2	18.1	ALF	19.77

MID-COURSE EXECUTION ACCURACY

SGT	1968.8	SGR	623.5	SG3	394.2				
RRT	-.4647	RRF	.5206	RTF	-.8441				
SGB	2065.1	R23	-.1080	R13	.8497				
SG1	1991.7	SG2	545.7	THA	170.94				

ORBIT DETERMINATION ACCURACY

LAUNCH DATE JUL 11 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 393.077 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.769	GAL	-4.04	AZL	89.71	HCA	127.89	SMA	219.40	ECC	.31406	INC	.2894	V1	29.294
RP	222.67	LAP	.23	LOP	36.45	VP	24.231	GAP	18.28	AZP	90.10	TAL	342.98	TAP	110.87	RCA	150.49	APO	288.30	V2	24.694
RC	96.756	GL	1.96	GP	-8.21	ZAL	117.92	ZAP	161.53	ETS	207.45	ZAE	163.46	ETE	327.58	ZAC	75.77	ETC	283.23	LVI	-9.78

PLANETOCENTRIC CONIC

C3	24.731	VHL	4.973	DLA	18.65	RAL	43.44	RAD	6644.9	VEL	12.029	PTH	7.02	VHP	5.659	DPA	6.76	RAP	40.40	ECC	1.4070

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 44 23	3562.53	-47.03	133.95	284.25	98.26	14 43 45	2562.5	-38.44	102.93
60.00	14 2 5	3515.40	-40.20	130.65	285.19	93.10	15 0 40	2515.4	-34.58	101.07
70.00	14 26 51	3436.59	-34.14	124.41	285.33	89.03	15 26 7	2436.6	-30.97	96.13
80.00	15 12 29	3299.79	-29.63	113.81	285.11	86.18	16 7 29	2299.8	-28.20	86.48
90.00	16 22 35	3073.54	-27.89	97.04	284.98	85.10	17 13 48	2073.5	-27.12	70.06
100.00	17 55 21	2774.26	-29.63	75.18	285.11	86.18	18 41 36	1774.3	-28.20	47.85
110.00	19 28 17	2483.40	-34.14	53.32	285.33	89.03	20 9 41	1483.4	-30.97	25.05

DIFFERENTIAL CORRECTIONS

TDE	-.4942	TRA	-1.5245	TC3	.4628	BAU	.1783									ST	39.8	SR	21.4	SS	38.0
RDE	-.3569	RRA	.3241	RC3	-.2765	FAU	.09826									CRT	.4939	CRS	.5864	CBT	.9928
FDE	1.0631	FRA	2.6108	FC3	-3.4396	BSP	3440									LSA	56.3	MSA	17.9	SSA	1.5
BDE	.6096	BRA	1.5586	BC3	.5391	FSP	614									EL1	41.5	EL2	17.8	ALF	18.38

MID-COURSE EXECUTION ACCURACY

SGT	1993.1	SGR	632.8	SG3	416.9				
RRT	-.4943	RRF	.5533	RTF	-.8482				
SGB	2091.1	R23	-.1154	R13	.8543				
SG1	2019.4	SG2	542.7	THA	170.38				

ORBIT DETERMINATION ACCURACY

LAUNCH DATE JUL 11 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 396.485 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.711	GAL	-3.97	AZL	89.66	HCA	128.98	SMA	217.96	ECC	.30936	INC	.3389	V1	29.294
RP	223.06	LAP	.26	LOP	37.54	VP	24.106	GAP	17.97	AZP	90.21	TAL	343.11	TAP	112.09	RCA	150.53	APO	285.39	V2	24.652
RC	98.976	GL	2.33	GP	-8.54	ZAL	117.71	ZAP	160.62	ETS	207.11	ZAE	163.32	ETE	326.29	ZAC	75.41	ETC	283.23	LVI	-9.41

PLANETOCENTRIC CONIC

C3	24.029	VHL	4.902	DLA	18.94	RAL	43.12	RAD	6644.6	VEL	12.000	PTH	6.99	VHP	5.510	DPA	6.53	RAP	40.72	ECC	1.3955

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 41 53	3561.51	-47.02	133.85	283.53	98.33	14 41 14	2561.5	-38.41	102.85
60.00	13 59 9	3515.51	-40.20	130.65	284.47	93.09	14 57 45	2515.5	-34.58	101.07
70.00	14 25 23	3438.26	-34.14	124.54	284.60	88.95	15 22 42	2438.3	-31.00	96.25
80.00	15 8 26	3303.32	-29.62	114.08	284.37	86.05	16 3 30	2303.3	-28.25	86.73
90.00	16 18 13	3078.05	-27.86	97.37	284.21	84.94	17 9 31	2078.1	-27.16	70.38
100.00	17 51 18	2777.79	-29.62	75.44	284.37	86.05	18 37 36	1777.8	-28.25	48.10
110.00	19 24 50	2485.08	-34.14	53.45	284.60	88.95	20 6 15	1485.1	-31.00	25.17

DIFFERENTIAL CORRECTIONS

TDE	-.4967	TRA	-1.5129	TC3	.4930	BAU	.1859									ST	40.4	SR	20.8	SS	39.8
RDE	-.3395	RRA	.3319	RC3	-.3031	FAU	.10254									CRT	.4805	CRS	.5776	CBT	.9920
FDE	1.1268	FRA	2.7058	FC3	-3.6943	BSP	3494									LSA	57.5	MSA	17.6	SSA	1.5
BDE	.6016	BRA	1.5489	BC3	.5787	FSP	653									EL1	41.9	EL2	17.6	ALF	16.97

MID-COURSE EXECUTION ACCURACY

SGT	2018.5	SGR	643.5	SG3	440.8				
RRT	-.5242	RRF	.5864	RTF	-.8521				
SGB	2116.6	R23	-.1234	R13	.8589				
SG1	2046.6	SG2	539.9	THA	169.79				

ORBIT DETERMINATION ACCURACY

LAUNCH DATE JUL 11 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 399.926 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.655	GAL	-3.89	AZL	89.61	HCA	130.07	SMA	216.62	ECC	.30490	INC	.3895	V1	29.294
RP	223.44	LAP	.30	LOP	38.62	VP	23.985	GAP	17.66	AZP	90.25	TAL	343.24	TAP	113.31	RCA	150.57	APO	282.67	V2	24.611
RC	101.244	GL	2.71	GP	-8.88	ZAL	117.50	ZAP	159.68	ETS	206.80	ZAE	163.21	ETE	324.88	ZAC	75.03	ETC	283.23	LVI	-9.03

PLANETOCENTRIC CONIC

C3	23.372	VHL	4.834	DLA	19.25	RAL	42.80	RAD	6644.3	VEL	11.973	PTH	6.97	VHP	5.368	DPA	6.27	RAP	41.02	ECC	1.3846

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 39 16	3561.14	-47.01	133.82	282.83	98.36	14 38 38	2561.1	-38.40	102.83
60.00	13 56 6	3516.32	-40.21	130.72	283.77	93.05	14 54 43	2516.3	-34.60	101.13
70.00	14 21 46	3440.78	-34.14	124.73	283.90	88.83	15 19 6	2440.8	-31.04	96.44
80.00	15 4 10	3307.84	-29.60	114.41	283.65	85.87	15 59 18	2307.8	-28.30	87.06
90.00	16 13 37	3083.64	-27.83	97.77	283.48	84.74	17 5 1	2083.6	-27.21	70.78
100.00	17 47 2	2782.31	-29.60	75.78	283.65	85.87	18 33 24	1782.3	-28.30	48.43
110.00	19 21 12	2487.59	-34.14	53.65	283.90	88.83	20 2 40	1487.6	-31.04	25.35

DIFFERENTIAL CORRECTIONS

TDE	-.4993	TRA	-1.5007	TC3	.5226	BAU	.1934									ST	40.9	SR	20.1	SS	41.0
RDE	-.3218	RRA	.3404	RC3	-.3319	FAU	.10705									CRT	.4648	CRS	.5666	CBT	.9915
FDE	1.1947	FRA	2.8028	FC3	-3.9652	BSP	3549									LSA	58.8	MSA	17.3	SSA	1.5
BDE	.5940	BRA	1.5388	BC3	.6191	FSP	695									EL1	42.2	EL2	17.3	ALF	15.55

MID-COURSE EXECUTION ACCURACY

SGT	2038.3	SGR	656.5	SG3	465.9				
RRT	-.5540	RRF	.6196	RTF	-.8555				
SGB	2141.4	R23	-.1322	R13	.8631				
SG1	2072.9	SG2	537.4	THA	169.14				

ORBIT DETERMINATION ACCURACY

LAUNCH DATE JUL 11 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 403.397 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.602	GAL	-3.82	AZL	89.56	HCA	131.18	SMA	215.37	ECC	.30067	INC	.4418	V1	29.294
RP	223.83	LAP	.33	LOP	59.71	VP	23.867	GAP	17.36	AZP	90.29	TAL	343.37	TAP	114.52	RCA	150.81	APO	280.12	V2	24.569
RC	103.360	GL	3.11	GP	-9.24	ZAL	117.28	ZAP	158.72	ETS	206.54	ZAE	163.14	ETE	323.33	ZAC	74.65	ETC	283.23	LVI	-8.63

PLANETOCENTRIC CONIC

C3	22.756	VHL	4.770	DLA	19.87	RAL	42.46	RAD	6644.0	VEL	11.946	PTH	6.95	VHP	5.225	DPA	5.99	RAP	41.31	ECC	1.3745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 36 33	3561.39	-47.01	133.84	282.18	98.34	14 35 55	2561.4	-38.40	102.85
60.00	13 52 54	3517.85	-40.21	130.85	283.11	92.86	14 51 32	2517.8	-34.64	101.24
70.00	14 17 57	3444.12	-34.13	124.99	283.22	88.68	15 15 21	2444.1	-31.10	98.68
80.00	14 59 40	3313.35	-29.87	114.82	282.95	85.66	15 54 53	2313.4	-28.36	87.46
90.00	16 8 45	3090.33	-27.78	98.26	282.78	84.50	17 0 15	2090.3	-27.28	71.26
100.00	17 42 31	2787.83	-29.57	76.19	282.95	85.66	18 28 59	1787.8	-28.36	48.83
110.00	19 17 23	2490.94	-34.13	53.91	283.22	88.68	19 58 54	1490.9	-31.10	25.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4865	TRA	-1.4743	TC3	.5758	BAU	.2070	SGT	2043.9	SGR	672.0	SG3	492.3	ST	40.7	SR	18.4	SS	42.6
RDE	-.3038	RRA	.3494	RC3	-.3631	FAU	.11177	RRT	-.5921	RRF	.6524	RTF	-.8650	CRT	.4381	CRS	.5531	CST	.9899
FDE	1.2674	FRA	2.9019	FC3	-4.2524	BSP	3438	SGB	2151.5	R23	-.1279	R13	.8730	LSA	59.6	MSA	17.0	SSA	1.5
BDE	.5753	BRA	1.5151	BC3	.6806	FSP	738	SG1	2085.0	SG2	530.9	THA	168.21	EL1	41.8	EL2	17.0	ALF	14.23

LAUNCH DATE JUL 11 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 406.894 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.551	GAL	-3.75	AZL	89.50	HCA	132.23	SMA	214.19	ECC	.29686	INC	.4955	V1	29.294
RP	224.22	LAP	.37	LOP	60.79	VP	23.753	GAP	17.05	AZP	90.33	TAL	343.50	TAP	115.73	RCA	150.65	APO	277.73	V2	24.527
RC	105.921	GL	3.53	GP	-9.62	ZAL	117.07	ZAP	157.74	ETS	206.31	ZAE	163.08	ETE	321.62	ZAC	74.24	ETC	283.24	LVI	-8.22

PLANETOCENTRIC CONIC

C3	22.183	VHL	4.710	DLA	19.91	RAL	42.13	RAD	6643.8	VEL	11.924	PTH	6.93	VHP	5.090	DPA	5.69	RAP	41.59	ECC	1.3651

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 33 44	3562.37	-47.02	133.93	281.57	98.27	14 33 7	2562.4	-38.44	102.92
60.00	13 49 35	3520.18	-40.22	131.05	282.48	92.82	14 48 15	2520.2	-34.70	101.41
70.00	14 13 57	3448.41	-34.12	125.33	282.57	88.48	15 11 25	2448.4	-31.18	98.99
80.00	14 54 54	3320.02	-29.53	115.31	282.28	85.40	15 50 14	2320.0	-28.44	87.94
90.00	16 3 36	3098.30	-27.73	98.83	282.09	84.22	16 55 14	2098.3	-27.35	71.83
100.00	17 37 46	2794.49	-29.53	76.68	282.28	85.40	18 24 21	1794.5	-28.44	49.31
110.00	19 13 23	2495.23	-34.12	54.25	282.57	88.48	19 54 59	1495.2	-31.18	25.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4966	TRA	-1.4656	TC3	.5944	BAU	.2119	SGT	2067.7	SGR	690.1	SG3	519.8	ST	41.5	SR	18.7	SS	44.3
RDE	-.2853	RRA	.3593	RC3	-.3967	FAU	.11669	RRT	-.6177	RRF	.6846	RTF	-.8652	CRT	.4189	CRS	.5360	CST	.9898
FDE	1.3455	FRA	3.0044	FC3	-4.5541	BSP	3558	SGB	2179.8	R23	-.1428	R13	.8745	LSA	61.3	MSA	16.7	SSA	1.5
BDE	.5727	BRA	1.5092	BC3	.7146	FSP	785	SG1	2114.2	SG2	530.7	THA	167.56	EL1	42.4	EL2	16.6	ALF	12.68

LAUNCH DATE JUL 11 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 410.417 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.503	GAL	-3.69	AZL	89.45	HCA	133.31	SMA	213.09	ECC	.29285	INC	.5510	V1	29.294
RP	224.61	LAP	.40	LOP	61.86	VP	23.642	GAP	16.75	AZP	90.38	TAL	343.63	TAP	116.93	RCA	150.69	APO	275.49	V2	24.485
RC	108.326	GL	3.96	GP	-10.02	ZAL	116.86	ZAP	156.74	ETS	206.12	ZAE	163.05	ETE	319.75	ZAC	73.82	ETC	283.25	LVI	-7.80

PLANETOCENTRIC CONIC

C3	21.647	VHL	4.653	DLA	20.27	RAL	41.79	RAD	6643.6	VEL	11.901	PTH	6.91	VHP	4.959	DPA	5.36	RAP	41.86	ECC	1.3563

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 30 48	3564.04	-47.04	134.09	281.00	98.15	14 30 12	2564.0	-38.50	103.03
60.00	13 46 6	3523.31	-40.23	131.32	281.89	92.64	14 44 49	2523.3	-34.78	101.64
70.00	14 9 45	3453.65	-34.11	125.74	281.95	88.24	15 7 19	2453.7	-31.27	97.37
80.00	14 49 53	3327.85	-29.49	115.89	281.63	85.10	15 45 21	2327.8	-28.53	88.50
90.00	15 58 7	3107.56	-27.67	99.50	281.43	83.89	16 49 55	2107.6	-27.43	72.50
100.00	17 32 45	2802.32	-29.49	77.26	281.63	85.10	18 19 27	1802.3	-28.53	49.87
110.00	19 9 11	2500.47	-34.11	54.65	281.95	88.24	19 50 52	1500.5	-31.27	26.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5033	TRA	-1.4551	TC3	.6150	BAU	.2176	SGT	2088.1	SGR	711.1	SG3	548.6	ST	42.2	SR	17.9	SS	46.1
RDE	-.2561	RRA	.3701	RC3	-.4328	FAU	.12180	RRT	-.6435	RRF	.7159	RTF	-.8662	CRT	.3939	CRS	.5146	CST	.9895
FDE	1.4303	FRA	3.1104	FC3	-4.8712	BSP	3652	SGB	2205.9	R23	-.1565	R13	.8767	LSA	62.9	MSA	16.3	SSA	1.5
BDE	.5693	BRA	1.5014	BC3	.7520	FSP	834	SG1	2141.0	SG2	530.8	THA	166.82	EL1	42.9	EL2	16.2	ALF	11.11

LAUNCH DATE JUL 11 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 413.963 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.458	GAL	-3.62	AZL	89.39	HCA	134.38	SMA	212.06	ECC	.28924	INC	.6082	V1	29.294
RP	225.00	LAP	.43	LOP	62.94	VP	23.534	GAP	16.45	AZP	90.43	TAL	343.75	TAP	118.13	RCA	150.72	APO	273.39	V2	24.443
RC	110.773	GL	4.42	GP	-10.44	ZAL	116.64	ZAP	155.71	ETS	205.95	ZAE	163.02	ETE	317.71	ZAC	73.39	ETC	283.26	LVI	-7.36

PLANETOCENTRIC CONIC

C3	21.148	VHL	4.599	DLA	20.65	RAL	41.44	RAD	6643.3	VEL	11.881	PTH	6.89	VHP	4.833	DPA	5.00	RAP	42.11	ECC	1.3480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 27 45	3566.42	-47.06	134.32	280.47	97.97	14 27 12	2566.4	-38.58	103.20
60.00	13 42 28	3527.25	-40.24	131.65	281.33	92.42	14 41 15	2527.2	-34.88	101.93
70.00	14 5 20	3459.68	-34.10	126.22	281.35	87.95	15 3 0	2459.9	-31.37	97.83
80.00	14 44 34	3336.91	-29.44	116.55	281.00	84.75	15 40 10	2336.9	-28.62	89.16
90.00	15 52 18	3118.21	-27.59	100.27	280.78	83.51	16 44 16	2118.2	-27.52	73.26
100.00	17 27 25	2811.38	-29.44	77.92	281.00	84.75	18 14 17	1811.4	-28.62	50.53
110.00	19 4 46	2506.70	-34.10	55.14	281.35	87.95	19 46 33	1506.7	-31.37	26.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5081	TRA	-1.4410	TC3	.6381	BAU	.2244	SGT	2103.8	SGR	735.2	SG3	578.7	ST	42.8	SR	17.1	SS	47.9
RDE	-.2462	RRA	.3816	RC3	-.4718	FAU	.12715	RRT	-.6693	RRF	.7458	RTF	-.8678	CRT	.3622	CRS	.4878	CST	.9891
FDE	1.5212	FRA	3.2178	FC3	-5.2052	BSP	3719	SGB	2228.6	R23	-.1685	R13	.8798	LSA	64.5	MSA	16.0	SSA	1.6
BDE	.5647	BRA	1.4907	BC3	.7936	FSP	885	SG1	2164.4	SG2	531.0	THA	165.97	EL1	43.3	EL2	15.8	ALF	9.53

LAUNCH DATE JUL 11 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 417.530 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.415	GAL	-3.56	AZL	89.33	HCA	135.45	SMA	211.09	ECC	.28582	INC	.6673	V1	29.294
RP	225.39	LAP	.47	LOP	64.01	VP	23.429	GAP	16.16	AZP	90.48	TAL	343.88	TAP	119.32	RCA	150.75	APO	271.42	V2	24.401
RC	113.259	GL	4.90	GP	-10.88	ZAL	116.43	ZAP	154.66	ETS	205.81	ZAE	163.00	ETE	315.49	ZAC	72.93	ETC	283.28	LVI	-6.91

PLANETOCENTRIC CONIC

C3	20.683	VHL	4.548	DLA	21.04	RAL	41.09	RAD	6643.1	VEL	11.861	PTH	6.88	VHP	4.712	DPA	4.62	RAP	42.35	ECC	1.3404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 24 34	3569.55	-47.09	134.61	279.98	97.75	14 24 4	2569.6	-38.69	103.42
60.00	13 38 39	3532.05	-40.25	132.06	280.80	92.14	14 37 31	2532.0	-35.00	102.28
70.00	14 0 41	3467.15	-34.08	126.79	280.78	87.62	14 58 28	2467.1	-31.49	98.36
80.00	14 36 55	3347.29	-29.37	117.32	280.39	84.36	15 34 42	2347.3	-28.73	89.91
90.00	15 46 6	3130.37	-27.49	101.15	280.16	83.08	16 38 17	2130.4	-27.81	74.14
100.00	17 21 47	2821.77	-29.37	78.69	280.39	84.36	18 8 49	1821.8	-28.73	51.28
110.00	19 0 8	2513.97	-34.08	55.71	280.78	87.62	19 42 2	1514.0	-31.49	27.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5118	TRA	-1.4287	TC3	.6606	BAU	.2314	SGT	2116.7	SGR	783.0	SG3	610.1	ST	43.3	SR	16.3	SS	49.8
RDE	-.2257	RRA	.3940	RC3	-.5138	FAU	.13272	RRT	-.6941	RRF	.7742	RTF	-.8694	CRT	.3220	CRS	.4536	CST	.9885
FDE	1.6160	FRA	3.3282	FC3	-5.5582	BSP	3779	SGB	2250.0	R23	-.1802	R13	.8830	LSA	66.2	NSA	15.6	SSA	1.6
BDE	.8594	BRA	1.4791	BC3	.8369	FSP	930	SG1	2186.3	SG2	531.8	THA	165.05	EL1	43.6	EL2	15.3	ALF	7.90

LAUNCH DATE JUL 11 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 421.117 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.374	GAL	-3.51	AZL	89.27	HCA	136.51	SMA	210.18	ECC	.28287	INC	.7285	V1	29.294
RP	225.78	LAP	.50	LOP	65.07	VP	23.327	GAP	15.87	AZP	90.53	TAL	344.00	TAP	120.51	RCA	150.79	APO	269.86	V2	24.359
RC	115.782	GL	5.40	GP	-11.35	ZAL	116.22	ZAP	153.58	ETS	205.69	ZAE	162.97	ETE	313.09	ZAC	72.46	ETC	283.31	LVI	-6.44

PLANETOCENTRIC CONIC

C3	20.251	VHL	4.500	DLA	21.46	RAL	40.73	RAD	6642.9	VEL	11.843	PTH	6.86	VHP	4.594	DPA	4.20	RAP	42.57	ECC	1.3333

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 21 16	3573.45	-47.13	134.98	279.54	97.46	14 20 49	2573.5	-38.82	103.70
60.00	13 34 40	3537.74	-40.27	132.54	280.31	91.81	14 33 38	2537.7	-35.14	102.69
70.00	13 55 48	3475.52	-34.06	127.44	280.24	87.23	14 53 43	2475.5	-31.63	98.98
80.00	14 32 58	3359.11	-29.29	118.19	279.81	83.91	15 28 54	2359.1	-28.85	90.77
90.00	15 39 29	3144.19	-27.37	102.14	279.55	82.60	16 31 53	2144.2	-27.71	75.14
100.00	17 15 47	2833.58	-29.29	79.56	279.81	83.91	18 3 1	1833.6	-28.85	52.14
110.00	18 55 14	2522.34	-34.06	56.36	280.24	87.23	19 37 16	1522.3	-31.63	27.89

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5146	TRA	-1.4086	TC3	.6821	BAU	.2388	SGT	2126.0	SGR	794.6	SG3	642.8	ST	43.7	SR	15.5	SS	51.8
RDE	-.2044	RRA	.4073	RC3	-.5590	FAU	.13649	RRT	-.7176	RRF	.8007	RTF	-.8710	CRT	.2718	CRS	.4103	CST	.9879
FDE	1.7211	FRA	3.4399	FC3	-5.9205	BSP	3820	SGB	2269.6	R23	-.1915	R13	.8864	LSA	67.8	NSA	15.3	SSA	1.6
BDE	.9537	BRA	1.4663	BC3	.8819	FSP	994	SG1	2206.1	SG2	533.3	THA	164.03	EL1	43.9	EL2	14.8	ALF	6.21

LAUNCH DATE JUL 11 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 424.722 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.335	GAL	-3.45	AZL	89.21	HCA	137.57	SMA	209.32	ECC	.27949	INC	.7919	V1	29.294
RP	226.17	LAP	.53	LOP	66.13	VP	23.228	GAP	15.58	AZP	90.58	TAL	344.12	TAP	121.69	RCA	150.82	APO	267.82	V2	24.318
RC	116.341	GL	5.93	GP	-11.84	ZAL	116.00	ZAP	152.47	ETS	205.60	ZAE	162.93	ETE	310.50	ZAC	71.97	ETC	283.34	LVI	-5.95

PLANETOCENTRIC CONIC

C3	19.850	VHL	4.455	DLA	21.91	RAL	40.37	RAD	6642.8	VEL	11.826	PTH	6.85	VHP	4.481	DPA	3.75	RAP	42.78	ECC	1.3267

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 17 49	3578.15	-47.17	135.43	279.14	97.12	14 17 27	2578.2	-38.98	104.04
60.00	13 30 29	3544.37	-40.28	133.11	279.85	91.43	14 29 34	2544.4	-35.30	103.18
70.00	13 50 37	3485.07	-34.02	128.19	279.73	86.80	14 48 43	2485.1	-31.78	99.68
80.00	14 26 32	3372.47	-29.19	119.17	279.24	83.40	15 22 44	2372.5	-28.97	91.75
90.00	15 32 24	3159.82	-27.23	103.26	278.96	82.05	16 25 4	2159.8	-27.82	76.27
100.00	17 9 24	2846.94	-29.19	80.54	279.24	83.40	17 56 51	1846.9	-28.97	53.11
110.00	18 50 4	2531.89	-34.02	57.10	279.73	86.80	19 32 16	1531.9	-31.78	28.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5178	TRA	-1.3905	TC3	.7018	BAU	.2463	SGT	2132.9	SGR	830.2	SG3	676.7	ST	44.1	SR	14.6	SS	54.0
RDE	-.1819	RRA	.4215	RC3	-.6076	FAU	.14448	RRT	-.7392	RRF	.8253	RTF	-.8824	CRT	.2096	CRS	.3550	CST	.9873
FDE	1.8329	FRA	3.5537	FC3	-6.3013	BSP	3870	SGB	2288.7	R23	-.2028	R13	.8898	LSA	69.6	NSA	14.9	SSA	1.6
BDE	.9488	BRA	1.4530	BC3	.9282	FSP	1053	SG1	2225.1	SG2	536.0	THA	162.93	EL1	44.2	EL2	14.3	ALF	4.44

LAUNCH DATE JUL 11 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 428.344 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.299	GAL	-3.40	AZL	89.14	HCA	138.63	SMA	208.81	ECC	.27658	INC	.8577	V1	29.294
RP	226.56	LAP	.57	LOP	67.19	VP	23.132	GAP	15.29	AZP	90.64	TAL	344.23	TAP	122.66	RCA	150.84	APO	266.19	V2	24.276
RC	120.933	GL	6.47	GP	-12.36	ZAL	115.80	ZAP	151.34	ETS	205.52	ZAE	162.87	ETE	307.73	ZAC	71.45	ETC	283.37	LVI	-5.45

PLANETOCENTRIC CONIC

C3	19.479	VHL	4.413	DLA	22.37	RAL	40.00	RAD	6642.6	VEL	11.811	PTH	6.83	VHP	4.373	DPA	3.27	RAP	42.98	ECC	1.3206

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 14 13	3583.68	-47.21	135.96	278.79	96.72	14 13 56	2583.7	-39.16	104.44
60.00	13 26 7	3551.98	-40.29	133.75	279.43	90.99	14 25 19	2552.0	-35.49	103.75
70.00	13 45 10	3495.86	-33.98	129.02	279.25	86.30	14 43 26	2495.9	-31.95	100.48
80.00	14 19 42	3387.53	-29.06	120.27	278.70	82.83	15 16 10	2387.5	-29.10	92.85
90.00	15 24 46	3177.48	-27.06	104.53	278.38	81.44	16 17 43	2177.5	-27.92	77.55
100.00	17 2 34	2862.00	-29.06	81.64	278.70	82.83	17 50 16	1862.0	-29.10	54.21
110.00	18 44 36	2542.68	-33.98	57.94	279.25	86.30	19 26 59	1542.7	-31.95	29.39

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5201	TRA	-1.3711	TC3	.7201	BAU	.2544	SGT	2136.6	SGR	870.4	SG3	712.0	ST	44.4	SR	13.8	SS	56.2
RDE	-.1584	RRA	.4368	RC3	-.6599	FAU	.15073	RRT	-.7591	RRF	.8478	RTF	-.8737	CRT	.1315	CRS	.2844	CST	.9865
FDE	1.9517	FRA	3.6688	FC3	-6.6993	BSP	3902	SGB	2307.1	R23	-.2135	R13	.8934	LSA	71.5	NSA	14.5	SSA	1.6
BDE	.5437	BRA	1.4390	BC3	.9767	FSP	1113	SG1	2243.1	SG2	539.7	THA	161.72	EL1	44.5	EL2	13.7	ALF	2.59

LAUNCH DATE JUL 11 1973 FLIGHT TIME 172.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 431.981 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.264	GAL	-3.38	AZL	89.07	HCA	139.68	SMA	207.76	ECC	.27382	INC	.9262
RP	226.96	LAP	.60	LOP	68.24	VP	23.038	GAP	15.00	AZP	90.71	TAL	344.34	TAP	124.02	RCA	150.87	APO	264.65
RC	123.886	GL	7.05	GP	-12.91	ZAL	115.89	ZAP	150.18	ETS	205.45	ZAE	162.78	ETE	304.78	ZAC	70.92	ETC	283.41

VI	29.294	V2	24.234	LVI	-4.92
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PLANETOCENTRIC CONIC

C3	19.136	VHL	4.375	DLA	22.87	RAL	39.63	RAD	6642.8	VEL	11.706	PTH	6.82	VHP	4.268	DPA	2.75	RAP	43.16

ECC	1.3149

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 10 27	3580.08	-47.26	136.57	278.48	96.25	14 10 17	2590.1	-38.38	104.90
60.00	13 21 30	3560.62	-40.30	134.49	279.06	90.49	14 20 51	2560.6	-35.69	104.39
70.00	13 39 22	3507.99	-33.92	129.97	278.79	85.75	14 37 50	2508.0	-32.12	101.38
80.00	14 12 23	3404.46	-28.91	121.51	278.17	82.20	15 9 7	2404.5	-29.23	94.09
90.00	15 16 30	3197.42	-26.85	105.95	277.82	80.76	16 9 48	2197.4	-28.02	79.00
100.00	16 58 15	2878.93	-28.91	82.87	278.17	82.20	17 43 14	1878.9	-29.23	55.45
110.00	18 38 49	2554.81	-33.92	58.89	278.79	85.75	19 21 24	1554.8	-32.12	30.29

DIFFERENTIAL CORRECTIONS

TDE	-.5223	TRA	-1.3507	TC3	.7353	BAU	.2625												
RDE	-.1338	RRA	.4531	RC3	-.7158	FAU	.15713												
FDE	2.0796	FRA	3.7848	FC3	-7.1084	BSP	3940												
BDE	.5391	BRA	1.4246	BC3	1.0262	FSP	1176												

MID-COURSE EXECUTION ACCURACY

SGT	2137.3	SGR	915.2	SG3	748.5														
RRT	-.7769	RRF	.8682	RTF	-.8746														
SGB	2325.0	R23	-.2239	R13	.8971														
SG1	2260.3	SG2	544.9	THA	160.41														

ORBIT DETERMINATION ACCURACY

ST	44.7	SR	13.1	SS	58.5														
CRT	.0343	CRS	.1944	CST	.9858														
LSA	73.4	NSA	14.2	SSA	1.6														
EL1	44.7	EL2	13.1	ALF	.63														

LAUNCH DATE JUL 11 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 435.633 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.231	GAL	-3.30	AZL	89.00	HCA	140.73	SMA	207.05	ECC	.27120	INC	.9972
RP	227.34	LAP	.63	LOP	69.29	VP	22.947	GAP	14.72	AZP	90.77	TAL	344.45	TAP	125.18	RCA	150.90	APO	263.20
RC	126.208	GL	7.65	GP	-13.49	ZAL	115.38	ZAP	148.98	ETS	205.40	ZAE	162.64	ETE	301.67	ZAC	70.35	ETC	283.46

VI	29.294	V2	24.193	LVI	-4.37
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PLANETOCENTRIC CONIC

C3	18.822	VHL	4.338	DLA	23.39	RAL	39.26	RAD	6642.3	VEL	11.783	PTH	6.81	VHP	4.168	DPA	2.19	RAP	43.33

ECC	1.3098

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 6 31	3597.39	-47.31	137.27	278.23	95.71	14 6 28	2597.4	-38.62	105.43
60.00	13 16 40	3570.36	-40.30	135.32	278.70	89.93	14 16 10	2570.4	-35.92	105.12
70.00	13 33 14	3521.56	-33.85	131.02	278.36	85.13	14 31 55	2521.6	-32.32	102.39
80.00	14 4 30	3423.47	-28.73	122.89	277.65	81.50	15 1 33	2423.5	-29.37	95.48
90.00	15 7 31	3219.98	-26.59	107.55	277.26	80.00	16 1 11	2220.0	-28.12	80.64
100.00	16 47 22	2897.94	-28.73	84.26	277.65	81.50	17 35 40	1897.9	-29.37	56.85
110.00	18 32 40	2568.38	-33.85	59.94	278.36	85.13	19 15 28	1568.4	-32.32	31.31

DIFFERENTIAL CORRECTIONS

TDE	-.5242	TRA	-1.3291	TC3	.7467	BAU	.2709												
RDE	-.1073	RRA	.4704	RC3	-.7757	FAU	.16371												
FDE	2.2151	FRA	3.9008	FC3	-7.5303	BSP	3979												
BDE	.5351	BRA	1.4099	BC3	1.0767	FSP	1242												

MID-COURSE EXECUTION ACCURACY

SGT	2134.5	SGR	965.0	SG3	785.9														
RRT	-.7924	RRF	.8865	RTF	-.8751														
SGB	2342.5	R23	-.2340	R13	.9006														
SG1	2276.6	SG2	551.9	THA	159.00														

ORBIT DETERMINATION ACCURACY

ST	45.0	SR	12.4	SS	60.9														
CRT	-.0839	CRS	.0819	CST	.9880														
LSA	75.4	NSA	13.8	SSA	1.6														
EL1	45.0	EL2	12.4	ALF	178.56														

LAUNCH DATE JUL 11 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 439.298 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.200	GAL	-3.25	AZL	88.93	HCA	141.78	SMA	206.36	ECC	.26872	INC	1.0713
RP	227.73	LAP	.66	LOP	70.34	VP	22.858	GAP	14.44	AZP	90.84	TAL	344.55	TAP	126.33	RCA	150.92	APO	261.84
RC	128.887	GL	8.28	GP	-14.10	ZAL	115.18	ZAP	147.76	ETS	205.36	ZAE	162.45	ETE	298.41	ZAC	69.76	ETC	283.52

VI	29.294	V2	24.152	LVI	-3.80
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PLANETOCENTRIC CONIC

C3	18.533	VHL	4.305	DLA	23.93	RAL	38.87	RAD	6642.2	VEL	11.771	PTH	6.80	VHP	4.072	DPA	1.60	RAP	43.46

ECC	1.3080

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 2 24	3605.84	-47.37	136.06	278.02	95.11	14 2 29	2605.6	-38.89	106.04
60.00	13 11 33	3581.23	-40.30	136.24	278.39	89.30	14 11 14	2581.2	-36.16	105.93
70.00	13 28 41	3536.67	-33.75	132.19	277.95	84.44	14 25 37	2536.7	-32.52	103.52
80.00	13 55 57	3444.81	-28.50	124.43	277.15	80.71	14 53 22	2444.8	-29.50	97.05
90.00	14 57 39	3245.58	-26.28	109.35	276.70	79.15	15 51 45	2245.6	-28.20	82.91
100.00	16 38 49	2919.29	-28.50	85.80	277.15	80.71	17 27 28	1919.3	-29.50	58.42
110.00	18 26 7	2583.49	-33.75	61.11	277.95	84.44	19 9 10	1583.5	-32.52	32.44

DIFFERENTIAL CORRECTIONS

TDE	-.5171	TRA	-1.2978	TC3	.7754	BAU	.2835												
RDE	-.0800	RRA	.4881	RC3	-.8416	FAU	.17085												
FDE	2.3541	FRA	4.0095	FC3	-7.9808	BSP	3903												
BDE	.5232	BRA	1.3863	BC3	1.1444	FSP	1301												

MID-COURSE EXECUTION ACCURACY

SGT	2118.8	SGR	1020.6	SG3	824.7														
RRT	-.8108	RRF	.9028	RTF	-.8768														
SGB	2381.8	R23	-.2348	R13	.9072														
SG1	2285.6	SG2	583.7	THA	157.26														

ORBIT DETERMINATION ACCURACY

ST	44.6	SR	12.0	SS	63.2														
CRT	-.2248	CRS	-.0513	CST	.9834														
LSA	77.1	NSA	13.5	SSA	1.6														
EL1	44.7	EL2	11.6	ALF	176.30														

LAUNCH DATE JUL 11 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 442.974 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	33.170	GAL	-3.21	AZL	88.86	HCA	142.82	SMA	205.75	ECC	.26636	INC	1.1487
RP	228.12	LAP	.69	LOP	71.38	VP	22.771	GAP	14.16	AZP	90.92	TAL	344.65	TAP	127.47	RCA	150.94	APO	260.56
RC	131.892	GL	8.94	GP	-14.75	ZAL	114.98	ZAP	146.50	ETS	205.33	ZAE	162.20	ETE	295.04	ZAC	69.15	ETC	283.58

VI	29.294	V2	24.110	LVI	-3.20
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PLANETOCENTRIC CONIC

C3	18.272	VHL	4.275	DLA	24.51	RAL	38.49	RAD	6642.1	VEL	11.780	PTH	6.79	VHP	3.980	DPA	.96	RAP	43.62

ECC	1.3007

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 58 5	3614.91	-47.42	136.95	277.86	94.42	13 58 19	2614.9	-40.19	106.73
60.00	13 6 10	3593.37	-40.28	137.27	278.13	88.60	14 6 3	2593.4	-36.43	106.85
70.00	13 19 41	3553.52	-33.63	133.49	277.57	83.68	14 18 54	2553.5	-32.73	104.79
80.00	13 46 39	3468.92	-28.23	126.17	276.65	79.84	14 44 28	2468.9	-29.63	98.83
90.00	14 46 43	3274.90	-25.86	111.41	276.14	78.19	15 41 18	2274.9	-28.26	84.65
100.00	16 29 31	2943.39	-28.23	87.54	276.65	79.84	17 18 34	1943.4	-29.63	60.20
110.00	18 19 7	2600.34	-33.63	62.41	277.57	83.68	19 2 28	1600.3	-32.73	33.71

DIFFERENTIAL CORRECTIONS

TDE	-.5264	TRA	-1.2811	TC3	.7644	BAU	.2901												
RDE	-.0494	RRA	.5084	RC3	-.9089	FAU	.17754												
FDE	2.5165	FRA	4.1299	FC3	-8.4120	BSP	4030												
BDE	.5287	BRA	1.3783	BC3	1.1877	FSP	1377												

MID-COURSE EXECUTION ACCURACY

SGT	2118.1	SGR	1081.2	SG3	864.5														
RRT	-.8185	RRF	.9171	RTF	-.8758														
SGB	2378.1	R23	-.2496	R13	.9090														
SG1	2308.8	SG2	569.9	THA	155.75														

ORBIT DETERMINATION ACCURACY

ST	45.2	SR	11.8	SS	66.1														
CRT	-.3799	CRS	-.2119	CST	.9832														
LSA	79.8	NSA	13.1	SSA	1.6														
EL1	45.5	EL2	10.8	ALF	174.02														

LAUNCH DATE JUL 11 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 7 1974

DISTANCE 446.662

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 33.142 GAL -3.17 AZL 88.77 HCA 143.86 SMA 205.16 ECC .26417 INC 1.2296 V1 29.294
RP 228.81 LAP .73 LOP 72.42 VP 22.687 GAP 13.68 AZP 90.99 TAL 344.75 TAP 128.61 RCA 150.96 APO 259.36 V2 24.069
RC 134.321 GL 9.63 GP -16.43 ZAL 114.78 ZAP 148.21 ETS 205.31 ZAE 161.87 ETE 291.58 ZAC 68.50 ETC 283.65 LVI -2.57

PLANETOCENTRIC CONIC

C3 18.036 VHL 4.247 DLA 25.12 RAL 38.09 RAD 6641.8 VEL 11.750 PTH 6.78 VHP 3.893 DPA .29 RAP 43.74 ECC 1.2968

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 53 32	3625.24	-47.47	139.94	277.76	93.66	13 53 57	2625.2	-40.51	107.50
60.00	13 0 27	3606.82	-40.25	138.42	277.89	87.83	14 0 34	2606.8	-36.72	107.88
70.00	13 12 11	3572.25	-33.48	134.93	277.20	82.84	14 11 43	2572.2	-32.95	106.20
80.00	13 36 25	3496.19	-27.88	128.13	276.15	78.87	14 34 41	2496.2	-29.74	100.85
90.00	14 34 26	3308.80	-25.39	113.77	275.56	77.11	15 29 38	2308.8	-28.28	87.13
100.00	16 19 17	2970.66	-27.88	89.49	276.15	78.87	17 8 47	1970.7	-29.74	62.22
110.00	18 11 37	2619.07	-33.48	63.85	277.20	82.84	18 55 16	1619.1	-32.95	35.12

DIFFERENTIAL CORRECTIONS

TDE -.5286 TRA-1.2578 TC3 .7609 BAU .2995
RDE -.0173 RRA .8292 RC3 -.9816 FAU .18452
FDE 2.6827 FRA 4.2432 FC3-8.8573 B8P 4083
BDE .5289 BRA 1.3643 BC3 1.2419 F8P 1449

MID-COURSE EXECUTION ACCURACY

8GT 2106.4 8GR 1147.8 8G3 904.8
RRT -.8271 RRF .9295 RTF -.8744
8GB 2398.9 R23 -.2579 R13 .9126
8G1 2326.7 8G2 984.1 THA 153.98

ORBIT DETERMINATION ACCURACY

8T 45.4 8R 12.0 88 68.8
CRT -.5380 CR8 -.3780 C8T .9824
L8A 82.3 M8A 12.8 88A 1.6
EL1 45.9 EL2 10.0 ALF 171.54

LAUNCH DATE JUL 11 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 9 1974

DISTANCE 450.360

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 33.116 GAL -3.13 AZL 88.69 HCA 144.89 SMA 204.61 ECC .26208 INC 1.3144 V1 29.294
RP 228.90 LAP .76 LOP 73.46 VP 22.605 GAP 13.61 AZP 91.08 TAL 344.84 TAP 129.73 RCA 150.98 APO 258.23 V2 24.028
RC 137.073 GL 10.35 GP -16.15 ZAL 114.58 ZAP 143.89 ETS 205.29 ZAE 161.46 ETE 288.06 ZAC 67.83 ETC 283.73 LVI -1.92

PLANETOCENTRIC CONIC

C3 17.825 VHL 4.222 DLA 25.76 RAL 37.69 RAD 6641.8 VEL 11.741 PTH 6.77 VHP 3.809 DPA -.44 RAP 43.85 ECC 1.2934

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 48 45	3636.68	-47.51	141.05	277.71	92.81	13 49 22	2636.7	-40.87	108.37
60.00	12 54 23	3621.69	-40.21	139.68	277.70	86.97	13 54 44	2621.7	-37.02	109.02
70.00	13 4 5	3593.07	-33.30	136.53	276.86	81.92	14 3 88	2593.1	-33.18	107.79
80.00	13 25 2	3527.30	-27.46	130.34	275.65	77.78	14 23 50	2527.3	-29.82	103.16
90.00	14 20 19	3348.73	-24.75	116.52	274.94	75.87	15 16 8	2348.7	-28.24	90.05
100.00	16 7 54	3001.78	-27.46	91.71	275.65	77.78	16 57 56	2001.8	-29.82	64.53
110.00	18 3 32	2639.88	-33.30	65.44	276.86	81.92	18 47 31	1639.9	-33.18	36.70

DIFFERENTIAL CORRECTIONS

TDE -.5287 TRA-1.2310 TC3 .7566 BAU .3102
RDE .0171 RRA .5511 RC3-1.0592 FAU .19167
FDE 2.8588 FRA 4.3517 FC3-9.3090 B8P 4120
BDE .5290 BRA 1.3487 BC3 1.3017 F8P 1521

MID-COURSE EXECUTION ACCURACY

8GT 2088.9 8GR 1220.7 8G3 945.8
RRT -.8347 RRF .9404 RTF -.8732
8GB 2419.4 R23 -.2630 R13 .9170
8G1 2344.1 8G2 999.0 THA 152.01

ORBIT DETERMINATION ACCURACY

8T 45.4 8R 12.6 88 71.7
CRT -.6818 CR8 -.5350 C8T .9814
L8A 84.9 M8A 12.5 88A 1.6
EL1 46.2 EL2 9.0 ALF 168.87

LAUNCH DATE JUL 11 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 11 1974

DISTANCE 454.068

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 33.091 GAL -3.10 AZL 88.60 HCA 145.93 SMA 204.09 ECC .26010 INC 1.4034 V1 29.294
RP 229.28 LAP .79 LOP 74.49 VP 22.525 GAP 13.34 AZP 91.16 TAL 344.92 TAP 130.85 RCA 151.00 APO 257.17 V2 23.988
RC 139.847 GL 11.11 GP -16.91 ZAL 114.39 ZAP 142.53 ETS 205.28 ZAE 160.96 ETE 284.53 ZAC 67.12 ETC 283.82 LVI -1.23

PLANETOCENTRIC CONIC

C3 17.639 VHL 4.200 DLA 26.44 RAL 37.28 RAD 6641.8 VEL 11.733 PTH 6.76 VHP 3.730 DPA -1.21 RAP 43.95 ECC 1.2903

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 43 42	3649.32	-47.55	142.27	277.72	91.87	13 44 31	2649.3	-41.25	109.34
60.00	12 47 54	3630.10	-40.14	141.07	277.53	86.03	13 48 33	2630.1	-37.34	110.30
70.00	12 55 19	3616.25	-33.06	138.30	276.52	80.89	13 55 35	2616.3	-33.40	109.56
80.00	13 12 12	3563.24	-26.91	132.87	275.11	76.55	14 11 35	2563.2	-29.86	105.83
90.00	14 3 35	3397.25	-23.91	119.82	274.25	74.43	15 0 12	2397.2	-28.10	93.59
100.00	15 55 4	3037.72	-26.91	94.24	275.11	76.55	16 45 42	2037.7	-29.86	67.20
110.00	17 54 45	2663.07	-33.06	67.21	276.52	80.89	18 39 8	1663.1	-33.40	38.48

DIFFERENTIAL CORRECTIONS

TDE -.5284 TRA-1.2034 TC3 .7481 BAU .3218
RDE .0945 RRA .5744 RC3-1.1415 FAU .19883
FDE 3.0474 FRA 4.4573 FC3-9.7590 B8P 4158
BDE .5312 BRA 1.3334 BC3 1.3648 F8P 1596

MID-COURSE EXECUTION ACCURACY

8GT 2067.8 8GR 1300.3 8G3 987.4
RRT -.8408 RRF .9487 RTF -.8717
8GB 2442.7 R23 -.2637 R13 .9217
8G1 2363.7 8G2 815.8 THA 149.88

ORBIT DETERMINATION ACCURACY

8T 45.3 8R 13.7 88 74.7
CRT -.7978 CR8 -.6689 C8T .9803
L8A 87.6 M8A 12.2 88A 1.6
EL1 46.7 EL2 8.0 ALF 166.01

LAUNCH DATE JUL 11 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 13 1974

DISTANCE 457.784

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 33.067 GAL -3.06 AZL 88.50 HCA 146.95 SMA 203.60 ECC .25823 INC 1.4967 V1 29.294
RP 229.67 LAP .82 LOP 75.52 VP 22.447 GAP 13.07 AZP 91.28 TAL 345.00 TAP 131.96 RCA 151.02 APO 256.17 V2 23.947
RC 142.841 GL 11.91 GP -17.71 ZAL 114.20 ZAP 141.13 ETS 205.26 ZAE 160.36 ETE 281.02 ZAC 66.37 ETC 283.92 LVI -.51

PLANETOCENTRIC CONIC

C3 17.478 VHL 4.181 DLA 27.15 RAL 36.87 RAD 6641.7 VEL 11.726 PTH 6.76 VHP 3.655 DPA -2.03 RAP 44.04 ECC 1.2876

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 38 21	3663.22	-47.57	143.61	277.78	90.84	13 39 24	2663.2	-41.67	110.42
60.00	12 40 59	3656.18	-40.04	142.60	277.40	85.00	13 41 55	2656.2	-37.68	111.71
70.00	12 45 45	3642.14	-32.76	140.26	276.19	79.77	13 46 27	2642.1	-33.61	111.55
80.00	12 57 24	3605.56	-26.21	135.82	274.52	75.16	13 57 29	2605.6	-29.83	108.98
90.00	13 42 28	3459.90	-22.70	124.01	273.41	72.66	14 40 8	2459.9	-27.77	98.14
100.00	15 40 16	3080.03	-26.21	97.18	274.52	75.16	16 31 36	2080.0	-29.83	70.34
110.00	17 45 11	2688.96	-32.76	69.17	276.19	79.77	18 30 0	1689.0	-33.61	40.47

DIFFERENTIAL CORRECTIONS

TDE -.5221 TRA-1.1695 TC3 .7458 BAU .3363
RDE .0939 RRA .5979 RC3-1.2307 FAU .20838
FDE 3.2385 FRA 4.5494 FC-10.2226 B8P 4138
BDE .5305 BRA 1.3135 BC3 1.4391 F8P 1662

MID-COURSE EXECUTION ACCURACY

8GT 2036.0 8GR 1367.0 8G3 1029.1
RRT -.8473 RRF .9577 RTF -.8712
8GB 2483.5 R23 -.2625 R13 .9279
8G1 2381.7 8G2 829.7 THA 147.45

ORBIT DETERMINATION ACCURACY

8T 44.8 8R 15.3 88 77.7
CRT -.8806 CR8 -.7699 C8T .9787
L8A 90.2 M8A 12.0 88A 1.6
EL1 46.9 EL2 6.9 ALF 162.87

LAUNCH DATE JUL 11 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 461.508 EARTH TO MARS

RL 152.08 LAL .00 LOL 286.86 VL 33.045 GAL -3.03 AZL 88.40 HCA 147.98 SMA 203.14 ECC .25647 INC 1.5932 V1 29.294
RP 230.08 LAP .85 LOP 76.85 VP 22.371 GAP 12.80 AZP 91.35 TAL 345.07 TAP 133.05 RCA 151.04 APO 255.24 V2 23.907
RC 145.456 GL 12.74 GP -18.86 ZAL 114.01 ZAP 139.70 ETS 208.25 ZAE 159.68 ETE 277.57 ZAC 65.59 ETC 284.03 LVI .25

PLANETOCENTRIC CONIC

C3 17.343 VHL 4.164 DLA 27.91 RAL 36.44 RAD 6641.6 VEL 11.721 PTH 6.75 VHP 3.885 DPA -2.90 RAP 44.11 ECC 1.2884

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 40	3678.92	-47.58	145.09	277.90	80.70	13 33 58	2678.5	-42.11	111.62
60.00	12 33 34	3676.13	-39.91	144.26	277.31	83.66	13 34 50	2676.1	-38.03	113.29
70.00	12 35 13	3671.23	-32.39	142.44	276.86	78.83	13 36 25	2671.2	-33.81	113.60
80.00	12 39 43	3667.13	-25.26	139.35	273.84	73.83	13 40 40	2667.1	-29.66	112.60
90.00	13 10 56	3656.03	-20.01	130.29	272.19	70.20	14 10 14	2656.0	-26.04	108.08
100.00	13 52 36	3131.60	-25.26	100.72	273.84	73.83	14 14 46	2131.6	-29.66	74.17
110.00	17 34 40	1718.05	-32.39	71.36	276.86	78.83	18 19 58	1718.1	-33.81	42.71

DIFFERENTIAL CORRECTIONS

TDE -.5850 TRA-1.1445 TC3 .7188 BAU .3484
RDE .1383 RRA .6843 RC3-1.3217 FAU .21333
FDE 3.4939 FRA 4.6478 FC-10.6495 BSP 4242
BDE .8489 BRA 1.3037 BC3 1.8088 FSP 1741

MID-COURSE EXECUTION ACCURACY

SGT 2012.9 SGR 1480.8 SG3 1070.6
RRT -.8478 RRF .9648 RTF -.8662
SGB 2498.9 R23 -.2648 R13 .9320
SG1 2411.0 SG2 656.6 THA 145.10

ORBIT DETERMINATION ACCURACY

ST 44.9 SR 17.5 SS 81.0
CRT -.9380 CRS -.8451 CST .9779
LSA 93.5 HSA 11.8 SSA 1.5
EL1 47.9 EL2 5.8 ALP 159.69

LAUNCH DATE JUL 11 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 466.239 EARTH TO MARS

RL 152.08 LAL .00 LOL 286.86 VL 33.084 GAL -3.00 AZL 88.30 HCA 149.00 SMA 208.70 ECC .28481 INC 1.6991 V1 29.294
RP 230.44 LAP .87 LOP 77.87 VP 22.286 GAP 12.83 AZP 91.46 TAL 345.14 TAP 134.14 RCA 151.08 APO 264.36 V2 23.867
RC 148.289 GL 13.68 GP -19.46 ZAL 113.81 ZAP 138.83 ETS 208.23 ZAE 158.84 ETE 274.21 ZAC 64.77 ETC 284.15 LVI 1.04

PLANETOCENTRIC CONIC

C3 17.233 VHL 4.151 DLA 28.71 RAL 36.00 RAD 6641.6 VEL 11.716 PTH 6.78 VHP 3.819 DPA -3.03 RAP 44.18 ECC 1.2836

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 37	3695.30	-47.56	146.71	278.08	80.45	13 28 12	2695.3	-42.57	112.96
60.00	12 25 33	3698.13	-39.73	146.12	277.83	82.62	13 27 11	2698.1	-38.39	115.05
70.00	12 23 31	3704.12	-31.92	144.89	275.52	77.15	13 25 15	2704.1	-33.98	116.35
80.00	12 17 7	3724.26	-23.89	143.67	272.97	71.53	13 19 11	2724.3	-29.30	117.76
84.66	11 46 5	3824.27	-17.67	148.71	270.48	67.00	12 48 49	2824.3	-26.62	124.41
100.00	14 59 58	3198.75	-23.89	105.24	272.97	71.53	15 53 17	2198.7	-29.30	79.12
110.00	17 22 57	2750.94	-31.92	73.61	275.52	77.15	18 8 48	1750.9	-33.98	45.27

DIFFERENTIAL CORRECTIONS

TDE -.5823 TRA-1.1131 TC3 .6895 BAU .3634
RDE .1863 RRA .6811 RC3-1.4184 FAU .22034
FDE 3.6771 FRA 4.7309 FC-11.0894 BSP 4302
BDE .8548 BRA 1.2898 BC3 1.8772 FSP 1817

MID-COURSE EXECUTION ACCURACY

SGT 1978.7 SGR 1382.0 SG3 1112.0
RRT -.8478 RRF .9703 RTF -.8623
SGB 2533.4 R23 -.2608 R13 .9376
SG1 2440.4 SG2 680.1 THA 142.48

ORBIT DETERMINATION ACCURACY

ST 44.6 SR 20.1 SS 84.4
CRT -.9681 CRS -.8960 CST .9765
LSA 96.9 HSA 11.6 SSA 1.5
EL1 48.7 EL2 4.6 ALP 156.19

LAUNCH DATE JUL 11 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 468.877 EARTH TO MARS

RL 152.08 LAL .00 LOL 286.86 VL 33.004 GAL -2.97 AZL 88.19 HCA 150.02 SMA 208.30 ECC .28325 INC 1.6068 V1 29.294
RP 230.82 LAP .90 LOP 76.89 VP 22.224 GAP 12.27 AZP 91.57 TAL 345.21 TAP 138.22 RCA 151.07 APO 263.53 V2 23.827
RC 151.140 GL 14.88 GP -20.40 ZAL 113.62 ZAP 136.72 ETS 208.21 ZAE 157.92 ETE 270.96 ZAC 63.90 ETC 284.29 LVI 1.88

PLANETOCENTRIC CONIC

C3 17.150 VHL 4.141 DLA 29.55 RAL 36.55 RAD 6641.6 VEL 11.713 PTH 6.74 VHP 3.458 DPA -4.81 RAP 44.23 ECC 1.2822

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 8	3713.68	-47.81	148.48	278.30	87.08	13 22 1	2713.7	-43.06	114.48
60.00	12 18 51	3722.42	-39.80	148.15	277.18	81.27	13 18 54	2722.4	-38.76	117.01
70.00	12 10 19	3741.72	-31.32	147.66	275.13	75.62	13 12 41	2741.7	-34.11	119.28
80.00	11 41 45	3831.79	-21.39	150.87	271.56	68.66	12 45 37	2831.8	-28.28	128.58
81.05	11 13 54	3920.94	-18.19	156.07	270.15	66.30	12 19 15	2920.9	-26.38	131.74
100.00	14 24 37	3306.26	-21.39	112.24	271.56	68.66	15 19 43	2306.3	-28.28	88.95
110.00	17 9 45	2788.54	-31.32	76.57	275.13	75.62	17 56 14	1788.5	-34.11	48.20

DIFFERENTIAL CORRECTIONS

TDE -.5178 TRA-1.0805 TC3 .6560 BAU .3798
RDE .2365 RRA .6769 RC3-1.5203 FAU .22723
FDE 3.9096 FRA 4.8027 FC-11.4706 BSP 4361
BDE .8701 BRA 1.2761 BC3 1.8566 FSP 1888

MID-COURSE EXECUTION ACCURACY

SGT 1940.0 SGR 1691.3 SG3 1152.3
RRT -.8468 RRF .9782 RTF -.8473
SGB 2573.7 R23 -.2538 R13 .9435
SG1 2478.2 SG2 705.1 THA 139.62

ORBIT DETERMINATION ACCURACY

ST 44.1 SR 23.2 SS 87.9
CRT -.9865 CRS -.9301 CST .9748
LSA 100.4 HSA 11.4 SSA 1.5
EL1 49.7 EL2 3.4 ALP 152.46

LAUNCH DATE JUL 11 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 472.721 EARTH TO MARS

RL 152.08 LAL .00 LOL 286.86 VL 32.985 GAL -2.95 AZL 88.07 HCA 151.03 SMA 201.92 ECC .25178 INC 1.9253 V1 29.294
RP 231.20 LAP .93 LOP 78.60 VP 22.154 GAP 12.01 AZP 91.68 TAL 345.26 TAP 136.30 RCA 151.08 APO 252.75 V2 23.787
RC 154.008 GL 15.83 GP -21.39 ZAL 113.43 ZAP 135.18 ETS 205.17 ZAE 156.88 ETE 267.86 ZAC 63.00 ETC 284.44 LVI 2.75

PLANETOCENTRIC CONIC

C3 17.094 VHL 4.138 DLA 30.44 RAL 35.09 RAD 6641.3 VEL 11.710 PTH 6.74 VHP 3.402 DPA -5.85 RAP 44.28 ECC 1.2813

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 13 10	3733.84	-47.42	150.43	278.58	85.59	13 15 24	2733.8	-43.56	116.12
60.00	12 7 21	3749.34	-39.20	150.37	277.14	79.79	13 9 51	2749.3	-39.12	119.21
70.00	11 55 7	3785.47	-30.53	150.82	274.67	73.90	12 58 13	2785.5	-34.15	122.69
78.24	10 50 41	3988.35	-18.72	161.34	269.88	65.55	11 57 9	2988.3	-27.17	136.97
78.24	10 50 41	3988.35	-18.72	161.34	269.88	65.55	11 57 9	2988.3	-27.17	136.97
78.24	10 50 41	3988.35	-18.72	161.34	269.88	65.55	11 57 9	2988.3	-27.17	136.97
110.00	16 54 34	2832.29	-30.53	79.74	274.67	73.90	17 41 46	1832.3	-34.15	51.61

DIFFERENTIAL CORRECTIONS

TDE -.5118 TRA-1.0460 TC3 .6219 BAU .3980
RDE .2958 RRA .7078 RC3-1.6267 FAU .23383
FDE 4.1546 FRA 4.8618 FC-11.8424 BSP 4434
BDE .5911 BRA 1.2630 BC3 1.7415 FSP 1960

MID-COURSE EXECUTION ACCURACY

SGT 1895.9 SGR 1808.8 SG3 1191.3
RRT -.8443 RRF .9793 RTF -.8515
SGB 2620.4 R23 -.2432 R13 .9497
SG1 2516.5 SG2 730.3 THA 136.59

ORBIT DETERMINATION ACCURACY

ST 43.5 SR 26.7 SS 91.5
CRT -.9954 CRS -.9529 CST .9729
LSA 104.1 HSA 11.3 SSA 1.4
EL1 51.0 EL2 2.2 ALP 148.48

LAUNCH DATE JUL 11 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 476.471 EARTH TO MARS

RL	182.08	LAL	.00	LOL	288.56	VL	32.987	GAL	-2.93	AZL	87.98	HCA	182.04	SMA	20 . 6	ECC	.28040	INC	2.0490	V1	29.294
RP	231.58	LAP	.06	LOP	80.62	VP	22.085	GAP	11.75	AZP	91.61	TAL	345.32	TAP	137.36	RCA	181.09	APO	282.03	V2	23.748
RC	186.890	GL	16.56	GP	-22.44	ZAL	113.23	ZAP	133.59	ETS	205.13	ZAE	185.73	ETE	264.61	ZAC	62.04	ETC	264.61	LVI	5.68

PLANETOCENTRIC CONIC

C3 17.068 VHL 4.131 DLA 31.39 RAL 34.60 RAD 6641.8 VEL 11.709 PTH 6.74 VHP 3.380 DPA -6.95 RAP 44.32 ECC 1.2809

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
60.00	12 5 39	3785.94	-47.28	182.55	278.91	83.96	13 8 15	2788.9	-44.11	117.86
60.00	11 56 54	3779.28	-38.81	182.82	277.09	78.17	12 59 54	2779.3	-39.46	121.68
70.00	11 37 6	3837.82	-29.49	184.84	274.09	71.93	12 41 4	2837.8	-34.07	126.76
75.78	10 31 12	4043.46	-19.28	188.76	269.64	64.74	11 38 38	3043.8	-28.00	141.36
75.78	10 31 12	4043.46	-19.28	188.76	269.64	64.74	11 38 38	3043.8	-28.00	141.36
75.78	10 31 12	4043.46	-19.28	188.76	269.64	64.74	11 38 38	3043.8	-28.00	141.36
110.00	16 36 32	2884.84	-29.49	83.46	274.09	71.93	17 24 37	1884.8	-34.07	88.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.8033	TRA	-1.0097	TCS	.5818	BAU	.4183	SGT	1848.4	SGR	1938.5	SG3	1228.6	ST	48.7	SR	30.8	SS	95.1
RDE	.3886	RRA	.7374	RC3	-1.7384	FAU	.24023	RRT	-.8403	RRF	.9827	RTF	-.8446	CRT	-.9988	CRS	-.9880	CST	.9706
FDE	4.4074	FRA	4.9039	FC	-12.1881	BSP	4812	SGB	2674.8	R23	-.2300	R13	.9861	LSA	108.1	MSA	11.2	SSA	1.3
BDE	.6180	BRA	1.2803	BC3	1.8332	FSP	2027	SG1	2566.0	SG2	758.0	THA	133.40	EL1	52.8	EL2	1.4	ALF	144.28

LAUNCH DATE JUL 11 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 480.228 EARTH TO MARS

RL	182.08	LAL	.00	LOL	288.56	VL	32.951	GAL	-2.90	AZL	87.82	HCA	183.05	SMA	201.22	ECC	.24910	INC	2.1808	V1	29.294
RP	231.95	LAP	.09	LOP	81.63	VP	22.010	GAP	11.49	AZP	91.94	TAL	345.36	TAP	138.41	RCA	181.10	APO	281.35	V2	23.708
RC	188.785	GL	17.64	GP	-23.55	ZAL	113.03	ZAP	131.97	ETS	205.07	ZAE	184.46	ETE	262.13	ZAC	61.04	ETC	284.78	LVI	4.68

PLANETOCENTRIC CONIC

C3 17.073 VHL 4.132 DLA 32.39 RAL 34.10 RAD 6641.8 VEL 11.709 PTH 6.74 VHP 3.304 DPA -8.12 RAP 44.36 ECC 1.2810

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
60.00	11 57 30	3780.20	-47.08	184.86	279.28	82.19	13 0 30	2780.2	-44.65	120.06
60.00	11 46 17	3812.78	-38.31	185.83	277.02	76.39	12 48 50	2812.8	-39.78	124.47
70.00	11 14 31	3903.89	-28.00	188.11	273.27	69.60	12 19 34	2903.9	-33.75	131.91
73.52	10 13 49	4091.58	-19.85	189.70	269.43	63.87	11 22 1	3091.6	-28.87	148.28
73.52	10 13 49	4091.58	-19.85	189.70	269.43	63.87	11 22 1	3091.6	-28.87	148.28
73.52	10 13 49	4091.58	-19.85	189.70	269.43	63.87	11 22 1	3091.6	-28.87	148.28
110.00	16 13 57	2930.71	-28.00	88.02	273.27	69.60	17 3 8	1930.7	-33.75	90.83

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4909	TRA	-.9701	TCS	.5396	BAU	.4410	SGT	1788.7	SGR	2070.5	SG3	1263.3	ST	41.6	SR	35.2	SS	98.7
RDE	.4271	RRA	.7669	RC3	-1.8581	FAU	.24632	RRT	-.8381	RRF	.9856	RTF	-.8368	CRT	-.9978	CRS	-.9781	CST	.9677
FDE	4.6689	FRA	4.9237	FC	-12.4904	BSP	4877	SGB	2736.1	R23	-.2135	R13	.9826	LSA	112.2	MSA	11.2	SSA	1.3
BDE	.6507	BRA	1.2366	BC3	1.8320	FSP	2084	SG1	2623.6	SG2	776.8	THA	130.02	EL1	54.5	EL2	1.8	ALF	139.77

LAUNCH DATE JUL 11 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 483.985 EARTH TO MARS

RL	182.08	LAL	.00	LOL	288.56	VL	32.935	GAL	-2.88	AZL	87.68	HCA	184.06	SMA	200.91	ECC	.24787	INC	2.3218	V1	29.294
RP	232.33	LAP	1.02	LOP	82.63	VP	21.952	GAP	11.23	AZP	92.09	TAL	345.40	TAP	139.46	RCA	181.11	APO	280.71	V2	23.670
RC	182.693	GL	18.79	GP	-24.72	ZAL	112.83	ZAP	130.30	ETS	204.99	ZAE	183.09	ETE	258.81	ZAC	59.99	ETC	285.00	LVI	3.68

PLANETOCENTRIC CONIC

C3 17.111 VHL 4.137 DLA 33.45 RAL 33.87 RAD 6641.8 VEL 11.711 PTH 6.74 VHP 3.284 DPA -9.35 RAP 44.40 ECC 1.2816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
60.00	11 48 35	3806.88	-46.81	187.38	279.67	80.27	12 52 2	2806.9	-45.21	122.39
60.00	11 32 13	3850.89	-37.66	188.53	276.91	74.45	12 36 24	2850.6	-40.05	127.65
70.00	10 42 8	3999.37	-25.57	188.46	271.89	66.55	11 46 44	2999.4	-32.66	139.22
71.35	9 57 49	4135.06	-20.43	173.36	269.26	62.93	11 6 44	3135.1	-29.78	148.92
71.35	9 57 49	4135.06	-20.43	173.36	269.26	62.93	11 6 44	3135.1	-29.78	148.92
71.35	9 57 49	4135.06	-20.43	173.36	269.26	62.93	11 6 44	3135.1	-29.78	148.92
110.00	15 41 31	3046.19	-25.57	94.38	271.89	66.55	16 32 18	2046.2	-32.66	88.14

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4720	TRA	-.9244	TCS	.5010	BAU	.4667	SGT	1718.8	SGR	2214.3	SG3	1294.4	ST	40.0	SR	40.1	SS	102.3
RDE	.5016	RRA	.7953	RC3	-1.9779	FAU	.23218	RRT	-.8299	RRF	.9880	RTF	-.8401	CRT	-.9944	CRS	-.9848	CST	.9636
FDE	4.9243	FRA	4.9125	FC	-12.7891	BSP	4613	SGB	2803.1	R23	-.1932	R13	.9891	LSA	116.3	MSA	11.2	SSA	1.2
BDE	.6687	BRA	1.2194	BC3	2.0403	FSP	2126	SG1	2689.6	SG2	789.5	THA	126.43	EL1	56.5	EL2	3.0	ALF	134.95

LAUNCH DATE JUL 11 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 487.747 EARTH TO MARS

RL	182.08	LAL	.00	LOL	288.56	VL	32.920	GAL	-2.87	AZL	87.53	HCA	185.06	SMA	200.62	ECC	.24674	INC	2.4721	V1	29.294
RP	232.70	LAP	1.04	LOP	83.63	VP	21.889	GAP	10.97	AZP	92.24	TAL	345.43	TAP	140.49	RCA	181.12	APO	280.12	V2	23.631
RC	168.610	GL	20.00	GP	-25.95	ZAL	112.62	ZAP	126.60	ETS	204.89	ZAE	181.60	ETE	257.08	ZAC	58.89	ETC	285.22	LVI	6.76

PLANETOCENTRIC CONIC

C3 17.187 VHL 4.146 DLA 34.57 RAL 33.02 RAD 6641.8 VEL 11.714 PTH 6.75 VHP 3.229 DPA -10.65 RAP 44.44 ECC 1.2829

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
60.00	11 38 47	3836.36	-46.43	180.13	280.09	78.18	12 42 44	2836.4	-45.75	125.02
60.00	11 17 17	3893.83	-36.82	181.89	276.71	72.30	12 22 11	2893.8	-40.24	131.32
69.23	9 42 49	4175.16	-21.03	176.82	269.13	61.91	10 52 24	3175.2	-30.73	152.37
69.23	9 42 49	4175.16	-21.03	176.82	269.13	61.91	10 52 24	3175.2	-30.73	152.37
69.23	9 42 49	4175.16	-21.03	176.82	269.13	61.91	10 52 24	3175.2	-30.73	152.37
69.23	9 42 49	4175.16	-21.03	176.82	269.13	61.91	10 52 24	3175.2	-30.73	152.37
69.23	9 42 49	4175.16	-21.03	176.82	269.13	61.91	10 52 24	3175.2	-30.73	152.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4687	TRA	-.8963	TCS	.4139	BAU	.4899	SGT	1673.4	SGR	2368.3	SG3	1322.7	ST	39.5	SR	45.6	SS	106.5
RDE	.5894	RRA	.8293	RC3	-2.0916	FAU	.25590	RRT	-.8117	RRF	.9901	RTF	-.8100	CRT	-.9900	CRS	-.9896	CST	.9612
FDE	5.2226	FRA	4.9138	FC	-12.8903	BSP	4871	SGB	2899.9	R23	-.1801	R13	.9736	LSA	122.0	MSA	11.3	SSA	1.1
BDE	.7531	BRA	1.2211	BC3	2.1322	FSP	2201	SG1	2777.5	SG2	833.4	THA	123.21	EL1	60.4	EL2	4.2	ALF	130.69

LAUNCH DATE JUL 11 1973 FLIGHT TIME 204.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 491.513 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.907	GAL	-2.85	AZL	87.37	HCA	156.05	SMA	200.34	ECC	.24567	INC	2.6342	VI	29.294
RP	233.07	LAP	1.07	LOP	84.63	VP	21.827	GAP	10.72	AZP	92.41	TAL	345.46	TAP	141.52	RCA	151.12	APO	249.56	V2	23.593
RC	168.837	GL	21.29	GP	-27.25	ZAL	112.39	ZAP	126.87	ETS	204.76	ZAE	150.01	ETE	254.79	ZAC	57.73	ETC	285.47	LVI	7.90

PLANETOCENTRIC CONIC

C3	17.303	VHL	4.160	DLA	35.77	RAL	32.43	RAD	6641.6	VEL	11.719	PTH	6.75	VHP	3.201	DPA	-12.02	RAP	44.48	ECC	1.2848

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 27 56	3868.99	-45.93	163.12	280.49	75.93	12 32 25	2869.0	-46.28	127.99
60.00	10 59 48	3944.20	-35.71	165.71	276.35	69.92	12 5 33	2944.2	-40.30	135.60
67.13	9 28 29	4212.79	-21.64	180.15	269.03	60.80	10 38 42	3212.8	-31.73	155.70
67.13	9 28 29	4212.79	-21.64	180.15	269.03	60.80	10 38 42	3212.8	-31.73	155.70
67.13	9 28 29	4212.79	-21.64	180.15	269.03	60.80	10 38 42	3212.8	-31.73	155.70
67.13	9 28 29	4212.79	-21.64	180.15	269.03	60.80	10 38 42	3212.8	-31.73	155.70
67.13	9 28 29	4212.79	-21.64	180.15	269.03	60.80	10 38 42	3212.8	-31.73	155.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4510	TRA	-.8557	TC3	.3470	BAU	.5181	SGT	1606.1	SGR	2531.4	SG3	1345.7	ST	37.9	SR	52.0	SS	110.4
RDE	.6837	RRA	.8602	RC3	-2.2128	FAU	.25955	RRT	-.7964	RRF	.9918	RTF	-.7931	CRT	-.9837	CRS	-.9928	CST	.9562
FDE	5.5063	FRA	4.8703	FC	-12.9864	BSP	5029	SGB	2998.0	R23	-.1607	R13	.9787	LSA	127.3	MSA	11.3	SSA	1.1
BDE	.8191	BRA	1.2134	BC3	2.2398	FSP	2246	SG1	2873.2	SG2	855.9	THA	119.70	EL1	64.1	EL2	5.5	ALF	125.98

LAUNCH DATE JUL 11 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 495.283 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.894	GAL	-2.84	AZL	87.19	HCA	157.05	SMA	200.08	ECC	.24467	INC	2.8087	VI	29.294
RP	233.44	LAP	1.09	LOP	85.63	VP	21.766	GAP	10.47	AZP	92.59	TAL	345.48	TAP	142.53	RCA	151.13	APO	249.04	V2	23.554
RC	171.472	GL	22.66	GP	-28.61	ZAL	112.16	ZAP	125.10	ETS	204.60	ZAE	148.31	ETE	252.67	ZAC	56.51	ETC	285.74	LVI	8.10

PLANETOCENTRIC CONIC

C3	17.465	VHL	4.179	DLA	37.04	RAL	31.81	RAD	6641.7	VEL	11.726	PTH	6.76	VHP	3.179	DPA	-13.46	RAP	44.53	ECC	1.2874

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 15 45	3905.33	-45.28	166.38	280.86	73.49	12 20 51	2905.3	-46.76	131.37
60.00	10 38 36	4004.86	-34.20	170.14	275.72	67.23	11 45 20	3004.9	-40.14	140.75
65.02	9 14 40	4248.49	-22.26	183.41	268.97	59.61	10 25 29	3248.5	-32.77	158.97
65.02	9 14 40	4248.49	-22.26	183.41	268.97	59.61	10 25 29	3248.5	-32.77	158.97
65.02	9 14 40	4248.49	-22.26	183.41	268.97	59.61	10 25 29	3248.5	-32.77	158.97
65.02	9 14 40	4248.49	-22.26	183.41	268.97	59.61	10 25 29	3248.5	-32.77	158.97
65.02	9 14 40	4248.49	-22.26	183.41	268.97	59.61	10 25 29	3248.5	-32.77	158.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4303	TRA	-.8140	TC3	.2741	BAU	.5489	SGT	1534.7	SGR	2704.0	SG3	1363.2	ST	36.2	SR	58.8	SS	114.2
RDE	.7883	RRA	.8898	RC3	-2.3348	FAU	.26233	RRT	-.7762	RRF	.9932	RTF	-.7717	CRT	-.9758	CRS	-.9950	CST	.9500
FDE	5.7899	FRA	4.7943	FC	-13.0040	BSP	5204	SGB	3109.2	R23	-.1412	R13	.9831	LSA	133.0	MSA	11.4	SSA	1.0
BDE	.8981	BRA	1.2060	BC3	2.3508	FSP	2279	SG1	2982.9	SG2	877.0	THA	116.21	EL1	68.7	EL2	6.8	ALF	121.34

LAUNCH DATE JUL 11 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 499.055 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.882	GAL	-2.83	AZL	87.00	HCA	158.04	SMA	199.84	ECC	.24374	INC	2.9975	VI	29.294
RP	233.80	LAP	1.12	LOP	86.62	VP	21.707	GAP	10.21	AZP	92.78	TAL	345.50	TAP	143.54	RCA	151.13	APO	248.55	V2	23.517
RC	174.413	GL	24.11	GP	-30.04	ZAL	111.91	ZAP	123.30	ETS	204.41	ZAE	146.51	ETE	250.69	ZAC	55.24	ETC	286.05	LVI	10.36

PLANETOCENTRIC CONIC

C3	17.679	VHL	4.205	DLA	38.39	RAL	31.13	RAD	6641.8	VEL	11.735	PTH	6.76	VHP	3.164	DPA	-14.98	RAP	44.58	ECC	1.2909

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 1 57	3946.13	-44.43	169.94	281.13	70.86	12 7 43	2946.1	-47.17	135.22
60.00	10 11 0	4082.90	-32.00	175.60	274.58	64.07	11 19 3	3082.9	-39.57	147.31
62.88	9 1 11	4282.82	-22.89	186.63	268.94	58.30	10 12 33	3282.8	-33.85	162.22
62.88	9 1 11	4282.82	-22.89	186.63	268.94	58.30	10 12 33	3282.8	-33.85	162.22
62.88	9 1 11	4282.82	-22.89	186.63	268.94	58.30	10 12 33	3282.8	-33.85	162.22
62.88	9 1 11	4282.82	-22.89	186.63	268.94	58.30	10 12 33	3282.8	-33.85	162.22
62.88	9 1 11	4282.82	-22.89	186.63	268.94	58.30	10 12 33	3282.8	-33.85	162.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4050	TRA	-.7711	TC3	.1978	BAU	.5823	SGT	1459.2	SGR	2886.4	SG3	1374.4	ST	34.1	SR	66.2	SS	118.0
RDE	.9048	RRA	.9179	RC3	-2.4559	FAU	.26405	RRT	-.7509	RRF	.9943	RTF	-.7450	CRT	-.9658	CRS	-.9965	CST	.9415
FDE	6.0708	FRA	4.6859	FC	-12.9307	BSP	5406	SGB	3234.3	R23	-.1219	R13	.9869	LSA	139.1	MSA	11.6	SSA	.9
BDE	.9913	BRA	1.1988	BC3	2.4638	FSP	2302	SG1	3108.0	SG2	895.0	THA	112.78	EL1	74.1	EL2	7.9	ALF	116.81

LAUNCH DATE JUL 11 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 502.830 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.870	GAL	-2.82	AZL	86.80	HCA	159.03	SMA	199.62	ECC	.24287	INC	3.2027	VI	29.294
RP	234.17	LAP	1.15	LOP	87.61	VP	21.649	GAP	9.96	AZP	92.99	TAL	345.51	TAP	144.54	RCA	151.14	APO	248.10	V2	23.479
RC	177.360	GL	25.65	GP	-31.55	ZAL	111.64	ZAP	121.46	ETS	204.18	ZAE	144.61	ETE	248.84	ZAC	53.90	ETC	286.39	LVI	11.68

PLANETOCENTRIC CONIC

C3	17.952	VHL	4.237	DLA	39.82	RAL	30.41	RAD	6641.9	VEL	11.746	PTH	6.78	VHP	3.157	DPA	-16.56	RAP	44.66	ECC	1.2954

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 46 3	3992.43	-43.32	173.84	281.23	68.02	11 52 35	2992.4	-47.47	139.66
60.00	9 26 37	4206.77	-28.03	183.67	272.05	59.77	10 36 44	3206.8	-37.86	157.38
60.71	8 47 56	4315.94	-23.52	189.83	268.96	56.89	9 59 52	3315.9	-34.98	165.48
60.71	8 47 56	4315.94	-23.52	189.83	268.96	56.89	9 59 52	3315.9	-34.98	165.48
60.71	8 47 56	4315.94	-23.52	189.83	268.96	56.89	9 59 52	3315.9	-34.98	165.48
60.71	8 47 56	4315.94	-23.52	189.83	268.96	56.89	9 59 52	3315.9	-34.98	165.48
60.71	8 47 56	4315.94	-23.52	189.83	268.96	56.89	9 59 52	3315.9	-34.98	165.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3730	TRA	-.7253	TC3	.1218	BAU	.6186	SGT	1376.9	SGR	3078.2	SG3	1378.2	ST	31.7	SR	74.3	SS	121.6
RDE	1.0345	RRA	.9433	RC3	-2.5747	FAU	.26460	RRT	-.7200	RRF	.9953	RTF	-.7127	CRT	-.9524	CRS	-.9976	CST	.9293
FDE	6.3435	FRA	4.5412	FC	-12.7602	BSP	5614	SGB	3372.1	R23	-.1030	R13	.9900	LSA	145.5	MSA	11.7	SSA	.8
BDE	1.0996	BRA	1.1899	BC3	2.5776	FSP	2309	SG1	3248.3	SG2	905.6	THA	109.42	EL1	80.3	EL2	8.9	ALF	112.38

LAUNCH DATE JUL 11 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 506.607 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.86	VL	32.860	GAL	-2.81	AZL	86.37	HCA	160.01	SMA	199.41	ECC	.24207	INC	3.4264	V1	29.294
RP	234.53	LAP	1.17	LOP	88.60	VP	21.592	GAP	9.71	AZP	93.22	TAL	345.51	TAP	145.52	RCA	151.14	APO	247.69	V2	23.442
RC	180.313	GL	27.30	GP	-33.13	ZAL	111.35	ZAP	119.60	ETS	203.91	ZAE	142.62	ETE	247.11	ZAC	52.51	ETC	286.76	LVI	13.08

PLANETOCENTRIC CONIC

C3 18.297 VHL 4.277 DLA 41.35 RAL 29.61 RAD 6642.1 VEL 11.761 PTH 6.79 VHP 3.159 DPA -18.23 RAP 44.75 ECC 1.3011

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 27 18	4045.88	-41.87	178.15	281.07	64.95	11 34 44	3045.9	-47.58	144.82
58.47	8 34 47	4348.32	-24.14	193.05	269.02	55.34	9 47 15	3348.3	-36.15	168.80
58.47	8 34 47	4348.32	-24.14	193.05	269.02	55.34	9 47 15	3348.3	-36.15	168.80
58.47	8 34 47	4348.32	-24.14	193.05	269.02	55.34	9 47 15	3348.3	-36.15	168.80
58.47	8 34 47	4348.32	-24.14	193.05	269.02	55.34	9 47 15	3348.3	-36.15	168.80
58.47	8 34 47	4348.32	-24.14	193.05	269.02	55.34	9 47 15	3348.3	-36.15	168.80
58.47	8 34 47	4348.32	-24.14	193.05	269.02	55.34	9 47 15	3348.3	-36.15	168.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3413	TRA	-.6852	TC3	.0292	BAU	.6561	SGT	1305.6	SGR	3280.4	SG3	1374.3	ST	29.3	SR	83.4	SS	125.2
RDE	1.1826	RRA	.9685	RC3	-2.6822	FAU	.26317	RRT	-.6759	RRF	.9961	RTF	-.6676	CRT	-.9352	CRS	-.9983	CST	.9135
FDE	6.6183	FRA	4.3743	FC	-12.4523	BSP	5906	SGB	3530.6	R23	-.0866	R13	.9924	LSA	152.8	MSA	12.0	SSA	.7
BDE	1.2309	BRA	1.1863	BC3	2.6823	FSP	2316	SG1	3406.9	SG2	926.5	THA	106.29	EL1	87.9	EL2	9.9	ALF	108.43

LAUNCH DATE JUL 11 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 510.385 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.850	GAL	-2.80	AZL	86.33	HCA	160.99	SMA	199.22	ECC	.24132	INC	3.6715	V1	29.294
RP	234.89	LAP	1.20	LOP	89.58	VP	21.537	GAP	9.47	AZP	93.47	TAL	345.51	TAP	146.50	RCA	151.14	APO	247.30	V2	23.405
RC	183.270	GL	29.05	GP	-34.78	ZAL	111.04	ZAP	117.72	ETS	203.59	ZAE	140.54	ETE	245.50	ZAC	51.05	ETC	287.18	LVI	14.54

PLANETOCENTRIC CONIC

C3 18.723 VHL 4.327 DLA 42.98 RAL 28.74 RAD 6642.3 VEL 11.779 PTH 6.80 VHP 3.171 DPA -19.97 RAP 44.87 ECC 1.3081

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 4 28	4109.27	-39.93	182.98	280.44	61.61	11 12 58	3109.3	-47.37	150.94
56.17	8 21 39	4380.08	-24.74	196.31	269.12	53.66	9 34 39	3380.1	-37.36	172.20
56.17	8 21 39	4380.08	-24.74	196.31	269.12	53.66	9 34 39	3380.1	-37.36	172.20
56.17	8 21 39	4380.08	-24.74	196.31	269.12	53.66	9 34 39	3380.1	-37.36	172.20
56.17	8 21 39	4380.08	-24.74	196.31	269.12	53.66	9 34 39	3380.1	-37.36	172.20
56.17	8 21 39	4380.08	-24.74	196.31	269.12	53.66	9 34 39	3380.1	-37.36	172.20
56.17	8 21 39	4380.08	-24.74	196.31	269.12	53.66	9 34 39	3380.1	-37.36	172.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3003	TRA	-.6415	TC3	-.0594	BAU	.6968	SGT	1228.4	SGR	3490.4	SG3	1360.7	ST	26.4	SR	93.2	SS	128.5
RDE	1.3475	RRA	.9861	RC3	-2.7831	FAU	.26037	RRT	-.6209	RRF	.9968	RTF	-.6115	CRT	-.9093	CRS	-.9988	CST	.8883
FDE	6.8694	FRA	4.1623	FC	-12.0389	BSP	6186	SGB	3700.2	R23	-.0710	R13	.9943	LSA	160.5	MSA	12.2	SSA	.7
BDE	1.3805	BRA	1.1780	BC3	2.7838	FSP	2297	SG1	3579.1	SG2	939.0	THA	103.26	EL1	98.3	EL2	10.6	ALF	104.64

LAUNCH DATE JUL 11 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 514.165 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.841	GAL	-2.80	AZL	86.06	HCA	161.97	SMA	199.04	ECC	.24063	INC	3.9414	V1	29.294
RP	235.24	LAP	1.22	LOP	90.57	VP	21.484	GAP	9.22	AZP	93.75	TAL	345.50	TAP	147.47	RCA	151.14	APO	246.94	V2	23.369
RC	186.232	GL	30.92	GP	-36.50	ZAL	110.69	ZAP	115.82	ETS	203.21	ZAE	138.38	ETE	243.97	ZAC	49.54	ETC	287.65	LVI	16.08

PLANETOCENTRIC CONIC

C3 19.250 VHL 4.387 DLA 44.72 RAL 27.77 RAD 6642.5 VEL 11.801 PTH 6.82 VHP 3.194 DPA -21.78 RAP 45.02 ECC 1.3168

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 34 56	4188.58	-37.21	188.62	279.00	57.89	10 44 45	3188.6	-46.63	158.45
53.79	8 8 23	4411.60	-25.32	199.63	269.25	51.81	9 21 54	3411.6	-38.59	175.74
53.79	8 8 23	4411.60	-25.32	199.63	269.25	51.81	9 21 54	3411.6	-38.59	175.74
53.79	8 8 23	4411.60	-25.32	199.63	269.25	51.81	9 21 54	3411.6	-38.59	175.74
53.79	8 8 23	4411.60	-25.32	199.63	269.25	51.81	9 21 54	3411.6	-38.59	175.74
53.79	8 8 23	4411.60	-25.32	199.63	269.25	51.81	9 21 54	3411.6	-38.59	175.74
53.79	8 8 23	4411.60	-25.32	199.63	269.25	51.81	9 21 54	3411.6	-38.59	175.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2516	TRA	-.5972	TC3	-.1472	BAU	.7406	SGT	1153.1	SGR	3708.6	SG3	1337.2	ST	23.3	SR	103.9	SS	131.3
RDE	1.5330	RRA	1.0011	RC3	-2.8741	FAU	.25602	RRT	-.5499	RRF	.9974	RTF	-.5392	CRT	-.8681	CRS	-.9992	CST	.8475
FDE	7.0961	FRA	3.9077	FC	-11.5143	BSP	6490	SGB	3883.7	R23	-.0570	R13	.9958	LSA	168.6	MSA	12.4	SSA	.6
BDE	1.5535	BRA	1.1658	BC3	2.8779	FSP	2261	SG1	3766.2	SG2	948.3	THA	100.37	EL1	105.9	EL2	11.3	ALF	101.13

LAUNCH DATE JUL 11 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 517.946 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.832	GAL	-2.79	AZL	85.76	HCA	162.94	SMA	198.87	ECC	.24000	INC	4.2401	V1	29.294
RP	235.59	LAP	1.24	LOP	91.54	VP	21.432	GAP	8.97	AZP	94.05	TAL	345.49	TAP	148.43	RCA	151.15	APO	246.60	V2	23.332
RC	189.197	GL	32.93	GP	-38.31	ZAL	110.30	ZAP	113.92	ETS	202.78	ZAE	136.14	ETE	242.52	ZAC	47.96	ETC	288.17	LVI	17.69

PLANETOCENTRIC CONIC

C3 19.897 VHL 4.461 DLA 46.58 RAL 26.66 RAD 6642.8 VEL 11.828 PTH 6.85 VHP 3.229 DPA -23.66 RAP 45.20 ECC 1.3275

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 50 16	4303.64	-32.77	196.03	275.70	53.35	10 2 0	3303.6	-44.64	168.62
51.31	7 54 53	4443.02	-25.85	203.04	269.41	49.80	9 8 56	3443.0	-39.84	179.44
51.31	7 54 53	4443.02	-25.85	203.04	269.41	49.80	9 8 56	3443.0	-39.84	179.44
51.31	7 54 53	4443.02	-25.85	203.04	269.41	49.80	9 8 56	3443.0	-39.84	179.44
51.31	7 54 53	4443.02	-25.85	203.04	269.41	49.80	9 8 56	3443.0	-39.84	179.44
51.31	7 54 53	4443.02	-25.85	203.04	269.41	49.80	9 8 56	3443.0	-39.84	179.44
51.31	7 54 53	4443.02	-25.85	203.04	269.41	49.80	9 8 56	3443.0	-39.84	179.44

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1944	TRA	-.5538	TC3	-.2355	BAU	.7870	SGT	1085.1	SGR	3934.4	SG3	1303.0	ST	19.9	SR	115.5	SS	133.8
RDE	1.7434	RRA	1.0073	RC3	-2.9491	FAU	.24977	RRT	-.4578	RRF	.9978	RTF	-.4459	CRT	-.7972	CRS	-.9994	CST	.7765
FDE	7.2942	FRA	3.6163	FC	-10.8674	BSP	6813	SGB	4081.3	R23	-.0446	R13	.9969	LSA	177.4	MSA	12.6	SSA	.5
BDE	1.7542	BRA	1.1495	BC3	2.9585	FSP	2205	SG1	3967.6	SG2	956.7	THA	97.64	EL1	116.6	EL2	11.9	ALF	97.91

LAUNCH DATE JUL 11 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 521.727 EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 32.824 GAL -2.79 AZL 85.43 HCA 163.91 SMA 198.72 ECC .23941 INC 4.5729 V1 29.294
RP 235.94 LAP 1.27 LOP 92.52 VP 21.380 GAP 8.73 AZP 94.39 TAL 345.47 TAP 149.38 RCA 151.14 APO 246.30 V2 23.297
RC 192.165 GL 35.07 GP -40.18 ZAL 109.87 ZAP 112.00 ETS 202.28 ZAE 133.83 ETE 241.14 ZAC 46.32 ETC 288.78 LVI 19.37

PLANETOCENTRIC CONIC

C3 20.694 VHL 4.549 DLA 48.56 RAL 28.45 RAD 6643.1 VEL 11.862 PTH 6.88 VHP 3.278 DPA -25.62 RAP 45.44 ECC 1.3406

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.73	7 40 59	4474.66	-26.31	206.55	269.57	47.59	8 55 34	3474.7	-41.09	183.35
48.73	7 40 59	4474.66	-26.31	206.55	269.57	47.59	8 55 34	3474.7	-41.09	183.35
48.73	7 40 59	4474.66	-26.31	206.55	269.57	47.59	8 55 34	3474.7	-41.09	183.35
48.73	7 40 59	4474.66	-26.31	206.55	269.57	47.59	8 55 34	3474.7	-41.09	183.35
48.73	7 40 59	4474.66	-26.31	206.55	269.57	47.59	8 55 34	3474.7	-41.09	183.35
48.73	7 40 59	4474.66	-26.31	206.55	269.57	47.59	8 55 34	3474.7	-41.09	183.35
48.73	7 40 59	4474.66	-26.31	206.55	269.57	47.59	8 55 34	3474.7	-41.09	183.35

DIFFERENTIAL CORRECTIONS

TDE -.1271 TRA -.5116 TC3 -.3219 BAU .8359
RDE 1.9825 RRA 1.0045 RC3-3.0043 FAU .24154
FDE 7.4540 FRA 3.2895 FC-10.1047 BSP 7172
BDE 1.9866 BRA 1.1273 BC3 3.0215 FSP 2133

MID-COURSE EXECUTION ACCURACY

SGT 1029.2 SGR 4166.5 SG3 1257.5
RRT -.3405 RRF .9982 RTF -.3274
SGB 4291.8 R23 -.0337 R13 .9978
SG1 4182.1 SG2 964.1 THA 95.08

ORBIT DETERMINATION ACCURACY

ST 16.7 SR 128.2 SS 135.6
CRT -.6632 CRS -.9996 CST .6420
LSA 186.9 MSA 12.9 SSA .4
EL1 128.6 EL2 12.4 ALF 94.97

LAUNCH DATE JUL 11 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 525.508 EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 32.617 GAL -2.79 AZL 85.05 HCA 164.88 SMA 198.58 ECC .23888 INC 4.9460 V1 29.294
RP 236.29 LAP 1.29 LOP 93.49 VP 21.331 GAP 8.49 AZP 94.78 TAL 345.45 TAP 150.33 RCA 151.14 APO 246.02 V2 23.261
RC 195.134 GL 37.37 GP -42.13 ZAL 109.39 ZAP 110.09 ETS 201.71 ZAE 131.46 ETE 239.81 ZAC 44.63 ETC 289.40 LVI 21.12

PLANETOCENTRIC CONIC

C3 21.678 VHL 4.656 DLA 50.67 RAL 24.02 RAD 6643.6 VEL 11.903 PTH 6.91 VHP 3.344 DPA -27.64 RAP 45.72 ECC 1.3568

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.03	7 26 31	4506.84	-26.68	210.19	269.72	45.18	8 41 38	3506.8	-42.31	187.53
46.03	7 26 31	4506.84	-26.68	210.19	269.72	45.18	8 41 38	3506.8	-42.31	187.53
46.03	7 26 31	4506.84	-26.68	210.19	269.72	45.18	8 41 38	3506.8	-42.31	187.53
46.03	7 26 31	4506.84	-26.68	210.19	269.72	45.18	8 41 38	3506.8	-42.31	187.53
46.03	7 26 31	4506.84	-26.68	210.19	269.72	45.18	8 41 38	3506.8	-42.31	187.53
46.03	7 26 31	4506.84	-26.68	210.19	269.72	45.18	8 41 38	3506.8	-42.31	187.53
46.03	7 26 31	4506.84	-26.68	210.19	269.72	45.18	8 41 38	3506.8	-42.31	187.53

DIFFERENTIAL CORRECTIONS

TDE -.0482 TRA -.4720 TC3 -.4049 BAU .8674
RDE 2.2563 RRA .9907 RC3-3.0350 FAU .23123
FDE 7.5685 FRA 2.9308 FC3-9.2343 BSP 7551
BDE 2.2568 BRA 1.0974 BC3 3.0619 FSP 2041

MID-COURSE EXECUTION ACCURACY

SGT 992.6 SGR 4404.1 SG3 1200.5
RRT -.1970 RRF .9986 RTF -.1830
SGB 4514.6 R23 -.0243 R13 .9984
SG1 4408.7 SG2 972.2 THA 92.67

ORBIT DETERMINATION ACCURACY

ST 14.1 SR 141.9 SS 136.8
CRT -.4035 CRS -.9997 CST .3819
LSA 197.2 MSA 13.1 SSA .4
EL1 142.0 EL2 12.9 ALF 92.31

LAUNCH DATE JUL 11 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 529.290 EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 32.810 GAL -2.79 AZL 84.63 HCA 165.84 SMA 198.45 ECC .23839 INC 5.3674 V1 29.294
RP 236.63 LAP 1.31 LOP 94.46 VP 21.282 GAP 8.25 AZP 95.21 TAL 345.42 TAP 151.26 RCA 151.14 APO 245.76 V2 23.226
RC 198.104 GL 39.84 GP -44.15 ZAL 108.84 ZAP 108.20 ETS 201.07 ZAE 129.04 ETE 238.52 ZAC 42.88 ETC 290.14 LVI 22.94

PLANETOCENTRIC CONIC

C3 22.901 VHL 4.785 DLA 52.92 RAL 22.37 RAD 6644.1 VEL 11.954 PTH 6.95 VHP 3.429 DPA -29.73 RAP 46.07 ECC 1.3769

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.21	7 11 18	4539.77	-26.92	213.96	269.81	42.56	8 26 58	3539.8	-43.47	192.02
43.21	7 11 18	4539.77	-26.92	213.96	269.81	42.56	8 26 58	3539.8	-43.47	192.02
43.21	7 11 18	4539.77	-26.92	213.96	269.81	42.56	8 26 58	3539.8	-43.47	192.02
43.21	7 11 18	4539.77	-26.92	213.96	269.81	42.56	8 26 58	3539.8	-43.47	192.02
43.21	7 11 18	4539.77	-26.92	213.96	269.81	42.56	8 26 58	3539.8	-43.47	192.02
43.21	7 11 18	4539.77	-26.92	213.96	269.81	42.56	8 26 58	3539.8	-43.47	192.02
43.21	7 11 18	4539.77	-26.92	213.96	269.81	42.56	8 26 58	3539.8	-43.47	192.02

DIFFERENTIAL CORRECTIONS

TDE .0456 TRA -.4345 TC3 -.4803 BAU .9430
RDE 2.5686 RRA .9599 RC3-3.0424 FAU .21927
FDE 7.6192 FRA 2.5363 FC3-8.2894 BSP 7924
BDE 2.5690 BRA 1.0537 BC3 3.0801 FSP 1924

MID-COURSE EXECUTION ACCURACY

SGT 979.0 SGR 4644.3 SG3 1131.6
RRT -.0303 RRF .9989 RTF -.0255
SGB 4746.3 R23 -.0161 R13 .9988
SG1 4644.4 SG2 978.5 THA 90.38

ORBIT DETERMINATION ACCURACY

ST 13.2 SR 156.5 SS 137.0
CRT .0255 CRS -.9998 CST -.0451
LSA 208.0 MSA 13.4 SSA .3
EL1 156.5 EL2 13.2 ALF 89.88

LAUNCH DATE JUL 11 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 533.071 EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 32.804 GAL -2.79 AZL 84.15 HCA 166.80 SMA 198.33 ECC .23795 INC 5.8478 V1 29.294
RP 236.98 LAP 1.33 LOP 95.43 VP 21.235 GAP 8.00 AZP 95.69 TAL 345.38 TAP 152.19 RCA 151.14 APO 245.52 V2 23.191
RC 201.073 GL 42.48 GP -46.23 ZAL 108.23 ZAP 106.32 ETS 200.34 ZAE 126.58 ETE 237.25 ZAC 41.09 ETC 290.97 LVI 24.83

PLANETOCENTRIC CONIC

C3 24.432 VHL 4.943 DLA 55.31 RAL 20.40 RAD 6644.8 VEL 12.017 PTH 7.01 VHP 3.538 DPA -31.87 RAP 46.48 ECC 1.4021

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.27	6 54 58	4573.93	-26.99	217.87	269.77	39.70	8 11 12	3573.9	-44.52	196.88
40.27	6 54 58	4573.93	-26.99	217.87	269.77	39.70	8 11 12	3573.9	-44.52	196.88
40.27	6 54 58	4573.93	-26.99	217.87	269.77	39.70	8 11 12	3573.9	-44.52	196.88
40.27	6 54 58	4573.93	-26.99	217.87	269.77	39.70	8 11 12	3573.9	-44.52	196.88
40.27	6 54 58	4573.93	-26.99	217.87	269.77	39.70	8 11 12	3573.9	-44.52	196.88
40.27	6 54 58	4573.93	-26.99	217.87	269.77	39.70	8 11 12	3573.9	-44.52	196.88
40.27	6 54 58	4573.93	-26.99	217.87	269.77	39.70	8 11 12	3573.9	-44.52	196.88

DIFFERENTIAL CORRECTIONS

TDE .1571 TRA -.4008 TC3 -.5479 BAU 1.0003
RDE 2.9314 RRA .9123 RC3-3.0132 FAU .20500
FDE 7.6063 FRA 2.1243 FC3-7.2640 BSP 8336
BDE 2.9356 BRA .9964 BC3 3.0626 FSP 1794

MID-COURSE EXECUTION ACCURACY

SGT 995.8 SGR 4885.8 SG3 1051.2
RRT .1470 RRF .9991 RTF .1620
SGB 4986.3 R23 -.0090 R13 .9992
SG1 4888.1 SG2 984.5 THA 88.21

ORBIT DETERMINATION ACCURACY

ST 15.3 SR 172.2 SS 136.2
CRT .4598 CRS -.9999 CST -.4742
LSA 219.7 MSA 13.6 SSA .3
EL1 172.4 EL2 13.6 ALF 87.65

LAUNCH DATE JUL 11 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 536.851 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.798	GAL	-2.80	AZL	83.60	HCA	167.76	SMA	198.22	ECC	.23755	INC	6.4002	V1	29.294
RP	237.31	LAP	1.35	LOP	96.39	VP	21.189	GAP	7.76	AZP	96.26	TAL	345.34	TAP	153.10	RCA	151.13	APO	245.31	V2	23.157
RC	204.040	GL	45.33	GP	-48.37	ZAL	107.55	ZAP	104.49	ETS	199.53	ZAE	124.09	ETE	235.99	ZAC	39.26	ETC	291.90	LVI	26.77

PLANETOCENTRIC CONIC

C3	26.370	VHL	5.135	DLA	57.84	RAL	18.03	RAD	6645.6	VEL	12.097	PTH	7.07	VHP	3.674	DPA	-34.05	RAP	46.98	ECC	1.4340

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.19	6 37 9	4609.77	-26.83	221.92	269.50	36.62	7 53 59	3609.8	-45.38	202.14
37.19	6 37 9	4609.77	-26.83	221.92	269.50	36.62	7 53 59	3609.8	-45.38	202.14
37.19	6 37 9	4609.77	-26.83	221.92	269.50	36.62	7 53 59	3609.8	-45.38	202.14
37.19	6 37 9	4609.77	-26.83	221.92	269.50	36.62	7 53 59	3609.8	-45.38	202.14
37.19	6 37 9	4609.77	-26.83	221.92	269.50	36.62	7 53 59	3609.8	-45.38	202.14
37.19	6 37 9	4609.77	-26.83	221.92	269.50	36.62	7 53 59	3609.8	-45.38	202.14
37.19	6 37 9	4609.77	-26.83	221.92	269.50	36.62	7 53 59	3609.8	-45.38	202.14

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY					ORBIT DETERMINATION ACCURACY				
TDE	.2883	TRA	-.3787	TC3	-.6042	BAU	1.0810	SGT	1048.4	SGR	5127.3	SG3	960.2	ST	19.9	SR	189.1	SS	134.8
RDE	3.3546	RRA	.8416	RC3	-2.9482	FAU	.18887	RRT	.3171	RRF	.9993	RTF	.3320	CRT	.7179	CRS	-.9999	CST	-.7274
FDE	7.5142	FRA	1.6980	FC3	-6.2006	BSP	8763	SGB	5233.4	R23	-.0029	R13	.9994	LSA	232.3	NSA	13.9	SSA	.2
BDE	3.3669	BRA	.9204	BC3	3.0095	FSP	1646	SG1	5138.5	SG2	992.1	THA	86.15	EL1	189.6	EL2	13.8	ALF	85.65

LAUNCH DATE JUL 11 1973 FLIGHT TIME 230.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 540.629 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.794	GAL	-2.80	AZL	82.96	HCA	168.71	SMA	198.12	ECC	.23719	INC	7.0426	V1	29.294
RP	237.65	LAP	1.38	LOP	97.35	VP	21.144	GAP	7.52	AZP	96.91	TAL	345.30	TAP	154.01	RCA	151.13	APO	245.12	V2	23.123
RC	207.005	GL	48.38	GP	-50.55	ZAL	106.78	ZAP	102.69	ETS	198.63	ZAE	121.58	ETE	234.73	ZAC	37.41	ETC	292.95	LVI	28.76

PLANETOCENTRIC CONIC

C3	28.858	VHL	5.372	DLA	60.52	RAL	15.11	RAD	6646.6	VEL	12.198	PTH	7.16	VHP	3.848	DPA	-36.26	RAP	47.87	ECC	1.4749

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.98	6 17 16	4647.75	-26.38	226.09	268.84	33.33	7 34 43	3647.8	-45.98	207.82
33.98	6 17 16	4647.75	-26.38	226.09	268.84	33.33	7 34 43	3647.8	-45.98	207.82
33.98	6 17 16	4647.75	-26.38	226.09	268.84	33.33	7 34 43	3647.8	-45.98	207.82
33.98	6 17 16	4647.75	-26.38	226.09	268.84	33.33	7 34 43	3647.8	-45.98	207.82
33.98	6 17 16	4647.75	-26.38	226.09	268.84	33.33	7 34 43	3647.8	-45.98	207.82
33.98	6 17 16	4647.75	-26.38	226.09	268.84	33.33	7 34 43	3647.8	-45.98	207.82
33.98	6 17 16	4647.75	-26.38	226.09	268.84	33.33	7 34 43	3647.8	-45.98	207.82

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY					ORBIT DETERMINATION ACCURACY				
TDE	.4448	TRA	-.3508	TC3	-.6452	BAU	1.1287	SGT	1132.6	SGR	5361.4	SG3	859.1	ST	26.3	SR	206.5	SS	130.4
RDE	3.8445	RRA	.7344	RC3	-2.8534	FAU	.17183	RRT	.4712	RRF	.9994	RTF	.4857	CRT	.8452	CRS	-.9999	CST	-.8514
FDE	7.3153	FRA	1.2549	FC3	-5.1488	BSP	9134	SGB	5479.8	R23	.0022	R13	.9995	LSA	245.2	NSA	14.0	SSA	.2
BDE	3.8702	BRA	.8138	BC3	2.9255	FSP	1471	SG1	5388.9	SG2	993.9	THA	84.11	EL1	207.7	EL2	14.0	ALF	83.82

LAUNCH DATE JUL 11 1973 FLIGHT TIME 232.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 544.405 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.789	GAL	-2.81	AZL	82.20	HCA	169.66	SMA	198.03	ECC	.23687	INC	7.7995	V1	29.294
RP	237.98	LAP	1.40	LOP	98.31	VP	21.100	GAP	7.29	AZP	97.67	TAL	345.25	TAP	154.92	RCA	151.12	APO	244.94	V2	23.090
RC	209.965	GL	51.66	GP	-52.77	ZAL	105.92	ZAP	100.96	ETS	197.63	ZAE	119.08	ETE	233.45	ZAC	35.54	ETC	294.14	LVI	30.79

PLANETOCENTRIC CONIC

C3	32.107	VHL	5.666	DLA	63.32	RAL	11.42	RAD	6647.8	VEL	12.330	PTH	7.26	VHP	4.062	DPA	-38.49	RAP	48.25	ECC	1.5284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.66	5 54 29	4688.49	-25.56	230.32	267.53	29.85	7 12 37	3688.5	-46.19	213.88
30.66	5 54 29	4688.49	-25.56	230.32	267.53	29.85	7 12 37	3688.5	-46.19	213.88
30.66	5 54 29	4688.49	-25.56	230.32	267.53	29.85	7 12 37	3688.5	-46.19	213.88
30.66	5 54 29	4688.49	-25.56	230.32	267.53	29.85	7 12 37	3688.5	-46.19	213.88
30.66	5 54 29	4688.49	-25.56	230.32	267.53	29.85	7 12 37	3688.5	-46.19	213.88
30.66	5 54 29	4688.49	-25.56	230.32	267.53	29.85	7 12 37	3688.5	-46.19	213.88
30.66	5 54 29	4688.49	-25.56	230.32	267.53	29.85	7 12 37	3688.5	-46.19	213.88

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY					ORBIT DETERMINATION ACCURACY				
TDE	.6301	TRA	-.3388	TC3	-.6720	BAU	1.1979	SGT	1252.1	SGR	5591.2	SG3	750.5	ST	33.9	SR	224.8	SS	124.8
RDE	4.4272	RRA	.5956	RC3	-2.7086	FAU	.15231	RRT	.5932	RRF	.9995	RTF	.6185	CRT	.9071	CRS	-.9999	CST	-.9114
FDE	7.0116	FRA	.8341	FC3	-4.1070	BSP	9586	SGB	5729.7	R23	.0062	R13	.9997	LSA	259.0	NSA	14.1	SSA	.1
BDE	4.4718	BRA	.6853	BC3	2.7907	FSP	1296	SG1	5642.2	SG2	997.1	THA	82.16	EL1	226.9	EL2	14.1	ALF	82.19

LAUNCH DATE JUL 11 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 548.177 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.785	GAL	-2.81	AZL	81.30	HCA	170.61	SMA	197.95	ECC	.23659	INC	8.7046	V1	29.294
RP	238.30	LAP	1.42	LOP	99.27	VP	21.087	GAP	7.05	AZP	98.59	TAL	345.21	TAP	155.81	RCA	151.12	APO	244.79	V2	23.056
RC	212.919	GL	55.19	GP	-55.00	ZAL	104.95	ZAP	99.30	ETS	196.54	ZAE	116.61	ETE	232.15	ZAC	33.69	ETC	295.47	LVI	32.83

PLANETOCENTRIC CONIC

C3	36.434	VHL	6.036	DLA	66.21	RAL	8.62	RAD	6649.4	VEL	12.503	PTH	7.39	VHP	4.334	DPA	-40.71	RAP	49.04	ECC	1.5996

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.26	5 27 27	4732.76	-24.27	234.54	265.16	26.26	6 46 20	3732.8	-45.90	220.21
27.26	5 27 27	4732.76	-24.27	234.54	265.16	26.26	6 46 20	3732.8	-45.90	220.21
27.26	5 27 27	4732.76	-24.27	234.54	265.16	26.26	6 46 20	3732.8	-45.90	220.21
27.26	5 27 27	4732.76	-24.27	234.54	265.16	26.26	6 46 20	3732.8	-45.90	220.21
27.26	5 27 27	4732.76	-24.27	234.54	265.16	26.26	6 46 20	3732.8	-45.90	220.21
27.26	5 27 27	4732.76	-24.27	234.54	265.16	26.26	6 46 20	3732.8	-45.90	220.21
27.26	5 27 27	4732.76	-24.27	234.54	265.16	26.26	6 46 20	3732.8	-45.90	220.21

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY					ORBIT DETERMINATION ACCURACY				
TDE	.8462	TRA	-.3388	TC3	-.6800	BAU	1.2732	SGT	1398.1	SGR	5811.8	SG3	636.5	ST	41.9	SR	243.2	SS	116.9
RDE	5.1147	RRA	.4084	RC3	-2.5239	FAU	.13187	RRT	.6934	RRF	.9996	RTF	.7081	CRT	.9398	CRS	-1.0000	CST	-.9431
FDE	6.5703	FRA	.4381	FC3	-3.1335	BSP	10056	SGB	5977.6	R23	.0082	R13	.9997	LSA	272.7	NSA	14.1	SSA	.1
BDE	5.1842	BRA	.5306	BC3	2.6139	FSP	1111	SG1	5894.5	SG2	993.3	THA	80.25	EL1	246.4	EL2	14.1	ALF	80.77

LAUNCH DATE JUL 11 1973 FLIGHT TIME 270.00 ARRIVAL DATE APR 18 1974

HELIOCENTRIC CONIC DISTANCE 631.811 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.778	GAL	-3.45	AZL	98.93	HCA	191.30	SMA	197.81	ECC	.23845	INC	8.9300
RP	244.45	LAP	1.74	LOP	119.72	VP	20.369	GAP	2.10	AZP	81.24	TAL	341.96	TAP	173.25	RCA	150.64	APO	244.98
RC	275.293	GL	-54.79	GP	51.11	ZAL	107.97	ZAP	81.01	ETS	193.70	ZAE	101.81	ETE	168.07	ZAC	138.40	ETC	291.63

V1 29.294
V2 22.441
LVI -72.74

PLANETOCENTRIC CONIC

C3	38.637	VHL	6.216	DLA	-34.86	RAL	63.70	RAD	6650.2	VEL	12.590	FTH	7.45	VHP	3.702	DPA	49.72	RAP	344.97

ECC 1.6359

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 54 37	2551.74	-9.97	68.64	292.49	136.77	19 37 9	1551.7	8.41	52.87
60.00	20 36 46	2279.70	-1.43	52.29	300.62	130.28	21 14 46	1279.7	14.51	34.09
68.70	23 40 1	1739.59	14.34	20.15	312.16	122.12	24 9 1	739.6	26.24	357.89
68.70	23 40 1	1739.59	14.34	20.15	312.16	122.12	24 9 1	739.6	26.24	357.89
68.70	23 40 1	1739.59	14.34	20.15	312.16	122.12	24 9 1	739.6	26.24	357.89
68.70	23 40 1	1739.59	14.34	20.15	312.16	122.12	24 9 1	739.6	26.24	357.89
68.70	23 40 1	1739.59	14.34	20.15	312.16	122.12	24 9 1	739.6	26.24	357.89

DIFFERENTIAL CORRECTIONS

TDE	-2.2130	TRA	3.7905	TC3	-2.5785	BAU	1.7650
RDE	1.2171	RRA	-4.1925	RC3	2.2421	FAU	.19812
FDE	-1.8717	FRA	7.4719	FC3	-4.4391	BSP	13782
BDE	2.5256	BRA	5.6520	BC3	3.4170	FSP	1607

MID-COURSE EXECUTION ACCURACY

SGT	3707.0	SGR	5586.6	SG3	880.6		
RRT	-.9811	RRF	-.9984	RTF	.9791		
SGB	7986.2	R23	.1013	R13	-.9933		
SG1	7948.4	SG2	776.8	THA	135.62		

ORBIT DETERMINATION ACCURACY

ST	120.4	SR	90.3	SS	48.9
CRT	-.9428	CRS	.9975	CST	-.9170
LSA	155.8	MSA	27.8	SSA	.3
EL1	148.5	EL2	24.4	ALF	143.60

LAUNCH DATE JUL 11 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 17 1974

HELIOCENTRIC CONIC DISTANCE 635.567 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.780	GAL	-3.48	AZL	98.32	HCA	192.19	SMA	197.86	ECC	.23877	INC	8.3225
RP	244.68	LAP	1.75	LOP	120.63	VP	20.348	GAP	1.88	AZP	81.86	TAL	341.78	TAP	173.98	RCA	150.62	APO	245.10
RC	277.948	GL	-52.46	GP	49.17	ZAL	108.93	ZAP	79.74	ETS	194.38	ZAE	101.19	ETE	169.67	ZAC	136.67	ETC	290.89

V1 29.294
V2 22.418
LVI -71.06

PLANETOCENTRIC CONIC

C3	35.676	VHL	5.973	DLA	-32.87	RAL	62.73	RAD	6649.1	VEL	12.473	FTH	7.37	VHP	3.528	DPA	48.00	RAP	346.42

ECC 1.5871

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 36 7	2586.79	-11.71	70.16	289.52	136.45	19 19 14	1586.8	6.66	54.37
60.00	20 8 32	2340.81	-4.12	55.22	296.72	130.13	20 47 33	1340.8	11.92	37.19
70.00	22 27 49	1930.49	6.20	29.75	304.45	123.65	23 0 0	930.5	19.32	9.11
72.92	0 5 56	1640.29	14.21	12.36	309.46	119.73	0 33 17	640.3	25.19	349.69
72.92	0 5 56	1640.29	14.21	12.36	309.46	119.73	0 33 17	640.3	25.19	349.69
72.92	0 5 56	1640.29	14.21	12.36	309.46	119.73	0 33 17	640.3	25.19	349.69
110.00	3 31 11	6265.35	6.20	296.57	304.45	123.65	5 15 37	5265.4	19.32	275.94

DIFFERENTIAL CORRECTIONS

TDE	-2.1304	TRA	3.8176	TC3	-2.8498	BAU	1.7500
RDE	1.1195	RRA	-3.9648	RC3	2.3111	FAU	.21794
FDE	-1.9550	FRA	8.1969	FC3	-5.2886	BSP	13741
BDE	2.4067	BRA	5.5040	BC3	3.6691	FSP	1796

MID-COURSE EXECUTION ACCURACY

SGT	5889.9	SGR	5402.5	SG3	987.7		
RRT	-.9820	RRF	-.9983	RTF	.9799		
SGB	7992.4	R23	.1056	R13	-.9927		
SG1	7956.6	SG2	755.2	THA	137.52		

ORBIT DETERMINATION ACCURACY

ST	121.3	SR	86.6	SS	51.5
CRT	-.9454	CRS	.9968	CST	-.9162
LSA	155.3	MSA	27.4	SSA	.3
EL1	147.2	EL2	23.3	ALF	145.00

LAUNCH DATE JUL 11 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 19 1974

HELIOCENTRIC CONIC DISTANCE 639.321 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.782	GAL	-3.52	AZL	97.80	HCA	193.09	SMA	197.91	ECC	.23911	INC	7.7981
RP	244.90	LAP	1.76	LOP	121.53	VP	20.328	GAP	1.66	AZP	82.40	TAL	341.61	TAP	174.70	RCA	150.58	APO	245.23
RC	280.584	GL	-50.29	GP	47.29	ZAL	109.85	ZAP	78.45	ETS	194.98	ZAE	100.48	ETE	171.17	ZAC	134.98	ETC	290.23

V1 29.294
V2 22.397
LVI -69.39

PLANETOCENTRIC CONIC

C3	33.309	VHL	5.771	DLA	-30.61	RAL	61.92	RAD	6648.3	VEL	12.378	FTH	7.30	VHP	3.385	DPA	46.32	RAP	347.73

ECC 1.5482

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 20 21	2619.08	-13.30	71.58	287.12	136.12	19 4 0	1619.1	5.05	55.73
60.00	19 45 50	2391.67	-6.35	57.67	293.69	129.88	20 25 41	1391.7	9.74	39.71
70.00	21 43 44	2044.73	1.86	35.74	299.87	124.11	22 17 49	1044.7	15.45	15.71
77.77	0 36 10	1518.06	13.93	2.95	307.11	117.53	1 1 28	518.1	24.07	339.97
77.77	0 36 10	1518.06	13.93	2.95	307.11	117.53	1 1 28	518.1	24.07	339.97
77.77	0 36 10	1518.06	13.93	2.95	307.11	117.53	1 1 28	518.1	24.07	339.97
110.00	2 47 6	1091.55	1.86	324.66	299.87	124.11	3 5 18	91.5	15.45	304.62

DIFFERENTIAL CORRECTIONS

TDE	-2.0464	TRA	3.8614	TC3	-3.1121	BAU	1.7343
RDE	1.0124	RRA	-3.7682	RC3	2.3417	FAU	.23487
FDE	-1.9606	FRA	8.8923	FC3	-6.1045	BSP	13912
BDE	2.2831	BRA	5.3954	BC3	3.8946	FSP	2009

MID-COURSE EXECUTION ACCURACY

SGT	6072.0	SGR	5216.2	SG3	1088.3		
RRT	-.9823	RRF	-.9982	RTF	.9800		
SGB	8004.9	R23	.1111	R13	-.9920		
SG1	7970.1	SG2	745.1	THA	139.41		

ORBIT DETERMINATION ACCURACY

ST	121.7	SR	82.4	SS	53.3
CRT	-.9454	CRS	.9957	CST	-.9112
LSA	153.9	MSA	27.6	SSA	.3
EL1	145.2	EL2	22.5	ALF	146.46

LAUNCH DATE JUL 11 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 21 1974

HELIOCENTRIC CONIC DISTANCE 643.079 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.785	GAL	-3.56	AZL	97.34	HCA	193.99	SMA	197.96	ECC	.23946	INC	7.3407
RP	245.11	LAP	1.77	LOP	122.44	VP	20.309	GAP	1.44	AZP	82.87	TAL	341.43	TAP	175.41	RCA	150.55	APO	245.36
RC	283.198	GL	-48.27	GP	45.48	ZAL	110.71	ZAP	77.15	ETS	195.52	ZAE	99.68	ETE	172.59	ZAC	133.34	ETC	289.65

V1 29.294
V2 22.375
LVI -67.75

PLANETOCENTRIC CONIC

C3	31.389	VHL	5.603	DLA	-28.68	RAL	61.24	RAD	6647.5	VEL	12.301	FTH	7.24	VHP	3.267	DPA	44.67	RAP	348.91

ECC 1.5166

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 6 43	2649.19	-14.77	72.92	285.17	135.76	18 50 52	1649.2	3.54	56.99
60.00	19 26 52	2435.99	-8.27	59.82	291.28	129.58	20 7 28	1436.0	7.82	41.88
70.00	21 13 13	2123.20	-1.13	39.83	296.64	124.14	21 48 36	1123.2	12.66	20.08
80.00	23 35 41	1677.02	6.82	10.88	301.54	119.14	3 38	677.0	18.18	349.27
85.04	1 30 8	1321.45	13.55	348.19	305.07	115.51	0	321.5	22.92	324.99
100.00	2 22 29	1151.49	6.82	332.25	301.54	119.14	0	151.5	18.18	310.64
110.00	2 16 35	1170.02	-1.13	328.75	296.64	124.14	0	170.0	12.66	309.00

DIFFERENTIAL CORRECTIONS

TDE	-1.9764	TRA	3.8993	TC3	-3.3811	BAU	1.7359
RDE	.9374	RRA	-3.5628	RC3	2.3834	FAU	.25329
FDE	-1.9934	FRA	9.4645	FC3	-6.9860	BSP	13776
BDE	2.1874	BRA	5.2817	BC3	4.1367	FSP	2141

MID-COURSE EXECUTION ACCURACY

SGT	6252.7	SGR	5029.5	SG3	1181.9		
RRT	-.9835	RRF	-.9981	RTF	.9811		
SGB	8024.5	R23	.1132	R13	-.9917		
SG1	7992.9	SG2	711.4	THA	141.29		

ORBIT DETERMINATION ACCURACY

ST	122.0	SR	78.7	SS	55.0
CRT	-.9489	CRS	.9946	CST	-.9111
LSA	152.9	MSA	27.0	SSA	.4
EL1	143.7	EL2	21.1	ALF	147.76

LAUNCH DATE JUL 11 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 23 1974

HELIOCENTRIC CONIC DISTANCE 646.034 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.788	GAL	-3.60	AZL	96.94	HCA	194.88	SMA	198.01	ECC	.23984	INC	6.9380	V1	29.294
RP	245.32	LAP	1.78	LOP	123.34	VP	20.291	GAP	1.22	AZP	83.29	TAL	341.24	TAP	176.12	RCA	150.52	APO	245.50	V2	22.354
RC	285.791	GL	-46.38	GP	43.73	ZAL	111.54	ZAP	75.84	ETS	196.00	ZAE	98.82	ETE	173.91	ZAC	131.75	ETC	289.13	LVI	-66.15

PLANETOCENTRIC CONIC

C3	29.816	VHL	5.460	DLA	-26.66	RAL	60.67	RAD	6646.9	VEL	12.237	PTH	7.19	VHP	3.168	DPA	43.08	RAP	349.97	ECC	1.4907

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 54 47	2677.58	-16.15	74.21	283.59	135.39	18 39 25	1677.6	2.11	58.18
60.00	19 10 39	2475.80	-10.00	61.78	289.33	129.25	19 51 55	1475.8	6.09	43.81
70.00	20 49 14	2185.92	-3.53	43.11	294.17	123.99	21 25 40	1185.9	10.38	23.50
80.00	22 51 51	1802.10	2.63	17.80	297.99	119.75	23 21 53	802.1	14.54	356.78
90.00	0 50 34	1431.95	5.93	352.39	299.80	117.70	1 14 26	432.0	16.80	330.63
100.00	1 38 39	1276.58	2.63	339.17	297.99	119.75	1 59 55	276.6	14.54	318.15
110.00	1 52 36	1232.74	-3.53	332.03	294.17	123.99	2 13 9	232.7	10.38	312.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.9075	TRA	3.9468	TC3	-3.6427	BAU	1.7375			SGT	6432.8	SGR	4844.4	SG3	1267.9	ST	122.1	SR	74.9	SS	56.0
RDE	.8583	RRA	-3.3819	RC3	2.3940	FAU	.28897			RRT	-.9841	RRF	-.9979	RTF	.9816	CRT	-.9505	CRS	.9931	CST	-.9076
FDE	-1.9663	FRA	10.0001	FC3	-7.8099	BSP	13774			SGB	8052.9	R23	.1164	R13	-.9911	LSA	151.4	MSA	26.9	SSA	.4
BDE	2.0917	BRA	5.1979	BC3	4.3590	FSP	2286			SG1	8023.3	SG2	669.6	THA	143.14	EL1	141.8	EL2	20.0	ALF	149.08

LAUNCH DATE JUL 11 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 25 1974

HELIOCENTRIC CONIC DISTANCE 650.588 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.791	GAL	-3.64	AZL	96.58	HCA	195.78	SMA	198.07	ECC	.24023	INC	6.5808	V1	29.294
RP	245.53	LAP	1.79	LOP	124.24	VP	20.273	GAP	1.00	AZP	83.67	TAL	341.05	TAP	176.83	RCA	150.49	APO	245.65	V2	22.334
RC	288.361	GL	-44.61	GP	42.05	ZAL	112.32	ZAP	74.54	ETS	196.42	ZAE	97.89	ETE	175.14	ZAC	130.22	ETC	288.67	LVI	-64.59

PLANETOCENTRIC CONIC

C3	28.514	VHL	5.340	DLA	-25.14	RAL	60.20	RAD	6646.4	VEL	12.184	PTH	7.14	VHP	3.086	DPA	41.54	RAP	350.95	ECC	1.4693

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 44 15	2704.49	-17.45	78.44	282.29	135.00	18 29 19	1704.5	.76	59.31
60.00	18 56 33	2512.19	-11.56	63.58	287.75	128.88	19 38 28	1512.2	4.49	45.87
70.00	20 29 22	2239.30	-5.55	45.91	292.21	123.75	21 6 41	1239.3	8.40	26.36
80.00	22 21 50	1887.32	-.26	22.48	295.50	119.86	22 53 17	887.3	11.91	1.73
90.00	0 10 42	1548.87	2.19	358.95	296.86	118.20	0 36 31	548.9	13.55	337.67
100.00	1 8 37	1361.79	-.26	343.85	295.50	119.86	1 31 19	361.8	11.91	323.10
110.00	1 32 44	1286.12	-5.55	334.83	292.21	123.75	1 54 10	286.1	8.40	315.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.8373	TRA	4.0049	TC3	-3.8916	BAU	1.7395			SGT	6610.1	SGR	4660.7	SG3	1345.4	ST	121.8	SR	71.0	SS	56.7
RDE	.7819	RRA	-3.2173	RC3	2.3828	FAU	.28243			RRT	-.9846	RRF	-.9977	RTF	.9819	CRT	-.9517	CRS	.9911	CST	-.9027
FDE	-1.8974	FRA	10.4859	FC3	-8.5750	BSP	13880			SGB	8087.9	R23	.1193	R13	-.9905	LSA	149.6	MSA	26.9	SSA	.4
BDE	1.9967	BRA	5.1371	BC3	4.5631	FSP	2436			SG1	8060.3	SG2	668.6	THA	144.95	EL1	139.7	EL2	19.0	ALF	150.35

LAUNCH DATE JUL 11 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 27 1974

HELIOCENTRIC CONIC DISTANCE 654.342 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.794	GAL	-3.68	AZL	96.26	HCA	196.67	SMA	198.13	ECC	.24063	INC	6.2613	V1	29.294
RP	245.73	LAP	1.79	LOP	125.14	VP	20.256	GAP	.78	AZP	84.00	TAL	340.85	TAP	177.52	RCA	150.45	APO	245.80	V2	22.314
RC	290.907	GL	-42.96	GP	40.45	ZAL	113.07	ZAP	75.25	ETS	196.78	ZAE	98.91	ETE	176.28	ZAC	128.75	ETC	288.26	LVI	-63.08

PLANETOCENTRIC CONIC

C3	27.429	VHL	5.237	DLA	-23.53	RAL	59.80	RAD	6646.0	VEL	12.140	PTH	7.11	VHP	3.017	DPA	40.07	RAP	351.84	ECC	1.4514

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 34 52	2730.12	-18.68	76.64	281.24	134.59	18 20 22	1730.1	-.53	60.38
60.00	18 44 8	2545.89	-12.99	65.28	286.47	128.49	19 26 34	1545.9	3.01	47.18
70.00	20 12 25	2286.35	-7.33	48.40	290.65	123.45	20 50 31	1286.4	6.63	28.66
80.00	21 58 13	1955.21	-2.56	26.21	293.59	119.76	22 30 49	955.2	9.74	5.60
90.00	23 38 24	1632.12	-.49	3.59	294.74	118.28	24 5 36	632.1	11.10	342.56
100.00	0 45 1	1429.68	-2.56	347.57	293.59	119.76	1 8 51	429.7	9.74	326.97
110.00	1 15 47	1333.17	-7.33	337.32	290.65	123.45	1 38 0	333.2	6.63	317.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.7756	TRA	4.0615	TC3	-4.1411	BAU	1.7487			SGT	6787.8	SGR	4482.2	SG3	1415.4	ST	121.5	SR	67.5	SS	57.2
RDE	.7173	RRA	-3.0611	RC3	2.3645	FAU	.29505			RRT	-.9850	RRF	-.9974	RTF	.9823	CRT	-.9534	CRS	.9888	CST	-.8980
FDE	-1.8213	FRA	10.9035	FC3	-9.3125	BSP	13904			SGB	8134.1	R23	.1215	R13	-.9900	LSA	147.9	MSA	26.9	SSA	.5
BDE	1.9150	BRA	5.0859	BC3	4.7686	FSP	2553			SG1	8108.3	SG2	647.5	THA	146.72	EL1	137.8	EL2	17.9	ALF	151.57

LAUNCH DATE JUL 11 1973 FLIGHT TIME 292.00 ARRIVAL DATE APR 29 1974

HELIOCENTRIC CONIC DISTANCE 658.094 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.797	GAL	-3.72	AZL	95.97	HCA	197.57	SMA	198.19	ECC	.24105	INC	5.9741	V1	29.294
RP	245.93	LAP	1.80	LOP	126.03	VP	20.240	GAP	.57	AZP	84.30	TAL	340.65	TAP	178.21	RCA	150.42	APO	245.96	V2	22.295
RC	293.430	GL	-41.41	GP	38.91	ZAL	113.79	ZAP	71.98	ETS	197.10	ZAE	95.90	ETE	177.33	ZAC	127.34	ETC	287.89	LVI	-61.63

PLANETOCENTRIC CONIC

C3	26.519	VHL	5.150	DLA	-22.00	RAL	59.47	RAD	6645.6	VEL	12.103	PTH	7.08	VHP	2.960	DPA	38.65	RAP	352.66	ECC	1.4364

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 26 28	2754.59	-19.84	77.80	280.40	134.18	18 12 22	1754.6	-1.75	61.40
60.00	18 33 6	2577.36	-14.32	66.87	285.44	128.08	19 16 3	1577.4	1.63	48.69
70.00	19 57 40	2328.77	-8.91	50.66	289.39	123.11	20 36 28	1328.8	5.03	31.10
80.00	21 38 36	2012.85	-4.50	29.38	292.09	119.55	22 12 9	1012.9	7.86	8.85
90.00	23 15 46	1699.46	-2.66	7.35	293.11	118.17	23 44 5	699.5	9.05	346.44
100.00	0 25 24	1487.33	-4.50	350.75	292.09	119.55	0 50 11	487.3	7.86	330.22
110.00	1 1 2	1375.59	-8.91	339.58	289.39	123.11	1 23 57	375.6	5.03	320.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.7107	TRA	4.1275	TC3	-4.3748	BAU	1.7570			SGT	6961.2	SGR	4306.3	SG3	1476.8	ST	120.9	SR	64.0	SS	57.5
RDE	.6552	RRA	-2.9183	RC3	2.3280	FAU	.30536			RRT	-.9853	RRF	-.9971	RTF	.9826	CRT	-.9551	CRS	.9859	CST	-.8921
FDE	-1.7107	FRA	11.2768	FC3	-9.9686	BSP	14041			SGB	8185.5	R23	.1232	R13	-.9895	LSA	145.9	MSA	27.0	SSA	.5
BDE	1.8319	BRA	5.0550	BC3	4.9556	FSP	2674			SG1	8161.4	SG2	627.2	THA	148.43	EL1	135.8	EL2	16.9	ALF	152.71

LAUNCH DATE JUL 11 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 1 1974

HELIOCENTRIC CONIC DISTANCE 661.848 EARTH TO MARS
RL 152.08 LAL .00 LOL 288.56 VL 32.800 GAL -3.77 AZL 95.71 HCA 198.46 SMA 198.25 ECC .24149 INC 5.7142 V1 29.294
RP 246.12 LAP 1.81 LOP 126.93 VP 20.225 GAP .35 AZP 84.58 TAL 340.44 TAP 178.90 RCA 150.38 APO 246.13 V2 22.276
RC 295.928 GL -39.85 GP 37.45 ZAL 114.48 ZAP 70.72 ETS 197.37 ZAE 94.84 ETE 178.30 ZAC 125.99 ETC 287.57 LVI -60.24
PLANETOCENTRIC CONIC
C3 25.752 VHL 5.075 DLA -20.56 RAL 59.19 RAD 6645.3 VEL 12.071 PTH 7.05 VHP 2.913 DPA 37.30 RAP 353.41 ECC 1.4238

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 18 53	2778.03	-20.95	78.93	279.72	133.75	18 5 11	1778.0	-2.93	62.38
60.00	18 23 13	2606.97	-15.56	68.40	284.61	127.66	19 6 40	1607.0	.33	50.10
70.00	19 44 38	2367.61	-10.35	52.75	288.37	122.73	20 24 6	1367.6	3.56	33.14
80.00	21 21 47	2063.56	-6.19	32.19	290.89	119.27	21 56 11	1063.6	6.18	11.68
90.00	22 56 48	1757.09	-4.50	10.58	291.82	117.95	23 26 5	757.1	7.25	349.72
100.00	0 8 35	1538.03	-6.19	353.56	290.89	119.27	0 34 13	538.0	6.18	333.04
110.00	0 48 0	1414.43	-10.35	341.67	288.37	122.73	1 11 35	414.4	3.56	322.06

DIFFERENTIAL CORRECTIONS
TDE-1.6517 TRA 4.1932 TC3-4.6055 BAU 1.7702
RDE .6025 RRA-2.7823 RC3 2.2859 FAU .31465
FDE-1.5975 FRA11.5879 FC-10.5778 BSP 14134
BDE 1.7582 BRA 5.0323 BC3 5.1416 FSP 2768
MID-COURSE EXECUTION ACCURACY
SGT 7134.0 SGR 4135.5 SG3 1530.5
RRT -.9856 RRF -.9968 RTF .9829
SGB 8246.0 R23 .1242 R13 -.9890
SG1 8223.7 SG2 606.4 THA 150.08
ORBIT DETERMINATION ACCURACY
ST 120.4 SR 60.8 SS 57.6
CRT -.9573 CRS .9824 CST -.8866
LSA 144.2 MSA 27.0 SSA .5
EL1 134.0 EL2 15.8 ALF 153.79

LAUNCH DATE JUL 11 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 3 1974

HELIOCENTRIC CONIC DISTANCE 665.597 EARTH TO MARS
RL 152.08 LAL .00 LOL 288.56 VL 32.804 GAL -3.81 AZL 95.48 HCA 199.35 SMA 198.32 ECC .24194 INC 5.4777 V1 29.294
RP 246.30 LAP 1.81 LOP 127.83 VP 20.211 GAP .13 AZP 84.83 TAL 340.23 TAP 179.58 RCA 150.34 APO 246.30 V2 22.258
RC 298.401 GL -38.58 GP 36.06 ZAL 115.15 ZAP 69.49 ETS 197.60 ZAE 93.77 ETE 179.19 ZAC 124.69 ETC 287.28 LVI -58.91
PLANETOCENTRIC CONIC
C3 25.104 VHL 5.010 DLA -19.20 RAL 58.97 RAD 6645.0 VEL 12.045 PTH 7.03 VHP 2.874 DPA 36.02 RAP 354.12 ECC 1.4131

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 12 2	2800.54	-22.01	80.02	279.20	133.31	17 58 42	1800.5	-4.06	63.32
60.00	18 14 17	2634.97	-16.72	69.86	283.95	127.22	18 58 12	1635.0	-.91	51.44
70.00	19 33 1	2403.56	-11.66	54.70	287.56	122.33	20 13 4	1403.6	2.18	35.02
80.00	21 7 4	2109.18	-7.70	34.73	289.94	118.94	21 42 13	1109.2	4.65	14.20
90.00	22 40 26	1808.03	-6.12	13.45	290.80	117.66	23 10 34	808.0	5.65	352.61
100.00	23 49 56	1583.65	-7.70	356.10	289.94	118.94	24 16 20	583.7	4.65	335.57
110.00	0 36 23	1450.38	-11.66	343.62	287.56	122.33	1 0 33	450.4	2.18	323.94

DIFFERENTIAL CORRECTIONS
TDE-1.5945 TRA 4.2615 TC3-4.8276 BAU 1.7856
RDE .5556 RRA-2.6549 RC3 2.2361 FAU .32255
FDE-1.4731 FRA11.8491 FC-11.1235 BSP 14242
BDE 1.6885 BRA 5.0208 BC3 5.3203 FSP 2849
MID-COURSE EXECUTION ACCURACY
SGT 7304.4 SGR 3969.8 SG3 1576.5
RRT -.9859 RRF -.9964 RTF .9831
SGB 8313.4 R23 .1244 R13 -.9886
SG1 8292.8 SG2 585.9 THA 151.66
ORBIT DETERMINATION ACCURACY
ST 119.8 SR 57.8 SS 57.5
CRT -.9600 CRS .9781 CST -.8810
LSA 142.4 MSA 27.1 SSA .5
EL1 132.2 EL2 14.7 ALF 154.80

LAUNCH DATE JUL 11 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 5 1974

HELIOCENTRIC CONIC DISTANCE 669.344 EARTH TO MARS
RL 152.08 LAL .00 LOL 288.56 VL 32.807 GAL -3.86 AZL 95.26 HCA 200.24 SMA 198.39 ECC .24241 INC 5.2617 V1 29.294
RP 246.48 LAP 1.82 LOP 128.72 VP 20.197 GAP -.08 AZP 85.06 TAL 340.02 TAP 180.26 RCA 150.30 APO 246.48 V2 22.241
RC 300.850 GL -37.29 GP 34.73 ZAL 115.79 ZAP 68.28 ETS 197.79 ZAE 92.67 ETE 180.02 ZAC 123.45 ETC 287.01 LVI -57.63
PLANETOCENTRIC CONIC
C3 24.554 VHL 4.955 DLA -17.90 RAL 58.79 RAD 6644.8 VEL 12.022 PTH 7.01 VHP 2.841 DPA 34.80 RAP 354.78 ECC 1.4041

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 5 48	2822.19	-23.01	81.10	278.80	132.67	17 52 50	1822.2	-5.15	64.23
60.00	18 6 12	2661.58	-17.81	71.26	283.43	126.77	18 50 33	1661.6	-2.08	52.71
70.00	19 22 33	2437.14	-12.88	56.55	286.92	121.91	20 3 10	1437.1	.90	36.77
80.00	20 54 0	2150.88	-9.07	37.07	289.18	118.57	21 29 51	1150.9	3.25	16.50
90.00	22 26 2	1854.01	-7.57	16.05	289.99	117.33	22 56 56	854.0	4.19	355.19
100.00	23 36 52	1625.35	-9.07	358.44	289.18	118.57	24 3 58	625.3	3.25	337.87
110.00	0 25 55	1483.95	-12.88	345.46	286.92	121.91	0 50 39	484.0	.90	328.69

DIFFERENTIAL CORRECTIONS
TDE-1.5376 TRA 4.3347 TC3-5.0393 BAU 1.8021
RDE .5128 RRA-2.5373 RC3 2.1780 FAU .32882
FDE-1.3346 FRA12.0739 FC-11.5935 BSP 14389
BDE 1.6208 BRA 5.0228 BC3 5.4898 FSP 2924
MID-COURSE EXECUTION ACCURACY
SGT 7472.9 SGR 3810.0 SG3 1615.5
RRT -.9860 RRF -.9959 RTF .9833
SGB 8368.1 R23 .1242 R13 -.9881
SG1 8368.9 SG2 567.5 THA 153.18
ORBIT DETERMINATION ACCURACY
ST 119.2 SR 55.0 SS 57.4
CRT -.9628 CRS .9730 CST -.8747
LSA 140.7 MSA 27.2 SSA .6
EL1 130.6 EL2 13.6 ALF 155.78

LAUNCH DATE JUL 11 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 7 1974

HELIOCENTRIC CONIC DISTANCE 673.092 EARTH TO MARS
RL 152.08 LAL .00 LOL 288.56 VL 32.811 GAL -3.91 AZL 95.08 HCA 201.13 SMA 198.46 ECC .24289 INC 5.0634 V1 29.294
RP 246.65 LAP 1.82 LOP 129.61 VP 20.184 GAP -.30 AZP 85.28 TAL 339.80 TAP 180.93 RCA 150.26 APO 246.66 V2 22.224
RC 303.274 GL -36.06 GP 33.46 ZAL 116.41 ZAP 67.09 ETS 197.95 ZAE 91.56 ETE 180.77 ZAC 122.27 ETC 286.78 LVI -56.41
PLANETOCENTRIC CONIC
C3 24.089 VHL 4.908 DLA -16.87 RAL 58.66 RAD 6644.6 VEL 12.003 PTH 7.00 VHP 2.816 DPA 33.64 RAP 355.41 ECC 1.3964

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 0 7	2843.05	-23.98	82.15	278.52	132.41	17 47 30	1843.1	-6.19	65.11
60.00	17 58 49	2686.94	-18.83	72.62	283.04	126.31	18 43 36	1686.9	-3.19	53.93
70.00	19 13 3	2468.70	-14.01	58.29	286.42	121.47	19 54 12	1468.7	-.30	38.42
80.00	20 42 17	2189.43	-10.32	39.26	288.58	118.17	21 18 46	1189.4	1.95	18.62
90.00	22 13 12	1896.13	-8.88	18.45	289.35	116.96	22 44 48	896.1	2.84	357.55
100.00	23 25 9	1663.90	-10.32	.62	288.58	118.17	23 52 53	663.9	1.95	339.99
110.00	0 16 26	1515.52	-14.01	347.21	286.42	121.47	0 41 41	515.5	-.30	327.34

DIFFERENTIAL CORRECTIONS
TDE-1.4830 TRA 4.4086 TC3-5.2435 BAU 1.8209
RDE .4754 RRA-2.4259 RC3 2.1153 FAU .33388
FDE-1.1926 FRA12.2513 FC-11.9993 BSP 14533
BDE 1.5574 BRA 5.0319 BC3 5.6541 FSP 2983
MID-COURSE EXECUTION ACCURACY
SGT 7636.8 SGR 3655.0 SG3 1647.4
RRT -.9860 RRF -.9953 RTF .9835
SGB 8468.1 R23 .1234 R13 -.9877
SG1 8450.3 SG2 550.0 THA 154.63
ORBIT DETERMINATION ACCURACY
ST 118.5 SR 52.4 SS 57.2
CRT -.9660 CRS .9670 CST -.8685
LSA 139.0 MSA 27.3 SSA .6
EL1 129.0 EL2 12.4 ALF 156.64

LAUNCH DATE JUL 11 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 9 1974

HELIOCENTRIC CONIC DISTANCE 676.639 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.815	GAL	-3.96	AZL	94.88	HCA	202.02	SMA	198.53	ECC	.24338	INC	4.8807	V1	29.294
RP	246.82	LAP	1.83	LOP	130.50	VP	20.172	GAP	-.51	AZP	85.47	TAL	339.58	TAP	181.59	RCA	150.21	APO	246.85	V2	22.207
RC	305.673	GL	-34.00	GP	32.26	ZAL	117.02	ZAP	65.93	ETS	198.09	ZAE	90.43	ETE	181.46	ZAC	121.13	ETC	286.57	LVI	-55.24

PLANETOCENTRIC CONIC

C3	23.695	VHL	4.868	DLA	-15.50	RAL	58.85	RAD	6644.4	VEL	11.986	PTH	6.98	VHP	2.795	DPA	32.54	RAP	356.00	ECC	1.3900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 55	2863.19	-24.90	83.18	278.33	131.95	17 42 38	1863.2	-7.20	65.97
60.00	17 52 4	2711.20	-19.81	73.93	282.76	125.84	18 37 15	1711.2	-4.26	55.09
70.00	19 4 24	2498.53	-15.06	59.96	286.05	121.02	19 46 3	1498.5	-1.44	39.98
80.00	20 31 41	2225.36	-11.47	41.31	288.13	117.76	21 8 46	1225.4	.73	20.60
90.00	22 1 39	1935.13	-10.07	20.69	288.85	116.57	22 33 54	935.1	1.58	359.73
100.00	23 14 32	1699.85	-11.47	2.68	288.13	117.76	23 42 52	699.8	.73	341.97
110.00	0 7 46	1545.35	-15.06	348.88	286.05	121.02	0 33 32	545.4	-1.44	328.89

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.4302	TRA	4.4846	TC3	-5.4400	BAU	1.8416	SGT	7803.1	SGR	3506.8	SG3	1673.5	ST	117.9	SR	50.0	SS	57.0
RDE	.4438	RRA	-2.3213	RC3	2.0507	FAU	.33802	RRT	-.9861	RRF	-.9947	RTF	.9836	CRT	-.9697	CRS	.9600	CST	-.8629
FDE	-1.0825	FRA	12.3909	FC	-12.3503	BSP	14692	SGB	8554.9	R23	.1215	R13	-.9874	LSA	137.5	MSA	27.4	SSA	.6
BDE	1.4974	BRA	5.0498	BC3	5.8137	FSP	3031	SG1	8538.3	SG2	532.4	THA	156.00	EL1	127.6	EL2	11.3	ALF	157.46

LAUNCH DATE JUL 11 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 11 1974

HELIOCENTRIC CONIC DISTANCE 680.584 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.819	GAL	-4.01	AZL	94.71	HCA	202.90	SMA	198.61	ECC	.24389	INC	4.7117	V1	29.294
RP	246.98	LAP	1.83	LOP	131.39	VP	20.161	GAP	-.73	AZP	85.66	TAL	339.35	TAP	182.26	RCA	150.17	APO	247.05	V2	22.191
RC	308.046	GL	-33.81	GP	31.12	ZAL	117.61	ZAP	64.80	ETS	198.19	ZAE	89.30	ETE	182.10	ZAC	120.05	ETC	286.38	LVI	-54.13

PLANETOCENTRIC CONIC

C3	23.362	VHL	4.833	DLA	-14.38	RAL	58.48	RAD	6644.3	VEL	11.973	PTH	6.97	VHP	2.779	DPA	31.50	RAP	356.57	ECC	1.3845

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 50 8	2882.65	-25.78	84.20	278.22	131.48	17 38 11	1882.6	-8.17	66.80
60.00	17 45 51	2734.47	-20.73	75.20	282.58	125.37	18 31 26	1734.5	-5.28	56.21
70.00	18 56 28	2526.86	-16.05	61.56	285.78	120.56	19 38 35	1526.9	-2.52	41.46
80.00	20 22 0	2259.14	-12.53	43.25	287.79	117.32	20 59 39	1259.1	-.41	22.45
90.00	21 51 9	1971.56	-11.17	22.80	288.48	116.15	22 24 0	971.6	.41	1.76
100.00	23 4 52	1733.61	-12.53	4.62	287.79	117.32	23 33 46	733.6	-.41	343.82
110.00	23 55 55	1573.68	-16.05	350.48	285.78	120.56	24 22 8	573.7	-2.52	330.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.3780	TRA	4.5633	TC3	-5.6265	BAU	1.8631	SGT	7964.6	SGR	3363.8	SG3	1693.4	ST	117.3	SR	47.7	SS	56.7
RDE	.4148	RRA	-2.2235	RC3	1.9817	FAU	.34081	RRT	-.9860	RRF	-.9940	RTF	.9838	CRT	-.9736	CRS	.9518	CST	-.8570
FDE	-.9061	FRA	12.4985	FC	-12.6297	BSP	14867	SGB	8645.9	R23	.1192	R13	-.9871	LSA	136.0	MSA	27.6	SSA	.7
BDE	1.4391	BRA	5.0761	BC3	5.9653	FSP	3071	SG1	8630.4	SG2	517.1	THA	157.31	EL1	126.2	EL2	10.1	ALF	158.24

LAUNCH DATE JUL 11 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 13 1974

HELIOCENTRIC CONIC DISTANCE 684.327 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.822	GAL	-4.06	AZL	94.55	HCA	203.79	SMA	198.68	ECC	.24441	INC	4.5548	V1	29.294
RP	247.14	LAP	1.84	LOP	132.28	VP	20.150	GAP	-.94	AZP	85.83	TAL	339.12	TAP	182.91	RCA	150.12	APO	247.24	V2	22.176
RC	310.395	GL	-32.78	GP	30.03	ZAL	118.18	ZAP	63.70	ETS	198.27	ZAE	88.17	ETE	182.68	ZAC	119.01	ETC	286.21	LVI	-53.06

PLANETOCENTRIC CONIC

C3	23.083	VHL	4.804	DLA	-13.31	RAL	58.44	RAD	6644.2	VEL	11.961	PTH	6.96	VHP	2.767	DPA	30.51	RAP	357.12	ECC	1.3799

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 45 44	2901.49	-26.62	85.19	278.20	131.01	17 34 6	1901.5	-9.10	67.60
60.00	17 40 8	2758.84	-21.60	76.45	282.48	124.89	18 26 5	1758.8	-6.26	57.29
70.00	18 49 10	2553.87	-16.98	63.11	285.60	120.09	19 31 44	1553.9	-3.55	42.67
80.00	20 13 8	2291.04	-13.52	45.10	287.55	116.88	20 51 19	1291.0	-1.49	24.20
90.00	21 41 33	2005.81	-12.19	24.80	288.22	115.71	22 14 59	1005.8	-.70	3.67
100.00	22 56 0	1765.51	-13.52	6.47	287.55	116.88	23 25 26	765.5	-1.49	345.57
110.00	23 48 37	1600.69	-16.98	352.02	285.60	120.09	24 15 17	600.7	-3.55	331.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.3267	TRA	4.6441	TC3	-5.8049	BAU	1.8859	SGT	8124.5	SGR	3228.7	SG3	1708.0	ST	116.7	SR	45.6	SS	56.5
RDE	.3898	RRA	-2.1316	RC3	1.9108	FAU	.34259	RRT	-.9859	RRF	-.9932	RTF	.9839	CRT	-.9777	CRS	.9423	CST	-.8514
FDE	-.7604	FRA	12.5758	FC	-12.8493	BSP	15054	SGB	8741.7	R23	.1163	R13	-.9868	LSA	134.6	MSA	27.7	SSA	.7
BDE	1.3828	BRA	5.1099	BC3	6.1113	FSP	3102	SG1	8727.2	SG2	503.3	THA	158.54	EL1	125.0	EL2	9.0	ALF	158.96

LAUNCH DATE JUL 11 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC DISTANCE 688.069 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.826	GAL	-4.11	AZL	94.41	HCA	204.68	SMA	198.76	ECC	.24495	INC	4.4087	V1	29.294
RP	247.29	LAP	1.84	LOP	133.17	VP	20.140	GAP	-1.15	AZP	85.99	TAL	338.89	TAP	183.56	RCA	150.08	APO	247.45	V2	22.161
RC	312.717	GL	-31.77	GP	29.00	ZAL	118.74	ZAP	62.62	ETS	198.33	ZAE	87.04	ETE	183.21	ZAC	118.02	ETC	286.05	LVI	-52.05

PLANETOCENTRIC CONIC

C3	22.850	VHL	4.780	DLA	-12.30	RAL	58.43	RAD	6644.1	VEL	11.951	PTH	6.95	VHP	2.759	DPA	29.58	RAP	357.64	ECC	1.3760

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 41	2919.75	-27.44	86.17	278.24	130.53	17 30 21	1919.7	-10.01	68.39
60.00	17 34 50	2778.39	-22.44	77.66	282.46	124.40	18 21 9	1778.4	-7.20	58.33
70.00	18 42 26	2579.70	-17.85	64.60	285.51	119.61	19 25 25	1579.7	-4.54	44.22
80.00	20 4 58	2321.32	-14.44	46.87	287.40	116.42	20 43 40	1321.3	-2.52	25.86
90.00	21 32 43	2038.20	-13.14	26.71	288.05	115.27	22 6 42	1038.2	-1.74	5.48
100.00	22 47 50	1795.79	-14.44	8.24	287.40	116.42	23 17 46	795.8	-2.52	347.23
110.00	23 41 52	1626.52	-17.85	353.51	285.51	119.61	24 8 58	626.5	-4.54	333.14

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.2782	TRA	4.7249	TC3	-5.9774	BAU	1.9106	SGT	8282.6	SGR	3095.6	SG3	1717.8	ST	116.2	SR	43.7	SS	56.2
RDE	.3693	RRA	-2.0446	RC3	1.8404	FAU	.34371	RRT	-.9856	RRF	-.9923	RTF	.9840	CRT	-.9819	CRS	.9316	CST	-.8466
FDE	-.6225	FRA	12.6216	FC	-13.0223	BSP	15227	SGB	8842.2	R23	.1126	R13	-.9865	LSA	133.4	MSA	27.9	SSA	.7
BDE	1.3304	BRA	5.1483	BC3	6.2543	FSP	3119	SG1	8828.6	SG2	490.5	THA	159.71	EL1	123.9	EL2	7.8	ALF	159.64

LAUNCH DATE JUL 11 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 17 1974

HELIOCENTRIC CONIC DISTANCE 691.809 EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 32.831 GAL -4.16 AZL 94.27 HCA 205.56 SMA 198.84 ECC .24550 INC 4.2723 V1 29.294
RP 247.44 LAP 1.84 LOP 134.06 VP 20.131 GAP -1.37 AZP 86.14 TAL 338.65 TAP 184.21 RCA 150.03 APO 247.66 V2 22.147
RC 315.013 GL -30.63 GP 28.01 ZAL 119.30 ZAP 61.57 ETS 198.38 ZAE 85.91 ETE 183.70 ZAC 117.08 ETC 285.91 LVI -51.08

PLANETOCENTRIC CONIC

C3 22.658 VHL 4.760 DLA -11.32 RAL 58.44 RAD 6644.0 VEL 11.943 PTH 6.95 VHP 2.754 DPA 28.71 RAP 358.15 ECC 1.3729

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 37 57	2937.47	-28.22	87.14	278.34	130.04	17 26 54	1937.5	-10.89	69.16
60.00	17 29 56	2799.20	-23.23	78.84	282.50	123.90	18 16 35	1799.2	-8.10	59.35
70.00	18 36 10	2604.48	-18.68	66.04	285.49	119.13	19 19 35	1604.5	-5.47	45.53
80.00	19 57 25	2350.17	-15.31	48.58	287.33	115.95	20 36 35	1350.2	-3.49	27.45
90.00	21 24 34	2068.98	-14.03	28.53	287.95	114.81	21 59 3	1069.0	-2.73	7.20
100.00	22 40 17	1824.64	-15.31	9.94	287.33	115.95	23 10 41	824.6	-3.49	348.82
110.00	23 35 37	1651.30	-18.68	354.96	285.49	119.13	24 3 8	651.3	-5.47	334.44

DIFFERENTIAL CORRECTIONS
TDE-1.2298 TRA 4.8085 TC3-6.1405 BAU 1.9357
RDE .3512 RRA-1.9630 RC3 1.7691 FAU .34391
FDE -.4843 FRA12.6451 FC-13.1403 BSP 15425
BDE 1.2790 BRA 5.1937 BC3 6.3903 FSP 3132

MID-COURSE EXECUTION ACCURACY
SGT 8438.4 SGR 2970.2 SG3 1723.2
RRT -.9853 RRF -.9912 RTF .9841
SGB 8945.9 R23 .1084 R13 -.9863
SG1 8933.0 SG2 479.3 THA 160.82

ORBIT DETERMINATION ACCURACY
ST 115.7 SR 41.9 SS 56.0
CRT -.9860 CRS .9195 CST -.8419
LSA 132.3 MSA 28.0 SSA .8
EL1 122.9 EL2 6.6 ALF 160.28

LAUNCH DATE JUL 11 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC DISTANCE 695.548 EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 32.835 GAL -4.21 AZL 94.14 HCA 206.44 SMA 198.92 ECC .24606 INC 4.1446 V1 29.294
RP 247.58 LAP 1.84 LOP 134.94 VP 20.123 GAP -1.58 AZP 86.29 TAL 338.41 TAP 184.85 RCA 149.98 APO 247.87 V2 22.133
RC 317.282 GL -29.93 GP 27.08 ZAL 119.84 ZAP 60.55 ETS 198.40 ZAE 84.79 ETE 184.15 ZAC 116.17 ETC 285.78 LVI -50.15

PLANETOCENTRIC CONIC

C3 22.502 VHL 4.744 DLA -10.38 RAL 58.47 RAD 6643.9 VEL 11.937 PTH 6.94 VHP 2.751 DPA 27.88 RAP 358.65 ECC 1.3703

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 34 29	2954.70	-28.97	88.09	278.50	129.55	17 23 43	1954.7	-11.74	69.91
60.00	17 25 23	2819.33	-23.99	80.00	282.60	123.41	18 12 22	1819.3	-8.97	60.33
70.00	18 30 21	2628.31	-19.46	67.45	285.53	118.63	19 14 9	1628.3	-6.37	46.78
80.00	19 50 23	2377.77	-16.12	50.22	287.32	115.47	20 30 1	1377.8	-4.42	28.97
90.00	21 17 0	2098.33	-14.86	30.28	287.93	114.34	21 51 58	1098.3	-3.67	8.84
100.00	22 33 15	1852.24	-16.12	11.59	287.32	115.47	23 4 7	852.2	-4.42	350.34
110.00	23 29 48	1675.13	-19.46	356.36	285.53	118.63	23 57 43	675.1	-6.37	335.70

DIFFERENTIAL CORRECTIONS
TDE-1.1826 TRA 4.8930 TC3-6.2964 BAU 1.9619
RDE .3360 RRA-1.8859 RC3 1.6978 FAU .34334
FDE -.3502 FRA12.6450 FC-13.2092 BSP 15622
BDE 1.2294 BRA 5.2438 BC3 6.5213 FSP 3137

MID-COURSE EXECUTION ACCURACY
SGT 8592.1 SGR 2850.0 SG3 1724.4
RRT -.9848 RRF -.9901 RTF .9841
SGB 9052.4 R23 .1037 R13 -.9860
SG1 9040.2 SG2 469.9 THA 161.86

ORBIT DETERMINATION ACCURACY
ST 115.3 SR 40.3 SS 55.8
CRT -.9899 CRS .9058 CST -.8377
LSA 131.3 MSA 28.2 SSA .8
EL1 122.1 EL2 5.4 ALF 160.88

LAUNCH DATE JUL 11 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC DISTANCE 699.285 EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 32.839 GAL -4.27 AZL 94.02 HCA 207.33 SMA 199.01 ECC .24663 INC 4.0247 V1 29.294
RP 247.71 LAP 1.85 LOP 135.83 VP 20.115 GAP -1.79 AZP 86.42 TAL 338.17 TAP 185.49 RCA 149.93 APO 248.09 V2 22.120
RC 319.522 GL -29.07 GP 26.19 ZAL 120.37 ZAP 59.56 ETS 198.41 ZAE 83.68 ETE 184.56 ZAC 115.30 ETC 285.66 LVI -49.27

PLANETOCENTRIC CONIC

C3 22.379 VHL 4.731 DLA -9.49 RAL 58.52 RAD 6643.9 VEL 11.932 PTH 6.94 VHP 2.751 DPA 27.10 RAP 359.14 ECC 1.3683

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 31 16	2971.46	-29.69	89.04	278.71	129.05	17 20 48	1971.5	-12.57	70.64
60.00	17 21 8	2838.82	-24.72	81.14	282.76	122.90	18 8 27	1838.8	-9.81	61.29
70.00	18 24 56	2651.28	-20.21	68.81	285.64	118.14	19 9 7	1651.3	-7.24	48.00
80.00	19 43 51	2404.24	-16.89	51.81	287.38	114.99	20 23 55	1404.2	-5.31	30.44
90.00	21 9 57	2126.43	-15.64	31.98	287.98	113.86	21 45 24	1126.4	-4.57	10.42
100.00	22 26 43	1878.71	-16.89	13.18	287.38	114.99	22 58 1	878.7	-5.31	351.81
110.00	23 24 22	1698.10	-20.21	357.73	285.64	118.14	23 52 40	698.1	-7.24	336.92

DIFFERENTIAL CORRECTIONS
TDE-1.1363 TRA 4.9788 TC3-6.4455 BAU 1.9890
RDE .3235 RRA-1.8134 RC3 1.6278 FAU .34223
FDE -.2216 FRA12.6260 FC-13.2389 BSP 15820
BDE 1.1814 BRA 5.2988 BC3 6.6478 FSP 3134

MID-COURSE EXECUTION ACCURACY
SGT 8744.2 SGR 2735.6 SG3 1722.2
RRT -.9843 RRF -.9888 RTF .9842
SGB 9162.1 R23 .0984 R13 -.9858
SG1 9150.5 SG2 481.8 THA 162.84

ORBIT DETERMINATION ACCURACY
ST 115.0 SR 38.8 SS 55.6
CRT -.9934 CRS .8906 CST -.8342
LSA 130.5 MSA 28.3 SSA .8
EL1 121.3 EL2 4.2 ALF 161.45

LAUNCH DATE JUL 11 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 23 1974

HELIOCENTRIC CONIC DISTANCE 703.021 EARTH TO MARS

RL 152.08 LAL .00 LOL 288.56 VL 32.843 GAL -4.32 AZL 93.91 HCA 208.21 SMA 199.09 ECC .24721 INC 3.9118 V1 29.294
RP 247.84 LAP 1.85 LOP 136.71 VP 20.109 GAP -2.00 AZP 86.55 TAL 337.92 TAP 186.13 RCA 149.87 APO 248.31 V2 22.107
RC 321.734 GL -28.25 GP 25.34 ZAL 120.89 ZAP 58.59 ETS 198.41 ZAE 82.57 ETE 184.94 ZAC 114.47 ETC 285.56 LVI -48.43

PLANETOCENTRIC CONIC

C3 22.286 VHL 4.721 DLA -8.62 RAL 58.59 RAD 6643.8 VEL 11.928 PTH 6.93 VHP 2.754 DPA 26.37 RAP 359.62 ECC 1.3668

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 28 17	2987.78	-30.39	89.97	278.96	128.55	17 18 5	1987.8	-13.37	71.36
60.00	17 17 11	2857.74	-25.41	82.26	282.97	122.40	18 4 49	1857.7	-10.63	62.22
70.00	18 19 52	2673.47	-20.91	70.15	285.79	117.64	19 4 25	1673.5	-8.07	49.18
80.00	19 37 44	2429.71	-17.62	53.35	287.50	114.50	20 18 13	1429.7	-6.16	31.85
90.00	21 3 22	2153.40	-16.38	33.61	288.08	113.38	21 39 15	1153.4	-5.43	11.93
100.00	22 20 35	1904.18	-17.62	14.72	287.50	114.50	22 52 20	904.2	-6.16	353.22
110.00	23 19 18	1720.29	-20.91	359.06	285.79	117.64	23 47 58	720.3	-8.07	338.10

DIFFERENTIAL CORRECTIONS
TDE-1.0901 TRA 5.0670 TC3-6.5850 BAU 2.0161
RDE .3128 RRA-1.7450 RC3 1.5576 FAU .34032
FDE -.0948 FRA12.5905 FC-13.2205 BSP 16034
BDE 1.1341 BRA 5.3591 BC3 6.7667 FSP 3128

MID-COURSE EXECUTION ACCURACY
SGT 8893.5 SGR 2626.0 SG3 1716.5
RRT -.9836 RRF -.9873 RTF .9842
SGB 9273.1 R23 .0929 R13 -.9856
SG1 9261.9 SG2 455.4 THA 163.77

ORBIT DETERMINATION ACCURACY
ST 114.8 SR 37.4 SS 55.4
CRT -.9963 CRS .8738 CST -.8310
LSA 129.7 MSA 28.5 SSA .9
EL1 120.7 EL2 3.1 ALF 162.01

LAUNCH DATE JUL 11 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 25 1974

HELIOCENTRIC CONIC DISTANCE 706.755 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.848	GAL	-4.38	AZL	93.81	HCA	209.09	SMA	199.18	ECC	.24781	INC	3.8053	V1	29.294
RP	247.97	LAP	1.85	LOP	137.59	VP	20.102	GAP	-2.21	AZP	86.67	TAL	337.67	TAP	186.76	RCA	149.82	APO	248.53	V2	22.095
RC	323.917	GL	-27.46	GP	24.54	ZAL	121.40	ZAP	57.65	ETS	198.40	ZAE	81.47	ETE	185.28	ZAC	113.68	ETC	285.46	LVI	-47.62

PLANETOCENTRIC CONIC

C3	22.218	VHL	4.714	DLA	-7.80	RAL	58.68	RAD	6643.8	VEL	11.925	PTH	6.93	VHP	2.758	DPA	25.69	RAP	.09	ECC	1.3657

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 25 31	3003.70	-31.06	90.89	279.26	128.05	17 15 35	2003.7	-14.15	72.07
60.00	17 13 29	2876.13	-26.08	83.36	283.22	121.88	18 1 25	1876.1	-11.42	63.14
70.00	18 15 7	2694.95	-21.59	71.45	285.99	117.13	19 0 2	1695.0	-8.87	50.33
80.00	19 32 0	2454.26	-18.31	54.85	287.66	114.01	20 12 54	1454.3	-6.97	33.22
90.00	20 57 12	2179.37	-17.07	35.20	288.23	112.89	21 33 31	1179.4	-6.25	13.40
100.00	22 14 51	1928.73	-18.31	16.22	287.66	114.01	22 47 0	928.7	-6.97	354.58
110.00	23 14 33	1741.77	-21.59	.37	285.99	117.13	23 43 35	741.8	-8.87	339.25

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.0456	TRA	5.1857	TC3	-6.7193	BAU	2.0443	SGT	9041.6	SGR	2521.5	SG3	1707.9	ST	114.6	SR	36.1	SS	55.2
RDE	.3047	RRA	-1.6802	RC3	1.4893	FAU	.33798	RRT	-.9827	RRF	-.9857	RTF	.9842	CRT	-.9984	CRS	.8553	CST	-.8286
FDE	.0224	FRA	12.5381	FC-	13.1694	BSP	16238	SGB	9386.7	R23	.0870	R13	-.9854	LSA	129.1	MSA	28.6	SSA	.9
BDE	1.0893	BRA	5.4226	BC3	6.8823	FSP	3114	SG1	9375.8	SG2	450.5	THA	164.64	EL1	120.1	EL2	1.9	ALF	162.53

LAUNCH DATE JUL 11 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 27 1974

HELIOCENTRIC CONIC DISTANCE 710.487 EARTH TO MARS

RL	152.08	LAL	.00	LOL	288.56	VL	32.852	GAL	-4.44	AZL	93.70	HCA	209.97	SMA	199.26	ECC	.24842	INC	3.7047	V1	29.294
RP	248.09	LAP	1.85	LOP	138.47	VP	20.097	GAP	-2.43	AZP	86.79	TAL	337.42	TAP	187.38	RCA	149.76	APO	248.77	V2	22.084
RC	326.069	GL	-26.71	GP	23.77	ZAL	121.91	ZAP	56.74	ETS	198.38	ZAE	80.39	ETE	185.60	ZAC	112.91	ETC	285.37	LVI	-46.85

PLANETOCENTRIC CONIC

C3	22.174	VHL	4.709	DLA	-7.00	RAL	58.78	RAD	6643.8	VEL	11.923	PTH	6.93	VHP	2.765	DPA	25.04	RAP	.56	ECC	1.3649

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 22 57	3019.24	-31.71	91.81	279.59	127.54	17 13 16	2019.2	-14.91	72.77
60.00	17 10 2	2894.02	-26.72	84.44	283.51	121.37	17 58 16	1894.0	-12.18	64.03
70.00	18 10 39	2715.78	-22.23	72.72	286.24	116.62	18 55 55	1715.8	-9.64	51.44
80.00	19 26 36	2477.99	-18.96	56.31	287.87	113.51	20 7 54	1478.0	-7.76	34.54
90.00	20 51 24	2204.42	-17.73	36.75	288.42	112.40	21 28 8	1204.4	-7.04	14.82
100.00	22 9 28	1952.46	-18.96	17.68	287.87	113.51	22 42 1	952.5	-7.76	355.91
110.00	23 10 5	1762.60	-22.23	1.64	286.24	116.62	23 39 28	762.6	-9.64	340.36

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.0015	TRA	5.2466	TC3	-6.8458	BAU	2.0728	SGT	9188.0	SGR	2422.1	SG3	1697.0	ST	114.5	SR	34.9	SS	55.0
RDE	.2981	RRA	-1.6192	RC3	1.4227	FAU	.33522	RRT	-.9817	RRF	-.9839	RTF	.9842	CRT	-.9995	CRS	.8351	CST	-.8268
FDE	.1369	FRA	12.4735	FC-	13.0877	BSP	16462	SGB	9501.9	R23	.0808	R13	-.9853	LSA	128.6	MSA	28.8	SSA	.9
BDE	1.0449	BRA	5.4907	BC3	6.9921	FSP	3098	SG1	9491.4	SG2	446.7	THA	165.46	EL1	119.7	EL2	1.0	ALF	163.05

LAUNCH DATE JUL 12 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 352.518 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	34.870	GAL	-5.10	AZL	90.24	HCA	112.98	SMA	250.67	ECC	.40173	INC	.2396
RP	217.98	LAP	-.22	LOP	42.49	VP	26.234	GAP	22.53	AZP	89.91	TAL	342.11	TAP	85.09	RCA	149.97	APO	351.38
RC	74.281	GL	-1.34	GP	-5.25	ZAL	119.20	ZAP	171.69	ETS	220.77	ZAE	169.04	ETE	333.08	ZAC	79.43	ETC	283.44

V1	29.295																		
V2	25.208																		
LVI	-13.64																		

PLANETOCENTRIC CONIC

C3	38.616	VHL	6.230	DLA	16.11	RAL	46.65	RAD	6650.3	VEL	12.597	PTH	7.46	VHP	8.057	DPA	8.23	RAP	35.77

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 3 53	3622.67	-47.46	139.70	296.13	93.85	15 4 16	2622.7	-40.43	107.31
60.00	14 25 6	3586.21	-40.30	134.96	296.47	90.17	15 24 32	2586.2	-35.82	104.80
70.00	14 56 15	3474.51	-34.06	127.36	296.30	87.28	15 54 9	2474.5	-31.61	98.90
80.00	15 44 33	3323.15	-29.52	115.54	295.95	85.28	16 39 56	2323.2	-28.47	88.16
90.00	16 56 57	3089.43	-27.79	98.19	295.78	84.53	17 48 27	2089.4	-27.27	71.19
100.00	18 27 25	2797.62	-29.52	76.91	295.95	85.28	19 14 2	1797.6	-28.47	49.53
110.00	19 55 41	2521.33	-34.06	56.28	296.30	87.28	20 37 42	1521.3	-31.61	27.82

C3	38.616	VHL	6.230	DLA	16.11	RAL	46.65	RAD	6650.3	VEL	12.597	PTH	7.46	VHP	8.057	DPA	8.23	RAP	35.77

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 3 53	3622.67	-47.46	139.70	296.13	93.85	15 4 16	2622.7	-40.43	107.31
60.00	14 25 6	3586.21	-40.30	134.96	296.47	90.17	15 24 32	2586.2	-35.82	104.80
70.00	14 56 15	3474.51	-34.06	127.36	296.30	87.28	15 54 9	2474.5	-31.61	98.90
80.00	15 44 33	3323.15	-29.52	115.54	295.95	85.28	16 39 56	2323.2	-28.47	88.16
90.00	16 56 57	3089.43	-27.79	98.19	295.78	84.53	17 48 27	2089.4	-27.27	71.19
100.00	18 27 25	2797.62	-29.52	76.91	295.95	85.28	19 14 2	1797.6	-28.47	49.53
110.00	19 55 41	2521.33	-34.06	56.28	296.30	87.28	20 37 42	1521.3	-31.61	27.82

DIFFERENTIAL CORRECTIONS

TDE	-.4674	TRA	-1.5875	TC3	.1308	BAU	.0789												
RDE	-.5720	RRA	.2708	RC3	-.0775	FAU	.05875												
FDE	.5285	FRA	1.6007	FC3	-1.3103	BSP	2582												
BDE	.7387	BRA	1.6104	BC3	.1521	FSP	259												

MID-COURSE EXECUTION ACCURACY

SGT	1587.6	SGR	594.3	SG3	198.0														
RRT	-.1945	RRF	.2198	RTF	-.7707														
SGB	1695.2	R23	-.0476	R13	.7725														
SG1	1592.4	SG2	581.2	THA	175.19														

ORBIT DETERMINATION ACCURACY

ST	31.3	SR	26.6	SS	23.3														
CRT	.5722	CRS	.6162	CST	.9962														
LSA	43.0	MSA	19.5	SSA	1.3														
EL1	36.6	EL2	18.7	ALF	36.96														

LAUNCH DATE JUL 12 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 355.116 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	34.756	GAL	-4.99	AZL	90.20	HCA	114.12	SMA	246.98	ECC	.39250	INC	.2014
RP	218.35	LAP	-.18	LOP	43.63	VP	26.043	GAP	22.18	AZP	89 92	TAL	342.20	TAP	96.32	RCA	150.03	APO	343.89
RC	75.647	GL	-1.15	GP	-5.42	ZAL	119.07	ZAP	171.00	ETS	218.64	ZAE	168.26	ETE	333.54	ZAC	79.18	ETC	283.41

V1	29.295																		
V2	25.168																		
LVI	-13.37																		

PLANETOCENTRIC CONIC

C3	37.184	VHL	6.098	DLA	16.25	RAL	46.46	RAD	6649.7	VEL	12.533	PTH	7.41	VHP	7.830	DPA	8.21	RAP	36.21

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 2 31	3614.83	-47.42	138.94	295.00	94.43	15 2 46	2614.8	-40.18	106.72
60.00	14 23 32	3558.88	-40.30	134.34	295.43	90.59	15 22 51	2558.9	-35.65	104.26
70.00	14 54 27	3467.88	-34.08	126.85	295.31	87.59	15 52 15	2467.9	-31.51	98.41
80.00	15 42 30	3317.29	-29.55	115.11	294.98	85.51	16 37 48	2317.3	-28.41	87.74
90.00	16 54 48	3083.95	-27.82	97.79	294.82	84.73	17 46 12	2083.9	-27.22	70.80
100.00	18 25 22	2791.76	-29.55	76.48	294.98	85.51	19 11 54	1791.8	-28.41	49.11
110.00	19 53 53	2514.70	-34.08	55.76	295.31	87.59	20 35 48	1514.7	-31.51	27.33

C3	37.184	VHL	6.098	DLA	16.25	RAL	46.46	RAD	6649.7	VEL	12.533	PTH	7.41	VHP	7.830	DPA	8.21	RAP	36.21

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 2 31	3614.83	-47.42	138.94	295.00	94.43	15 2 46	2614.8	-40.18	106.72
60.00	14 23 32	3558.88	-40.30	134.34	295.43	90.59	15 22 51	2558.9	-35.65	104.26
70.00	14 54 27	3467.88	-34.08	126.85	295.31	87.59	15 52 15	2467.9	-31.51	98.41
80.00	15 42 30	3317.29	-29.55	115.11	294.98	85.51	16 37 48	2317.3	-28.41	87.74
90.00	16 54 48	3083.95	-27.82	97.79	294.82	84.73	17 46 12	2083.9	-27.22	70.80
100.00	18 25 22	2791.76	-29.55	76.48	294.98	85.51	19 11 54	1791.8	-28.41	49.11
110.00	19 53 53	2514.70	-34.08	55.76	295.31	87.59	20 35 48	1514.7	-31.51	27.33

DIFFERENTIAL CORRECTIONS

TDE	-.4544	TRA	-1.5698	TC3	.1671	BAU	.0935												
RDE	-.5544	RRA	.2724	RC3	-.0863	FAU	.06076												
FDE	.5605	FRA	1.6659	FC3	-1.4147	BSP	2479												
BDE	.7168	BRA	1.5933	BC3	.1881	FSP	284												

MID-COURSE EXECUTION ACCURACY

SGT	1607.6	SGR	594.6	SG3	210.1														
RRT	-.2183	RRF	.2365	RTF	-.7883														
SGB	1714.0	R23	-.0398	R13	.7901														
SG1	1613.6	SG2	578.1	THA	174.70														

ORBIT DETERMINATION ACCURACY

ST	31.4	SR	26.4	SS	24.4														
CRT	.5602	CRS	.6189	CST	.9953														
LSA	43.5	MSA	19.6	SSA	1.2														
EL1	36.4	EL2	18.8	ALF	36.25														

LAUNCH DATE JUL 12 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 357.821 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	34.647	GAL	-4.88	AZL	90.16	HCA	115.25	SMA	243.55	ECC	.38377	INC	.1624
RP	218.71	LAP	-.15	LOP	44.76	VP	25.859	GAP	21.83	AZP	89.93	TAL	342.30	TAP	97.55	RCA	150.08	APO	337.01
RC	77.098	GL	-.95	GP	-5.60	ZAL	118.92	ZAP	170.30	ETS	216.83	ZAE	167.54	ETE	333.79	ZAC	78.93	ETC	283.38

V1	29.295																		
V2	25.127																		
LVI	-13.10																		

PLANETOCENTRIC CONIC

C3	35.665	VHL	5.972	DLA	16.41	RAL	46.25	RAD	6649.1	VEL	12.472	PTH	7.37	VHP	7.611	DPA	8.18	RAP	36.65

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 1 5	3607.47	-47.38	138.23	293.90	94.97	15 1 12	2607.5	-39.95	106.18
60.00	14 21 53	3552.07	-40.29	133.76	294.41	90.99	15 21 5	2552.1	-35.49	103.75
70.00	14 52 33	3461.81	-34.10	126.37	294.33	87.87	15 50 15	2461.8	-31.41	97.97
80.00	15 40 20	3312.03	-29.58	114.72	294.03	85.71	16 35 33	2312.0	-28.35	87.36
90.00	16 52 30	3079.10	-27.85	97.44	293.87	84.90	17 43 49	2079.1	-27.17	70.45
100.00	18 23 12	2786.50	-29.58	76.09	294.03	85.71	19 9 39	1786.5	-28.35	48.73
110.00	19 51 59	2508.63	-34.10	55.29	294.33	87.87	20 33 48	1508.6	-31.41	26.89

C3	35.665	VHL	5.972	DLA	16.41	RAL	46.25	RAD	6649.1	VEL	12.472	PTH	7.37	VHP	7.611	DPA	8.18	RAP	36.65

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 1 5	3607.47	-47.38	138.23	293.90	94.97	15 1 12	2607.5	-39.95	106.18
60.00	14 21 53	3552.07	-40.29	133.76	294.41	90.99	15 21 5	2552.1	-35.49	103.75
70.00	14 52 33	3461.81	-34.10	126.37	294.33	87.87	15 50 15	2461.8	-31.41	97.97
80.00	15 40 20	3312.03	-29.58	114.72	294.03	85.71	16 35 33	2312.0	-28.35	87.36
90.00	16 52 30	3079.10	-27.85	97.44	293.87	84.90	17 43 49	2079.1	-27.17	70.45
100.00	18 23 12	2786.50	-29.58	76.09	294.03	85.71	19 9 39	1786.5	-28.35	48.73
110.00	19 51 59	2508.63	-34.10	55.29	294.33	87.87	20 33 48	1508.6	-31.41	26.89

DIFFERENTIAL CORRECTIONS

TDE	-.4602	TRA	-1.5705	TC3	.1848	BAU	.0994												
RDE	-.5376	RRA	.2738	RC3	-.0964	FAU	.06325												
FDE	.5867	FRA	1.7258	FC3	-1.5353	BSP	2613												
BDE	.7077	BRA	1.5942	BC3	.2084	FSP	302												

MID-COURSE EXECUTION ACCURACY

SGT	1646.5	SGR	595.2	SG3	222.9														
RRT	-.2325	RRF	.2562	RTF	-.[illegible]19														
SGB	1750.8	R23	-.0477	R13	.7939														
SG1	1653.1	SG2	576.6	THA	174.53														

ORBIT DETERMINATION ACCURACY

ST	32.3	SR	26.1	SS	25.2														
CRT	.5604	CRS	.6182	CST	.9954														
LSA	44.4	MSA	19.6	SSA	1.3														
EL1	37.0	EL2	18.9	ALF	34.55														

LAUNCH DATE JUL 12 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 360.621 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	34.544	GAL	-4.78	AZL	90.12	HCA	116.38	SMA	240.41	ECC	.37549	INC	.1229
RP	219.08	LAP	-.11	LOP	45.89	VP	25.682	GAP	21.49	AZP	89.94	TAL	342.41	TAP	98.79	RCA	150.14	APO	330.67
RC	78.631	GL	-.73	GP	-5.79	ZAL	118.77	ZAP	169.57	ETS	215.28	ZAE	166.87	ETE	333.88	ZAC	78.66	ETC	283.36

V1	29.295																		
V2	25.087																		
LVI	-12.81																		

PLANETOCENTRIC CONIC

C3	34.244	VHL	5.852	DLA	16.57	RAL	46.03	RAD	6648.6	VEL	12.416	PTH	7.32	VHP	7.398	DPA	8.13	RAP	37.07

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 59 32	3600.55	-47.34	137.57	292.82	95.48	14 59 33	2600.6	-39.72	105.67
60.00	14 20 8	3545.73	-40.28	133.22	293.40	91.35	15 19 14	2545.7	-35.34	103.28
70.00	14 50 32	3456.25	-34.11	125.94	293.37	88.12	15 48 8	2456.3	-31.31	97.56
80.00	15 38 3	3307.35	-29.60	114.37	293.09	85.89	16 33 10	2307.3	-28.29	87.02
90.00	16 50 4	3074.85	-27.88	97.13	292.93	85.06	17 41 19	2074.9	-27.13	70.15
100.00	18 20 54	2781.82	-29.60	75.74	293.09	85.89	19 7 16	1781.8	-28.29	48.39
110.00	19 49 58	2503.07	-34.11	54.86	293.37	88.12	20 31 41	1503.1	-31.31	26.48

C3	34.244	VHL	5.852	DLA	16.57	RAL	46.03	RAD	6648.6	VEL	12.416	PTH	7.32	VHP	7.398	DPA	8.13	RAP	37.07

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 59 32	3600.55	-47.34	137.57	292.82	95.48	14 59 33	2600.6	-39.72	105.67
60.00	14 20 8	3545.73	-40.28	133.22	293.40	91.35	15 19 14	2545.7	-35.34	103.28
70.00	14 50 32	3456.25	-34.11	125.94	293.37	88.12	15 48 8	2456.3	-31.31	97.56
80.00	15 38 3	3307.35	-29.60	114.37	293.09	85.89	16 33 10	2307.3	-28.29	87.02
90.00	16 50 4	3074.85	-27.88	97.13	292.93	85.06	17 41 19	2074.9	-27.13	70.15
100.00	18 20 54	2781.82	-29.60	75.74	293.09	85.89	19 7 16	1781.8	-28.29	48.39
110.00	19 49 58	2503.07	-34.11	54.86	293.37	88.12	20 31 41	1503.1	-31.31	26.48

DIFFERENTIAL CORRECTIONS

TDE	-.4645	TRA	-1.5689	TC3	.2052	BAU	.1061												
RDE	-.5208	RRA	.2757	RC3	-.1075	FAU	.06582												
FDE	.6160	FRA	1.7686	FC3	-1.6639	BSP	2727												
BDE	.6979	BRA	1.5929	BC3	.2317	FSP	322												

MID-COURSE EXECUTION ACCURACY

SGT	1683.2	SGR	595.9	SG3	236.5														
RRT	-.2488	RRF	.2770	RTF	-.7965														
SGB	1785.6	R23	-.0543	R13	.7988														
SG1	1690.5	SG2	574.7	THA	174.30														

ORBIT DETERMINATION ACCURACY

ST	33.1	SR	25.8	SS	26.1														
CRT	.5591	CRS	.6180	CST	.9953														
LSA	45.4	MSA	19.5	SSA	1.3														
EL1	37.5	EL2	18.9	ALF	32.96														

LAUNCH DATE JUL 12 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 363.507 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	34.446	GAL	-4.68	AZL	90.08	HCA	117.51	SNA	237.50	ECC	.36763	INC	.0828	V1	29.295
RP	219.45	LAP	-.08	LOP	47.02	VP	25.510	GAP	21.14	AZP	89.96	TAL	342.51	TAP	100.02	RCA	150.19	APO	324.82	V2	25.046
RC	80.245	GL	-.51	GP	-5.99	ZAL	118.61	ZAP	168.83	ETS	213.95	ZAE	166.26	ETE	333.82	ZAC	78.39	ETC	283.34	LVI	-12.52

PLANETOCENTRIC CONIC

C3	32.915	VHL	5.737	DLA	16.74	RAL	45.80	RAD	6648.1	VEL	12.362	PTH	7.28	VHP	7.193	DPA	8.07	RAP	37.49	ECC	1.5417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 57 55	3594.10	-47.29	136.95	291.77	95.95	14 57 49	2594.1	-39.51	105.19
60.00	14 16 16	3539.89	-40.27	132.73	292.42	91.69	15 17 16	2539.9	-35.19	102.85
70.00	14 40 23	3451.24	-34.12	125.55	292.42	88.35	15 45 54	2451.2	-31.23	97.20
80.00	15 35 36	3303.26	-29.62	114.07	292.16	86.05	16 30 40	2303.3	-28.25	86.73
90.00	16 47 29	3071.23	-27.90	96.87	292.01	85.19	17 38 41	2071.2	-27.09	69.89
100.00	18 18 28	2777.73	-29.62	75.44	292.16	86.05	19 4 46	1777.7	-28.25	48.10
110.00	19 47 50	2498.06	-34.12	54.47	292.42	88.35	20 29 26	1498.1	-31.23	26.12

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4678	TRA	-1.5655	TC3	.2280	BAU	.1133	SGT	1718.2	SGR	597.0	SG3	250.9	ST	33.8	SR	25.5	SS	27.1
RDE	-.5042	RRA	.2780	RC3	-.1195	FAU	.06850	RRT	-.2672	RRF	.2992	RTF	-.8018	CRT	.5568	CRS	.6176	CST	.9952
FDE	.6478	FRA	1.8543	FC3	-1.8017	BSP	2820	SGB	1818.9	R23	-.0604	R13	.8043	LSA	46.4	NSA	19.5	SSA	1.3
BDE	.6876	BRA	1.5900	BC3	.2574	FSP	344	SG1	1726.5	SG2	572.5	THA	174.04	EL1	37.9	EL2	18.9	ALF	31.45

LAUNCH DATE JUL 12 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 366.470 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	34.354	GAL	-4.58	AZL	90.04	HCA	118.63	SNA	234.82	ECC	.36018	INC	.0408	V1	29.298
RP	219.82	LAP	-.04	LOP	48.14	VP	25.344	GAP	20.81	AZP	89.98	TAL	342.63	TAP	101.26	RCA	150.24	APO	319.40	V2	25.005
RC	81.936	GL	-.27	GP	-6.20	ZAL	118.43	ZAP	168.07	ETS	212.79	ZAE	165.71	ETE	333.62	ZAC	78.12	ETC	283.31	LVI	-12.23

PLANETOCENTRIC CONIC

C3	31.673	VHL	5.628	DLA	16.92	RAL	45.56	RAD	6647.6	VEL	12.312	PTH	7.24	VHP	6.994	DPA	8.00	RAP	37.90	ECC	1.5213

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 58 12	3588.13	-47.25	136.38	290.74	96.39	14 56 0	2588.1	-39.31	104.76
60.00	14 16 19	3534.56	-40.26	132.27	291.45	92.00	15 15 13	2534.6	-35.06	102.46
70.00	14 46 8	3446.81	-34.13	125.20	291.49	88.56	15 43 34	2446.8	-31.15	96.87
80.00	15 33 2	3299.81	-29.63	113.82	291.24	86.16	16 28 2	2299.8	-28.20	86.46
90.00	16 44 46	3068.28	-27.92	96.66	291.10	85.29	17 35 54	2068.3	-27.06	69.68
100.00	18 15 54	2774.28	-29.63	75.18	291.24	86.18	19 2 8	1774.3	-28.20	47.65
110.00	19 45 34	2493.62	-34.13	54.12	291.49	88.56	20 27 7	1493.6	-31.15	25.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4704	TRA	-1.5606	TC3	.2532	BAU	.1210	SGT	1752.0	SGR	598.3	SG3	266.1	ST	34.6	SR	25.2	SS	28.1
RDE	-.4876	RRA	.2808	RC3	-.1326	FAU	.07132	RRT	-.2873	RRF	.3225	RTF	-.8074	CRT	.5536	CRS	.6174	CST	.9950
FDE	.6021	FRA	1.9227	FC3	-1.9494	BSP	2901	SGB	1851.3	R23	-.0656	R13	.8103	LSA	47.3	NSA	19.4	SSA	1.3
BDE	.6775	BRA	1.5859	BC3	.2858	FSP	368	SG1	1761.4	SG2	570.0	THA	173.74	EL1	38.4	EL2	18.9	ALF	29.88

LAUNCH DATE JUL 12 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 369.505 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	34.266	GAL	-4.48	AZL	90.00	HCA	119.75	SNA	232.33	ECC	.35312	INC	.0000	V1	29.298
RP	220.19	LAP	-.00	LOP	49.26	VP	25.184	GAP	20.47	AZP	90.00	TAL	342.75	TAP	102.50	RCA	150.29	APO	314.37	V2	24.964
RC	83.701	GL	-.02	GP	-6.42	ZAL	118.25	ZAP	167.29	ETS	211.78	ZAE	165.21	ETE	333.29	ZAC	77.83	ETC	283.29	LVI	-11.93

PLANETOCENTRIC CONIC

C3	30.511	VHL	5.524	DLA	17.11	RAL	45.30	RAD	6647.2	VEL	12.265	PTH	7.21	VHP	6.802	DPA	7.91	RAP	38.30	ECC	1.5021

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 54 23	3582.66	-47.20	135.86	289.74	96.79	14 54 6	2582.7	-39.13	104.36
60.00	14 14 15	3529.78	-40.25	131.87	290.51	92.27	15 13 5	2529.8	-34.94	102.11
70.00	14 43 44	3442.96	-34.13	124.90	290.57	88.73	15 41 7	2443.0	-31.08	96.60
80.00	15 30 19	3297.01	-29.65	113.61	290.34	86.29	16 25 16	2297.0	-28.17	86.28
90.00	16 41 52	3066.02	-27.93	96.49	290.20	85.37	17 32 58	2066.0	-27.04	69.52
100.00	18 13 10	2771.49	-29.65	74.98	290.34	86.29	18 59 22	1771.5	-28.17	47.65
110.00	19 43 11	2489.78	-34.13	53.82	290.57	88.73	20 24 41	1489.8	-31.08	25.81

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4724	TRA	-1.5546	TC3	.2800	BAU	.1290	SGT	1784.0	SGR	600.2	SG3	282.1	ST	33.2	SR	24.9	SS	29.1
RDE	-.4711	RRA	.2841	RC3	-.1469	FAU	.07428	RRT	-.3091	RRF	.3474	RTF	-.8131	CRT	.5496	CRS	.6166	CST	.9947
FDE	.7186	FRA	1.9932	FC3	-2.1076	BSP	2973	SGB	1882.2	R23	-.0712	R13	.8163	LSA	48.3	NSA	19.3	SSA	1.4
BDE	.6672	BRA	1.5803	BC3	.3162	FSP	393	SG1	1794.7	SG2	567.4	THA	173.40	EL1	38.8	EL2	18.9	ALF	28.56

LAUNCH DATE JUL 12 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 372.603 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	34.182	GAL	-4.38	AZL	89.96	HCA	120.87	SNA	230.03	ECC	.34641	INC	.0350	V1	29.295
RP	220.57	LAP	.03	LOP	50.38	VP	25.029	GAP	20.14	AZP	90.02	TAL	342.87	TAP	103.74	RCA	150.34	APO	309.71	V2	24.923
RC	85.836	GL	.24	GP	-6.65	ZAL	118.06	ZAP	166.50	ETS	210.90	ZAE	164.77	ETE	332.85	ZAC	77.54	ETC	283.27	LVI	-11.62

PLANETOCENTRIC CONIC

C3	29.423	VHL	5.424	DLA	17.31	RAL	45.04	RAD	6646.8	VEL	12.221	PTH	7.17	VHP	6.615	DPA	7.80	RAP	38.69	ECC	1.4842

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 52 29	3577.70	-47.16	135.39	288.77	97.15	14 52 7	2577.7	-38.96	104.01
60.00	14 12 5	3525.55	-40.24	131.51	289.58	92.52	15 10 50	2525.6	-34.84	101.80
70.00	14 41 14	3439.73	-34.14	124.65	289.68	88.88	15 38 33	2439.7	-31.03	96.36
80.00	15 27 26	3294.91	-29.66	113.45	289.46	86.37	16 22 21	2294.9	-28.14	86.13
90.00	16 38 49	3064.49	-27.94	96.38	289.32	85.43	17 29 54	2064.5	-27.03	69.41
100.00	18 10 18	2769.38	-29.66	74.82	289.46	86.37	18 56 27	1769.4	-28.14	47.50
110.00	19 40 40	2486.55	-34.14	53.57	289.68	88.88	20 22 7	1486.6	-31.03	25.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4741	TRA	-1.5477	TC3	.3076	BAU	.1368	SGT	1815.0	SGR	602.6	SG3	298.9	ST	35.9	SR	24.5	SS	30.2
RDE	-.4547	RRA	.2878	RC3	-.1625	FAU	.07738	RRT	-.3324	RRF	.3737	RTF	-.8186	CRT	.5447	CRS	.6155	CST	.9944
FDE	.7579	FRA	2.0667	FC3	-2.2767	BSP	3046	SGB	1912.4	R23	-.0767	R13	.8221	LSA	49.3	NSA	19.1	SSA	1.4
BDE	.6569	BRA	1.5742	BC3	.3479	FSP	420	SG1	1827.2	SG2	564.5	THA	173.03	EL1	39.1	EL2	18.8	ALF	27.15

LAUNCH DATE JUL 12 1973 FLIGHT TIME 140.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 375.760 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	34.102	GAL	-4.29	AZL	89.92	HCA	121.98	SMA	227.88	ECC	.34005	INC	.0791	V1	29.295
RP	220.95	LAP	.07	LOP	51.49	VP	24.879	GAP	19.81	AZP	90.04	TAL	343.00	TAP	104.98	RCA	150.39	APO	305.37	V2	24.882
RC	87.440	GL	.52	GP	-6.90	ZAL	117.86	ZAP	165.69	ETS	210.13	ZAE	164.38	ETE	332.29	ZAC	77.24	ETC	283.25	LVI	-11.30

PLANETOCENTRIC CONIC

C3	28.406	VHL	5.330	DLA	17.52	RAL	44.76	RAD	6646.4	VEL	12.180	PTH	7.14	VHP	6.435	DPA	7.68	RAP	39.07	ECC	1.4675

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 50 30	3573.28	-47.13	134.97	287.84	97.48	14 50 3	2573.3	-38.81	103.69
60.00	14 9 48	3521.90	-40.22	131.20	288.69	92.73	15 8 30	2521.9	-34.75	101.54
70.00	14 38 35	3437.15	-34.14	124.45	288.80	89.00	15 35 52	2437.1	-30.98	96.17
80.00	15 24 25	3293.53	-29.66	113.35	288.59	86.42	16 19 18	2293.5	-28.13	86.03
90.00	16 35 36	3063.73	-27.94	96.33	288.45	85.46	17 26 40	2063.7	-27.02	69.36
100.00	18 7 16	2768.00	-29.66	74.72	288.59	86.42	18 53 24	1768.0	-28.13	47.40
110.00	19 38 1	2483.97	-34.14	53.37	288.80	89.00	20 19 25	1484.0	-30.98	25.09

DIFFERENTIAL CORRECTIONS

TDE	-.4766	TRA	-1.5406	TC3	.3362	BAU	.1447
RDE	-.4382	RRA	.2920	RC3	-.1794	FAU	.08063
FDE	.8005	FRA	2.1427	FC3	-2.4574	BSP	3117
BDE	.6474	BRA	1.5680	BC3	.3810	FSP	449

MID-COURSE EXECUTION ACCURACY

SGT	1845.9	SGR	605.7	SG3	316.7
RRT	-.3569	RRF	.4012	RTF	-.8239
SGB	1942.7	R23	-.0825	R13	.8278
SG1	1859.8	SG2	561.6	THA	172.65

ORBIT DETERMINATION ACCURACY

ST	36.5	SR	24.1	SS	31.3
CRT	.5396	CRS	.6141	CST	.9941
LSA	50.4	MSA	19.0	SSA	1.4
EL1	39.5	EL2	18.7	ALF	25.73

LAUNCH DATE JUL 12 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 378.971 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	34.027	GAL	-4.20	AZL	89.87	HCA	123.09	SMA	225.89	ECC	.33401	INC	.1243	V1	29.295
RP	221.33	LAP	.10	LOP	52.60	VP	24.734	GAP	19.48	AZP	90.07	TAL	343.12	TAP	106.21	RCA	150.44	APO	301.34	V2	24.840
RC	89.407	GL	.81	GP	-7.15	ZAL	117.66	ZAP	164.86	ETS	209.46	ZAE	164.05	ETE	331.61	ZAC	76.94	ETC	283.24	LVI	-10.97

PLANETOCENTRIC CONIC

C3	27.453	VHL	5.240	DLA	17.74	RAL	44.47	RAD	6646.0	VEL	12.141	PTH	7.11	VHP	6.260	DPA	7.55	RAP	39.44	ECC	1.4518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 48 25	3569.40	-47.09	134.60	286.93	97.76	14 47 55	2569.4	-38.68	103.41
60.00	14 7 24	3518.84	-40.21	130.94	287.82	92.90	15 6 3	2518.8	-34.67	101.31
70.00	14 35 49	3435.23	-34.14	124.30	287.95	89.09	15 33 4	2435.2	-30.95	96.03
80.00	15 21 13	3292.91	-29.67	113.30	287.74	86.45	16 16 6	2292.9	-28.12	85.99
90.00	16 32 12	3063.77	-27.94	96.33	287.60	85.45	17 23 16	2063.8	-27.02	69.36
100.00	18 4 5	2767.38	-29.67	74.67	287.74	86.45	18 50 12	1767.4	-28.12	47.36
110.00	19 35 15	2482.05	-34.14	53.22	287.95	89.09	20 16 37	1482.0	-30.95	24.95

DIFFERENTIAL CORRECTIONS

TDE	-.4786	TRA	-1.5321	TC3	.3660	BAU	.1527
RDE	-.4217	RRA	.2968	RC3	-.1977	FAU	.08404
FDE	.8461	FRA	2.2210	FC3	-2.6503	BSP	3179
BDE	.6379	BRA	1.5605	BC3	.4160	FSP	479

MID-COURSE EXECUTION ACCURACY

SGT	1874.9	SGR	609.7	SG3	335.4
RRT	-.3827	RRF	.4299	RTF	-.8291
SGB	1971.5	R23	-.0884	R13	.8334
SG1	1890.7	SG2	558.5	THA	172.22

ORBIT DETERMINATION ACCURACY

ST	37.2	SR	23.6	SS	32.5
CRT	.5335	CRS	.6121	CST	.9937
LSA	51.4	MSA	18.8	SSA	1.4
EL1	39.9	EL2	18.6	ALF	24.34

LAUNCH DATE JUL 12 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 382.230 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.955	GAL	-4.12	AZL	89.83	HCA	124.19	SMA	224.03	ECC	.32828	INC	.1692	V1	29.295
RP	221.71	LAP	.14	LOP	53.70	VP	24.593	GAP	19.16	AZP	90.10	TAL	343.25	TAP	107.45	RCA	150.48	APO	297.58	V2	24.799
RC	91.436	GL	1.12	GP	-7.42	ZAL	117.46	ZAP	164.01	ETS	208.87	ZAE	163.76	ETE	330.81	ZAC	76.62	ETC	283.22	LVI	-10.64

PLANETOCENTRIC CONIC

C3	26.562	VHL	5.154	DLA	17.98	RAL	44.17	RAD	6645.6	VEL	12.105	PTH	7.08	VHP	6.091	DPA	7.39	RAP	39.80	ECC	1.4371

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 46 15	3566.08	-47.06	134.29	286.06	98.00	14 45 41	2566.1	-38.57	103.18
60.00	14 4 54	3516.40	-40.21	130.73	286.97	93.04	15 3 31	2516.4	-34.61	101.14
70.00	14 32 54	3434.00	-34.14	124.20	287.12	89.15	15 30 8	2434.0	-30.92	95.95
80.00	15 17 52	3293.08	-29.66	113.32	286.91	86.44	16 12 45	2293.1	-28.12	86.00
90.00	16 28 37	3064.64	-27.94	96.39	286.77	85.42	17 19 42	2064.6	-27.03	69.42
100.00	18 0 44	2767.54	-29.66	74.68	286.91	86.44	18 46 51	1767.5	-28.12	47.37
110.00	19 32 20	2480.82	-34.14	53.12	287.12	89.15	20 13 41	1480.8	-30.92	24.86

DIFFERENTIAL CORRECTIONS

TDE	-.4805	TRA	-1.5228	TC3	.3965	BAU	.1606
RDE	-.4052	RRA	.3019	RC3	-.2177	FAU	.08764
FDE	.8944	FRA	2.3015	FC3	-2.8565	BSP	3239
BDE	.6285	BRA	1.5524	BC3	.4524	FSP	511

MID-COURSE EXECUTION ACCURACY

SGT	1902.6	SGR	614.7	SG3	355.1
RRT	-.4097	RRF	.4599	RTF	-.8340
SGB	1999.4	R23	-.0946	R13	.8387
SG1	1920.7	SG2	555.4	THA	171.77

ORBIT DETERMINATION ACCURACY

ST	37.8	SR	23.1	SS	33.8
CRT	.5264	CRS	.6092	CST	.9933
LSA	52.5	MSA	18.6	SSA	1.4
EL1	40.3	EL2	18.5	ALF	22.96

LAUNCH DATE JUL 12 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 385.533 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.887	GAL	-4.03	AZL	89.78	HCA	125.29	SMA	222.30	ECC	.32285	INC	.2149	V1	29.298
RP	222.09	LAP	.18	LOP	54.80	VP	24.457	GAP	18.84	AZP	90.12	TAL	343.39	TAP	108.68	RCA	150.53	APO	294.07	V2	24.757
RC	93.523	GL	1.44	GP	-7.70	ZAL	117.24	ZAP	163.15	ETS	208.35	ZAE	163.53	ETE	329.90	ZAC	76.29	ETC	283.21	LVI	-10.30

PLANETOCENTRIC CONIC

C3	25.728	VHL	5.072	DLA	18.22	RAL	43.87	RAD	6645.3	VEL	12.070	PTH	7.05	VHP	5.927	DPA	7.22	RAP	40.15	ECC	1.4234

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 43 59	3563.34	-47.03	134.03	285.22	98.20	14 43 22	2563.3	-38.47	102.98
60.00	14 2 17	3514.59	-40.20	130.58	286.16	93.15	15 0 52	2514.6	-34.56	101.01
70.00	14 29 50	3433.49	-34.14	124.16	286.31	89.17	15 27 4	2433.5	-30.91	95.91
80.00	15 14 20	3294.04	-29.66	113.39	286.11	86.40	16 9 14	2294.0	-28.13	86.07
90.00	16 24 51	3066.40	-27.93	96.52	285.96	85.36	17 15 57	2066.4	-27.04	69.55
100.00	17 57 12	2768.52	-29.66	74.76	286.11	86.40	18 43 20	1768.5	-28.13	47.44
110.00	19 29 17	2480.31	-34.14	53.08	286.31	89.17	20 10 37	1480.3	-30.91	24.83

DIFFERENTIAL CORRECTIONS

TDE	-.4827	TRA	-1.5135	TC3	.4268	BAU	.1683
RDE	-.3886	RRA	.3077	RC3	-.2393	FAU	.09142
FDE	.9463	FRA	2.3856	FC3	-3.0763	BSP	3301
BDE	.6197	BRA	1.5445	BC3	.4893	FSP	545

MID-COURSE EXECUTION ACCURACY

SGT	1929.9	SGR	620.9	SG3	375.9
RRT	-.4377	RRF	.4911	RTF	-.8385
SGB	2027.3	R23	-.1015	R13	.8437
SG1	1950.6	SG2	552.4	THA	171.28

ORBIT DETERMINATION ACCURACY

ST	38.4	SR	22.6	SS	35.1
CRT	.5181	CRS	.6052	CST	.9929
LSA	53.6	MSA	18.4	SSA	1.4
EL1	40.6	EL2	18.3	ALF	21.57

LAUNCH DATE JUL 12 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 388.678 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.81	VL	33.822	GAL	-3.95	AZL	89.74	HCA	126.39	SHA	220.68	ECC	.31769	INC	.2618	V1	29.295
RP	222.46	LAP	.21	LOP	55.90	VP	24.325	GAP	18.52	AZP	90.16	TAL	343.52	TAP	109.91	RCA	150.57	APO	290.79	V2	24.715
RC	95.665	GL	1.77	GP	-7.99	ZAL	117.03	ZAP	162.27	ETS	207.90	ZAE	163.34	ETE	328.87	ZAC	75.95	ETC	283.20	LVI	-9.95

PLANETOCENTRIC CONIC

C3	24.948	VHL	4.995	DLA	18.49	RAL	43.58	RAD	6645.0	VEL	12.038	PTH	7.03	VHP	5.769	DPA	7.02	RAP	40.48	ECC	1.4106

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 41 37	3561.19	-47.01	133.82	284.41	98.35	14 40 59	2561.2	-38.40	102.63
60.00	13 59 33	3513.43	-40.19	130.48	285.37	93.21	14 58 7	2513.4	-34.53	100.92
70.00	14 26 38	3433.72	-34.14	124.18	285.52	89.16	15 23 52	2433.7	-30.92	95.93
80.00	15 10 37	3295.88	-29.65	113.53	285.32	86.33	16 5 32	2295.9	-28.16	86.20
90.00	16 20 52	3069.08	-27.91	96.71	285.17	85.26	17 12 1	2069.1	-27.07	69.74
100.00	17 53 28	2770.35	-29.65	74.89	285.32	86.33	18 39 39	1770.4	-28.16	47.57
110.00	19 26 4	2480.54	-34.14	53.10	285.52	89.16	20 7 25	1480.5	-30.92	24.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4849	TRA	-1.5027	TC3	.4585	BAU	.1783	SGT	1955.1	SGR	628.6	SG3	397.8	ST	39.0	SR	22.1	SS	36.4
RDE	-.3719	RRA	.3140	RC3	-.2626	FAU	.09540	RRT	-.4665	RRF	.5230	RTF	-.8429	CRT	.5088	CRS	.6002	CST	.9924
FDE	1.0020	FRA	2.4715	FC3	-3.3105	BSP	3389	SGB	2083.7	R23	-.1085	R13	.8487	LSA	54.8	NSA	16.1	SSA	1.5
BDE	.6111	BRA	1.5381	BC3	.5284	FSP	581	SG1	1978.9	SG2	549.4	THA	170.75	EL1	41.0	EL2	16.1	ALF	20.18

LAUNCH DATE JUL 12 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 392.260 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.81	VL	33.761	GAL	-3.87	AZL	89.69	HCA	127.48	SHA	219.17	ECC	.31279	INC	.3097	V1	29.295
RP	222.86	LAP	.25	LOP	56.99	VP	24.197	GAP	18.20	AZP	90.19	TAL	343.65	TAP	111.14	RCA	150.61	APO	287.72	V2	24.673
RC	97.860	GL	2.12	GP	-8.30	ZAL	116.81	ZAP	161.37	ETS	207.50	ZAE	163.19	ETE	327.71	ZAC	75.60	ETC	283.20	LVI	-9.58

PLANETOCENTRIC CONIC

C3	24.218	VHL	4.921	DLA	18.76	RAL	43.23	RAD	6644.7	VEL	12.008	PTH	7.00	VHP	5.615	DPA	6.81	RAP	40.81	ECC	1.3986

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 39 10	3559.65	-47.00	133.66	283.65	98.48	14 38 30	2559.7	-38.34	102.72
60.00	13 56 42	3512.95	-40.19	130.44	284.61	93.24	14 55 15	2512.9	-34.52	100.89
70.00	14 23 16	3434.72	-34.14	124.26	284.76	89.11	15 20 31	2434.7	-30.94	96.00
80.00	15 6 42	3298.62	-29.64	113.73	284.55	86.23	16 1 40	2298.6	-28.19	86.40
90.00	16 16 40	3072.73	-27.89	96.98	284.40	85.13	17 7 53	2072.7	-27.11	70.00
100.00	17 49 34	2773.09	-29.64	75.10	284.55	86.23	18 35 47	1773.1	-28.19	47.76
110.00	19 22 43	2481.54	-34.14	53.18	284.76	89.11	20 4 4	1481.5	-30.94	24.92

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4878	TRA	-1.4918	TC3	.4691	BAU	.1838	SGT	1979.6	SGR	637.9	SG3	420.7	ST	39.5	SR	21.5	SS	37.8
RDE	-.3549	RRA	.3210	RC3	-.2682	FAU	.09954	RRT	-.4957	RRF	.5555	RTF	-.8469	CRT	.4979	CRS	.5938	CST	.9919
FDE	1.0619	FRA	2.5607	FC3	-3.5585	BSP	3416	SGB	2079.8	R23	-.1161	R13	.8533	LSA	56.0	NSA	17.9	SSA	1.5
BDE	.6030	BRA	1.5259	BC3	.5077	FSP	620	SG1	2006.7	SG2	546.5	THA	170.19	EL1	41.3	EL2	17.8	ALF	18.77

LAUNCH DATE JUL 12 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 395.676 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.81	VL	33.703	GAL	-3.80	AZL	89.64	HCA	128.87	SHA	217.76	ECC	.30818	INC	.3590	V1	29.295
RP	223.25	LAP	.26	LOP	58.08	VP	24.072	GAP	17.89	AZP	90.22	TAL	343.79	TAP	112.36	RCA	150.65	APO	284.86	V2	24.631
RC	100.104	GL	2.49	GP	-8.63	ZAL	116.59	ZAP	160.45	ETS	207.15	ZAE	163.07	ETE	326.41	ZAC	75.24	ETC	283.19	LVI	-9.21

PLANETOCENTRIC CONIC

C3	23.538	VHL	4.851	DLA	19.05	RAL	42.90	RAD	6644.4	VEL	11.980	PTH	6.98	VHP	5.467	DPA	6.57	RAP	41.12	ECC	1.3873

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 36 37	3558.73	-46.99	133.59	282.92	98.83	14 35 55	2558.7	-38.31	102.66
60.00	13 53 44	3513.15	-40.19	130.45	283.88	93.23	14 52 17	2513.2	-34.52	100.90
70.00	14 19 45	3436.52	-34.14	124.40	284.03	89.03	15 17 2	2436.5	-30.97	96.13
80.00	15 2 34	3302.29	-29.62	114.00	283.80	86.08	15 57 37	2302.3	-28.23	86.66
90.00	16 12 14	3077.40	-27.86	97.32	283.65	84.96	17 3 32	2077.4	-27.15	70.35
100.00	17 45 26	2776.76	-29.62	75.37	283.80	86.08	18 31 43	1776.8	-28.23	48.03
110.00	19 19 12	2483.34	-34.14	53.32	284.03	89.03	20 0 38	1483.3	-30.97	25.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4897	TRA	-1.4802	TC3	.5186	BAU	.1913	SGT	2002.3	SGR	649.1	SG3	444.8	ST	40.1	SR	20.9	SS	39.3
RDE	-.3377	RRA	.3285	RC3	-.3187	FAU	.10390	RRT	-.5254	RRF	.5884	RTF	-.8506	CRT	.4846	CRS	.5884	CST	.9914
FDE	1.1253	FRA	2.6524	FC3	-3.8221	BSP	3470	SGB	2104.9	R23	-.1243	R13	.8577	LSA	57.2	NSA	17.6	SSA	1.5
BDE	.5948	BRA	1.5162	BC3	.4880	FSP	660	SG1	2033.4	SG2	543.8	THA	169.58	EL1	41.6	EL2	17.6	ALF	17.36

LAUNCH DATE JUL 12 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 399.124 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.81	VL	33.648	GAL	-3.73	AZL	89.59	HCA	129.66	SHA	216.43	ECC	.30374	INC	.4095	V1	29.295
RP	223.64	LAP	.32	LOP	59.17	VP	23.952	GAP	17.58	AZP	90.26	TAL	343.92	TAP	113.58	RCA	150.69	APO	282.17	V2	24.590
RC	102.397	GL	2.88	GP	-8.97	ZAL	116.37	ZAP	159.50	ETS	206.84	ZAE	162.99	ETE	324.97	ZAC	74.86	ETC	283.18	LVI	-8.83

PLANETOCENTRIC CONIC

C3	22.897	VHL	4.785	DLA	19.36	RAL	42.87	RAD	6644.1	VEL	11.953	PTH	6.95	VHP	5.323	DPA	6.31	RAP	41.42	ECC	1.3768

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 33 57	3558.46	-46.98	133.56	282.22	98.58	14 33 16	2558.5	-38.30	102.64
60.00	13 50 37	3514.08	-40.20	130.53	283.18	93.17	14 49 11	2514.1	-34.55	100.97
70.00	14 16 4	3439.15	-34.14	124.61	283.32	88.91	15 13 23	2439.2	-31.02	96.32
80.00	14 58 14	3306.85	-29.60	114.34	283.08	85.90	15 53 21	2307.0	-28.29	87.00
90.00	16 7 34	3083.16	-27.83	97.74	282.91	84.76	16 58 57	2083.2	-27.21	70.75
100.00	17 41 6	2781.43	-29.60	75.71	283.08	85.90	18 27 27	1781.4	-28.29	48.36
110.00	19 15 30	2488.97	-34.14	53.52	283.32	88.91	19 56 56	1488.0	-31.02	25.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4928	TRA	-1.4873	TC3	.5310	BAU	.1991	SGT	2023.2	SGR	662.4	SG3	470.2	ST	40.6	SR	20.2	SS	40.8
RDE	-.3201	RRA	.3367	RC3	-.3485	FAU	.10850	RRT	-.5551	RRF	.6213	RTF	-.8542	CRT	.4698	CRS	.5752	CST	.9909
FDE	1.1943	FRA	2.7468	FC3	-4.1026	BSP	3521	SGB	2128.9	R23	-.1326	R13	.8622	LSA	58.5	NSA	17.3	SSA	1.5
BDE	.5874	BRA	1.5054	BC3	.4803	FSP	702	SG1	2058.9	SG2	541.4	THA	168.92	EL1	42.0	EL2	17.3	ALF	19.92

LAUNCH DATE JUL 12 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 402.602 EARTH TO MARS

RL	152.08	LAL	.00	LOL	269.51	VL	33.595	GAL	-3.66	AZL	89.54	HCA	130.74	SMA	215.19	ECC	.29956	INC	.4613	V1	29.295
RP	224.03	LAP	.38	LOP	60.28	VP	23.035	GAP	17.20	AZP	90.30	TAL	344.06	TAP	114.60	RCA	150.73	APO	279.65	V2	24.548
RC	104.735	GL	3.88	GP	-9.34	ZAL	118.14	ZAP	158.54	ETS	206.68	ZAE	162.94	ETE	323.39	ZAC	74.48	ETC	283.20	LVI	-8.43

PLANETOCENTRIC CONIC

C3	22.299	VHL	4.722	DLA	19.68	RAL	42.22	RAD	6643.8	VEL	11.929	PTH	6.93	VHP	5.185	DPA	6.03	RAP	41.71	ECC	1.3670

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 31 11	3590.61	-48.99	135.00	281.56	98.52	14 30 30	2558.8	-38.31	102.66
60.00	13 47 22	3515.71	-40.20	130.67	282.51	93.08	14 45 58	2515.7	-34.59	101.09
70.00	14 12 11	3442.52	-34.13	126.68	282.64	88.75	15 9 34	2442.6	-31.08	96.57
80.00	14 53 40	3342.52	-29.87	124.76	282.98	85.69	15 48 52	2312.6	-28.36	87.40
90.00	16 2 17	3098.02	-27.79	99.23	282.80	84.51	16 54 7	2090.0	-27.27	71.24
100.00	17 36 31	2787.99	-28.87	76.13	282.38	85.69	18 22 59	1787.1	-28.36	48.77
110.00	19 11 38	2489.44	-34.13	53.79	282.64	88.75	19 53 7	1489.4	-31.08	25.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4821	TRA	-1.4408	TC3	.6043	BAU	.2125	SGT	2028.7	SGR	678.2	SG3	496.6	ST	40.4	SR	19.5	SS	42.4
RDE	-.3023	RRA	.3484	RC3	-.3778	FAU	.11334	RRT	-.8927	RRF	.6539	RTF	-.8635	CRT	.4438	CRS	.5623	CST	.9892
FDE	1.2668	FRA	2.8416	FC3	-4.4008	BSP	3416	SGB	2139.0	R23	-.1286	R13	.8719	LSA	59.3	MSA	17.0	SSA	1.5
BDE	.5690	BRA	1.4817	BC3	.7127	FSP	745	SG1	2071.0	SG2	535.0	THA	167.98	EL1	41.5	EL2	17.0	ALF	14.62

LAUNCH DATE JUL 12 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 409.105 EARTH TO MARS

RL	152.08	LAL	.00	LOL	269.51	VL	33.545	GAL	-3.59	AZL	89.48	HCA	131.82	SMA	214.03	ECC	.29559	INC	.5150	V1	29.295
RP	224.42	LAP	.38	LOP	61.33	VP	23.721	GAP	16.97	AZP	90.34	TAL	344.19	TAP	116.00	RCA	150.77	APO	277.30	V2	24.506
RC	107.119	GL	3.70	GP	-9.72	ZAL	118.92	ZAP	157.55	ETS	206.35	ZAE	162.90	ETE	321.65	ZAC	74.07	ETC	283.21	LVI	-8.02

PLANETOCENTRIC CONIC

C3	21.742	VHL	4.663	DLA	20.02	RAL	41.88	RAD	6643.6	VEL	11.905	PTH	6.91	VHP	5.051	DPA	5.72	RAP	41.98	ECC	1.3578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 28 19	3550.88	-47.00	133.70	280.95	98.45	14 27 39	2559.9	-38.35	102.74
60.00	13 43 59	3518.15	-40.21	130.88	281.88	92.94	14 42 37	2518.1	-34.65	101.26
70.00	14 8 8	3447.03	-34.13	125.22	281.98	88.55	15 5 35	2447.0	-31.15	96.89
80.00	14 48 50	3319.44	-29.54	115.27	281.70	85.42	15 44 10	2319.4	-28.43	87.90
90.00	15 57 23	3098.15	-27.73	98.82	281.51	84.22	16 49 1	2098.2	-27.35	71.82
100.00	17 31 42	2793.91	-29.54	76.63	281.70	85.42	18 18 16	1793.9	-28.43	49.26
110.00	19 7 38	2493.85	-34.13	54.14	281.98	88.55	19 49 8	1493.9	-31.15	25.81

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4905	TRA	-1.4329	TC3	.6229	BAU	.2171	SGT	2052.4	SGR	696.5	SG3	524.4	ST	41.2	SR	18.8	SS	44.1
RDE	-.2838	RRA	.3550	RC3	-.4124	FAU	.11831	RRT	-.8179	RRF	.6858	RTF	-.8637	CRT	.4252	CRS	.5458	CST	.9891
FDE	1.3457	FRA	2.9418	FC3	-4.7108	BSP	3533	SGB	2167.3	R23	-.1438	R13	.8733	LSA	61.0	MSA	16.7	SSA	1.5
BDE	.5667	BRA	1.4762	BC3	.7471	FSP	792	SG1	2100.2	SG2	535.2	THA	167.32	EL1	42.1	EL2	16.6	ALF	13.03

LAUNCH DATE JUL 12 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 409.633 EARTH TO MARS

RL	152.08	LAL	.00	LOL	269.51	VL	33.496	GAL	-3.52	AZL	89.43	HCA	132.89	SMA	212.94	ECC	.29183	INC	.5703	V1	29.295
RP	224.81	LAP	.42	LOP	62.40	VP	23.611	GAP	16.67	AZP	90.39	TAL	344.32	TAP	117.21	RCA	150.80	APO	275.09	V2	24.464
RC	109.544	GL	4.14	GP	-10.12	ZAL	115.70	ZAP	156.55	ETS	206.15	ZAE	162.88	ETE	319.74	ZAC	73.65	ETC	283.22	LVI	-7.60

PLANETOCENTRIC CONIC

C3	21.223	VHL	4.607	DLA	20.38	RAL	41.53	RAD	6643.4	VEL	11.884	PTH	6.90	VHP	4.921	DPA	5.39	RAP	42.24	ECC	1.3493

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 25 20	3561.64	-47.02	133.86	280.38	98.32	14 24 42	2561.6	-38.41	102.86
60.00	13 40 28	3521.37	-40.22	131.15	281.29	92.76	14 39 9	2521.4	-34.73	101.50
70.00	14 3 53	3452.39	-34.12	125.64	281.36	88.30	15 1 25	2452.4	-31.25	97.28
80.00	14 43 45	3327.41	-29.49	116.65	281.04	85.12	15 39 12	2327.4	-28.52	88.47
90.00	15 51 50	3107.59	-27.67	99.50	280.84	83.88	16 43 38	2107.6	-27.43	72.50
100.00	17 26 37	2801.69	-29.49	77.22	281.04	85.12	18 13 19	1801.9	-28.52	49.84
110.00	19 3 19	2499.21	-34.12	54.56	281.36	88.30	19 44 59	1499.2	-31.25	26.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4970	TRA	-1.4217	TC3	.6448	BAU	.2230	SGT	2071.9	SGR	717.8	SG3	555.9	ST	41.9	SR	18.0	SS	45.9
RDE	-.2648	RRA	.3855	RC3	-.4497	FAU	.12331	RRT	-.8436	RRF	.7166	RTF	-.8648	CRT	.4008	CRS	.5251	CST	.9888
FDE	1.4312	FRA	3.0446	FC3	-5.0384	BSP	3626	SGB	2192.7	R23	-.1570	R13	.8758	LSA	62.6	MSA	16.3	SSA	1.6
BDE	.5631	BRA	1.4679	BC3	.7861	FSP	842	SG1	2126.4	SG2	535.3	THA	166.56	EL1	42.6	EL2	16.2	ALF	11.45

LAUNCH DATE JUL 12 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 413.184 EARTH TO MARS

RL	152.08	LAL	.00	LOL	269.51	VL	33.483	GAL	-3.46	AZL	89.37	HCA	133.96	SMA	211.92	ECC	.28827	INC	.6270	V1	29.295
RP	225.20	LAP	.48	LOP	63.47	VP	23.804	GAP	16.38	AZP	90.44	TAL	344.45	TAP	118.41	RCA	150.83	APO	273.01	V2	24.422
RC	112.011	GL	4.80	GP	-10.54	ZAL	115.48	ZAP	155.51	ETS	205.97	ZAE	162.87	ETE	317.66	ZAC	75.22	ETC	283.23	LVI	-7.17

PLANETOCENTRIC CONIC

C3	20.738	VHL	4.554	DLA	20.76	RAL	41.17	RAD	6643.2	VEL	11.864	PTH	6.88	VHP	4.796	DPA	5.03	RAP	42.48	ECC	1.3413

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 22 14	3564.12	-47.04	134.10	279.85	98.14	14 21 39	2564.1	-38.50	103.04
60.00	13 36 46	3525.41	-40.24	131.50	280.72	92.52	14 35 32	2525.4	-34.83	101.79
70.00	13 59 25	3458.73	-34.10	126.13	280.76	88.01	14 57 4	2458.7	-31.35	97.74
80.00	14 38 22	3336.62	-29.44	116.53	280.41	84.76	15 33 58	2336.6	-28.62	89.14
90.00	15 45 57	3118.42	-27.58	100.28	280.19	83.50	16 37 56	2118.4	-27.52	73.28
100.00	17 21 14	2811.10	-29.44	77.90	280.41	84.76	18 8 5	1811.1	-28.62	50.51
110.00	18 58 51	2505.55	-34.10	55.05	280.76	88.01	19 40 37	1505.6	-31.35	26.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5022	TRA	-1.4078	TC3	.6674	BAU	.2296	SGT	2087.2	SGR	742.2	SG3	583.8	ST	42.5	SR	17.2	SS	47.7
RDE	-.2451	RRA	.3765	RC3	-.4899	FAU	.12895	RRT	-.8688	RRF	.7464	RTF	-.8661	CRT	.3701	CRS	.4992	CST	.9884
FDE	1.5231	FRA	3.1485	FC3	-5.3829	BSP	3893	SGB	2215.2	R23	-.1695	R13	.8786	LSA	64.2	MSA	16.0	SSA	1.6
BDE	.5588	BRA	1.4873	BC3	.8279	FSP	893	SG1	2149.5	SG2	535.8	THA	165.72	EL1	43.0	EL2	15.8	ALF	9.85

LAUNCH DATE JUL 12 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 416.756 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.411	GAL	-3.40	AZL	89.31	HCA	135.03	SMA	210.96	ECC	.28489	INC	.6859	V1	29.295
RP	225.59	LAP	.48	LOP	64.54	VP	23.400	GAP	16.08	AZP	90.49	TAL	344.57	TAP	119.60	RCA	150.86	APO	271.07	V2	24.380
RC	114.516	GL	5.09	GP	-10.98	ZAL	115.26	ZAP	154.46	ETS	205.83	ZAE	162.87	ETE	315.41	ZAC	72.77	ETC	283.25	LVI	-6.72

PLANETOCENTRIC CONIC

C3	20.289	VHL	4.504	DLA	21.16	RAL	40.81	RAD	6643.0	VEL	11.845	PTH	6.86	VHP	4.676	DPA	4.64	RAP	42.72	ECC	1.3339

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 19 1	3567.33	-47.07	134.40	279.36	97.91	14 18 29	2567.3	-38.61	103.27
60.00	13 32 55	3530.31	-40.25	131.91	280.19	92.24	14 31 46	2530.3	-34.96	102.15
70.00	13 54 43	3466.11	-34.08	126.71	280.19	87.67	14 52 29	2466.1	-31.48	98.28
80.00	14 32 39	3347.16	-29.37	117.31	279.80	84.36	15 28 27	2347.2	-28.73	89.90
90.00	15 39 41	3130.76	-27.49	101.17	279.56	83.07	16 31 52	2130.8	-27.61	74.17
100.00	17 15 31	2821.63	-29.37	78.68	279.80	84.36	18 2 33	1821.6	-28.73	51.27
110.00	18 54 9	2512.93	-34.08	55.63	280.19	87.67	19 36 2	1512.9	-31.48	27.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5055	TRA	-1.3921	TCS	.6910	BAU	.2367	SGT	2099.2	SGR	770.2	SGS	615.4			ST	43.0	SR	16.4	SS	49.7
RDE	-.2247	RRA	.3885	RCS	-.5332	FAU	.13463	RRT	-.6935	RRF	.7745	RTF	-.8678			CRT	.3306	CRS	.4660	CST	.9878
FDE	1.6197	FRA	3.2548	FCS	-5.7449	BSP	3744	SGS	2236.0	R23	-.1809	R13	.8820			LSA	65.8	MSA	15.6	SSA	1.6
BDE	.9533	BRA	1.4453	BCS	.8728	FSP	946	SG1	2170.7	SG2	536.6	THA	164.77			EL1	43.4	EL2	15.3	ALF	8.21

LAUNCH DATE JUL 12 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 420.348 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.370	GAL	-3.35	AZL	89.25	HCA	136.09	SMA	210.06	ECC	.28168	INC	.7466	V1	29.295
RP	225.98	LAP	.52	LOP	65.60	VP	23.298	GAP	15.79	AZP	90.54	TAL	344.70	TAP	120.79	RCA	150.89	APO	269.24	V2	24.338
RC	117.057	GL	5.59	GP	-11.45	ZAL	115.04	ZAP	153.38	ETS	205.70	ZAE	162.86	ETE	312.96	ZAC	72.29	ETC	283.28	LVI	-6.25

PLANETOCENTRIC CONIC

C3	19.870	VHL	4.458	DLA	21.58	RAL	40.44	RAD	6642.8	VEL	11.827	PTH	6.85	VHP	4.560	DPA	4.22	RAP	42.83	ECC	1.3270

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 15 40	3571.31	-47.11	134.78	278.91	97.62	14 15 12	2571.3	-38.78	103.55
60.00	13 28 54	3536.09	-40.26	132.40	279.70	91.91	14 27 50	2536.1	-35.10	102.57
70.00	13 49 46	3474.59	-34.06	127.37	279.64	87.28	14 47 41	2474.6	-31.61	98.91
80.00	14 26 36	3359.12	-29.29	118.19	279.21	83.91	15 22 35	2359.1	-28.85	90.77
90.00	15 33 0	3144.76	-27.37	102.18	278.95	82.58	16 25 24	2144.8	-27.72	75.18
100.00	17 9 28	2833.59	-29.29	79.56	279.21	83.91	17 56 41	1833.6	-28.85	52.14
110.00	18 49 13	2521.41	-34.06	56.29	279.64	87.28	19 31 14	1521.4	-31.61	27.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5088	TRA	-1.3752	TCS	.7127	BAU	.2440	SGT	2108.1	SGR	802.0	SGS	648.3			ST	43.4	SR	15.5	SS	51.7
RDE	-.2034	RRA	.4013	RCS	-.5797	FAU	.14049	RRT	-.7167	RRF	.8008	RTF	-.8694			CRT	.2816	CRS	.4237	CST	.9871
FDE	1.7248	FRA	3.3632	FCS	-6.1211	BSP	3792	SGS	2285.5	R23	-.1921	R13	.8854			LSA	67.5	MSA	15.3	SSA	1.6
BDE	.8480	BRA	1.4328	BCS	.8187	FSP	1003	SG1	2190.4	SG2	538.3	THA	163.74			EL1	43.6	EL2	14.8	ALF	8.80

LAUNCH DATE JUL 12 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 423.987 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.332	GAL	-3.29	AZL	89.19	HCA	137.18	SMA	209.82	ECC	.27864	INC	.8095	V1	29.295
RP	226.37	LAP	.55	LOP	66.66	VP	23.200	GAP	15.50	AZP	90.59	TAL	344.82	TAP	121.97	RCA	150.92	APO	267.82	V2	24.297
RC	119.633	GL	6.12	GP	-11.94	ZAL	114.82	ZAP	152.27	ETS	205.60	ZAE	162.83	ETE	310.34	ZAC	71.80	ETC	283.31	LVI	-5.76

PLANETOCENTRIC CONIC

C3	19.492	VHL	4.414	DLA	22.02	RAL	40.07	RAD	6642.6	VEL	11.811	PTH	6.83	VHP	4.448	DPA	3.76	RAP	43.14	ECC	1.3206

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 12 11	3576.08	-47.18	138.24	278.51	97.27	14 11 47	2576.1	-38.91	103.69
60.00	13 24 41	3542.79	-40.28	132.97	279.24	91.52	14 23 44	2542.8	-35.26	103.07
70.00	13 44 34	3484.24	-34.02	128.12	279.13	86.83	14 42 38	2484.2	-31.77	99.62
80.00	14 20 9	3372.63	-29.16	119.16	278.64	83.40	15 16 22	2372.6	-28.97	91.76
90.00	15 25 50	3160.58	-27.22	103.32	278.36	82.03	16 16 30	2160.6	-27.82	76.33
100.00	17 3 1	2847.10	-29.16	80.58	278.64	83.40	17 50 28	1847.1	-28.97	53.12
110.00	18 44 0	2531.06	-34.02	57.04	279.13	86.83	19 26 11	1531.1	-31.77	28.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5119	TRA	-1.3866	TCS	.7329	BAU	.2516	SGT	2113.8	SGR	837.8	SGS	682.4			ST	43.8	SR	14.7	SS	53.8
RDE	-.1811	RRA	.4150	RCS	-.6298	FAU	.14656	RRT	-.7380	RRF	.8282	RTF	-.8908			CRT	.2204	CRS	.3697	CST	.9865
FDE	1.8370	FRA	3.4783	FCS	-6.5138	BSP	3837	SGS	2273.8	R23	-.2031	R13	.8869			LSA	69.3	MSA	14.0	SSA	1.6
BDE	.8430	BRA	1.4187	BCS	.9660	FSP	1063	SG1	2208.8	SG2	541.1	THA	162.62			EL1	43.9	EL2	14.3	ALF	4.72

LAUNCH DATE JUL 12 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 427.882 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.296	GAL	-3.24	AZL	89.13	HCA	138.20	SMA	208.43	ECC	.27877	INC	.8747	V1	29.295
RP	226.76	LAP	.58	LOP	67.72	VP	23.104	GAP	15.21	AZP	90.68	TAL	344.93	TAP	123.14	RCA	150.95	APO	265.80	V2	24.255
RC	122.240	GL	6.67	GP	-12.48	ZAL	114.60	ZAP	151.13	ETS	205.51	ZAE	162.78	ETE	307.53	ZAC	71.29	ETC	283.34	LVI	-5.26

PLANETOCENTRIC CONIC

C3	19.123	VHL	4.373	DLA	22.48	RAL	39.70	RAD	6642.4	VEL	11.796	PTH	6.82	VHP	4.340	DPA	3.28	RAP	43.32	ECC	1.3147

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 8 33	3581.66	-47.20	135.77	278.16	96.86	14 8 15	2581.7	-39.10	104.29
60.00	13 20 16	3550.47	-40.29	133.63	278.82	91.08	14 19 26	2550.5	-35.46	103.63
70.00	13 39 3	3495.12	-33.98	128.87	278.64	86.33	14 37 18	2495.1	-31.93	100.42
80.00	14 13 16	3387.63	-29.06	120.29	278.09	82.82	15 9 44	2387.6	-29.10	92.87
90.00	15 16 7	3178.43	-27.08	104.59	277.76	81.41	16 11 6	2178.4	-27.93	77.62
100.00	16 56 8	2862.31	-29.06	81.66	278.09	82.82	17 43 50	1862.3	-29.10	54.24
110.00	18 36 30	2541.94	-33.96	57.89	278.64	86.33	19 20 52	1541.9	-31.93	29.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5140	TRA	-1.3376	TCS	.7504	BAU	.2595	SGT	2117.0	SGR	878.1	SGS	717.9			ST	44.1	SR	13.8	SS	56.0
RDE	-.1578	RRA	.4296	RCS	-.6833	FAU	.15291	RRT	-.7576	RRF	.8476	RTF	-.8719			CRT	.1432	CRS	.3003	CST	.9857
FDE	1.9586	FRA	3.5833	FCS	-6.9226	BSP	3874	SGS	2291.9	R23	-.2139	R13	.8925			LSA	71.1	MSA	14.5	SSA	1.6
BDE	.8377	BRA	1.4049	BCS	1.0149	FSP	1123	SG1	2226.2	SG2	545.0	THA	161.40			EL1	44.1	EL2	13.7	ALF	2.84

LAUNCH DATE JUL 12 1973 FLIGHT TIME 172.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 431.223 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.261	GAL	-3.19	AZL	89.06	HCA	139.25	SMA	207.68	ECC	.27304	INC	.9426	V1	29.295
RP	227.15	LAP	.62	LOP	68.77	VP	23.011	GAP	14.93	AZP	90.71	TAL	345.05	TAP	124.30	RCA	150.97	APO	264.38	V2	24.214
RC	124.878	GL	7.24	GP	-13.01	ZAL	114.39	ZAP	149.96	ETS	205.44	ZAE	162.69	ETE	304.54	ZAC	70.75	ETC	283.39	LVI	-4.73

PLANETOCENTRIC CONIC

C3	18.792	VHL	4.335	DLA	22.98	RAL	39.32	RAD	6642.3	VEL	11.782	PTH	6.81	VHP	4.236	DPA	2.76	RAP	43.50	ECC	1.3093

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 4 46	3588.14	-47.25	136.38	277.85	96.39	14 4 34	2588.1	-39.31	104.76
60.00	13 15 38	3559.18	-40.30	134.37	278.43	90.58	14 14 57	2559.2	-35.66	104.28
70.00	13 33 14	3507.33	-33.92	129.92	278.18	85.78	14 31 41	2507.3	-32.11	101.33
80.00	14 5 53	3404.90	-28.91	121.54	277.56	82.19	15 2 38	2404.9	-29.24	94.12
90.00	15 9 47	3198.57	-26.83	106.03	277.21	80.72	16 3 6	2198.6	-28.03	79.08
100.00	16 48 45	2879.37	-28.91	82.91	277.56	82.19	17 36 44	1879.4	-29.24	55.49
110.00	18 32 40	2554.15	-33.92	58.83	278.18	85.78	19 15 14	1554.1	-32.11	30.25

DIFFERENTIAL CORRECTIONS

TDE	-.5171	TRA	-1.3174	TC3	.7649	BAU	.2675
RDE	-.1330	RRA	.4453	RC3	-.7407	FAU	.15940
FDE	2.0859	FRA	3.6954	FC3	-7.3438	BSP	3909
BDE	.5339	BRA	1.3907	BC3	1.0648	FSP	1187

MID-COURSE EXECUTION ACCURACY

SGT	2117.5	SGR	923.0	SG3	754.6		
RRT	-.7751	RRF	.8678	RTF	-.8727		
SGB	2310.0	R23	-.2244	R13	.8961		
SG1	2243.4	SG2	550.5	THA	160.08		

ORBIT DETERMINATION ACCURACY

ST	44.4	SR	13.0	SS	58.4
CRT	.0470	CRS	.2111	CST	.9850
LSA	73.1	MSA	14.2	SSA	1.6
EL1	44.4	EL2	13.0	ALF	.87

LAUNCH DATE JUL 12 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 434.877 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.229	GAL	-3.14	AZL	88.99	HCA	140.30	SMA	206.98	ECC	.27046	INC	1.0130	V1	29.295
RP	227.54	LAP	.65	LOP	69.82	VP	22.920	GAP	14.64	AZP	90.78	TAL	345.16	TAP	125.46	RCA	151.00	APO	262.96	V2	24.172
RC	127.544	GL	7.84	GP	-13.59	ZAL	114.18	ZAP	148.76	ETS	205.38	ZAE	162.56	ETE	301.39	ZAC	70.19	ETC	283.44	LVI	-4.19

PLANETOCENTRIC CONIC

C3	18.488	VHL	4.300	DLA	23.49	RAL	38.93	RAD	6642.2	VEL	11.769	PTH	6.80	VHP	4.137	DPA	2.20	RAP	43.66	ECC	1.3043

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 48	3595.49	-47.30	137.09	277.59	95.85	14 0 44	2595.5	-39.56	105.30
60.00	13 10 46	3568.96	-40.30	135.20	278.09	90.01	14 10 15	2569.0	-35.88	105.01
70.00	13 27 3	3520.97	-33.85	130.97	277.74	85.15	14 25 44	2521.0	-32.31	102.34
80.00	13 57 57	3424.05	-28.72	122.93	277.04	81.48	14 55 1	2424.0	-29.37	95.52
90.00	15 0 43	3221.34	-26.57	107.64	276.65	79.95	15 54 25	2221.3	-28.12	80.74
100.00	16 40 49	2898.52	-28.72	84.30	277.04	81.48	17 29 7	1898.5	-29.37	56.89
110.00	18 26 29	2567.79	-33.85	59.89	277.74	85.15	19 9 17	1567.8	-32.31	31.26

DIFFERENTIAL CORRECTIONS

TDE	-.5190	TRA	-1.2959	TC3	.7767	BAU	.2760
RDE	-.1068	RRA	.4619	RC3	-.8022	FAU	.16611
FDE	2.2224	FRA	3.8068	FC3	-7.7788	BSP	3942
BDE	.5299	BRA	1.3758	BC3	1.1166	FSP	1252

MID-COURSE EXECUTION ACCURACY

SGT	2114.2	SGR	972.9	SG3	792.4		
RRT	-.7905	RRF	.8859	RTF	-.8732		
SGB	2327.3	R23	-.2342	R13	.8998		
SG1	2259.5	SG2	557.6	THA	158.65		

ORBIT DETERMINATION ACCURACY

ST	44.7	SR	12.4	SS	60.8
CRT	-.0710	CRS	.0990	CST	.9842
LSA	75.2	MSA	13.8	SSA	1.6
EL1	44.7	EL2	12.3	ALF	178.78

LAUNCH DATE JUL 12 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 438.545 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.198	GAL	-3.10	AZL	88.91	HCA	141.35	SMA	206.32	ECC	.26801	INC	1.0862	V1	29.295
RP	227.93	LAP	.68	LOP	70.86	VP	22.832	GAP	14.36	AZP	90.85	TAL	345.26	TAP	126.61	RCA	151.02	APO	261.61	V2	24.131
RC	130.237	GL	8.47	GP	-14.20	ZAL	113.97	ZAP	147.53	ETS	205.33	ZAE	162.38	ETE	298.09	ZAC	69.61	ETC	283.49	LVI	-3.62

PLANETOCENTRIC CONIC

C3	18.209	VHL	4.267	DLA	24.04	RAL	38.54	RAD	6642.0	VEL	11.757	PTH	6.78	VHP	4.042	DPA	1.60	RAP	43.80	ECC	1.2997

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 56 39	3603.77	-47.36	137.88	277.38	95.24	13 56 43	2603.8	-39.83	105.90
60.00	13 5 38	3579.87	-40.30	136.13	277.77	89.38	14 5 17	2579.9	-36.13	105.83
70.00	13 20 28	3536.13	-33.76	132.15	277.33	84.47	14 19 24	2536.1	-32.51	103.48
80.00	13 49 21	3445.53	-28.50	124.49	276.53	80.69	14 46 47	2445.5	-29.51	97.11
90.00	14 50 47	3247.17	-26.25	109.47	276.08	79.10	15 44 54	2247.2	-28.20	82.63
100.00	16 32 13	2920.00	-28.50	85.85	276.53	80.69	17 20 53	1920.0	-29.51	58.48
110.00	18 19 55	2582.95	-33.76	61.07	277.33	84.47	19 2 57	1583.0	-32.51	32.40

DIFFERENTIAL CORRECTIONS

TDE	-.5123	TRA	-1.2651	TC3	.8030	BAU	.2681
RDE	-.0797	RRA	.4789	RC3	-.8694	FAU	.17329
FDE	2.3622	FRA	3.9113	FC3	-8.2389	BSP	3873
BDE	.5184	BRA	1.3527	BC3	1.1835	FSP	1312

MID-COURSE EXECUTION ACCURACY

SGT	2098.1	SGR	1028.4	SG3	831.3		
RRT	-.8084	RRF	.9021	RTF	-.9166		
SGB	2336.6	R23	-.2351	R13	.9062		
SG1	2268.6	SG2	559.9	THA	156.90		

ORBIT DETERMINATION ACCURACY

ST	44.3	SR	11.9	SS	63.2
CRT	-.2122	CRS	-.0345	CST	.9826
LSA	76.8	MSA	13.5	SSA	1.6
EL1	44.4	EL2	11.6	ALF	176.50

LAUNCH DATE JUL 12 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 442.224 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.169	GAL	-3.06	AZL	88.84	HCA	142.39	SMA	209.70	ECC	.26571	INC	1.1628	V1	29.295
RP	228.32	LAP	.71	LOP	71.90	VP	22.746	GAP	14.09	AZP	90.92	TAL	345.36	TAP	127.75	RCA	151.04	APO	260.35	V2	24.090
RC	132.954	GL	9.13	GP	-14.84	ZAL	113.77	ZAP	146.28	ETS	205.29	ZAE	162.13	ETE	294.69	ZAC	68.99	ETC	283.56	LVI	-3.02

PLANETOCENTRIC CONIC

C3	17.957	VHL	4.238	DLA	24.61	RAL	38.15	RAD	6641.9	VEL	11.747	PTH	6.78	VHP	3.951	DPA	.97	RAP	43.93	ECC	1.2955

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 52 20	3613.06	-47.41	138.77	277.22	94.56	13 52 33	2813.1	-40.13	106.59
60.00	13 0 13	3592.03	-40.28	137.16	277.50	88.68	14 0 5	2592.0	-36.40	106.75
70.00	13 13 27	3553.03	-33.64	133.45	276.95	83.70	14 12 40	2553.0	-32.73	104.75
80.00	13 39 59	3469.76	-28.22	126.23	276.03	79.81	14 37 49	2469.8	-29.63	98.90
90.00	14 39 45	3276.75	-25.86	111.54	275.52	78.13	15 34 22	2276.8	-28.26	84.79
100.00	16 22 51	2944.23	-28.22	87.60	276.03	79.81	17 11 55	1944.2	-29.63	60.27
110.00	18 12 53	2599.85	-33.64	62.37	276.95	83.70	18 56 13	1599.8	-32.73	33.67

DIFFERENTIAL CORRECTIONS

TDE	-.5204	TRA	-1.2481	TC3	.7916	BAU	.2947
RDE	-.0494	RRA	.4981	RC3	-.9382	FAU	.18008
FDE	2.5234	FRA	4.0260	FC3	-8.6818	BSP	3993
BDE	.5227	BRA	1.3438	BC3	1.2276	FSP	1388

MID-COURSE EXECUTION ACCURACY

SGT	2095.3	SGR	1088.8	SG3	871.0		
RRT	-.8159	RRF	.9163	RTF	-.8735		
SGB	2361.3	R23	-.2498	R13	.9081		
SG1	2290.0	SG2	576.0	THA	155.36		

ORBIT DETERMINATION ACCURACY

ST	44.9	SR	11.7	SS	65.9
CRT	-.3687	CRS	-.1958	CST	.9824
LSA	79.5	MSA	13.2	SSA	1.6
EL1	45.1	EL2	10.8	ALF	174.19

LAUNCH DATE JUL 12 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 445.914 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.141	GAL	-3.02	AZL	88.76	HCA	143.42	SMA	205.12	ECC	.26352	INC	1.2427	VI	29.295
RP	220.70	LAP	.74	LOP	72.94	VP	22.662	GAP	13.81	AZP	91.00	TAL	345.46	TAP	128.88	RCA	151.06	APO	259.17	V2	24.049
RC	135.694	GL	9.82	GP	-15.52	ZAL	113.57	ZAP	144.98	ETS	205.26	ZAE	161.81	ETE	291.19	ZAC	68.35	ETC	283.63	LVI	-2.40

PLANETOCENTRIC CONIC

C3	17.730	VHL	4.211	DLA	25.22	RAL	37.75	RAD	6641.8	VEL	11.737	PTH	6.77	VHP	3.864	DPA	.29	RAP	44.05	ECC	1.2918

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 47 46	3623.38	-47.46	139.76	277.12	93.80	13 48 10	2623.4	-40.46	107.36
60.00	12 54 30	3609.47	-40.26	138.30	277.27	87.90	13 54 35	2605.5	-36.69	107.78
70.00	13 5 56	3571.77	-33.49	134.89	276.58	82.86	14 5 28	2571.8	-32.95	106.17
80.00	13 29 42	3497.17	-27.87	128.20	275.53	78.83	14 27 59	2497.2	-29.74	100.83
90.00	14 27 21	3310.97	-25.36	113.92	274.93	77.04	15 22 32	2311.0	-28.28	87.29
100.00	16 12 34	2971.64	-27.87	89.56	275.53	78.83	17 2 6	1971.6	-29.74	62.29
110.00	18 5 22	2618.59	-33.49	63.81	276.58	82.86	18 49 1	1618.6	-32.95	35.09

DIFFERENTIAL CORRECTIONS

TDE	-.5229	TRA	-1.2252	TC3	.7881	BAU	.3042												
RDE	-.0174	RRA	.5182	RC3	-1.0127	FAU	.18721												
FDE	2.6914	FRA	4.1357	FC3	-9.1411	BSP	4043												
BDE	.5232	BRA	1.3302	BC3	1.2832	FSP	1460												

MID-COURSE EXECUTION ACCURACY

SGT	2083.8	SGR	1155.5	SG3	911.8						
RRT	-.8245	RRF	.9288	RTF	-.8721						
SGB	2382.7	R23	-.2578	R13	.9119						
SG1	2308.5	SG2	590.2	THA	153.57						

ORBIT DETERMINATION ACCURACY

ST	45.1	SR	11.8	SS	68.7						
CRT	-.5300	CRS	-.3652	CST	.9816						
LSA	82.0	MSA	12.8	SSA	1.6						
EL1	45.5	EL2	9.9	ALF	171.69						

LAUNCH DATE JUL 12 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 449.614 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.115	GAL	-2.98	AZL	88.67	HCA	144.46	SMA	204.87	ECC	.26146	INC	1.3264	VI	29.295
RP	229.09	LAP	.77	LOP	73.98	VP	22.580	GAP	13.54	AZP	91.08	TAL	345.55	TAP	130.01	RCA	151.08	APO	258.05	V2	24.008
RC	138.457	GL	10.54	GP	-16.24	ZAL	113.37	ZAP	143.66	ETS	205.23	ZAE	161.40	ETE	287.65	ZAC	67.68	ETC	283.71	LVI	-1.75

PLANETOCENTRIC CONIC

C3	17.527	VHL	4.187	DLA	25.85	RAL	37.35	RAD	6641.7	VEL	11.728	PTH	6.76	VHP	3.782	DPA	-.43	RAP	44.18	ECC	1.2885

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 42 59	3634.81	-47.51	140.87	277.07	92.95	13 43 34	2634.8	-40.81	108.23
60.00	12 48 25	3620.32	-40.21	139.56	277.07	87.05	13 48 46	2620.3	-36.99	108.92
70.00	12 57 50	3592.58	-33.30	136.49	276.24	81.94	13 57 42	2592.6	-33.17	107.75
80.00	13 18 16	3528.42	-27.44	130.42	275.02	77.74	14 17 5	2528.4	-29.82	103.25
90.00	14 13 6	3351.31	-24.71	116.70	274.30	75.79	15 8 57	2351.3	-28.24	90.24
100.00	16 1 8	3002.89	-27.44	91.79	275.02	77.74	16 51 11	2002.9	-29.82	64.61
110.00	17 57 16	2639.40	-33.30	65.41	276.24	81.94	18 41 16	1639.4	-33.17	38.67

DIFFERENTIAL CORRECTIONS

TDE	-.5231	TRA	-1.1991	TC3	.7823	BAU	.3147												
RDE	.0169	RRA	.5391	RC3	-1.0918	FAU	.19443												
FDE	2.6686	FRA	4.2400	FC3	-9.6034	BSP	4077												
BDE	.5234	BRA	1.3148	BC3	1.3431	FSP	1532												

MID-COURSE EXECUTION ACCURACY

SGT	2065.7	SGR	1228.2	SG3	952.9						
RRT	-.8319	RRF	.9396	RTF	-.8706						
SGB	2403.2	R23	-.2628	R13	.9163						
SG1	2325.7	SG2	605.4	THA	151.58						

ORBIT DETERMINATION ACCURACY

ST	45.1	SR	12.4	SS	71.6						
CRT	-.6768	CRS	-.5259	CST	.9806						
LSA	84.6	MSA	12.5	SSA	1.6						
EL1	45.9	EL2	9.0	ALF	169.00						

LAUNCH DATE JUL 12 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 453.323 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.090	GAL	-2.95	AZL	88.59	HCA	145.49	SMA	204.05	ECC	.25951	INC	1.4141	VI	29.295
RP	229.48	LAP	.80	LOP	75.01	VP	22.501	GAP	13.26	AZP	91.17	TAL	345.64	TAP	131.12	RCA	151.10	APO	257.01	V2	23.987
RC	141.241	GL	11.29	GP	-16.99	ZAL	113.18	ZAP	142.29	ETS	205.20	ZAE	160.90	ETE	284.09	ZAC	66.97	ETC	283.80	LVI	-1.07

PLANETOCENTRIC CONIC

C3	17.349	VHL	4.165	DLA	26.52	RAL	36.94	RAD	6641.6	VEL	11.721	PTH	6.75	VHP	3.703	DPA	-1.20	RAP	44.24	ECC	1.2855

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 37 56	3647.40	-47.54	142.08	277.07	92.01	13 38 43	2647.4	-41.20	109.19
60.00	12 41 56	3636.67	-40.14	140.95	276.90	86.11	13 42 34	2636.7	-37.32	110.19
70.00	12 49 4	3615.73	-33.07	138.26	275.90	80.92	13 49 19	2615.7	-33.39	109.52
80.00	13 5 22	3564.52	-26.89	132.96	274.48	76.51	14 4 47	2564.5	-29.86	105.93
90.00	13 56 9	3400.48	-23.85	120.04	273.60	74.33	14 52 49	2400.5	-28.09	93.83
100.00	15 48 14	3038.99	-26.89	94.33	274.48	76.51	16 38 53	2039.0	-29.86	67.30
110.00	17 48 30	2662.55	-33.07	67.17	275.90	80.92	18 32 53	1662.5	-33.39	38.44

DIFFERENTIAL CORRECTIONS

TDE	-.5221	TRA	-1.1713	TC3	.7736	BAU	.3265												
RDE	.0538	RRA	.5611	RC3	-1.1760	FAU	.20176												
FDE	3.0565	FRA	4.3396	FC3	-10.0684	BSP	4113												
BDE	.5249	BRA	1.2988	BC3	1.4076	FSP	1607												

MID-COURSE EXECUTION ACCURACY

SGT	2043.0	SGR	1307.5	SG3	994.7						
RRT	-.8378	RRF	.9489	RTF	-.8790						
SGB	2425.6	R23	-.2651	R13	.9212						
SG1	2344.5	SG2	622.0	THA	149.42						

ORBIT DETERMINATION ACCURACY

ST	44.9	SR	13.5	SS	74.6						
CRT	-.7952	CRS	-.6626	CST	.9795						
LSA	87.3	MSA	12.3	SSA	1.6						
EL1	46.3	EL2	8.0	ALF	166.11						

LAUNCH DATE JUL 12 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 457.041 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.067	GAL	-2.91	AZL	88.49	HCA	146.51	SMA	203.87	ECC	.25767	INC	1.5062	VI	29.295
RP	229.86	LAP	.83	LOP	76.03	VP	22.423	GAP	12.99	AZP	91.26	TAL	345.72	TAP	132.23	RCA	151.12	APO	256.02	V2	23.927
RC	144.046	GL	12.06	GP	-17.79	ZAL	112.98	ZAP	140.90	ETS	205.18	ZAE	160.30	ETE	280.55	ZAC	66.24	ETC	283.90	LVI	-.36

PLANETOCENTRIC CONIC

C3	17.194	VHL	4.147	DLA	27.23	RAL	36.51	RAD	6641.6	VEL	11.714	PTH	6.75	VHP	3.629	DPA	-2.02	RAP	44.31	ECC	1.2830

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 36	3661.24	-47.57	143.42	277.12	90.98	13 33 37	2661.2	-41.61	110.26
60.00	12 35 3	3654.87	-40.05	142.47	276.77	85.08	13 35 58	2654.7	-37.65	111.60
70.00	12 39 30	3641.55	-32.77	140.21	275.57	79.80	13 40 12	2641.5	-33.61	111.50
80.00	12 50 29	3607.04	-26.18	135.92	273.88	75.11	13 50 36	2607.0	-29.82	109.09
90.00	13 34 37	3464.43	-22.61	124.31	272.75	72.54	14 32 21	2464.4	-27.74	98.47
100.00	15 33 21	3081.51	-26.18	97.29	273.88	75.11	16 24 43	2081.5	-29.82	70.46
110.00	17 38 57	2688.37	-32.77	69.13	275.57	79.80	18 23 45	1688.4	-33.61	40.42

DIFFERENTIAL CORRECTIONS

TDE	-.5161	TRA	-1.1383	TC3	.7701	BAU	.3408												
RDE	.0932	RRA	.5837	RC3	-1.2668	FAU	.20939												
FDE	3.2503	FRA	4.4286	FC3	-10.5425	BSP	4101												
BDE	.5245	BRA	1.2792	BC3	1.4825	FSP	1675												

MID-COURSE EXECUTION ACCURACY

SGT	2011.3	SGR	1393.9	SG3	1036.7						
RRT	-.8443	RRF	.9570	RTF	-.8685						
SGB	2447.1	R23	-.2616	R13	.9274						
SG1	2363.1	SG2	635.7	THA	146.97						

ORBIT DETERMINATION ACCURACY

ST	44.5	SR	15.1	SS	77.6						
CRT	-.8800	CRS	-.7665	CST	.9778						
LSA	89.9	MSA	12.0	SSA	1.6						
EL1	46.5	EL2	6.9	ALF	162.94						

LAUNCH DATE JUL 12 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 460.766 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.045	GAL	-2.88	AZL	88.40	HCA	147.54	SMA	203.12	ECC	.25594	INC	1.6030	V1	29.295
RP	230.25	LAP	.86	LOP	77.06	VP	22.348	GAP	12.73	AZP	91.35	TAL	345.79	TAP	133.33	RCA	151.13	APO	255.10	V2	23.887
RC	146.870	GL	12.92	GP	-18.63	ZAL	112.79	ZAP	139.46	ETS	205.15	ZAE	159.60	ETE	277.08	ZAC	65.46	ETC	284.01	LVI	.39

PLANETOCENTRIC CONIC

C3	17.065	VHL	4.131	DLA	27.98	RAL	36.09	RAD	6641.5	VEL	11.709	PTH	6.74	VHP	3.560	DPA	-2.89	RAP	44.38	ECC	1.2809

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 56	3676.44	-47.58	144.89	277.24	89.85	13 28 12	2676.4	-42.05	111.45
60.00	12 27 39	3674.50	-39.92	144.14	276.67	83.96	13 28 54	2674.5	-38.01	113.16
70.00	12 29 0	3670.53	-32.40	142.39	275.24	78.56	13 30 11	2670.5	-33.81	113.74
80.00	12 32 41	3658.95	-25.22	139.48	273.20	73.47	13 33 40	2658.9	-29.67	112.94
90.00	13 1 31	3565.68	-20.39	130.91	271.46	69.97	14 0 57	2565.7	-26.84	105.74
100.00	15 15 33	3133.42	-25.22	100.85	273.20	73.47	16 7 47	2133.4	-29.67	74.30
110.00	17 28 27	2717.34	-32.40	71.31	275.24	78.56	18 13 44	1717.3	-33.81	42.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5195	TRA	-1.1141	TC3	.7359	BAU	.3525	SGT	1987.6	SGR	1486.8	SG3	1078.5	ST	44.6	SR	17.3	SS	81.0
RDE	.1375	RRA	.6087	RC3	-1.3587	FAU	.21634	RRT	-.8436	RRF	.9638	RTF	-.8629	CRT	-.9352	CRS	-.8435	CST	.9770
FDE	3.4679	FRA	4.5226	FC	-10.9749	BSP	4204	SGB	2482.1	R23	-.2643	R13	.9315	LSA	93.3	MSA	11.8	SSA	1.6
BDE	.5374	BRA	1.2696	BC3	1.5452	FSP	1755	SG1	2391.8	SG2	663.5	THA	144.62	EL1	47.5	EL2	5.8	ALF	159.74

LAUNCH DATE JUL 12 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 464.499 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.024	GAL	-2.85	AZL	88.29	HCA	148.56	SMA	202.69	ECC	.25430	INC	1.7051	V1	29.295
RP	230.63	LAP	.89	LOP	78.08	VP	22.274	GAP	12.46	AZP	91.45	TAL	345.86	TAP	134.42	RCA	151.14	APO	254.23	V2	23.847
RC	149.713	GL	13.79	GP	-19.52	ZAL	112.60	ZAP	137.99	ETS	205.12	ZAE	158.78	ETE	273.71	ZAC	64.65	ETC	284.13	LVI	1.17

PLANETOCENTRIC CONIC

C3	16.961	VHL	4.118	DLA	28.77	RAL	35.65	RAD	6641.5	VEL	11.705	PTH	6.74	VHP	3.494	DPA	-3.81	RAP	44.44	ECC	1.2791

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 54	3693.07	-47.56	146.50	277.41	88.61	13 22 27	2693.1	-42.51	112.78
60.00	12 19 41	3696.33	-39.75	145.97	276.59	82.73	13 21 17	2696.3	-38.36	114.91
70.00	12 17 21	3703.24	-31.93	144.83	274.88	77.19	13 19 4	2703.2	-33.98	116.28
80.00	12 9 50	3726.87	-23.83	144.04	272.31	71.46	13 11 57	2726.9	-29.28	117.95
84.49	11 37 42	3830.39	-17.80	149.22	269.87	67.02	12 41 32	2830.4	-25.73	124.88
100.00	14 52 42	3201.34	-23.83	105.41	272.31	71.46	15 46 3	2201.3	-29.28	79.31
110.00	17 16 47	2750.06	-31.93	73.74	274.88	77.19	18 2 37	1750.1	-33.98	45.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5159	TRA	-1.0829	TC3	.7100	BAU	.3676	SGT	1952.2	SGR	1587.5	SG3	1119.9	ST	44.2	SR	19.9	SS	84.4
RDE	.1848	RRA	.6340	RC3	-1.4578	FAU	.22354	RRT	-.8442	RRF	.9696	RTF	-.8588	CRT	-.9684	CRS	-.8950	CST	.9755
FDE	3.6898	FRA	4.6007	FC	-11.4103	BSP	4259	SGB	2516.2	R23	-.2594	R13	.9373	LSA	96.6	MSA	11.6	SSA	1.5
BDE	.5480	BRA	1.2549	BC3	1.6213	FSP	1830	SG1	2420.8	SG2	686.3	THA	141.93	EL1	48.3	EL2	4.5	ALF	156.21

LAUNCH DATE JUL 12 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 468.238 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	33.004	GAL	-2.83	AZL	88.19	HCA	149.57	SMA	202.29	ECC	.25276	INC	1.8131	V1	29.295
RP	231.01	LAP	.92	LOP	79.10	VP	22.202	GAP	12.20	AZP	91.56	TAL	345.92	TAP	135.50	RCA	151.16	APO	253.42	V2	23.807
RC	152.572	GL	14.70	GP	-20.45	ZAL	112.41	ZAP	136.49	ETS	205.08	ZAE	157.86	ETE	270.45	ZAC	63.79	ETC	284.27	LVI	2.00

PLANETOCENTRIC CONIC

C3	16.882	VHL	4.109	DLA	29.60	RAL	35.19	RAD	6641.4	VEL	11.701	PTH	6.73	VHP	3.434	DPA	-4.78	RAP	44.48	ECC	1.2778

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 28	3711.28	-47.52	148.26	277.63	87.26	13 16 19	2711.3	-43.00	114.26
60.00	12 11 3	3720.40	-39.52	147.98	276.53	81.38	13 13 3	2720.4	-38.73	116.85
70.00	12 4 12	3740.60	-31.34	147.57	274.50	75.66	13 6 33	2740.6	-34.11	119.19
80.00	11 33 11	3838.45	-21.23	151.30	270.85	68.49	12 37 10	2838.5	-28.20	126.06
80.87	11 7 4	3922.00	-18.32	156.21	269.57	66.33	12 12 26	2922.0	-26.48	131.84
100.00	14 16 3	3312.92	-21.23	112.67	270.85	68.49	15 11 16	2312.9	-28.20	87.43
110.00	17 3 39	2787.42	-31.34	76.49	274.50	75.66	17 50 6	1787.4	-34.11	48.11

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5115	TRA	-1.0507	TC3	.6778	BAU	.3841	SGT	1912.7	SGR	1696.0	SG3	1160.5	ST	43.7	SR	23.0	SS	87.9
RDE	.2367	RRA	.6604	RC3	-1.5611	FAU	.23054	RRT	-.8430	RRF	.9746	RTF	-.8537	CRT	-.9868	CRS	-.9296	CST	.9739
FDE	3.9243	FRA	4.6689	FC	-11.8222	BSP	4324	SGB	2556.3	R23	-.2518	R13	.9434	LSA	100.1	MSA	11.5	SSA	1.5
BDE	.5636	BRA	1.2410	BC3	1.7019	FSP	1904	SG1	2455.6	SG2	710.6	THA	139.07	EL1	49.3	EL2	3.3	ALF	152.44

LAUNCH DATE JUL 12 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 471.982 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.986	GAL	-2.80	AZL	88.07	HCA	150.59	SMA	201.91	ECC	.25132	INC	1.9272	V1	29.295
RP	231.39	LAP	.95	LOP	80.11	VP	22.132	GAP	11.93	AZP	91.68	TAL	345.98	TAP	136.57	RCA	151.17	APO	252.66	V2	23.767
RC	155.447	GL	15.67	GP	-21.44	ZAL	112.22	ZAP	134.94	ETS	205.03	ZAE	156.82	ETE	267.34	ZAC	62.90	ETC	284.42	LVI	2.86

PLANETOCENTRIC CONIC

C3	16.831	VHL	4.103	DLA	30.48	RAL	34.73	RAD	6641.4	VEL	11.699	PTH	6.73	VHP	3.378	DPA	-5.82	RAP	44.52	ECC	1.2770

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 7 34	3731.21	-47.43	150.18	277.90	85.78	13 9 45	2731.2	-43.51	115.90
60.00	12 1 38	3747.03	-39.23	150.18	276.49	79.91	13 4 5	2747.0	-39.09	119.02
70.00	11 49 7	3764.01	-30.56	150.72	274.04	73.95	12 52 11	2764.0	-34.15	122.58
78.12	10 44 30	3987.33	-18.85	161.33	269.30	65.59	11 50 58	2987.3	-27.26	136.93
78.12	10 44 30	3987.33	-18.85	161.33	269.30	65.59	11 50 58	2987.3	-27.26	136.93
78.12	10 44 30	3987.33	-18.85	161.33	269.30	65.59	11 50 58	2987.3	-27.26	136.93
110.00	16 48 33	2830.83	-30.56	79.64	274.04	73.95	17 35 44	1830.8	-34.15	51.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5054	TRA	-1.0179	TC3	.6387	BAU	.4021	SGT	1869.2	SGR	1812.6	SG3	1199.8	ST	43.1	SR	26.5	SS	91.4
RDE	.2933	RRA	.6877	RC3	-1.6692	FAU	.23730	RRT	-.8398	RRF	.9787	RTF	-.8472	CRT	-.9956	CRS	-.9525	CST	.9720
FDE	4.1683	FRA	4.7253	FC	-12.2060	BSP	4394	SGB	2603.7	R23	-.2419	R13	.9495	LSA	103.9	MSA	11.4	SSA	1.4
BDE	.5844	BRA	1.2284	BC3	1.7872	FSP	1974	SG1	2497.4	SG2	736.6	THA	136.05	EL1	50.6	EL2	2.1	ALF	148.45

LAUNCH DATE JUL 12 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 475.733 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.968	GAL	-2.78	AZL	87.95	HCA	151.60	SMA	201.56	ECC	.24995	INC	2.0483	V1	29.295
RP	231.77	LAP	.97	LOP	81.12	VP	22.064	GAP	11.67	AZP	91.80	TAL	346.03	TAP	137.63	RCA	151.18	APO	251.94	V2	23.728
RC	158.336	GL	16.69	GP	-22.48	ZAL	112.03	ZAP	133.36	ETS	204.97	ZAE	155.67	ETE	264.38	ZAC	61.96	ETC	284.59	LVI	3.77

PLANETOCENTRIC CONIC

C3	16.807	VHL	4.100	DLA	31.41	RAL	34.25	RAD	6641.4	VEL	11.698	PTH	6.73	VHP	3.327	DPA	-6.91	RAP	44.55	ECC	1.2766

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 0 8	3753.02	-47.30	152.27	278.22	84.18	13 2 41	2753.0	-44.04	117.73
60.00	11 51 18	3776.60	-38.85	152.61	276.44	78.31	12 54 14	2776.6	-39.43	121.46
70.00	11 31 15	3835.86	-29.53	154.40	273.46	72.00	12 35 11	2835.9	-34.08	126.62
75.72	10 25 23	4041.31	-19.40	165.65	269.06	64.79	11 32 45	3041.3	-28.08	141.22
75.72	10 25 23	4041.31	-19.40	165.65	269.06	64.79	11 32 45	3041.3	-28.08	141.22
75.72	10 25 23	4041.31	-19.40	165.65	269.06	64.79	11 32 45	3041.3	-28.08	141.22
110.00	16 30 41	2882.68	-29.53	83.32	273.46	72.00	17 18 44	1882.7	-34.08	55.54

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4970	TRA	-.9821	TC3	.5973	BAU	.4225	SGT	1819.1	SGR	1938.1	SG3	1237.5	ST	42.3	SR	30.5	SS	95.1
RDE	.3554	RRA	.7152	RC3	-1.7831	FAU	.24392	RRT	-.8353	RRF	.9822	RTF	-.8398	CRT	-.9985	CRS	-.9678	CST	.9697
FDE	4.4223	FRA	4.7823	FC	-12.5642	BSP	4468	SGB	2656.0	R23	-.2283	R13	.9560	LSA	107.8	MSA	11.3	SSA	1.4
BDE	.6110	BRA	1.2149	BC3	1.8805	FSP	2040	SG1	2546.7	SG2	761.1	THA	132.83	EL1	52.1	EL2	1.4	ALF	144.21

LAUNCH DATE JUL 12 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 479.488 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.952	GAL	-2.76	AZL	87.82	HCA	152.60	SMA	201.23	ECC	.24867	INC	2.1772	V1	29.298
RP	232.14	LAP	1.00	LOP	82.13	VP	21.997	GAP	11.41	AZP	91.93	TAL	346.08	TAP	136.68	RCA	151.19	APO	251.27	V2	23.689
RC	161.238	GL	17.76	GP	-23.57	ZAL	111.84	ZAP	131.74	ETS	204.89	ZAE	154.41	ETE	261.60	ZAC	60.97	ETC	284.77	LVI	4.73

PLANETOCENTRIC CONIC

C3	16.813	VHL	4.100	DLA	32.40	RAL	33.74	RAD	6641.4	VEL	11.698	PTH	6.73	VHP	3.281	DPA	-8.06	RAP	44.58	ECC	1.2767

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 58 4	3776.93	-47.11	154.58	278.58	82.43	12 55 1	2776.9	-44.58	119.77
60.00	11 39 49	3809.62	-38.36	155.27	276.37	76.56	12 43 19	2809.6	-39.75	124.21
70.00	11 8 54	3901.14	-28.07	158.92	272.65	69.89	12 13 55	2901.1	-33.77	131.70
73.49	10 8 19	4088.52	-19.96	169.53	268.85	63.94	11 16 27	3088.5	-28.94	145.07
73.49	10 8 19	4088.52	-19.96	169.53	268.85	63.94	11 16 27	3088.5	-28.94	145.07
73.49	10 8 19	4088.52	-19.96	169.53	268.85	63.94	11 16 27	3088.5	-28.94	145.07
110.00	16 8 21	2947.96	-28.07	87.84	272.65	69.89	16 57 29	1948.0	-33.77	60.61

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4937	TRA	-.9433	TC3	.5528	BAU	.4480	SGT	1760.5	SGR	2071.4	SG3	1272.2	ST	41.1	SR	34.9	SS	98.7
RDE	.4227	RRA	.7430	RC3	-1.9008	FAU	.25006	RRT	-.8296	RRF	.9882	RTF	-.8315	CRT	-.9976	CRS	-.9779	CST	.9866
FDE	4.6784	FRA	4.7804	FC	-12.8761	BSP	4833	SGB	2718.5	R23	-.2116	R13	.9625	LSA	111.9	MSA	11.3	SSA	1.3
BDE	.6424	BRA	1.2006	BC3	1.9795	FSP	2097	SG1	2603.6	SG2	782.0	THA	129.43	EL1	53.9	EL2	1.8	ALF	139.69

LAUNCH DATE JUL 12 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 483.248 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.936	GAL	-2.74	AZL	87.69	HCA	153.60	SMA	200.98	ECC	.24747	INC	2.3146	V1	29.295
RP	232.51	LAP	1.03	LOP	83.13	VP	21.932	GAP	11.16	AZP	92.07	TAL	346.12	TAP	139.72	RCA	151.20	APO	250.64	V2	23.650
RC	164.150	GL	18.89	GP	-24.72	ZAL	111.64	ZAP	130.08	ETS	204.80	ZAE	153.04	ETE	288.97	ZAC	59.94	ETC	284.98	LVI	5.74

PLANETOCENTRIC CONIC

C3	16.851	VHL	4.105	DLA	33.44	RAL	33.22	RAD	6641.4	VEL	11.700	PTH	6.73	VHP	3.241	DPA	-9.26	RAP	44.60	ECC	1.2773

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 43 17	3803.17	-46.85	157.03	278.97	80.84	12 46 40	2803.2	-45.13	122.06
60.00	11 26 57	3846.79	-37.75	158.23	276.26	74.64	12 31 4	2846.8	-40.03	127.33
70.00	10 37 1	3994.98	-28.69	165.18	271.30	66.68	11 43 36	2995.0	-32.93	136.89
71.36	9 52 34	4131.22	-20.54	173.12	268.67	63.01	11 1 26	3131.2	-29.84	148.64
71.36	9 52 34	4131.22	-20.54	173.12	268.67	63.01	11 1 26	3131.2	-29.84	148.64
71.36	9 52 34	4131.22	-20.54	173.12	268.67	63.01	11 1 26	3131.2	-29.84	148.64
110.00	15 36 28	3041.80	-28.69	94.09	271.30	66.68	16 27 9	2041.8	-32.93	67.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4639	TRA	-.8983	TC3	.5143	BAU	.4710	SGT	1689.8	SGR	2213.9	SG3	1303.9	ST	39.8	SR	39.7	SS	102.1
RDE	.4988	RRA	.7690	RC3	-2.0286	FAU	.25027	RRT	-.8241	RRF	.9876	RTF	-.8234	CRT	-.9940	CRS	-.9847	CST	.9824
FDE	4.9330	FRA	4.7849	FC	-13.1688	BSP	4886	SGB	2785.0	R23	-.1908	R13	.9691	LSA	115.9	MSA	11.3	SSA	1.2
BDE	.6788	BRA	1.1825	BC3	2.0909	FSP	2138	SG1	2669.6	SG2	793.7	THA	128.82	EL1	55.9	EL2	3.1	ALF	134.84

LAUNCH DATE JUL 12 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 487.010 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.922	GAL	-2.72	AZL	87.54	HCA	154.60	SMA	200.63	ECC	.24635	INC	2.4617	V1	29.298
RP	232.89	LAP	1.06	LOP	84.13	VP	21.869	GAP	10.90	AZP	92.22	TAL	346.15	TAP	140.75	RCA	151.20	APO	250.06	V2	23.618
RC	167.073	GL	20.08	GP	-25.03	ZAL	111.44	ZAP	128.39	ETS	204.68	ZAE	151.86	ETE	256.83	ZAC	58.85	ETC	285.20	LVI	6.80

PLANETOCENTRIC CONIC

C3	16.926	VHL	4.114	DLA	34.84	RAL	32.87	RAD	6641.4	VEL	11.703	PTH	6.74	VHP	3.208	DPA	-10.56	RAP	44.63	ECC	1.2786

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 33 39	3832.10	-46.49	159.73	279.38	78.48	12 37 31	2832.1	-45.68	124.64
60.00	11 12 16	3869.20	-36.91	161.54	276.07	72.53	12 17 7	2869.2	-40.22	130.92
69.28	9 37 47	4170.71	-21.13	176.53	268.54	62.01	10 47 18	3170.7	-30.78	152.03
69.28	9 37 47	4170.71	-21.13	176.53	268.54	62.01	10 47 18	3170.7	-30.78	152.03
69.28	9 37 47	4170.71	-21.13	176.53	268.54	62.01	10 47 18	3170.7	-30.78	152.03
69.28	9 37 47	4170.71	-21.13	176.53	268.54	62.01	10 47 18	3170.7	-30.78	152.03

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4606	TRA	-.8715	TC3	.4225	BAU	.4935	SGT	1644.3	SGR	2368.3	SG3	1332.5	ST	39.0	SR	45.5	SS	106.5
RDE	.5826	RRA	.8018	RC3	-2.1397	FAU	.25986	RRT	-.8047	RRF	.9897	RTF	-.8031	CRT	-.9894	CRS	-.9695	CST	.9598
FDE	5.2360	FRA	4.7704	FC	-13.2915	BSP	4824	SGB	2880.7	R23	-.1778	R13	.9737	LSA	121.6	MSA	11.3	SSA	1.2
BDE	.7427	BRA	1.1841	BC3	2.1810	FSP	2216	SG1	2756.2	SG2	837.8	THA	128.60	EL1	59.7	EL2	4.3	ALF	130.58

LAUNCH DATE JUL 12 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 490.777 EARTH TO MARS

RL 152.08 LAL .00 LOL 289.51 VL 32.908 GAL -2.71 AZL 87.38 HCA 155.60 SMA 200.36 ECC .24830 INC 2.6195 V1 29.295
RP 233.25 LAP 1.08 LOP 85.13 VP 21.807 GAP 10.65 AZP 92.39 TAL 346.18 TAP 141.78 RCA 151.21 APO 249.51 V2 23.573
RC 170.003 GL 21.34 GP -27.21 ZAL 111.23 ZAP 126.66 ETS 204.54 ZAE 149.98 ETE 254.25 ZAC 57.72 ETC 285.44 LVI 7.81

PLANETOCENTRIC CONIC

C3 17.039 VHL 4.128 DLA 35.71 RAL 32.09 RAD 6641.5 VEL 11.708 PTH 6.74 VHP 3.177 DPA -11.91 RAP 44.65 ECC 1.2804

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 23 0	3864.06	-46.01	162.67	279.76	76.26	12 27 24	2864.1	-46.20	127.54
60.00	10 55 12	3938.41	-35.84	165.28	275.72	70.19	12 0 51	2938.4	-40.30	135.11
67.22	9 23 40	4207.80	-21.73	179.81	268.44	60.93	10 33 47	3207.8	-31.75	155.31
67.22	9 23 40	4207.80	-21.73	179.81	268.44	60.93	10 33 47	3207.8	-31.75	155.31
67.22	9 23 40	4207.80	-21.73	179.81	268.44	60.93	10 33 47	3207.8	-31.75	155.31
67.22	9 23 40	4207.80	-21.73	179.81	268.44	60.93	10 33 47	3207.8	-31.75	155.31
67.22	9 23 40	4207.80	-21.73	179.81	268.44	60.93	10 33 47	3207.8	-31.75	155.31

DIFFERENTIAL CORRECTIONS

TDE -.4431 TRA -.8330 TC3 .3521 BAU .5214
RDE .6755 RRA .8309 RC3-2.2617 FAU .26362
FDE 5.5216 FRA 4.7308 FC-13.3946 BSP 4990
BDE .8079 BRA 1.1765 BC3 2.2890 FSP 2265

MID-COURSE EXECUTION ACCURACY

SGT 1578.2 SGR 2526.5 SG3 1356.3
RRT -.7881 RRF .9914 RTF -.7849
SGB 2978.9 R23 -.1586 R13 .9787
SG1 2851.8 SG2 860.7 THA 119.11

ORBIT DETERMINATION ACCURACY

ST 37.4 SR 51.6 SS 110.4
CRT -.9829 CRS -.9927 CST .9548
LSA 127.0 MSA 11.4 SSA 1.1
EL1 63.5 EL2 5.6 ALF 125.84

LAUNCH DATE JUL 12 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 494.547 EARTH TO MARS

RL 152.08 LAL .00 LOL 289.51 VL 32.896 GAL -2.70 AZL 87.21 HCA 156.59 SMA 200.11 ECC .24432 INC 2.7892 V1 29.295
RP 233.62 LAP 1.11 LOP 86.13 VP 21.747 GAP 10.39 AZP 92.56 TAL 346.20 TAP 142.79 RCA 151.22 APO 249.00 V2 23.536
RC 172.941 GL 22.68 GP -28.55 ZAL 111.01 ZAP 124.90 ETS 204.36 ZAE 148.29 ETE 252.12 ZAC 56.53 ETC 285.72 LVI 9.08

PLANETOCENTRIC CONIC

C3 17.195 VHL 4.147 DLA 36.96 RAL 31.47 RAD 6641.6 VEL 11.714 PTH 6.75 VHP 3.155 DPA -13.33 RAP 44.69 ECC 1.2830

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 11 6	3899.56	-45.39	165.86	280.14	73.87	12 16 6	2899.6	-46.69	130.83
60.00	10 34 35	3997.35	-34.39	169.60	275.13	67.55	11 41 13	2997.4	-40.17	140.11
65.15	9 10 3	4242.95	-22.34	183.01	268.37	59.76	10 20 46	3242.9	-32.78	158.52
65.15	9 10 3	4242.95	-22.34	183.01	268.37	59.76	10 20 46	3242.9	-32.78	158.52
65.15	9 10 3	4242.95	-22.34	183.01	268.37	59.76	10 20 46	3242.9	-32.78	158.52
65.15	9 10 3	4242.95	-22.34	183.01	268.37	59.76	10 20 46	3242.9	-32.78	158.52
65.15	9 10 3	4242.95	-22.34	183.01	268.37	59.76	10 20 46	3242.9	-32.78	158.52

DIFFERENTIAL CORRECTIONS

TDE -.4223 TRA -.7928 TC3 .2772 BAU .5520
RDE .7785 RRA .8586 RC3-2.3851 FAU .26658
FDE 5.8083 FRA 4.6589 FC-13.4216 BSP 5161
BDE .8857 BRA 1.1686 BC3 2.4011 FSP 2298

MID-COURSE EXECUTION ACCURACY

SGT 1507.5 SGR 2697.0 SG3 1374.8
RRT -.7668 RRF .9929 RTF -.7623
SGB 3089.7 R23 -.1389 R13 .9831
SG1 2961.3 SG2 881.2 THA 115.63

ORBIT DETERMINATION ACCURACY

ST 35.7 SR 58.3 SS 114.3
CRT -.9748 CRS -.9949 CST .9484
LSA 132.7 MSA 11.5 SSA 1.0
EL1 68.0 EL2 6.8 ALF 121.19

LAUNCH DATE JUL 12 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 498.320 EARTH TO MARS

RL 152.08 LAL .00 LOL 289.51 VL 32.884 GAL -2.69 AZL 87.03 HCA 157.58 SMA 199.87 ECC .24341 INC 2.9725 V1 29.295
RP 233.99 LAP 1.13 LOP 87.12 VP 21.688 GAP 10.14 AZP 92.75 TAL 346.21 TAP 143.60 RCA 151.22 APO 248.52 V2 23.498
RC 175.886 GL 24.10 GP -29.95 ZAL 110.78 ZAP 123.10 ETS 204.16 ZAE 146.51 ETE 250.13 ZAC 55.28 ETC 286.02 LVI 10.32

PLANETOCENTRIC CONIC

C3 17.401 VHL 4.171 DLA 38.28 RAL 30.81 RAD 6641.7 VEL 11.723 PTH 6.75 VHP 3.140 DPA -14.82 RAP 44.73 ECC 1.2864

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 57 40	3939.30	-44.58	169.35	280.42	71.29	12 3 19	2939.3	-47.11	134.57
60.00	10 8 5	4072.34	-32.32	174.88	274.07	64.48	11 15 57	3072.3	-39.67	146.43
63.05	8 56 48	4276.70	-22.96	186.17	268.35	58.50	10 8 4	3276.7	-33.84	161.71
63.05	8 56 48	4276.70	-22.96	186.17	268.35	58.50	10 8 4	3276.7	-33.84	161.71
63.05	8 56 48	4276.70	-22.96	186.17	268.35	58.50	10 8 4	3276.7	-33.84	161.71
63.05	8 56 48	4276.70	-22.96	186.17	268.35	58.50	10 8 4	3276.7	-33.84	161.71
63.05	8 56 48	4276.70	-22.96	186.17	268.35	58.50	10 8 4	3276.7	-33.84	161.71

DIFFERENTIAL CORRECTIONS

TDE -.3968 TRA -.7510 TC3 .1975 BAU .5848
RDE .8925 RRA .8845 RC3-2.5063 FAU .26835
FDE 6.0904 FRA 4.5547 FC-13.3514 BSP 5364
BDE .9767 BRA 1.1604 BC3 2.5141 FSP 2324

MID-COURSE EXECUTION ACCURACY

SGT 1432.0 SGR 2875.7 SG3 1386.6
RRT -.7396 RRF .9941 RTF -.7538
SGB 3212.6 R23 -.1195 R13 .9869
SG1 3084.3 SG2 898.5 THA 112.20

ORBIT DETERMINATION ACCURACY

ST 33.6 SR 65.6 SS 118.1
CRT -.9645 CRS -.9965 CST .9396
LSA 138.7 MSA 11.6 SSA .9
EL1 73.3 EL2 8.0 ALF 116.64

LAUNCH DATE JUL 12 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 502.095 EARTH TO MARS

RL 152.08 LAL .00 LOL 289.51 VL 32.873 GAL -2.68 AZL 86.83 HCA 158.57 SMA 199.65 ECC .24256 INC 3.1711 V1 29.295
RP 234.35 LAP 1.16 LOP 88.11 VP 21.631 GAP 9.89 AZP 92.95 TAL 346.22 TAP 144.79 RCA 151.22 APO 248.08 V2 23.461
RC 178.836 GL 25.61 GP -31.43 ZAL 110.53 ZAP 121.28 ETS 203.91 ZAE 144.63 ETE 248.28 ZAC 53.98 ETC 286.35 LVI 11.61

PLANETOCENTRIC CONIC

C3 17.663 VHL 4.203 DLA 39.68 RAL 30.09 RAD 6641.8 VEL 11.734 PTH 6.76 VHP 3.132 DPA -16.38 RAP 44.79 ECC 1.2907

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 42 14	3984.22	-43.53	173.16	280.55	68.51	11 48 39	2984.2	-47.43	138.67
60.00	9 27 20	4186.18	-28.73	182.38	271.83	60.42	10 37 6	3186.2	-38.21	155.74
60.92	8 43 45	4309.34	-23.58	189.32	268.36	57.12	9 55 34	3309.3	-34.95	164.91
60.92	8 43 45	4309.34	-23.58	189.32	268.36	57.12	9 55 34	3309.3	-34.95	164.91
60.92	8 43 45	4309.34	-23.58	189.32	268.36	57.12	9 55 34	3309.3	-34.95	164.91
60.92	8 43 45	4309.34	-23.58	189.32	268.36	57.12	9 55 34	3309.3	-34.95	164.91
60.92	8 43 45	4309.34	-23.58	189.32	268.36	57.12	9 55 34	3309.3	-34.95	164.91

DIFFERENTIAL CORRECTIONS

TDE -.3638 TRA -.7074 TC3 .1187 BAU .6211
RDE 1.0179 RRA .9078 RC3-2.6275 FAU .26923
FDE 6.3582 FRA 4.4160 FC-13.1965 BSP 5559
BDE 1.0810 BRA 1.1509 BC3 2.6302 FSP 2329

MID-COURSE EXECUTION ACCURACY

SGT 1351.4 SGR 3064.2 SG3 1391.4
RRT -.7061 RRF .9951 RTF -.6988
SGB 3349.0 R23 -.1008 R13 .9900
SG1 3223.0 SG2 909.8 THA 108.85

ORBIT DETERMINATION ACCURACY

ST 31.1 SR 73.5 SS 121.6
CRT -.9503 CRS -.9975 CST .9266
LSA 145.0 MSA 11.8 SSA .8
EL1 79.3 EL2 9.0 ALF 112.21

LAUNCH DATE JUL 12 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 505.871 EARTH TO MARS

RL 152.08 LAL .00 LOL 269.51 VL 32.862 GAL -2.67 AZL 86.61 HCA 159.55 SMA 199.45 ECC .24177 INC 3.3873 V1 29.295
RP 234.71 LAP 1.18 LOP 89.09 VP 21.575 GAP 9.65 AZP 93.17 TAL 346.23 TAP 145.78 RCA 151.23 APO 247.67 V2 23.424
RC 181.791 GL 27.21 GP -32.97 ZAL 110.27 ZAP 119.44 ETS 203.62 ZAE 142.66 ETE 246.55 ZAC 52.62 ETC 286.71 LVI 12.97

PLANETOCENTRIC CONIC

C3 17.991 VHL 4.242 DLA 41.17 RAL 29.32 RAD 6641.9 VEL 11.748 PTH 6.78 VHP 3.133 DPA -18.02 RAP 44.66 ECC 1.2961

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 24 11	4038.82	-42.16	177.35	280.43	65.51	11 31 27	3035.8	-47.57	143.85
58.74	8 30 50	4341.17	-24.20	192.47	268.42	55.62	9 43 11	3341.2	-36.10	168.16
58.74	8 30 50	4341.17	-24.20	192.47	268.42	55.62	9 43 11	3341.2	-36.10	168.16
58.74	8 30 50	4341.17	-24.20	192.47	268.42	55.62	9 43 11	3341.2	-36.10	168.16
58.74	8 30 50	4341.17	-24.20	192.47	268.42	55.62	9 43 11	3341.2	-36.10	168.16
58.74	8 30 50	4341.17	-24.20	192.47	268.42	55.62	9 43 11	3341.2	-36.10	168.16
58.74	8 30 50	4341.17	-24.20	192.47	268.42	55.62	9 43 11	3341.2	-36.10	168.16

DIFFERENTIAL CORRECTIONS

TDE -.3318 TRA -.6679 TC3 .0246 BAU .6583
RDE 1.1624 RRA .9305 RC3-2.7369 FAU .26807
FDE 6.6363 FRA 4.2546 FC-12.8996 B8P 5840
BDE 1.2088 BRA 1.1454 BC3 2.7370 F8P 2336

MID-COURSE EXECUTION ACCURACY

SGT 1279.7 SGR 3262.5 SG3 1388.9
RRT -.6595 RRF .9959 RTF -.6512
SG8 3504.5 R23 -.0842 R13 .9924
SG1 3379.2 SG2 928.8 THA 108.72

ORBIT DETERMINATION ACCURACY

ST 28.7 SR 82.5 SS 125.3
CRT -.9325 CRS -.9983 CST .9101
LSA 152.3 MSA 12.0 SSA .8
EL1 86.8 EL2 9.9 ALF 108.24

LAUNCH DATE JUL 12 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 509.650 EARTH TO MARS

RL 152.08 LAL .00 LOL 269.51 VL 32.853 GAL -2.66 AZL 86.38 HCA 160.53 SMA 199.26 ECC .24103 INC 3.6235 V1 29.295
RP 235.06 LAP 1.21 LOP 90.08 VP 21.520 GAP 9.40 AZP 93.42 TAL 346.22 TAP 146.78 RCA 151.23 APO 247.28 V2 23.387
RC 184.750 GL 28.92 GP -34.58 ZAL 109.98 ZAP 117.88 ETS 203.29 ZAE 140.61 ETE 244.92 ZAC 51.20 ETC 287.12 LVI 14.40

PLANETOCENTRIC CONIC

C3 18.396 VHL 4.289 DLA 42.78 RAL 28.47 RAD 6642.1 VEL 11.765 PTH 6.79 VHP 3.143 DPA -19.72 RAP 44.96 ECC 1.3028

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 2 23	4096.55	-40.34	182.04	279.91	62.25	11 10 39	3096.5	-47.44	149.72
58.49	8 17 56	4372.43	-24.79	195.67	268.51	53.98	9 30 48	3372.4	-37.28	171.48
58.49	8 17 56	4372.43	-24.79	195.67	268.51	53.98	9 30 48	3372.4	-37.28	171.48
58.49	8 17 56	4372.43	-24.79	195.67	268.51	53.98	9 30 48	3372.4	-37.28	171.48
58.49	8 17 56	4372.43	-24.79	195.67	268.51	53.98	9 30 48	3372.4	-37.28	171.48
58.49	8 17 56	4372.43	-24.79	195.67	268.51	53.98	9 30 48	3372.4	-37.28	171.48
58.49	8 17 56	4372.43	-24.79	195.67	268.51	53.98	9 30 48	3372.4	-37.28	171.48

DIFFERENTIAL CORRECTIONS

TDE -.2902 TRA -.6261 TC3 -.0663 BAU .6987
RDE 1.3219 RRA .9483 RC3-2.8401 FAU .26559
FDE 6.8877 FRA 4.0527 FC-12.4986 B8P 6119
BDE 1.3533 BRA 1.1363 BC3 2.8409 F8P 2321

MID-COURSE EXECUTION ACCURACY

SGT 1204.6 SGR 3468.4 SG3 1376.9
RRT -.6010 RRF .9966 RTF -.8915
SG8 3671.7 R23 -.0687 R13 .9943
SG1 3549.1 SG2 940.9 THA 102.70

ORBIT DETERMINATION ACCURACY

ST 25.8 SR 92.1 SS 128.5
CRT -.9080 CRS -.9988 CST .8833
LSA 159.8 MSA 12.2 SSA .7
EL1 95.0 EL2 10.6 ALF 104.43

LAUNCH DATE JUL 12 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 513.429 EARTH TO MARS

RL 152.08 LAL .00 LOL 269.51 VL 32.844 GAL -2.66 AZL 86.12 HCA 161.51 SMA 199.08 ECC .24036 INC 3.8831 V1 29.295
RP 235.42 LAP 1.23 LOP 91.06 VP 21.467 GAP 9.15 AZP 93.68 TAL 346.22 TAP 147.72 RCA 151.23 APO 248.93 V2 23.351
RC 187.714 GL 30.74 GP -36.27 ZAL 109.66 ZAP 115.70 ETS 202.90 ZAE 138.48 ETE 243.39 ZAC 49.72 ETC 287.57 LVI 15.89

PLANETOCENTRIC CONIC

C3 18.894 VHL 4.347 DLA 44.44 RAL 27.53 RAD 6642.3 VEL 11.786 PTH 6.81 VHP 3.163 DPA -21.49 RAP 45.09 ECC 1.3110

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 34 38	4171.40	-37.82	187.43	278.66	58.65	10 44 10	3171.4	-46.84	156.84
54.16	8 4 55	4403.40	-25.37	198.93	268.63	52.20	9 18 19	3403.4	-36.49	174.93
54.16	8 4 55	4403.40	-25.37	198.93	268.63	52.20	9 18 19	3403.4	-36.49	174.93
54.16	8 4 55	4403.40	-25.37	198.93	268.63	52.20	9 18 19	3403.4	-36.49	174.93
54.16	8 4 55	4403.40	-25.37	198.93	268.63	52.20	9 18 19	3403.4	-36.49	174.93
54.16	8 4 55	4403.40	-25.37	198.93	268.63	52.20	9 18 19	3403.4	-36.49	174.93
54.16	8 4 55	4403.40	-25.37	198.93	268.63	52.20	9 18 19	3403.4	-36.49	174.93

DIFFERENTIAL CORRECTIONS

TDE -.2418 TRA -.5845 TC3 -.1586 BAU .7414
RDE 1.5021 RRA .9613 RC3-2.9306 FAU .26130
FDE 7.1214 FRA 3.8166 FC-11.9729 B8P 6431
BDE 1.5814 BRA 1.1260 BC3 2.9381 F8P 2292

MID-COURSE EXECUTION ACCURACY

SGT 1133.6 SGR 3682.6 SG3 1385.4
RRT -.5258 RRF .9972 RTF -.5.81
SG8 3883.1 R23 -.0548 R13 .9958
SG1 3733.9 SG2 981.0 THA 99.84

ORBIT DETERMINATION ACCURACY

ST 22.7 SR 102.6 SS 131.8
CRT -.8815 CRS -.9991 CST .8402
LSA 167.0 MSA 12.4 SSA .6
EL1 104.8 EL2 11.3 ALF 100.93

LAUNCH DATE JUL 12 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 517.210 EARTH TO MARS

RL 152.08 LAL .00 LOL 269.51 VL 32.838 GAL -2.66 AZL 85.83 HCA 162.48 SMA 198.92 ECC .23974 INC 4.1693 V1 29.295
RP 238.77 LAP 1.28 LOP 92.03 VP 21.418 GAP 8.91 AZP 93.98 TAL 346.20 TAP 148.68 RCA 151.23 APO 246.60 V2 23.318
RC 190.680 GL 32.66 GP -38.02 ZAL 109.31 ZAP 113.81 ETS 202.45 ZAE 136.26 ETE 241.94 ZAC 48.19 ETC 288.08 LVI 17.45

PLANETOCENTRIC CONIC

C3 19.804 VHL 4.416 DLA 46.24 RAL 26.47 RAD 6642.6 VEL 11.812 PTH 6.83 VHP 3.195 DPA -23.34 RAP 45.25 ECC 1.3210

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 54 43	4274.98	-33.92	194.26	275.91	54.39	10 5 58	3275.0	-45.23	166.31
51.75	7 51 42	4434.23	-25.90	202.26	268.78	50.25	9 5 37	3434.2	-39.71	178.83
51.75	7 51 42	4434.23	-25.90	202.26	268.78	50.25	9 5 37	3434.2	-39.71	178.83
51.75	7 51 42	4434.23	-25.90	202.26	268.78	50.25	9 5 37	3434.2	-39.71	178.83
51.75	7 51 42	4434.23	-25.90	202.26	268.78	50.25	9 5 37	3434.2	-39.71	178.83
51.75	7 51 42	4434.23	-25.90	202.26	268.78	50.25	9 5 37	3434.2	-39.71	178.83
51.75	7 51 42	4434.23	-25.90	202.26	268.78	50.25	9 5 37	3434.2	-39.71	178.83

DIFFERENTIAL CORRECTIONS

TDE -.1834 TRA -.5421 TC3 -.2477 BAU .7880
RDE 1.7023 RRA .9681 RC3-3.0118 FAU .25869
FDE 7.3150 FRA 3.5341 FC-11.3496 B8P 6732
BDE 1.7121 BRA 1.1068 BC3 3.0220 F8P 2234

MID-COURSE EXECUTION ACCURACY

SGT 1067.1 SGR 3902.8 SG3 1323.1
RRT -.4265 RRF .9977 RTF -.4165
SG8 4046.0 R23 -.0424 R13 .9969
SG1 3931.1 SG2 997.2 THA 97.11

ORBIT DETERMINATION ACCURACY

ST 19.3 SR 113.8 SS 133.8
CRT -.7843 CRS -.9994 CST .7827
LSA 176.3 MSA 12.6 SSA .5
EL1 114.8 EL2 11.9 ALF 97.68

LAUNCH DATE JUL 12 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 520.892 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.81	VL	32.828	GAL	-2.65	AZL	85.51	HCA	163.45	SMA	198.77	ECC	.23916	INC	4.4872	V1	29.295
RP	236.12	LAP	1.28	LOP	93.01	VP	21.365	GAP	8.66	AZP	94.30	TAL	346.18	TAP	149.63	RCA	151.23	APO	246.30	V2	23.279
RC	193.649	GL	34.76	GP	-39.85	ZAL	108.92	ZAP	111.92	ETS	201.95	ZAE	134.00	ETE	240.56	ZAC	46.59	ETC	288.64	LVI	19.09

PLANETOCENTRIC CONIC

C3	20.251	VHL	4.500	DLA	48.16	RAL	25.28	RAD	6642.9	VEL	11.843	PTH	6.86	VHP	3.240	DPA	-25.25	RAP	45.45	ECC	1.3333

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.24	7 38 8	4465.24	-26.37	205.69	268.94	48.12	8 52 34	3465.2	-40.94	182.32
49.24	7 38 8	4465.24	-26.37	205.69	268.94	48.12	8 52 34	3465.2	-40.94	182.32
49.24	7 38 8	4465.24	-26.37	205.69	268.94	48.12	8 52 34	3465.2	-40.94	182.32
49.24	7 38 8	4465.24	-26.37	205.69	268.94	48.12	8 52 34	3465.2	-40.94	182.32
49.24	7 38 8	4465.24	-26.37	205.69	268.94	48.12	8 52 34	3465.2	-40.94	182.32
49.24	7 38 8	4465.24	-26.37	205.69	268.94	48.12	8 52 34	3465.2	-40.94	182.32
49.24	7 38 8	4465.24	-26.37	205.69	268.94	48.12	8 52 34	3465.2	-40.94	182.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1164	TRA	-.5023	TC3	-.3374	BAU	.8363	SGT	1016.5	SGR	4130.2	SG3	1280.2	ST	16.2	SR	126.1	SS	135.9		
RDE	1.9314	RRA	.9623	RC3	-3.0707	FAU	.24784	RRT	-.3064	RRF	.9981	RTF	-.2933	CRT	-.6399	CRS	-.9996	CST	.6176		
FDE	7.4813	FRA	3.2251	FC3	-10.5955	BSP	7076	SGB	4253.4	R23	-.0316	R13	.9977	LSA	185.6	MSA	12.9	SSA	.5		
BDE	1.9349	BRA	1.0855	BC3	3.0892	FSP	2164	SG1	4142.6	SG2	964.7	THA	94.56	EL1	126.5	EL2	12.4	ALF	94.74		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 524.773 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.821	GAL	-2.65	AZL	85.16	HCA	164.41	SMA	198.63	ECC	.23864	INC	4.8426	V1	29.295
RP	236.46	LAP	1.30	LOP	93.98	VP	21.315	GAP	8.42	AZP	94.67	TAL	346.16	TAP	150.57	RCA	151.23	APO	246.03	V2	23.244
RC	196.619	GL	36.98	GP	-41.74	ZAL	108.49	ZAP	110.04	ETS	201.37	ZAE	131.67	ETE	239.22	ZAC	44.95	ETC	289.27	LVI	20.79

PLANETOCENTRIC CONIC

C3	21.167	VHL	4.601	DLA	50.20	RAL	23.92	RAD	6643.4	VEL	11.881	PTH	6.89	VHP	3.300	DPA	-27.22	RAP	45.71	ECC	1.3484

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.63	7 24 5	4496.63	-26.76	209.23	269.09	45.80	8 39 2	3496.6	-42.16	186.36
46.63	7 24 5	4496.63	-26.76	209.23	269.09	45.80	8 39 2	3496.6	-42.16	186.36
46.63	7 24 5	4496.63	-26.76	209.23	269.09	45.80	8 39 2	3496.6	-42.16	186.36
46.63	7 24 5	4496.63	-26.76	209.23	269.09	45.80	8 39 2	3496.6	-42.16	186.36
46.63	7 24 5	4496.63	-26.76	209.23	269.09	45.80	8 39 2	3496.6	-42.16	186.36
46.63	7 24 5	4496.63	-26.76	209.23	269.09	45.80	8 39 2	3496.6	-42.16	186.36
46.63	7 24 5	4496.63	-26.76	209.23	269.09	45.80	8 39 2	3496.6	-42.16	186.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0379	TRA	-.4644	TC3	-.4241	BAU	.8860	SGT	985.2	SGR	4362.9	SG3	1226.2	ST	13.8	SR	139.5	SS	137.3		
RDE	2.1941	RRA	.9507	RC3	-3.1021	FAU	.23764	RRT	-.1596	RRF	.9985	RTF	-.1457	CRT	-.3624	CRS	-.9997	CST	.3400		
FDE	7.6095	FRA	2.8902	FC3	-9.7194	BSP	7471	SGB	4472.8	R23	-.0223	R13	.9983	LSA	195.8	MSA	13.1	SSA	.4		
BDE	2.1945	BRA	1.0581	BC3	3.1310	FSP	2084	SG1	4365.9	SG2	971.9	THA	92.17	EL1	139.6	EL2	12.8	ALF	92.07		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 528.555 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.814	GAL	-2.66	AZL	84.76	HCA	165.38	SMA	198.50	ECC	.23816	INC	5.2420	V1	29.295
RP	236.81	LAP	1.32	LOP	94.94	VP	21.267	GAP	8.18	AZP	95.07	TAL	346.12	TAP	151.50	RCA	151.22	APO	245.78	V2	23.209
RC	199.589	GL	39.36	GP	-43.71	ZAL	108.01	ZAP	108.16	ETS	200.72	ZAE	129.30	ETE	237.93	ZAC	43.25	ETC	289.97	LVI	22.55

PLANETOCENTRIC CONIC

C3	22.299	VHL	4.722	DLA	52.37	RAL	22.35	RAD	6643.8	VEL	11.929	PTH	6.93	VHP	3.379	DPA	-29.26	RAP	46.02	ECC	1.3670

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.90	7 9 19	4528.75	-27.03	212.90	269.19	43.27	8 24 47	3528.8	-43.31	190.69
43.90	7 9 19	4528.75	-27.03	212.90	269.19	43.27	8 24 47	3528.8	-43.31	190.69
43.90	7 9 19	4528.75	-27.03	212.90	269.19	43.27	8 24 47	3528.8	-43.31	190.69
43.90	7 9 19	4528.75	-27.03	212.90	269.19	43.27	8 24 47	3528.8	-43.31	190.69
43.90	7 9 19	4528.75	-27.03	212.90	269.19	43.27	8 24 47	3528.8	-43.31	190.69
43.90	7 9 19	4528.75	-27.03	212.90	269.19	43.27	8 24 47	3528.8	-43.31	190.69
43.90	7 9 19	4528.75	-27.03	212.90	269.19	43.27	8 24 47	3528.8	-43.31	190.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0539	TRA	-.4297	TC3	-.5038	BAU	.9411	SGT	979.7	SGR	4598.0	SG3	1160.3	ST	13.2	SR	153.6	SS	137.6		
RDE	2.4897	RRA	.8215	RC3	-3.1165	FAU	.22624	RRT	.0076	RRF	.9988	RTF	.0421	CRT	.0716	CRS	-.9998	CST	-.0916		
FDE	7.6698	FRA	2.5137	FC3	-8.7834	BSP	7832	SGB	4701.3	R23	-.0141	R13	.9988	LSA	206.2	MSA	13.4	SSA	.3		
BDE	2.4903	BRA	1.0168	BC3	3.1569	FSP	1970	SG1	4598.0	SG2	979.7	THA	89.90	EL1	153.6	EL2	13.2	ALF	89.64		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 532.336 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.808	GAL	-2.66	AZL	84.30	HCA	166.34	SMA	198.38	ECC	.23773	INC	5.6952	V1	29.295
RP	237.14	LAP	1.34	LOP	95.91	VP	21.220	GAP	7.94	AZP	95.54	TAL	346.09	TAP	152.42	RCA	151.22	APO	245.55	V2	23.174
RC	202.557	GL	41.91	GP	-45.73	ZAL	107.46	ZAP	106.32	ETS	200.00	ZAE	126.88	ETE	236.66	ZAC	41.51	ETC	290.76	LVI	24.38

PLANETOCENTRIC CONIC

C3	23.707	VHL	4.869	DLA	54.67	RAL	20.49	RAD	6644.4	VEL	11.987	PTH	6.98	VHP	3.479	DPA	-31.34	RAP	46.40	ECC	1.3902

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.04	6 53 34	4561.94	-27.15	216.71	269.19	40.53	8 9 36	3561.9	-44.38	195.37
41.04	6 53 34	4561.94	-27.15	216.71	269.19	40.53	8 9 36	3561.9	-44.38	195.37
41.04	6 53 34	4561.94	-27.15	216.71	269.19	40.53	8 9 36	3561.9	-44.38	195.37
41.04	6 53 34	4561.94	-27.15	216.71	269.19	40.53	8 9 36	3561.9	-44.38	195.37
41.04	6 53 34	4561.94	-27.15	216.71	269.19	40.53	8 9 36	3561.9	-44.38	195.37
41.04	6 53 34	4561.94	-27.15	216.71	269.19	40.53	8 9 36	3561.9	-44.38	195.37
41.04	6 53 34	4561.94	-27.15	216.71	269.19	40.53	8 9 36	3561.9	-44.38	195.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1630	TRA	-.3977	TC3	-.5743	BAU	.9982	SGT	1002.2	SGR	4633.8	SG3	1083.1	ST	15.5	SR	168.7	SS	137.0		
RDE	2.8306	RRA	.8759	RC3	-3.0967	FAU	.21260	RRT	.1823	RRF	.9990	RTF	.1969	CRT	.4883	CRS	-.9999	CST	-.5029		
FDE	7.6688	FRA	2.1169	FC3	-7.7638	BSP	8218	SGB	4936.6	R23	-.0070	R13	.9991	LSA	217.5	MSA	13.6	SSA	.3		
BDE	2.8353	BRA	.9619	BC3	3.1495	FSP	1842	SG1	4837.4	SG2	984.7	THA	87.74	EL1	168.9	EL2	13.5	ALF	87.42		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 25 1974

DISTANCE 536.116

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.803	GAL	-2.66	AZL	83.79	HCA	167.29	SMA	198.28	ECC	.23734	INC	6.2140
RP	237.48	LAP	1.36	LOP	96.87	VP	21.174	GAP	7.70	AZP	96.06	TAL	346.05	TAP	153.34	RCA	151.22	APO	245.34
RC	205.523	GL	44.65	GP	-47.81	ZAL	106.85	ZAP	104.50	ETS	199.19	ZAE	124.43	ETE	235.41	ZAC	39.73	ETC	291.65

V1	29.295																		
V2	23.140																		
LVI	26.27																		

PLANETOCENTRIC CONIC

C3	25.476	VHL	5.047	DLA	57.11	RAL	18.27	RAD	6645.2	VEL	12.060	PTH	7.04	VHP	3.605	DPA	-33.47	RAP	46.86
ECC	1.4193																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.07	6 36 29	4596.60	-27.06	220.65	268.99	37.57	7 53 6	3596.6	-45.28	200.42
38.07	6 36 29	4596.60	-27.06	220.65	268.99	37.57	7 53 6	3596.6	-45.28	200.42
38.07	6 36 29	4596.60	-27.06	220.65	268.99	37.57	7 53 6	3596.6	-45.28	200.42
38.07	6 36 29	4596.60	-27.06	220.65	268.99	37.57	7 53 6	3596.6	-45.28	200.42
38.07	6 36 29	4596.60	-27.06	220.65	268.99	37.57	7 53 6	3596.6	-45.28	200.42
38.07	6 36 29	4596.60	-27.06	220.65	268.99	37.57	7 53 6	3596.6	-45.28	200.42
38.07	6 36 29	4596.60	-27.06	220.65	268.99	37.57	7 53 6	3596.6	-45.28	200.42

DIFFERENTIAL CORRECTIONS

TDE	.2924	TRA	-.3704	TC3	-.6332	BAU	1.0573
RDE	3.2271	RRA	.8113	RC3	-3.0391	FAU	.19687
FDE	7.5967	FRA	1.7107	FC3	-6.6902	BSP	8641
BDE	3.2403	BRA	.8918	BC3	3.1044	FSP	1701

MID-COURSE EXECUTION ACCURACY

SGT	1057.5	SGR	5070.3	SG3	995.5		
RRT	.3476	RRF	.9992	RTF	.3619		
SGB	5179.4	R23	-.0009	R13	.9993		
SG1	5084.1	SG2	988.9	THA	85.69		

ORBIT DETERMINATION ACCURACY

ST	20.3	SR	185.0	SS	135.4
CRT	.7328	CRS	-.9999	CST	-.7423
LSA	229.7	MSA	13.8	SSA	.2
EL1	185.6	EL2	13.8	ALF	85.38

LAUNCH DATE JUL 12 1973 FLIGHT TIME 230.00 ARRIVAL DATE FEB 27 1974

DISTANCE 539.894

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.798	GAL	-2.67	AZL	83.19	HCA	168.24	SMA	198.18	ECC	.23699	INC	6.8135
RP	237.81	LAP	1.39	LOP	97.83	VP	21.130	GAP	7.46	AZP	96.67	TAL	346.00	TAP	154.25	RCA	151.21	APO	245.15
RC	208.485	GL	47.58	GP	-49.94	ZAL	106.16	ZAP	102.74	ETS	198.30	ZAE	121.97	ETE	234.17	ZAC	37.92	ETC	292.65

V1	29.295																		
V2	23.106																		
LVI	28.20																		

PLANETOCENTRIC CONIC

C3	27.726	VHL	5.266	DLA	59.69	RAL	15.56	RAD	6646.1	VEL	12.152	PTH	7.12	VHP	3.762	DPA	-35.63	RAP	47.41
ECC	1.4563																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.97	6 17 36	4633.17	-26.71	224.70	268.47	34.40	7 34 50	3633.2	-45.96	205.87
34.97	6 17 36	4633.17	-26.71	224.70	268.47	34.40	7 34 50	3633.2	-45.96	205.87
34.97	6 17 36	4633.17	-26.71	224.70	268.47	34.40	7 34 50	3633.2	-45.96	205.87
34.97	6 17 36	4633.17	-26.71	224.70	268.47	34.40	7 34 50	3633.2	-45.96	205.87
34.97	6 17 36	4633.17	-26.71	224.70	268.47	34.40	7 34 50	3633.2	-45.96	205.87
34.97	6 17 36	4633.17	-26.71	224.70	268.47	34.40	7 34 50	3633.2	-45.96	205.87
34.97	6 17 36	4633.17	-26.71	224.70	268.47	34.40	7 34 50	3633.2	-45.96	205.87

DIFFERENTIAL CORRECTIONS

TDE	.4438	TRA	-.3504	TC3	-.6798	BAU	1.1208
RDE	3.6874	RRA	.7189	RC3	-2.9462	FAU	.17960
FDE	7.4323	FRA	1.2958	FC3	-5.6079	BSP	9069
BDE	3.7140	BRA	.7997	BC3	3.0236	FSP	1542

MID-COURSE EXECUTION ACCURACY

SGT	1147.4	SGR	5303.5	SG3	898.3		
RRT	.4910	RRF	.9994	RTF	.5049		
SGB	5426.2	R23	.0042	R13	.9995		
SG1	5334.4	SG2	993.8	THA	83.72		

ORBIT DETERMINATION ACCURACY

ST	26.7	SR	202.0	SS	132.2
CRT	.8504	CRS	-.9999	CST	-.8566
LSA	242.5	MSA	14.0	SSA	.2
EL1	203.3	EL2	14.0	ALF	83.56

LAUNCH DATE JUL 12 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 1 1974

DISTANCE 543.671

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.793	GAL	-2.67	AZL	82.48	HCA	169.19	SMA	198.09	ECC	.23668	INC	7.5147
RP	238.14	LAP	1.41	LOP	98.79	VP	21.086	GAP	7.22	AZP	97.38	TAL	345.95	TAP	155.14	RCA	151.21	APO	244.98
RC	211.443	GL	50.72	GP	-52.10	ZAL	105.40	ZAP	101.03	ETS	197.33	ZAE	119.52	ETE	232.91	ZAC	36.10	ETC	293.77

V1	29.295																		
V2	23.073																		
LVI	30.18																		

PLANETOCENTRIC CONIC

C3	30.632	VHL	5.535	DLA	62.39	RAL	12.17	RAD	6647.3	VEL	12.270	PTH	7.21	VHP	3.958	DPA	-37.82	RAP	48.04
ECC	1.5041																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.76	5 56 9	4672.28	-26.02	228.84	267.39	31.05	7 14 2	3672.3	-46.30	211.70
31.76	5 56 9	4672.28	-26.02	228.84	267.39	31.05	7 14 2	3672.3	-46.30	211.70
31.76	5 56 9	4672.28	-26.02	228.84	267.39	31.05	7 14 2	3672.3	-46.30	211.70
31.76	5 56 9	4672.28	-26.02	228.84	267.39	31.05	7 14 2	3672.3	-46.30	211.70
31.76	5 56 9	4672.28	-26.02	228.84	267.39	31.05	7 14 2	3672.3	-46.30	211.70
31.76	5 56 9	4672.28	-26.02	228.84	267.39	31.05	7 14 2	3672.3	-46.30	211.70
31.76	5 56 9	4672.28	-26.02	228.84	267.39	31.05	7 14 2	3672.3	-46.30	211.70

DIFFERENTIAL CORRECTIONS

TDE	.6221	TRA	-.3393	TC3	-.7100	BAU	1.1907
RDE	4.2200	RRA	.5877	RC3	-2.8185	FAU	.16117
FDE	7.1526	FRA	.8783	FC3	-4.5551	BSP	9429
BDE	4.2656	BRA	.6786	BC3	2.9076	FSP	1359

MID-COURSE EXECUTION ACCURACY

SGT	1267.8	SGR	5527.1	SG3	792.3		
RRT	.6097	RRF	.9995	RTF	.6632		
SGB	5670.6	R23	.0082	R13	.9996		
SG1	5582.7	SG2	994.8	THA	81.78		

ORBIT DETERMINATION ACCURACY

ST	34.2	SR	219.4	SS	127.0
CRT	.9093	CRS	-.9999	CST	-.9136
LSA	255.4	MSA	14.1	SSA	.2
EL1	221.6	EL2	14.1	ALF	81.91

LAUNCH DATE JUL 12 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 3 1974

DISTANCE 547.444

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.789	GAL	-2.68	AZL	81.65	HCA	170.13	SMA	198.02	ECC	.23641	INC	8.3464
RP	238.47	LAP	1.43	LOP	99.75	VP	21.044	GAP	6.98	AZP	98.23	TAL	345.90	TAP	156.04	RCA	151.20	APO	244.83
RC	214.394	GL	54.10	GP	-54.28	ZAL	104.54	ZAP	99.39	ETS	196.26	ZAE	117.09	ETE	231.63	ZAC	34.28	ETC	295.02

V1	29.298																		
V2	23.040																		
LVI	32.17																		

PLANETOCENTRIC CONIC

C3	34.456	VHL	5.870	DLA	65.19	RAL	7.83	RAD	6648.7	VEL	12.424	PTH	7.33	VHP	4.204	DPA	-39.99	RAP	48.78
ECC	1.5671																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.46	5 31 6	4714.52	-24.92	232.99	265.44	27.57	6 49 41	3714.5	-46.19	217.84
28.46	5 31 6	4714.52	-24.92	232.99	265.44	27.57	6 49 41	3714.5	-46.19	217.84
28.46	5 31 6	4714.52	-24.92	232.99	265.44	27.57	6 49 41	3714.5	-46.19	217.84
28.46	5 31 6	4714.52	-24.92	232.99	265.44	27.57	6 49 41	3714.5	-46.19	217.84
28.46	5 31 6	4714.52	-24.92	232.99	265.44	27.57	6 49 41	3714.5	-46.19	217.84
28.46	5 31 6	4714.52	-24.92	232.99	265.44	27.57	6 49 41	3714.5	-46.19	217.84
28.46	5 31 6	4714.52	-24.92	232.99	265.44	27.57	6 49 41	3714.5	-46.19	217.84

DIFFERENTIAL CORRECTIONS

TDE	.8286	TRA	-.3400	TC3	-.7232	BAU	1.2664
RDE	4.8442	RRA	.4126	RC3	-2.6524	FAU	.14145
FDE	6.7477	FRA	.4818	FC3	-3.5540	BSP	9810
BDE	4.9145	BRA	.5346	BC3	2.7492	FSP	1170

MID-COURSE EXECUTION ACCURACY

SGT	1414.3	SGR	5742.3	SG3	680.6		
RRT	.7030	RRF	.9995	RTF	.7166		
SGB	5913.9	R23	.0107	R13	.9997		
SG1	5830.4	SG2	990.7	THA	79.88		

ORBIT DETERMINATION ACCURACY

ST	42.2	SR	236.9	SS	119.8
CRT	.9407	CRS	-1.0000	CST	-.9440
LSA	268.4	MSA	14.1	SSA	.1
EL1	240.2	EL2	14.1	ALF	80.46

LAUNCH DATE JUL 12 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC DISTANCE 551.214 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.786	GAL	-2.69	AZL	80.65	HCA	171.07	SMA	197.95	ECC	.23617	INC	9.3488	V1	29.295
RP	238.79	LAP	1.44	LOP	100.70	VP	21.003	GAP	6.75	AZP	99.24	TAL	345.85	TAP	156.92	RCA	151.20	APO	244.70	V2	23.008
RC	217.340	GL	57.71	GP	-56.45	ZAL	103.58	ZAP	97.84	ETS	195.10	ZAE	114.71	ETE	230.31	ZAC	32.49	ETC	296.42	LVI	34.17

PLANETOCENTRIC CONIC

C3	39.603	VHL	6.293	DLA	68.03	RAL	2.10	RAD	6650.5	VEL	12.628	PTH	7.48	VHP	4.515	DPA	-42.15	RAP	49.62	ECC	1.6518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.14	5 0 47	4760.62	-23.31	237.07	262.10	24.04	6 20 7	3760.6	-45.49	224.11
25.14	5 0 47	4760.62	-23.31	237.07	262.10	24.04	6 20 7	3760.6	-45.49	224.11
25.14	5 0 47	4760.62	-23.31	237.07	262.10	24.04	6 20 7	3760.6	-45.49	224.11
25.14	5 0 47	4760.62	-23.31	237.07	262.10	24.04	6 20 7	3760.6	-45.49	224.11
25.14	5 0 47	4760.62	-23.31	237.07	262.10	24.04	6 20 7	3760.6	-45.49	224.11
25.14	5 0 47	4760.62	-23.31	237.07	262.10	24.04	6 20 7	3760.6	-45.49	224.11
25.14	5 0 47	4760.62	-23.31	237.07	262.10	24.04	6 20 7	3760.6	-45.49	224.11

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0607	TRA	-.3557	TC3	-.7167	BAU	1.3471	SGT	1579.8	SGR	5948.4	SG3	565.7	ST	50.0	SR	253.8	SS	110.0
RDE	5.5720	RRA	.1866	RC3	-2.4413	FAU	.12047	RRT	.7744	RRF	.9995	RTF	.7890	CRT	.9583	CRS	-.9999	CST	-.9612
FDE	6.1922	FRA	.1296	FC3	-2.6336	BSP	10264	SGB	6154.6	R23	.0104	R13	.9997	LSA	280.7	MSA	14.0	SSA	.1
BDE	5.6720	BRA	.4017	BC3	2.5444	FSP	984	SG1	6076.3	SG2	976.4	THA	78.06	EL1	258.3	EL2	14.0	ALF	79.27

LAUNCH DATE JUL 12 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 18 1974

HELIOCENTRIC CONIC DISTANCE 634.828 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.786	GAL	-3.35	AZL	98.69	HCA	191.70	SMA	197.95	ECC	.23862	INC	8.6943	V1	29.295
RP	244.79	LAP	1.76	LOP	121.08	VP	20.344	GAP	1.83	AZP	81.48	TAL	342.45	TAP	174.15	RCA	150.72	APO	245.19	V2	22.407
RC	279.268	GL	-54.12	GP	50.43	ZAL	107.71	ZAP	79.99	ETS	194.69	ZAE	100.79	ETE	169.62	ZAC	137.78	ETC	291.35	LVI	-72.13

PLANETOCENTRIC CONIC

C3	37.282	VHL	6.106	DLA	-34.25	RAL	63.37	RAD	6649.7	VEL	12.537	PTH	7.41	VHP	3.642	DPA	49.16	RAP	345.56	ECC	1.6136

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 45 8	2558.47	-10.31	68.93	291.41	136.71	19 27 46	1558.5	8.08	53.16
60.00	20 24 14	2294.62	-2.09	53.01	299.23	130.26	21 2 28	1294.6	13.88	34.86
69.82	23 41 20	1710.71	14.43	17.95	311.14	121.40	24 9 51	710.7	26.05	355.53
69.82	23 41 20	1710.71	14.43	17.95	311.14	121.40	24 9 51	710.7	26.05	355.53
69.82	23 41 20	1710.71	14.43	17.95	311.14	121.40	24 9 51	710.7	26.05	355.53
69.82	23 41 20	1710.71	14.43	17.95	311.14	121.40	24 9 51	710.7	26.05	355.53
69.82	23 41 20	1710.71	14.43	17.95	311.14	121.40	24 9 51	710.7	26.05	355.53

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.2900	TRA	3.8250	TC3	-2.7658	BAU	1.7911	SGT	5905.9	SGR	5487.8	SG3	908.2	ST	125.7	SR	90.5	SS	50.3
RDE	1.2554	RRA	-4.0251	RC3	2.2943	FAU	.20488	RRT	-.9822	RRF	-.9984	RTF	.9800	CRT	-.9506	CRS	.9974	CST	-.9257
FDE	-2.0260	FRA	7.5332	FC3	-4.7576	BSP	13789	SGB	6062.0	R23	.1043	R13	-.9929	LSA	160.7	MSA	26.6	SSA	.3
BDE	2.6116	BRA	5.5527	BC3	3.5935	FSP	1638	SG1	6026.3	SG2	757.6	THA	137.14	EL1	153.2	EL2	23.1	ALF	144.71

LAUNCH DATE JUL 12 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 20 1974

HELIOCENTRIC CONIC DISTANCE 638.579 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.788	GAL	-3.39	AZL	98.12	HCA	192.60	SMA	198.00	ECC	.23896	INC	8.1219	V1	29.295
RP	245.01	LAP	1.77	LOP	121.98	VP	20.324	GAP	1.61	AZP	82.07	TAL	342.27	TAP	174.87	RCA	150.69	APO	245.31	V2	22.386
RC	281.893	GL	-51.86	GP	48.53	ZAL	108.64	ZAP	78.70	ETS	195.32	ZAE	100.11	ETE	171.14	ZAC	136.07	ETC	290.65	LVI	-70.47

PLANETOCENTRIC CONIC

C3	34.571	VHL	5.880	DLA	-32.11	RAL	62.48	RAD	6648.7	VEL	12.429	PTH	7.33	VHP	3.481	DPA	47.47	RAP	346.97	ECC	1.5689

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 27 40	2592.55	-11.99	70.41	288.66	136.40	19 10 52	1592.5	6.38	54.61
60.00	19 58 2	2352.07	-4.61	55.76	295.66	130.08	20 37 14	1352.1	11.44	37.75
70.00	22 9 47	1964.09	4.93	31.52	302.82	123.84	22 42 31	964.1	18.20	11.08
74.12	0 8 55	1607.73	14.25	9.89	308.59	119.08	0 35 43	607.7	24.97	347.10
74.12	0 8 55	1607.73	14.25	9.89	308.59	119.08	0 35 43	607.7	24.97	347.10
74.12	0 8 55	1607.73	14.25	9.89	308.59	119.08	0 35 43	607.7	24.97	347.10
110.00	3 13 10	1010.90	4.93	320.43	302.82	123.84	3 30 0	10.9	18.20	300.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.2016	TRA	3.8575	TC3	-3.0393	BAU	1.7725	SGT	6088.5	SGR	5303.2	SG3	1010.8	ST	126.4	SR	86.2	SS	52.5
RDE	1.1375	RRA	-3.8217	RC3	2.3390	FAU	.22254	RRT	-.9824	RRF	-.9983	RTF	.9800	CRT	-.9504	CRS	.9965	CST	-.9212
FDE	-2.0643	FRA	8.2409	FC3	-5.5729	BSP	13946	SGB	8074.3	R23	.1101	R13	-.9922	LSA	159.5	MSA	26.8	SSA	.3
BDE	2.4781	BRA	5.4301	BC3	3.8351	FSP	1651	SG1	8039.3	SG2	750.8	THA	139.01	EL1	151.3	EL2	22.4	ALF	146.19

LAUNCH DATE JUL 12 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 22 1974

HELIOCENTRIC CONIC DISTANCE 642.336 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.791	GAL	-3.43	AZL	97.63	HCA	193.49	SMA	198.05	ECC	.23931	INC	7.6253	V1	29.295
RP	245.22	LAP	1.77	LOP	122.89	VP	20.306	GAP	1.39	AZP	82.58	TAL	342.09	TAP	175.58	RCA	150.66	APO	245.45	V2	22.365
RC	284.497	GL	-49.75	GP	46.68	ZAL	109.51	ZAP	77.39	ETS	195.88	ZAE	99.34	ETE	172.58	ZAC	134.40	ETC	290.02	LVI	-68.81

PLANETOCENTRIC CONIC

C3	32.387	VHL	5.691	DLA	-30.10	RAL	61.73	RAD	6647.9	VEL	12.341	PTH	7.27	VHP	3.349	DPA	45.81	RAP	348.23	ECC	1.5330

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 12 42	2624.05	-13.54	71.80	286.43	136.06	18 56 26	1624.1	4.80	55.94
60.00	19 36 40	2400.65	-6.74	58.10	292.85	129.83	20 16 40	1400.6	9.35	40.15
70.00	21 31 2	2064.17	1.12	36.75	298.77	124.14	22 5 26	1064.2	14.77	16.80
79.24	0 42 20	1476.43	13.93	359.84	306.36	116.95	1 6 57	476.4	23.84	336.77
79.24	0 42 20	1476.43	13.93	359.84	306.36	116.95	1 6 57	476.4	23.84	336.77
79.24	0 42 20	1476.43	13.93	359.84	306.36	116.95	1 6 57	476.4	23.84	336.77
110.00	2 34 24	1110.99	1.12	325.67	298.77	124.14	2 52 55	111.0	14.77	305.72

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.1258	TRA	3.8874	TC3	-3.3177	BAU	1.7711	SGT	6269.2	SGR	5118.6	SG3	1107.4	ST	126.8	SR	82.4	SS	54.4
RDE	1.0523	RRA	-3.6112	RC3	2.3929	FAU	.24155	RRT	-.9836	RRF	-.9982	RTF	.9811	CRT	-.9534	CRS	.9956	CST	-.9211
FDE	-2.1208	FRA	8.8351	FC3	-6.4568	BSP	13818	SGB	8093.4	R23	.1125	R13	-.9918	LSA	158.6	MSA	26.3	SSA	.4
BDE	2.3719	BRA	5.3059	BC3	4.0906	FSP	1993	SG1	8061.4	SG2	718.9	THA	140.86	EL1	149.8	EL2	21.1	ALF	147.49

LAUNCH DATE JUL 12 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 24 1974

HELIOCENTRIC CONIC — DISTANCE 646.090 — EARTH TO MARS

RL 152.08 LAL .00 LOL 289.51 VL 32.794 GAL -3.47 AZL 97.19 HCA 194.39 SMA 198.11 ECC .23068 INC 7.1902 V1 29.295
RP 245.43 LAP 1.78 LOP 123.79 VP 20.288 GAP 1.17 AZP 83.03 TAL 341.90 TAP 176.29 RCA 150.62 APO 245.59 V2 22.344
RC 287.079 GL -47.78 GP 44.89 ZAL 110.35 ZAP 76.09 ETS 196.38 ZAE 98.50 ETE 173.92 ZAC 132.78 ETC 289.46 LVI -67.19

PLANETOCENTRIC CONIC

C3 30.607 VHL 5.532 DLA -28.21 RAL 61.10 RAD 6647.2 VEL 12.269 PTH 7.21 VHP 3.239 DPA 44.20 RAP 349.38 ECC 1.5037

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 59 41	2683.60	-14.98	73.12	284.61	135.70	18 43 54	1653.6	3.32	57.18
60.00	19 18 40	2443.51	-8.60	60.19	290.60	129.53	19 59 23	1443.5	7.49	42.25
70.00	21 2 48	2137.26	-1.67	40.57	295.81	124.12	21 38 25	1137.3	12.15	20.85
80.00	23 18 25	1712.62	5.63	12.86	300.32	119.37	23 46 57	712.6	17.17	351.44
90.00	1 49 7	1239.21	11.86	341.34	303.62	115.86	2 9 46	239.2	21.51	318.47
100.00	2 5 12	1187.09	5.63	334.23	300.32	119.37	2 25 0	187.1	17.17	312.81
110.00	2 6 10	1184.08	-1.67	329.48	295.81	124.12	2 25 54	184.1	12.15	309.77

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-2.0473 TRA 3.9324 TC3-3.5839 BAU 1.7670 — SGT 6448.0 SGR 4932.7 SG3 1196.2 — ST 126.8 SR 78.3 SS 55.6
RDE .9585 RRA-3.4293 RC3 2.4089 FAU .25737 — RRT -.9840 RRF -.9980 RTF .9814 — CRT -.9542 CRS .9943 CST -.9171
FDE-2.1023 FRA 9.4009 FC3-7.2798 BSP 13896 — SGB 8118.4 R23 .1162 R13 -.9912 — LSA 156.9 MSA 26.2 SSA .4
BDE 2.2605 BRA 5.2176 BC3 4.3182 FSP 2158 — SG1 8088.2 SG2 699.7 THA 142.70 — EL1 147.7 EL2 20.1 ALF 148.84

LAUNCH DATE JUL 12 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 26 1974

HELIOCENTRIC CONIC — DISTANCE 649.843 — EARTH TO MARS

RL 152.08 LAL .00 LOL 289.51 VL 32.797 GAL -3.51 AZL 96.81 HCA 195.28 SMA 198.16 ECC .24007 INC 6.8056 V1 29.295
RP 245.63 LAP 1.79 LOP 124.69 VP 20.270 GAP .95 AZP 83.43 TAL 341.71 TAP 176.99 RCA 150.59 APO 245.74 V2 22.324
RC 289.637 GL -45.94 GP 43.18 ZAL 111.15 ZAP 74.78 ETS 196.81 ZAE 97.59 ETE 175.16 ZAC 131.22 ETC 288.97 LVI -65.61

PLANETOCENTRIC CONIC

C3 29.141 VHL 5.398 DLA -26.42 RAL 60.58 RAD 6646.7 VEL 12.210 PTH 7.16 VHP 3.147 DPA 42.64 RAP 350.43 ECC 1.4796

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 48 15	2681.52	-16.34	74.39	283.13	135.33	18 32 56	1681.5	1.92	58.35
60.00	19 3 10	2482.23	-10.27	62.10	288.79	129.19	19 44 33	1482.2	5.80	44.13
70.00	20 40 11	2196.97	-3.95	43.69	293.51	123.95	21 16 48	1197.0	9.97	24.09
80.00	22 39 48	1822.60	1.93	18.93	297.17	119.80	23 10 10	822.6	13.92	357.98
90.00	0 35 7	1463.36	4.93	354.16	298.82	117.88	0 59 31	463.4	15.95	332.55
100.00	1 26 36	1297.07	1.93	340.29	297.17	119.80	1 48 13	297.1	13.92	319.35
110.00	1 43 34	1243.79	-3.95	332.61	293.51	123.95	2 4 18	243.8	9.97	313.01

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-1.9744 TRA 3.9812 TC3-3.8463 BAU 1.7687 — SGT 6625.8 SGR 4749.5 SG3 1277.5 — ST 126.6 SR 74.4 SS 56.5
RDE .8758 RRA-3.2583 RC3 2.4119 FAU .27205 — RRT -.9846 RRF -.9978 RTF .9818 — CRT -.9553 CRS .9928 CST -.9130
FDE-2.0612 FRA 9.9011 FC3-8.0823 BSP 13950 — SGB 8152.2 R23 .1191 R13 -.9907 — LSA 155.1 MSA 26.2 SSA .4
BDE 2.1599 BRA 5.1445 BC3 4.5400 FSP 2302 — SG1 8124.0 SG2 678.1 THA 144.50 — EL1 145.6 EL2 19.1 ALF 150.13

LAUNCH DATE JUL 12 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 28 1974

HELIOCENTRIC CONIC — DISTANCE 653.596 — EARTH TO MARS

RL 152.08 LAL .00 LOL 289.51 VL 32.800 GAL -3.55 AZL 96.46 HCA 196.17 SMA 198.23 ECC .24047 INC 6.4631 V1 29.295
RP 245.83 LAP 1.80 LOP 125.59 VP 20.254 GAP .73 AZP 83.79 TAL 341.51 TAP 177.69 RCA 150.56 APO 245.89 V2 22.305
RC 292.172 GL -44.22 GP 41.53 ZAL 111.91 ZAP 73.49 ETS 197.18 ZAE 96.64 ETE 176.32 ZAC 129.71 ETC 288.53 LVI -64.07

PLANETOCENTRIC CONIC

C3 27.923 VHL 5.284 DLA -24.74 RAL 60.14 RAD 6646.2 VEL 12.160 PTH 7.13 VHP 3.070 DPA 41.14 RAP 351.38 ECC 1.4595

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 38 7	2708.04	-17.62	75.61	281.92	134.94	18 23 15	1708.0	.58	59.45
60.00	18 49 39	2517.81	-11.80	63.86	287.31	128.82	19 31 37	1517.8	4.25	45.84
70.00	20 21 17	2248.41	-5.90	46.40	291.69	123.70	20 58 45	1248.4	8.06	26.85
80.00	22 11 54	1902.19	-.76	23.29	294.87	119.85	22 43 36	902.2	11.44	2.59
90.00	23 55 26	1568.28	1.57	.03	296.17	118.24	24 21 34	568.3	12.99	338.82
100.00	0 58 42	1376.66	-.76	344.66	294.87	119.85	1 21 38	376.7	11.44	323.95
110.00	1 24 39	1295.23	-5.90	335.31	291.69	123.70	1 46 14	295.2	8.06	315.77

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-1.9046 TRA 4.0350 TC3-4.1013 BAU 1.7734 — SGT 6801.4 SGR 4568.5 SG3 1350.7 — ST 126.2 SR 70.5 SS 57.0
RDE .7998 RRA-3.1002 RC3 2.3973 FAU .28490 — RRT -.9849 RRF -.9976 RTF .9821 — CRT -.9563 CRS .9908 CST -.9080
FDE-1.9900 FRA10.3470 FC3-8.8333 BSP 14037 — SGB 8193.4 R23 .1217 R13 -.9901 — LSA 153.2 MSA 26.2 SSA .4
BDE 2.0657 BRA 5.0885 BC3 4.7506 FSP 2439 — SG1 8166.9 SG2 658.4 THA 146.26 — EL1 143.4 EL2 18.2 ALF 151.37

LAUNCH DATE JUL 12 1973 FLIGHT TIME 292.00 ARRIVAL DATE APR 30 1974

HELIOCENTRIC CONIC — DISTANCE 657.348 — EARTH TO MARS

RL 152.08 LAL .00 LOL 289.51 VL 32.803 GAL -3.60 AZL 96.16 HCA 197.07 SMA 198.29 ECC .24089 INC 6.1560 V1 29.295
RP 246.02 LAP 1.80 LOP 126.48 VP 20.238 GAP .51 AZP 84.11 TAL 341.31 TAP 178.38 RCA 150.52 APO 246.05 V2 22.286
RC 294.682 GL -42.60 GP 39.96 ZAL 112.64 ZAP 72.21 ETS 197.51 ZAE 95.64 ETE 177.39 ZAC 128.26 ETC 288.13 LVI -62.59

PLANETOCENTRIC CONIC

C3 26.904 VHL 5.187 DLA -23.16 RAL 59.77 RAD 6645.8 VEL 12.119 PTH 7.09 VHP 3.006 DPA 39.70 RAP 352.26 ECC 1.4428

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 29 5	2733.33	-18.83	76.79	280.94	134.54	18 14 38	1733.3	-.69	60.51
60.00	18 37 42	2550.85	-13.20	65.53	286.12	128.43	19 20 13	1550.9	2.80	47.42
70.00	20 5 2	2294.11	-7.62	48.81	290.23	123.39	20 43 16	1294.1	6.34	29.27
80.00	21 49 33	1966.98	-2.95	26.85	293.10	119.72	22 22 20	967.0	9.36	6.27
90.00	23 28 54	1646.54	-.95	4.40	294.21	118.27	23 56 21	646.5	10.66	343.39
100.00	0 36 21	1441.45	-2.95	348.22	293.10	119.72	1 0 22	441.4	9.36	327.64
110.00	1 8 24	1340.92	-7.62	337.73	290.23	123.39	1 30 45	340.9	6.34	318.19

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-1.8389 TRA 4.0921 TC3-4.3500 BAU 1.7821 — SGT 6975.7 SGR 4391.7 SG3 1416.1 — ST 125.7 SR 67.0 SS 57.3
RDE .7331 RRA-2.9517 RC3 2.3720 FAU .29645 — RRT -.9853 RRF -.9973 RTF .9824 — CRT -.9577 CRS .9883 CST -.9029
FDE-1.9037 FRA10.7332 FC3-9.5392 BSP 14108 — SGB 8243.0 R23 .1235 R13 -.9896 — LSA 151.3 MSA 26.3 SSA .5
BDE 1.9796 BRA 5.0455 BC3 4.9547 FSP 2553 — SG1 8218.3 SG2 637.4 THA 147.97 — EL1 141.4 EL2 17.1 ALF 152.54

LAUNCH DATE JUL 12 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 2 1974

HELIOCENTRIC CONIC DISTANCE 661.098 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.81	VL	32.806	GAL	-3.64	AZL	95.88	HCA	197.96	SMA	198.35	ECC	.24132	INC	5.8789	V1	29.295
RP	246.21	LAP	1.81	LOP	127.38	VP	20.223	GAP	.30	AZP	84.41	TAL	341.11	TAP	179.06	RCA	150.49	APO	246.22	V2	22.267
RC	297.167	GL	-41.08	GP	38.45	ZAL	113.34	ZAP	70.95	ETS	197.79	ZAE	94.60	ETE	178.37	ZAC	126.87	ETC	287.78	LVI	-61.16

PLANETOCENTRIC CONIC

C3	26.047	VHL	5.104	DLA	-21.66	RAL	59.47	RAD	6645.4	VEL	12.083	PTH	7.06	VHP	2.953	DPA	38.32	RAP	353.07	ECC	1.4287

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 20 58	2757.52	-19.98	77.94	280.16	134.12	18 6 55	1757.5	-1.90	61.52
60.00	18 27 2	2581.81	-14.51	67.10	285.15	126.02	19 10 4	1581.8	1.43	48.90
70.00	19 30 49	2335.52	-9.16	51.03	289.05	123.05	20 29 45	1335.5	4.77	31.46
80.00	21 30 48	2022.63	-4.83	29.92	291.70	119.50	22 4 30	1022.6	7.53	9.40
90.00	23 7 23	1711.05	-3.03	8.00	292.69	118.13	23 35 54	711.0	8.69	347.10
100.00	0 17 35	1497.10	-4.83	351.29	291.70	119.50	0 42 32	497.1	7.53	330.76
110.00	0 54 11	1362.34	-9.16	339.94	289.05	123.05	1 17 14	362.3	4.77	320.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.7752	TRA	4.1531	TC3	-4.5899	BAU	1.7933	SGT	7147.6	SGR	4219.2	SG3	1473.6	ST	125.1	SR	63.5	SS	57.4
RDE	.6720	RRA	-2.8136	RC3	2.3352	FAU	.30641	RRT	-.9855	RRF	-.9969	RTF	.9827	CRT	-.9592	CRS	.9853	CST	-.8971
FDE	-1.7952	FRA	11.0690	FC	-10.1844	BSP	14206	SGB	8300.0	R23	.1250	R13	-.9891	LSA	149.3	MSA	26.4	SSA	.5
BDE	1.8982	BRA	5.0164	BC3	5.1498	FSP	2657	SG1	8277.0	SG2	617.5	THA	149.62	EL1	139.3	EL2	16.1	ALF	153.65

LAUNCH DATE JUL 12 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 4 1974

HELIOCENTRIC CONIC DISTANCE 664.849 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.810	GAL	-3.69	AZL	95.63	HCA	198.85	SMA	198.42	ECC	.24177	INC	5.6277	V1	29.295
RP	246.39	LAP	1.82	LOP	128.27	VP	20.209	GAP	.08	AZP	84.67	TAL	340.89	TAP	179.74	RCA	150.45	APO	246.39	V2	22.249
RC	299.628	GL	-39.65	GP	37.02	ZAL	114.02	ZAP	69.70	ETS	198.02	ZAE	93.54	ETE	179.28	ZAC	125.54	ETC	287.47	LVI	-59.80

PLANETOCENTRIC CONIC

C3	25.323	VHL	5.032	DLA	-20.24	RAL	59.22	RAD	6645.1	VEL	12.054	PTH	7.04	VHP	2.909	DPA	37.00	RAP	353.83	ECC	1.4168

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 13 38	2780.73	-21.08	79.06	279.54	133.70	17 59 59	1780.7	-3.07	62.49
60.00	18 17 28	2611.00	-15.72	68.61	284.38	127.60	19 0 59	1611.0	.15	50.30
70.00	19 38 13	2373.58	-10.57	53.08	288.10	122.67	20 17 47	1373.6	3.33	33.45
80.00	21 14 36	2071.95	-6.47	32.66	290.58	119.21	21 49 8	1071.9	5.90	12.14
90.00	22 49 12	1766.83	-4.81	11.13	291.49	117.90	23 18 38	766.8	6.95	350.28
100.00	0 1 24	1546.42	-6.47	354.02	290.58	119.21	0 27 10	546.4	5.90	333.51
110.00	0 41 36	1420.40	-10.57	341.99	288.10	122.67	1 5 16	420.4	3.33	322.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.7140	TRA	4.2172	TC3	-4.8217	BAU	1.8071	SGT	7317.6	SGR	4051.5	SG3	1523.5	ST	124.4	SR	60.3	SS	57.4
RDE	.6181	RRA	-2.6840	RC3	2.2898	FAU	.31499	RRT	-.9858	RRF	-.9965	RTF	.9829	CRT	-.9612	CRS	.9816	CST	-.8911
FDE	-1.6755	FRA	11.3537	FC	-10.7688	BSP	14321	SGB	8364.3	R23	.1256	R13	-.9886	LSA	147.3	MSA	26.5	SSA	.5
BDE	1.8220	BRA	4.9989	BC3	5.3378	FSP	2747	SG1	8343.0	SG2	597.5	THA	151.21	EL1	137.4	EL2	15.1	ALF	154.68

LAUNCH DATE JUL 12 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 6 1974

HELIOCENTRIC CONIC DISTANCE 668.596 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.813	GAL	-3.73	AZL	95.40	HCA	199.74	SMA	198.49	ECC	.24223	INC	5.3986	V1	29.295
RP	246.57	LAP	1.82	LOP	129.17	VP	20.196	GAP	-.13	AZP	84.92	TAL	340.68	TAP	180.42	RCA	150.41	APO	246.57	V2	22.232
RC	302.065	GL	-38.30	GP	35.65	ZAL	114.67	ZAP	68.48	ETS	198.22	ZAE	92.45	ETE	180.12	ZAC	124.26	ETC	287.19	LVI	-58.48

PLANETOCENTRIC CONIC

C3	24.710	VHL	4.971	DLA	-18.89	RAL	59.02	RAD	6644.9	VEL	12.028	PTH	7.02	VHP	2.873	DPA	35.75	RAP	354.54	ECC	1.4067

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 7 0	2803.04	-22.12	80.15	279.06	133.26	17 53 43	1803.0	-4.19	63.43
60.00	18 8 48	2638.66	-16.87	70.05	283.77	127.16	18 52 47	1638.7	-1.07	51.62
70.00	19 26 57	2408.93	-11.86	55.00	287.34	122.27	20 7 6	1408.9	1.98	35.30
80.00	21 0 22	2116.54	-7.95	35.15	289.69	118.88	21 35 39	1116.5	4.41	14.61
90.00	22 33 24	1816.45	-6.39	13.92	290.53	117.61	23 3 40	816.5	5.38	353.08
100.00	23 43 14	1591.01	-7.95	356.51	289.69	118.88	24 9 45	591.0	4.41	335.98
110.00	0 30 19	1455.75	-11.86	343.92	287.34	122.27	0 54 35	455.7	1.98	324.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.6535	TRA	4.2858	TC3	-5.0430	BAU	1.8223	SGT	7485.3	SGR	3889.1	SG3	1566.1	ST	123.6	SR	57.3	SS	57.2
RDE	.5693	RRA	-2.5636	RC3	2.2339	FAU	.32203	RRT	-.9859	RRF	-.9961	RTF	.9831	CRT	-.9634	CRS	.9772	CST	-.8847
FDE	-1.5413	FRA	11.5966	FC	-11.2829	BSP	14470	SGB	8435.3	R23	.1257	R13	-.9882	LSA	145.3	MSA	26.6	SSA	.6
BDE	1.7488	BRA	4.9948	BC3	5.5165	FSP	2829	SG1	8415.5	SG2	578.4	THA	152.74	EL1	135.5	EL2	14.0	ALF	155.66

LAUNCH DATE JUL 12 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 672.344 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.817	GAL	-3.78	AZL	95.19	HCA	200.62	SMA	198.56	ECC	.24271	INC	5.1889	V1	29.295
RP	246.74	LAP	1.83	LOP	130.06	VP	20.183	GAP	-.35	AZP	85.14	TAL	340.46	TAP	181.08	RCA	150.37	APO	246.75	V2	22.215
RC	304.476	GL	-37.02	GP	34.35	ZAL	115.31	ZAP	67.29	ETS	198.38	ZAE	91.35	ETE	180.89	ZAC	123.04	ETC	286.94	LVI	-57.23

PLANETOCENTRIC CONIC

C3	24.189	VHL	4.918	DLA	-17.61	RAL	58.87	RAD	6644.7	VEL	12.007	PTH	7.00	VHP	2.843	DPA	34.56	RAP	355.20	ECC	1.3981

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 0 57	2824.52	-23.12	81.22	278.70	132.82	17 48 1	1824.5	-5.26	64.33
60.00	18 0 56	2664.98	-17.94	71.44	283.29	126.71	18 45 21	1665.0	-2.23	52.87
70.00	19 16 47	2442.02	-13.05	56.82	286.75	121.84	19 57 29	1442.0	.72	37.03
80.00	20 47 42	2157.46	-9.28	37.45	288.98	118.50	21 23 39	1157.5	3.03	16.87
90.00	22 19 27	1861.46	-7.80	16.47	289.78	117.27	22 50 29	861.5	3.95	355.61
100.00	23 30 34	1631.93	-9.28	358.81	288.98	118.50	23 57 46	631.9	3.03	338.23
110.00	0 20 9	1488.84	-13.05	345.73	286.75	121.84	0 44 58	488.8	.72	325.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.5957	TRA	4.3553	TC3	-5.2570	BAU	1.8400	SGT	7650.7	SGR	3732.1	SG3	1601.8	ST	122.8	SR	54.5	SS	56.9
RDE	.5266	RRA	-2.4501	RC3	2.1768	FAU	.32786	RRT	-.9860	RRF	-.9956	RTF	.9832	CRT	-.9660	CRS	.9718	CST	-.8782
FDE	-1.4025	FRA	11.7943	FC	-11.7341	BSP	14606	SGB	8512.5	R23	.1252	R13	-.9877	LSA	143.4	MSA	26.7	SSA	.6
BDE	1.6804	BRA	4.9972	BC3	5.6899	FSP	2894	SG1	8494.0	SG2	560.3	THA	154.19	EL1	133.7	EL2	12.9	ALF	156.56

LAUNCH DATE JUL 12 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 676.090 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.821	GAL	-3.83	AZL	95.00	HCA	201.51	SMA	198.63	ECC	.24320	INC	4.9960	V1	29.295
RP	246.90	LAP	1.83	LOP	130.95	VP	20.172	GAP	-.56	AZP	85.35	TAL	340.24	TAP	181.75	RCA	150.33	APO	246.94	V2	22.199
RC	306.863	GL	-35.82	GP	33.11	ZAL	115.92	ZAP	66.12	ETS	198.52	ZAE	90.23	ETE	181.59	ZAC	121.87	ETC	286.71	LVI	-56.03

PLANETOCENTRIC CONIC

C3	23.748	VHL	4.873	DLA	-16.39	RAL	58.75	RAD	6644.5	VEL	11.989	PTH	6.98	VHP	2.819	DPA	33.43	RAP	355.83	ECC	1.3908

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 55 25	2845.23	-24.08	82.26	278.45	132.36	17 42 50	1845.2	-6.30	65.21
60.00	17 53 45	2690.11	-18.96	72.79	282.94	126.25	18 38 35	1690.1	-3.33	54.08
70.00	19 7 32	2473.19	-14.17	58.54	286.29	121.41	19 48 45	1473.2	-.48	38.65
80.00	20 36 18	2195.39	-10.51	39.60	288.43	118.11	21 12 53	1195.4	1.75	18.95
90.00	22 6 59	1902.84	-9.08	18.84	289.19	116.90	22 38 42	902.8	2.62	357.92
100.00	23 19 10	1669.87	-10.51	.96	288.43	118.11	23 46 59	669.9	1.75	340.32
110.00	0 10 55	1520.01	-14.17	347.46	286.29	121.41	0 36 15	520.0	-.48	327.57

DIFFERENTIAL CORRECTIONS

TDE	-1.5389	TRA	4.4287	TC3	-5.4604	BAU	1.8587
RDE	.4886	RRA	-2.3443	RC3	2.1118	FAU	.33226
FDE	-1.2574	FRA	11.9570	FC	-12.1129	BSP	14777
BDE	1.6146	BRA	5.0109	BC3	5.8545	FSP	2953

MID-COURSE EXECUTION ACCURACY

SGT	7813.8	SGR	3580.6	SG3	1630.9		
RRT	-.9860	RRF	-.9950	RTF	.9834		
SGB	8595.1	R23	.1240	R13	-.9873		
SG1	8577.9	SG2	543.6	THA	155.58		

ORBIT DETERMINATION ACCURACY

ST	122.0	SR	51.9	SS	56.7		
CRT	-.9690	CRS	.9655	CST	-.8716		
LSA	141.6	MSA	26.9	SSA	.6		
EL1	132.0	EL2	11.8	ALF	157.41		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 679.834 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.825	GAL	-3.88	AZL	94.82	HCA	202.40	SMA	198.71	ECC	.24370	INC	4.8178	V1	29.295
RP	247.06	LAP	1.83	LOP	131.84	VP	20.161	GAP	-.78	AZP	85.54	TAL	340.01	TAP	182.41	RCA	150.28	APO	247.13	V2	22.183
RC	309.224	GL	-34.68	GP	31.93	ZAL	116.52	ZAP	64.98	ETS	198.62	ZAE	89.11	ETE	182.24	ZAC	120.76	ETC	286.51	LVI	-54.88

PLANETOCENTRIC CONIC

C3	23.374	VHL	4.835	DLA	-15.23	RAL	58.66	RAD	6644.3	VEL	11.973	PTH	6.97	VHP	2.800	DPA	32.37	RAP	356.44	ECC	1.3847

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 50 21	2865.25	-24.99	83.29	278.29	131.90	17 38 7	1865.2	-7.30	66.05
60.00	17 47 10	2714.17	-19.92	74.09	282.70	125.79	18 32 24	1714.2	-4.39	55.23
70.00	18 59 6	2502.71	-15.21	60.20	285.95	120.96	19 40 48	1502.7	-1.60	40.19
80.00	20 25 57	2230.86	-11.64	41.62	288.01	117.69	21 3 8	1230.9	.54	20.90
90.00	21 55 43	1941.26	-10.26	21.05	288.73	116.50	22 28 4	941.3	1.38	.07
100.00	23 8 49	1705.34	-11.64	2.99	288.01	117.69	23 37 14	705.3	.54	342.27
110.00	0 2 28	1549.53	-15.21	349.12	285.95	120.96	0 28 18	549.5	-1.60	329.11

DIFFERENTIAL CORRECTIONS

TDE	-1.4860	TRA	4.5017	TC3	-5.6596	BAU	1.8806
RDE	.4566	RRA	-2.2441	RC3	2.0466	FAU	.33602
FDE	-1.1176	FRA	12.0798	FC	-12.4457	BSP	14921
BDE	1.5546	BRA	5.0300	BC3	6.0183	FSP	2992

MID-COURSE EXECUTION ACCURACY

SGT	7976.4	SGR	3436.1	SG3	1654.6		
RRT	-.9860	RRF	-.9943	RTF	.9835		
SGB	8685.0	R23	.1220	R13	-.9870		
SG1	8668.9	SG2	527.4	THA	156.90		

ORBIT DETERMINATION ACCURACY

ST	121.2	SR	49.5	SS	56.3		
CRT	-.9724	CRS	.9582	CST	-.8654		
LSA	140.0	MSA	27.0	SSA	.7		
EL1	130.5	EL2	10.7	ALF	158.19		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 683.577 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.829	GAL	-3.93	AZL	94.65	HCA	203.28	SMA	198.79	ECC	.24422	INC	4.6528	V1	29.295
RP	247.22	LAP	1.84	LOP	132.72	VP	20.150	GAP	-.99	AZP	85.72	TAL	339.78	TAP	183.06	RCA	150.24	APO	247.33	V2	22.168
RC	311.559	GL	-33.59	GP	30.81	ZAL	117.11	ZAP	63.87	ETS	198.70	ZAE	87.99	ETE	182.83	ZAC	119.69	ETC	286.32	LVI	-53.79

PLANETOCENTRIC CONIC

C3	23.058	VHL	4.802	DLA	-14.13	RAL	58.61	RAD	6644.2	VEL	11.960	PTH	6.96	VHP	2.786	DPA	31.36	RAP	357.01	ECC	1.3795

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 45 42	2884.61	-25.87	84.30	278.21	131.43	17 33 47	1884.6	-8.26	66.88
60.00	17 41 6	2737.28	-20.84	75.36	282.54	125.31	18 26 44	1737.3	-5.40	56.34
70.00	18 51 21	2530.78	-16.18	61.79	285.72	120.49	19 33 32	1530.8	-2.67	41.66
80.00	20 16 30	2264.24	-12.69	43.54	287.71	117.26	20 54 14	1264.2	-.59	22.73
90.00	21 45 28	1977.23	-11.34	23.13	288.40	116.08	22 18 25	977.2	.22	2.08
100.00	22 59 22	1738.72	-12.69	4.91	287.71	117.26	23 28 21	738.7	-.59	344.10
110.00	23 50 47	1577.60	-16.18	350.70	285.72	120.49	24 17 5	577.6	-2.67	330.58

DIFFERENTIAL CORRECTIONS

TDE	-1.4328	TRA	4.5778	TC3	-5.8470	BAU	1.9027
RDE	.4279	RRA	-2.1500	RC3	1.9772	FAU	.33847
FDE	-.9723	FRA	12.1707	FC	-12.7081	BSP	15103
BDE	1.4953	BRA	5.0576	BC3	6.1723	FSP	3029

MID-COURSE EXECUTION ACCURACY

SGT	8139.2	SGR	3296.1	SG3	1672.1		
RRT	-.9859	RRF	-.9936	RTF	.9836		
SGB	8777.6	R23	.1193	R13	-.9867		
SG1	8762.6	SG2	512.4	THA	156.15		

ORBIT DETERMINATION ACCURACY

ST	120.5	SR	47.3	SS	56.0		
CRT	-.9761	CRS	.9496	CST	-.8592		
LSA	138.4	MSA	27.2	SSA	.7		
EL1	129.1	EL2	9.6	ALF	158.92		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC DISTANCE 687.319 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.833	GAL	-3.98	AZL	94.50	HCA	204.17	SMA	198.86	ECC	.24474	INC	4.4994	V1	29.295
RP	247.37	LAP	1.84	LOP	133.61	VP	20.141	GAP	-1.20	AZP	85.89	TAL	339.55	TAP	183.71	RCA	150.19	APO	247.54	V2	22.154
RC	313.869	GL	-32.56	GP	29.75	ZAL	117.68	ZAP	62.79	ETS	198.76	ZAE	86.86	ETE	183.37	ZAC	118.67	ETC	286.16	LVI	-52.74

PLANETOCENTRIC CONIC

C3	22.793	VHL	4.774	DLA	-13.07	RAL	58.59	RAD	6644.1	VEL	11.949	PTH	6.95	VHP	2.775	DPA	30.40	RAP	357.57	ECC	1.3751

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 25	2903.37	-26.71	85.29	278.21	130.96	17 29 49	1903.4	-9.20	67.68
60.00	17 35 31	2759.51	-21.71	76.60	282.47	124.83	18 21 30	1759.5	-6.37	57.42
70.00	18 44 12	2557.58	-17.10	63.32	285.57	120.02	19 26 50	1557.6	-3.70	43.06
80.00	20 7 50	2295.83	-13.67	45.38	287.50	116.81	20 46 5	1295.8	-1.66	24.46
90.00	21 36 5	2011.12	-12.35	25.11	288.17	115.64	22 9 36	1011.1	-.87	3.97
100.00	22 50 41	1770.30	-13.67	6.75	287.50	116.81	23 20 12	770.3	-1.66	345.83
110.00	23 43 39	1604.40	-17.10	352.24	285.57	120.02	24 10 23	604.4	-3.70	331.98

DIFFERENTIAL CORRECTIONS

TDE	-1.3807	TRA	4.6566	TC3	-6.0259	BAU	1.9259
RDE	.4031	RRA	-2.0620	RC3	1.9062	FAU	.33997
FDE	-.8288	FRA	12.2357	FC	-12.9130	BSP	15286
BDE	1.4383	BRA	5.0927	BC3	6.3202	FSP	3053

MID-COURSE EXECUTION ACCURACY

SGT	8292.5	SGR	3162.4	SG3	1684.8		
RRT	-.9857	RRF	-.9927	RTF	.9837		
SGB	8875.0	R23	.1160	R13	-.9864		
SG1	8861.0	SG2	498.9	THA	159.33		

ORBIT DETERMINATION ACCURACY

ST	119.8	SR	45.2	SS	55.7		
CRT	-.9799	CRS	.9398	CST	-.8534		
LSA	136.9	MSA	27.3	SSA	.7		
EL1	127.7	EL2	8.5	ALF	159.60		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 691.059 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.837	GAL	-4.03	AZL	94.36	HCA	205.05	SMA	198.94	ECC	.24529	INC	4.3564	V1	29.295
RP	247.51	LAP	1.84	LOP	134.50	VP	20.132	GAP	-1.41	AZP	86.05	TAL	339.31	TAP	184.36	RCA	150.15	APO	247.74	V2	22.140
RC	316.151	GL	-31.58	GP	28.73	ZAL	118.24	ZAP	61.73	ETS	198.80	ZAE	85.74	ETE	183.87	ZAC	117.69	ETC	286.01	LVI	-51.74

PLANETOCENTRIC CONIC

C3	22.372	VHL	4.751	DLA	-12.06	RAL	58.59	RAD	6644.0	VEL	11.940	PTH	6.94	VHP	2.768	DPA	29.50	RAP	358.10	ECC	1.3718

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 37 28	2921.57	-27.52	86.27	278.27	130.48	17 26 10	1921.6	-10.10	68.47
60.00	17 30 20	2780.96	-22.54	77.80	282.47	124.34	18 16 41	1781.0	-7.31	58.46
70.00	18 37 36	2583.24	-17.97	64.80	285.50	119.54	19 20 39	1583.2	-4.67	44.41
80.00	19 59 49	2325.86	-14.58	47.14	287.38	116.35	20 38 35	1325.9	-2.67	26.11
90.00	21 27 26	2043.21	-13.29	27.00	288.02	115.19	22 1 29	1043.2	-1.90	5.76
100.00	22 42 41	1800.33	-14.58	8.51	287.38	116.35	23 12 41	800.3	-2.67	347.48
110.00	23 37 2	1630.06	-17.97	353.72	285.50	119.54	24 4 12	630.1	-4.67	333.33

DIFFERENTIAL CORRECTIONS

TDE	-1.3296	TRA	4.7371	TC3	-6.1967	BAU	1.9502
RDE	.3814	RRA	-1.9794	RC3	1.8343	FAU	.34058
FDE	-.6855	FRA	12.2768	FC	-13.0624	BSP	15482
BDE	1.3832	BRA	5.1340	BC3	6.4625	FSP	3071

MID-COURSE EXECUTION ACCURACY

SGT	8447.9	SGR	3034.4	SG3	1693.0		
RRT	-.9854	RRF	-.9918	RTF	.9838		
SGB	8976.3	R23	.1122	R13	-.9861		
SG1	8963.1	SG2	487.3	THA	160.45		

ORBIT DETERMINATION ACCURACY

ST	119.1	SR	43.3	SS	55.4		
CRT	-.9838	CRS	.9286	CST	-.6476		
LSA	135.5	MSA	27.5	SSA	.8		
EL1	126.5	EL2	7.3	ALF	160.24		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC DISTANCE 694.798 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.841	GAL	-4.09	AZL	94.22	HCA	205.93	SMA	199.03	ECC	.24584	INC	4.2226	V1	29.295
RP	247.65	LAP	1.85	LOP	135.38	VP	20.124	GAP	-1.63	AZP	86.20	TAL	339.07	TAP	185.00	RCA	150.10	APO	247.96	V2	22.126
RC	318.406	GL	-30.65	GP	27.77	ZAL	118.79	ZAP	60.70	ETS	198.83	ZAE	84.62	ETE	184.32	ZAC	116.76	ETC	285.87	LVI	-50.79

PLANETOCENTRIC CONIC

C3	22.391	VHL	4.732	DLA	-11.09	RAL	58.61	RAD	6643.9	VEL	11.932	PTH	6.94	VHP	2.764	DPA	28.65	RAP	358.63	ECC	1.3685

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 33 49	2939.24	-28.29	87.24	278.40	129.99	17 22 48	1939.2	-10.98	69.23
60.00	17 25 32	2801.68	-23.33	78.99	282.54	123.84	18 12 14	1801.7	-8.21	59.47
70.00	18 31 26	2607.88	-18.79	66.24	285.51	119.06	19 14 56	1607.9	-5.60	45.70
80.00	19 52 24	2354.51	-15.44	48.83	287.33	115.88	20 31 39	1354.5	-3.64	27.69
90.00	21 19 25	2073.75	-14.17	28.81	287.95	114.73	21 53 59	1073.8	-2.89	7.46
100.00	22 35 16	1828.98	-15.44	10.20	287.33	115.88	23 5 45	829.0	-3.64	349.06
110.00	23 30 54	1654.70	-18.79	355.16	285.51	119.06	23 58 29	654.7	-5.60	334.62

DIFFERENTIAL CORRECTIONS

TDE	-1.2816	TRA	4.8170	TC3	-6.3619	BAU	1.9763
RDE	.3638	RRA	-1.9004	RC3	1.7638	FAU	.34067
FDE	-.5526	FRA	12.2868	FC	-13.1718	BSP	15660
BDE	1.3322	BRA	5.1783	BC3	6.6019	FSP	3076

MID-COURSE EXECUTION ACCURACY

SGT	8601.4	SGR	2911.8	SG3	1696.8		
RRT	-.9850	RRF	-.9907	RTF	.9839		
SGB	9080.9	R23	.1076	R13	-.9859		
SG1	9068.4	SG2	476.4	THA	161.51		

ORBIT DETERMINATION ACCURACY

ST	118.5	SR	41.6	SS	55.1		
CRT	-.9877	CRS	.9160	CST	-.8428		
LSA	134.3	MSA	27.6	SSA	.8		
EL1	125.5	EL2	6.1	ALF	160.84		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 698.535 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.845	GAL	-4.14	AZL	94.10	HCA	206.82	SMA	199.11	ECC	.24641	INC	4.0972	V1	29.295
RP	247.78	LAP	1.85	LOP	136.27	VP	20.117	GAP	-1.84	AZP	86.34	TAL	338.82	TAP	185.64	RCA	150.05	APO	248.17	V2	22.113
RC	320.632	GL	-29.75	GP	26.85	ZAL	119.33	ZAP	59.70	ETS	198.84	ZAE	83.51	ETE	184.74	ZAC	115.86	ETC	285.75	LVI	-49.88

PLANETOCENTRIC CONIC

C3	22.245	VHL	4.716	DLA	-10.16	RAL	58.65	RAD	6643.8	VEL	11.926	PTH	6.93	VHP	2.763	DPA	27.85	RAP	359.14	ECC	1.3661

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 30 26	2956.43	-29.04	88.19	278.57	129.50	17 19 43	1956.4	-11.83	69.98
60.00	17 21 5	2821.74	-24.08	80.14	282.66	123.34	18 8 6	1821.7	-9.08	60.45
70.00	18 25 45	2631.60	-19.57	67.64	285.58	118.57	19 9 37	1631.6	-6.50	46.96
80.00	19 45 30	2381.94	-16.25	50.47	287.35	115.40	20 25 12	1381.9	-4.56	29.20
90.00	21 11 59	2102.92	-14.99	30.56	287.96	114.26	21 47 2	1102.9	-3.82	9.10
100.00	22 28 22	1856.41	-16.25	11.84	287.35	115.40	22 59 19	856.4	-4.56	350.57
110.00	23 25 11	1678.42	-19.57	356.56	285.58	118.57	23 53 10	678.4	-6.50	335.88

DIFFERENTIAL CORRECTIONS

TDE	-1.2325	TRA	4.9011	TC3	-6.5159	BAU	2.0020
RDE	.3479	RRA	-1.8273	RC3	1.6914	FAU	.33969
FDE	-.4157	FRA	12.2857	FC	-13.2205	BSP	15877
BDE	1.2807	BRA	5.2307	BC3	6.7319	FSP	3083

MID-COURSE EXECUTION ACCURACY

SGT	8752.6	SGR	2794.7	SG3	1696.8		
RRT	-.9845	RRF	-.9895	RTF	.9839		
SGB	9187.9	R23	.1029	R13	-.9857		
SG1	9176.0	SG2	468.1	THA	162.50		

ORBIT DETERMINATION ACCURACY

ST	118.0	SR	40.0	SS	54.8		
CRT	-.9912	CRS	.9017	CST	-.8379		
LSA	133.2	MSA	27.8	SSA	.8		
EL1	124.5	EL2	5.0	ALF	161.41		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 24 1974

HELIOCENTRIC CONIC DISTANCE 702.271 EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.850	GAL	-4.20	AZL	93.98	HCA	207.70	SMA	199.20	ECC	.24698	INC	3.9794	V1	29.295
RP	247.91	LAP	1.85	LOP	137.15	VP	20.110	GAP	-2.05	AZP	86.48	TAL	338.58	TAP	186.27	RCA	150.00	APO	248.39	V2	22.101
RC	322.829	GL	-28.90	GP	25.98	ZAL	119.86	ZAP	58.73	ETS	198.83	ZAE	82.41	ETE	185.12	ZAC	115.00	ETC	285.63	LVI	-49.01

PLANETOCENTRIC CONIC

C3	22.129	VHL	4.704	DLA	-9.27	RAL	58.72	RAD	6643.8	VEL	11.922	PTH	6.93	VHP	2.764	DPA	27.10	RAP	359.64	ECC	1.3642

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 27 18	2973.16	-29.76	89.13	278.80	129.00	17 16 51	1973.2	-12.65	70.72
60.00	17 16 55	2841.19	-24.81	81.28	282.84	122.84	18 4 16	1841.2	-9.92	61.41
70.00	18 20 25	2654.48	-20.31	69.00	285.70	118.07	19 4 40	1654.5	-7.36	48.17
80.00	19 39 4	2408.29	-17.01	52.05	287.43	114.91	20 19 13	1408.3	-5.44	30.66
90.00	21 5 3	2130.86	-15.76	32.24	288.02	113.79	21 40 34	1130.9	-4.71	10.67
100.00	22 21 56	1882.76	-17.01	13.42	287.43	114.91	22 53 19	882.8	-5.44	352.03
110.00	23 19 52	1701.30	-20.31	357.92	285.70	118.07	23 48 13	701.3	-7.36	337.09

DIFFERENTIAL CORRECTIONS

TDE	-1.1857	TRA	4.9853	TC3	-6.6651	BAU	2.0294
RDE	.3351	RRA	-1.7579	RC3	1.6215	FAU	.33840
FDE	-.2882	FRA	12.2629	FC	-13.2388	BSP	16075
BDE	1.2321	BRA	5.2861	BC3	6.8595	FSP	3078

MID-COURSE EXECUTION ACCURACY

SGT	8902.7	SGR	2683.3	SG3	1693.7		
RRT	-.9838	RRF	-.9881	RTF	.9839		
SGB	9298.3	R23	.0975	R13	-.9855		
SG1	9286.9	SG2	460.7	THA	163.44		

ORBIT DETERMINATION ACCURACY

ST	117.6	SR	38.5	SS	54.5		
CRT	-.9944	CRS	.8859	CST	-.8338		
LSA	132.3	MSA	28.0	SSA	.8		
EL1	123.6	EL2	3.9	ALF	161.95		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 26 1974

DISTANCE 706.005

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.854	GAL	-4.25	AZL	93.87	HCA	208.58	SMA	199.28	ECC	.24757	INC	3.6683	V1	29.295
RP	248.03	LAP	1.85	LOP	138.03	VP	20.105	GAP	-2.26	AZP	86.60	TAL	338.32	TAP	186.90	RCA	149.94	APO	248.62	V2	22.089
RC	324.997	GL	-28.09	GP	25.15	ZAL	120.38	ZAP	57.78	ETS	198.82	ZAE	81.31	ETE	185.47	ZAC	114.18	ETC	285.53	LVI	-48.18

PLANETOCENTRIC CONIC

C3	22.042	VHL	4.695	DLA	-8.41	RAL	58.80	RAD	6643.7	VEL	11.918	PTH	6.92	VHP	2.767	DPA	26.39	RAP	.13	ECC	1.3628

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 24 23	2989.46	-30.46	90.07	279.07	128.50	17 14 13	1989.5	-13.45	71.44
60.00	17 13 3	2860.07	-25.50	82.40	283.06	122.33	18 0 43	1860.1	-10.73	62.34
70.00	18 15 26	2676.61	-21.01	70.33	285.87	117.57	19 0 3	1676.6	-8.19	49.35
80.00	19 33 3	2433.65	-17.73	53.59	287.57	114.42	20 13 37	1433.7	-6.29	32.07
90.00	20 58 34	2157.72	-16.49	33.88	288.14	113.30	21 34 32	1157.7	-5.57	12.18
100.00	22 15 55	1908.12	-17.73	14.96	287.57	114.42	22 47 43	908.1	-6.29	353.44
110.00	23 14 53	1723.43	-21.01	359.25	285.87	117.57	23 43 36	723.4	-8.19	338.27

DIFFERENTIAL CORRECTIONS

TDE	-1.1394	TRA	5.0713	TC3	-6.8057	BAU	2.0570
RDE	.3245	RRA	-1.6922	RC3	1.5520	FAU	.33643
FDE	-.1642	FRA	12.2233	FC	-13.2138	BSP	16280
BDE	1.1847	BRA	5.3461	BC3	6.9804	FSP	3068

MID-COURSE EXECUTION ACCURACY

SGT	9050.4	SGR	2576.5	SG3	1687.3		
RRT	-.9831	RRF	-.9866	RTF	.9839		
SGB	9410.0	R23	.0918	R13	-.9853		
SG1	9399.0	SG2	454.8	THA	164.33		

ORBIT DETERMINATION ACCURACY

ST	117.2	SR	37.1	SS	54.3		
CRT	-.9970	CRS	.8685	CST	-.8302		
LSA	131.4	MSA	28.1	SSA	.9		
EL1	122.9	EL2	2.7	ALF	162.47		

LAUNCH DATE JUL 12 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 28 1974

DISTANCE 709.738

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.08	LAL	.00	LOL	289.51	VL	32.858	GAL	-4.31	AZL	93.76	HCA	209.46	SMA	199.37	ECC	.24818	INC	3.7634	V1	29.295
RP	248.14	LAP	1.85	LOP	138.91	VP	20.100	GAP	-2.47	AZP	86.72	TAL	338.07	TAP	187.53	RCA	149.89	APO	248.85	V2	22.078
RC	327.134	GL	-27.31	GP	24.36	ZAL	120.90	ZAP	56.86	ETS	198.79	ZAE	80.23	ETE	185.79	ZAC	113.40	ETC	285.44	LVI	-47.38

PLANETOCENTRIC CONIC

C3	21.980	VHL	4.688	DLA	-7.58	RAL	58.90	RAD	6643.7	VEL	11.915	PTH	6.92	VHP	2.772	DPA	25.73	RAP	.62	ECC	1.3617

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 21 41	3005.37	-31.13	90.99	279.39	127.99	17 11 47	2005.4	-14.23	72.15
60.00	17 9 25	2878.43	-26.16	83.50	283.33	121.82	17 57 24	1878.4	-11.51	63.25
70.00	18 10 46	2698.04	-21.68	71.64	286.09	117.06	18 55 44	1698.0	-8.99	50.49
80.00	19 27 24	2458.13	-18.41	55.09	287.75	113.93	20 8 22	1458.1	-7.10	33.43
90.00	20 52 30	2183.59	-17.18	35.46	288.31	112.81	21 28 53	1183.6	-6.39	13.64
100.00	22 10 16	1932.60	-18.41	16.46	287.75	113.93	22 42 29	932.6	-7.10	354.80
110.00	23 10 13	1744.86	-21.68	.56	286.09	117.06	23 39 17	744.9	-8.99	339.41

DIFFERENTIAL CORRECTIONS

TDE	-1.0936	TRA	5.1591	TC3	-6.9393	BAU	2.0853
RDE	.3156	RRA	-1.6304	RC3	1.4835	FAU	.33389
FDE	-.0440	FRA	12.1713	FC	-13.1507	BSP	16492
BDE	1.1382	BRA	5.4106	BC3	7.0961	FSP	3055

MID-COURSE EXECUTION ACCURACY

SGT	9196.7	SGR	2474.7	SG3	1678.1		
RRT	-.9821	RRF	-.9848	RTF	.9839		
SGB	9523.9	R23	.0861	R13	-.9851		
SG1	9513.2	SG2	450.7	THA	165.16		

ORBIT DETERMINATION ACCURACY

ST	116.9	SR	35.9	SS	54.1		
CRT	-.9988	CRS	.8492	CST	-.8271		
LSA	130.7	MSA	28.3	SSA	.9		
EL1	122.3	EL2	1.7	ALF	162.96		

LAUNCH DATE JUL 13 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 12 1973

HELIOCENTRIC CONIC DISTANCE 348.975 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	34.969	GAL	-5.02	AZL	90.26	HCA	111.45	SMA	253.97	ECC	.40914	INC	.2566	V1	29.296
RP	217.81	LAP	-.24	LOP	41.92	VP	26.384	GAP	22.80	AZP	89.91	TAL	342.63	TAP	94.09	RCA	150.06	APO	357.88	V2	25.227
RC	73.831	GL	-1.42	GP	-5.15	ZAL	118.36	ZAP	172.23	ETS	223.17	ZAE	169.22	ETE	333.51	ZAC	79.52	ETC	283.43	LVI	-13.72

PLANETOCENTRIC CONIC

C3	39.642	VHL	6.296	DLA	16.06	RAL	46.78	RAD	6650.5	VEL	12.630	PTH	7.48	VHP	8.227	DPA	8.34	RAP	35.79	ECC	1.6524

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	14 0 41	3626.92	-47.48	140.11	296.74	93.53	15 1 8	2626.9	-40.57	107.63
60.00	14 21 58	3570.27	-40.30	135.31	297.04	89.94	15 21 28	2570.3	-35.91	105.11
70.00	14 53 12	3478.33	-34.05	127.66	296.84	87.11	15 51 10	2478.3	-31.67	99.18
80.00	15 41 35	3326.70	-29.50	115.80	296.47	85.15	16 37 2	2326.7	-28.51	88.42
90.00	16 54 2	3092.84	-27.77	98.44	296.29	84.41	17 45 35	2092.8	-27.30	71.44
100.00	18 24 27	2801.17	-29.50	77.17	296.47	85.15	19 11 8	1801.2	-28.51	49.79
110.00	19 52 38	2525.15	-34.05	56.58	296.84	87.11	20 34 44	1525.1	-31.67	28.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4586	TRA	-1.5628	TC3	.1243	BAU	.0763	SGT	1545.5	SGR	596.6	SG3	188.2	ST	30.5	SR	26.9	SS	22.3
RDE	-.5847	RRA	.2680	RC3	-.0728	FAU	.05714	RRT	-.1820	RRF	.2056	RTF	-.7617	CRT	.5747	CRS	.6184	CST	.9961
FDE	.4997	FRA	1.5190	FC3	-1.2480	BSP	2498	SGB	1656.7	R23	-.0445	R13	.7634	LSA	42.0	MSA	19.5	SSA	1.2
BDE	.7431	BRA	1.5856	BC3	.1440	FSP	244	SG1	1550.0	SG2	584.9	THA	175.31	EL1	36.2	EL2	18.5	ALF	38.83

LAUNCH DATE JUL 13 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 351.486 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	34.850	GAL	-4.91	AZL	90.22	HCA	112.59	SMA	249.99	ECC	.39951	INC	.2191	V1	29.296
RP	218.16	LAP	-.20	LOP	43.06	VP	26.187	GAP	22.44	AZP	89.92	TAL	342.72	TAP	95.32	RCA	150.11	APO	349.86	V2	25.188
RC	74.953	GL	-1.24	GP	-5.32	ZAL	118.22	ZAP	171.57	ETS	220.70	ZAE	168.42	ETE	334.04	ZAC	79.27	ETC	283.40	LVI	-13.46

PLANETOCENTRIC CONIC

C3	37.940	VHL	6.160	DLA	16.20	RAL	46.59	RAD	6649.9	VEL	12.563	PTH	7.43	VHP	7.994	DPA	8.33	RAP	36.24	ECC	1.6244

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 59 22	3618.73	-47.44	139.32	295.58	94.14	14 59 40	2618.7	-40.31	107.01
60.00	14 20 27	3562.58	-40.30	134.66	295.97	90.38	15 19 50	2562.6	-35.74	104.53
70.00	14 51 28	3471.31	-34.07	127.11	295.82	87.43	15 49 19	2471.3	-31.56	98.67
80.00	15 39 37	3320.41	-29.53	115.34	295.49	85.39	16 34 57	2320.4	-28.44	87.97
90.00	16 51 57	3086.92	-27.81	98.01	295.32	84.62	17 43 24	2086.9	-27.24	71.01
100.00	18 22 28	2794.88	-29.53	76.71	295.49	85.39	19 9 3	1794.9	-28.44	49.33
110.00	19 50 54	2518.12	-34.07	56.03	295.82	87.43	20 32 52	1518.1	-31.56	27.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4592	TRA	-1.5591	TC3	.1452	BAU	.0845	SGT	1579.6	SGR	597.1	SG3	199.8	ST	31.1	SR	26.7	SS	23.2
RDE	-.5675	RRA	.2688	RC3	-.0815	FAU	.05933	RRT	-.1968	RRF	.2224	RTF	-.7697	CRT	.5720	CRS	.6192	CST	.9959
FDE	.5248	FRA	1.5757	FC3	-1.3538	BSP	2565	SGB	1668.7	R23	-.0479	R13	.7716	LSA	42.8	MSA	19.5	SSA	1.3
BDE	.7300	BRA	1.5820	BC3	.1665	FSP	262	SG1	1584.6	SG2	583.6	THA	175.08	EL1	36.5	EL2	18.7	ALF	37.43

LAUNCH DATE JUL 13 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 354.110 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	34.737	GAL	-4.80	AZL	90.18	HCA	113.73	SMA	246.33	ECC	.39037	INC	.1806	V1	29.296
RP	218.53	LAP	-.17	LOP	44.19	VP	25.997	GAP	22.09	AZP	89.93	TAL	342.82	TAP	96.55	RCA	150.17	APO	342.49	V2	25.148
RC	76.362	GL	-1.04	GP	-5.49	ZAL	118.07	ZAP	170.88	ETS	218.60	ZAE	167.67	ETE	334.36	ZAC	79.02	ETC	283.37	LVI	-13.18

PLANETOCENTRIC CONIC

C3	36.349	VHL	6.029	DLA	16.34	RAL	46.38	RAD	6649.4	VEL	12.500	PTH	7.39	VHP	7.769	DPA	8.30	RAP	36.67	ECC	1.5982

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 57 56	3610.93	-47.40	138.57	294.44	94.72	14 58 7	2610.9	-40.06	106.43
60.00	14 18 50	3555.30	-40.29	134.04	294.92	90.80	15 18 5	2555.3	-35.56	103.99
70.00	14 49 36	3464.73	-34.09	126.60	294.82	87.73	15 47 21	2464.7	-31.45	98.18
80.00	15 37 30	3314.61	-29.56	114.91	294.51	85.61	16 32 45	2314.6	-28.38	87.55
90.00	16 49 43	3081.51	-27.84	97.62	294.34	84.82	17 41 5	2081.5	-27.19	70.63
100.00	18 20 22	2789.08	-29.56	76.28	294.51	85.61	19 6 51	1789.1	-28.38	48.92
110.00	19 49 2	2511.55	-34.09	55.52	294.82	87.73	20 30 54	1511.6	-31.45	27.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4472	TRA	-1.5417	TC3	.1818	BAU	.0987	SGT	1600.0	SGR	597.5	SG3	212.1	ST	31.2	SR	26.4	SS	24.2
RDE	-.5502	RRA	.2703	RC3	-.0906	FAU	.06139	RRT	-.2202	RRF	.2391	RTF	-.7669	CRT	.5609	CRS	.6222	CST	.9949
FDE	.5567	FRA	1.6392	FC3	-1.4623	BSP	2476	SGB	1707.9	R23	-.0406	R13	.7887	LSA	43.3	MSA	19.6	SSA	1.2
BDE	.7090	BRA	1.5652	BC3	.2031	FSP	287	SG1	1606.2	SG2	580.6	THA	174.59	EL1	36.4	EL2	18.8	ALF	36.69

LAUNCH DATE JUL 13 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 356.840 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	34.629	GAL	-4.69	AZL	90.14	HCA	114.86	SMA	242.97	ECC	.38173	INC	.1418	V1	29.296
RP	218.89	LAP	-.13	LOP	45.33	VP	25.814	GAP	21.74	AZP	89.94	TAL	342.93	TAP	97.79	RCA	150.22	APO	335.72	V2	25.107
RC	77.855	GL	-.84	GP	-5.68	ZAL	117.92	ZAP	170.17	ETS	216.81	ZAE	166.97	ETE	334.50	ZAC	78.76	ETC	283.35	LVI	-12.91

PLANETOCENTRIC CONIC

C3	34.866	VHL	5.905	DLA	16.50	RAL	46.17	RAD	6648.8	VEL	12.441	PTH	7.34	VHP	7.551	DPA	8.27	RAP	37.10	ECC	1.5738

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 56 25	3603.62	-47.35	137.87	293.33	95.26	14 56 29	2603.6	-39.82	105.89
60.00	14 17 7	3548.54	-40.29	133.46	293.88	91.19	15 16 15	2548.5	-35.40	103.49
70.00	14 47 38	3458.72	-34.10	126.13	293.83	88.01	15 45 16	2458.7	-31.35	97.74
80.00	15 35 16	3309.42	-29.59	114.53	293.54	85.81	16 30 25	2309.4	-28.32	87.17
90.00	16 47 21	3076.74	-27.87	97.27	293.38	84.99	17 38 38	2076.7	-27.15	70.29
100.00	18 18 8	2783.90	-29.59	75.89	293.54	85.81	19 4 32	1783.9	-28.32	48.54
110.00	19 47 4	2505.54	-34.10	55.05	293.83	88.01	20 28 50	1505.5	-31.35	26.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4529	TRA	-1.5417	TC3	.2008	BAU	.1048	SGT	1638.2	SGR	598.2	SG3	225.1	ST	32.1	SR	26.2	SS	25.0
RDE	-.5335	RRA	.2717	RC3	-.1012	FAU	.06393	RRT	-.2346	RRF	.2589	RTF	-.7906	CRT	.5611	CRS	.6220	CST	.9950
FDE	.5833	FRA	1.6978	FC3	-1.5873	BSP	2606	SGB	1744.0	R23	-.0483	R13	.7927	LSA	44.3	MSA	19.6	SSA	1.3
BDE	.6998	BRA	1.5655	BC3	.2249	FSP	305	SG1	1645.1	SG2	579.1	THA	174.41	EL1	36.9	EL2	18.9	ALF	35.00

LAUNCH DATE JUL 13 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 359.662 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	34.528	GAL	-4.59	AZL	90.10	HCA	115.99	SMA	239.88	ECC	.37353	INC	.1030	V1	29.296
RP	219.26	LAP	-.09	LOP	46.46	VP	25.630	GAP	21.40	AZP	89.95	TAL	343.04	TAP	99.03	RCA	150.27	APO	329.48	V2	25.067
RC	79.428	GL	-.62	GP	-5.87	ZAL	117.75	ZAP	169.44	ETS	215.28	ZAE	166.34	ETE	334.49	ZAC	78.50	ETC	283.32	LVI	-12.62

PLANETOCENTRIC CONIC

C3	33.481	VHL	5.786	DLA	18.66	RAL	45.93	RAD	6648.3	VEL	12.385	PTH	7.30	VHP	7.341	DPA	8.22	RAP	37.53	ECC	1.5510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 54 50	3596.76	-47.31	137.21	292.24	95.76	14 54 46	2596.8	-39.60	105.39
60.00	14 15 18	3542.26	-40.28	132.93	292.87	91.55	15 14 20	2542.3	-35.25	103.03
70.00	14 45 32	3453.23	-34.11	125.70	292.85	88.26	15 43 6	2453.2	-31.26	97.34
80.00	15 32 54	3304.82	-29.61	114.19	292.59	85.99	16 27 59	2304.8	-28.26	86.84
90.00	16 44 51	3072.57	-27.89	96.97	292.44	85.14	17 36 3	2072.6	-27.11	69.99
100.00	18 15 46	2779.29	-29.61	75.55	292.59	85.99	19 2 5	1779.3	-28.26	48.21
110.00	19 44 59	2500.05	-34.11	54.62	292.85	88.26	20 26 39	1500.0	-31.26	26.26

DIFFERENTIAL CORRECTIONS

TDE	-.4572	TRA	-1.5394	TC3	.2222	BAU	.1115
RDE	-.5169	RRA	.2736	RC3	-.1127	FAU	.06654
FDE	.6128	FRA	1.7590	FC3	-1.7205	BSP	2713
BDE	.6901	BRA	1.5635	BC3	.2491	FSP	326

MID-COURSE EXECUTION ACCURACY

SGT	1674.1	SGR	599.2	SG3	238.8
RRT	-.2510	RRF	.2798	RTF	-.7953
SGB	1778.1	R23	-.0550	R13	.7977
SG1	1681.8	SG2	577.4	THA	174.18

ORBIT DETERMINATION ACCURACY

ST	32.9	SR	25.9	SS	25.9
CRT	.5602	CRS	.6222	CST	.9950
LSA	45.2	MSA	19.5	SSA	1.3
EL1	37.4	EL2	18.9	ALF	33.42

LAUNCH DATE JUL 13 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 362.568 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	34.431	GAL	-4.49	AZL	90.06	HCA	117.12	SMA	237.02	ECC	.36576	INC	.0622	V1	29.296
RP	219.63	LAP	-.06	LOP	47.58	VP	25.467	GAP	21.06	AZP	89.97	TAL	343.15	TAP	100.27	RCA	150.32	APO	323.71	V2	25.026
RC	81.081	GL	-.39	GP	-6.07	ZAL	117.57	ZAP	168.69	ETS	213.95	ZAE	165.75	ETE	334.35	ZAC	78.23	ETC	283.30	LVI	-12.33

PLANETOCENTRIC CONIC

C3	32.186	VHL	5.673	DLA	16.83	RAL	45.69	RAD	6647.8	VEL	12.333	PTH	7.26	VHP	7.137	DPA	8.15	RAP	37.94	ECC	1.5297

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 53 8	3590.37	-47.26	136.60	291.18	96.23	14 52 59	2590.4	-39.39	104.92
60.00	14 13 22	3536.49	-40.26	132.44	291.87	91.89	15 12 19	2536.5	-35.11	102.60
70.00	14 43 20	3448.30	-34.12	125.32	291.90	88.49	15 40 48	2448.3	-31.18	96.98
80.00	15 30 23	3300.82	-29.63	113.89	291.65	86.14	16 25 24	2300.8	-28.22	86.55
90.00	16 42 12	3069.04	-27.91	96.71	291.50	85.26	17 33 21	2069.0	-27.07	69.74
100.00	18 13 15	2775.29	-29.63	75.26	291.65	86.14	18 59 31	1775.3	-28.22	47.92
110.00	19 42 46	2495.12	-34.12	54.24	291.90	88.49	20 24 21	1495.1	-31.18	25.90

DIFFERENTIAL CORRECTIONS

TDE	-.4603	TRA	-1.5354	TC3	.2463	BAU	.1189
RDE	-.5005	RRA	.2759	RC3	-.1252	FAU	.06927
FDE	.6445	FRA	1.8228	FC3	-1.8633	BSP	2803
BDE	.6800	BRA	1.5599	BC3	.2763	FSP	348

MID-COURSE EXECUTION ACCURACY

SGT	1708.4	SGR	600.4	SG3	253.3
RRT	-.2694	RRF	.3019	RTF	-.8006
SGB	1810.8	R23	-.0609	R13	.8033
SG1	1717.0	SG2	575.3	THA	173.90

ORBIT DETERMINATION ACCURACY

ST	33.6	SR	25.6	SS	26.9
CRT	.5579	CRS	.6222	CST	.9948
LSA	46.2	MSA	19.5	SSA	1.3
EL1	37.8	EL2	18.9	ALF	31.91

LAUNCH DATE JUL 13 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 365.550 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	34.339	GAL	-4.39	AZL	90.02	HCA	118.24	SMA	234.37	ECC	.35839	INC	.0156	V1	29.296
RP	220.00	LAP	-.02	LOP	48.70	VP	25.303	GAP	20.72	AZP	89.99	TAL	343.27	TAP	101.51	RCA	150.37	APO	318.37	V2	24.985
RC	82.809	GL	-.15	GP	-6.28	ZAL	117.39	ZAP	167.93	ETS	212.81	ZAE	165.23	ETE	334.08	ZAC	77.95	ETC	283.28	LVI	-12.04

PLANETOCENTRIC CONIC

C3	30.975	VHL	5.566	DLA	17.01	RAL	45.43	RAD	6647.4	VEL	12.284	PTH	7.22	VHP	6.939	DPA	8.08	RAP	38.34	ECC	1.5098

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 51 21	3584.46	-47.22	136.03	290.15	96.66	14 51 6	2584.5	-39.19	104.49
60.00	14 11 21	3531.24	-40.25	131.99	290.89	92.19	15 10 12	2531.2	-34.98	102.22
70.00	14 41 0	3443.94	-34.13	124.98	290.95	88.69	15 38 24	2443.9	-31.10	96.67
80.00	15 27 45	3297.46	-29.65	113.64	290.72	86.27	16 22 42	2297.5	-28.18	86.31
90.00	16 39 23	3066.19	-27.93	96.50	290.58	85.37	17 30 30	2066.2	-27.04	69.53
100.00	18 10 36	2771.93	-29.65	75.01	290.72	86.27	18 56 48	1771.9	-28.18	47.68
110.00	19 40 27	2490.76	-34.13	53.90	290.95	88.69	20 21 57	1490.8	-31.10	25.58

DIFFERENTIAL CORRECTIONS

TDE	-.4627	TRA	-1.5303	TC3	.2724	BAU	.1266
RDE	-.4841	RRA	.2786	RC3	-.1389	FAU	.07213
FDE	.6786	FRA	1.8693	FC3	-2.0159	BSP	2884
BDE	.6697	BRA	1.5555	BC3	.3058	FSP	372

MID-COURSE EXECUTION ACCURACY

SGT	1741.6	SGR	601.9	SG3	268.5
RRT	-.2897	RRF	.3294	RTF	-.8962
SGB	1842.7	R23	-.0662	R13	.8092
SG1	1751.4	SG2	572.9	THA	173.59

ORBIT DETERMINATION ACCURACY

ST	34.3	SR	25.3	SS	27.9
CRT	.5547	CRS	.6220	CST	.9946
LSA	47.1	MSA	19.4	SSA	1.3
EL1	38.2	EL2	18.9	ALF	30.45

LAUNCH DATE JUL 13 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 368.601 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	34.252	GAL	-4.30	AZL	89.98	HCA	119.36	SMA	231.92	ECC	.35140	INC	.0000	V1	29.296
RP	220.38	LAP	.02	LOP	49.82	VP	25.143	GAP	20.38	AZP	90.01	TAL	343.40	TAP	102.75	RCA	150.42	APO	313.42	V2	24.944
RC	84.610	GL	.11	GP	-6.50	ZAL	117.19	ZAP	167.15	ETS	211.81	ZAE	164.76	ETE	333.70	ZAC	77.67	ETC	283.25	LVI	-11.73

PLANETOCENTRIC CONIC

C3	29.843	VHL	5.463	DLA	17.20	RAL	45.16	RAD	6646.9	VEL	12.238	PTH	7.19	VHP	6.748	DPA	7.98	RAP	38.74	ECC	1.4911

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 49 29	3579.07	-47.18	135.52	289.14	97.05	14 49 8	2579.1	-39.01	104.11
60.00	14 9 13	3526.53	-40.24	131.59	289.94	92.46	15 8 0	2526.5	-34.86	101.87
70.00	14 38 33	3440.19	-34.14	124.69	290.03	88.86	15 35 53	2440.2	-31.03	96.39
80.00	15 24 57	3294.77	-29.66	113.44	289.81	86.38	16 19 52	2294.8	-28.14	86.12
90.00	16 36 26	3064.04	-27.94	96.35	289.67	85.44	17 27 30	2064.0	-27.02	69.38
100.00	18 7 49	2769.24	-29.66	74.81	289.81	86.38	18 53 58	1769.2	-28.14	47.49
110.00	19 37 59	2487.01	-34.14	53.60	290.03	88.86	20 19 26	1487.0	-31.03	25.31

DIFFERENTIAL CORRECTIONS

TDE	-.4652	TRA	-1.5243	TC3	.2996	BAU	.1343
RDE	-.4678	RRA	.2818	RC3	-.1537	FAU	.07513
FDE	.7158	FRA	1.9583	FC3	-2.1794	BSP	2961
BDE	.6597	BRA	1.5502	BC3	.3367	FSP	397

MID-COURSE EXECUTION ACCURACY

SGT	1773.8	SGR	603.9	SG3	284.7
RRT	-.3113	RRF	.3502	RTF	-.8117
SGB	1873.8	R23	-.0719	R13	.8150
SG1	1784.8	SG2	570.3	THA	173.26

ORBIT DETERMINATION ACCURACY

ST	35.0	SR	25.0	SS	26.9
CRT	.5512	CRS	.6218	CST	.9943
LSA	48.1	MSA	19.3	SSA	1.4
EL1	38.6	EL2	18.9	ALF	29.00

LAUNCH DATE JUL 13 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC — DISTANCE 371.714 — EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	34.169	GAL	-4.20	AZL	89.94	HCA	120.47	SMA	229.65	ECC	.34477	INC	.0560	V1	29.296
RP	220.76	LAP	.05	LOP	50.93	VP	24.989	GAP	20.05	AZP	90.03	TAL	343.53	TAP	104.00	RCA	150.47	APO	308.82	V2	24.902
RC	86.480	GL	.38	GP	-6.74	ZAL	116.99	ZAP	166.35	ETS	210.93	ZAE	164.38	ETE	333.20	ZAC	77.38	ETC	283.24	LVI	-11.42

PLANETOCENTRIC CONIC

C3	28.784	VHL	5.365	DLA	17.41	RAL	44.88	RAD	6646.5	VEL	12.195	PTH	7.15	VHP	6.563	DPA	7.87	RAP	39.12	ECC	1.4737

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIN	INJ 2 LAT	INJ 2 LONG
50.00	13 47 32	3574.19	-47.13	138.06	288.17	97.41	14 47 6	2574.2	-38.84	103.76
60.00	14 6 59	3522.39	-40.23	131.24	289.01	92.70	15 5 42	2522.4	-34.76	101.57
70.00	14 35 58	3437.06	-34.14	124.44	289.13	89.01	15 33 15	2437.1	-30.98	98.17
80.00	15 22 1	3292.78	-29.67	113.30	288.92	86.45	16 16 53	2292.8	-28.12	85.98
90.00	16 33 18	3062.63	-27.95	96.25	288.78	85.50	17 24 21	2062.6	-27.01	69.28
100.00	18 4 52	2767.25	-29.67	74.66	288.92	86.45	18 51 0	1767.2	-28.12	47.35
110.00	19 35 25	2483.87	-34.14	53.36	289.13	89.01	20 16 49	1483.9	-30.98	25.08

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.4669	TRA	-1.5168	TC3	.3289	BAU	.1424	SGT	1804.1	SGR	606.5	SG3	301.7	ST	35.6	SR	24.6	SS	30.0
RDE	-.4516	RRA	.2855	RC3	-.1699	FAU	.07830	RRT	-.3346	RRF	.3764	RTF	-.6174	CRT	.5467	CRS	.6210	CST	.9939
FDE	.7552	FRA	2.0294	FC3	-2.3550	BSP	3026	SGB	1903.4	R23	-.0773	R13	.8210	LSA	49.1	MSA	19.1	SSA	1.4
BDE	.6496	BRA	1.5434	BC3	.3701	FSP	424	SG1	1816.8	SG2	567.6	THA	172.88	EL1	39.0	EL2	18.8	ALF	27.60

LAUNCH DATE JUL 13 1973 FLIGHT TIME 140.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC — DISTANCE 374.885 — EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	34.090	GAL	-4.11	AZL	89.90	HCA	121.58	SMA	227.53	ECC	.33848	INC	.1009	V1	29.296
RP	221.14	LAP	.09	LOP	52.04	VP	24.840	GAP	19.72	AZP	90.05	TAL	343.66	TAP	105.24	RCA	150.52	APO	304.55	V2	24.861
RC	88.416	GL	.66	GP	-6.98	ZAL	116.78	ZAP	165.53	ETS	210.17	ZAE	163.99	ETE	332.60	ZAC	77.08	ETC	283.22	LVI	-11.11

PLANETOCENTRIC CONIC

C3	27.793	VHL	5.272	DLA	17.62	RAL	44.59	RAD	6646.1	VEL	12.155	PTH	7.12	VHP	6.384	DPA	7.75	RAP	39.50	ECC	1.4574

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIN	INJ 2 LAT	INJ 2 LONG
50.00	13 45 29	3569.85	-47.09	134.64	287.22	97.72	14 44 59	2569.9	-38.70	103.45
60.00	14 4 39	3518.83	-40.21	130.94	288.11	92.90	15 3 17	2518.8	-34.67	101.31
70.00	14 33 16	3434.57	-34.14	124.25	288.24	89.12	15 30 30	2434.6	-30.93	95.99
80.00	15 18 55	3291.51	-29.67	113.20	288.04	86.50	16 13 46	2291.5	-28.10	85.89
90.00	16 30 1	3062.00	-27.95	96.20	287.90	85.52	17 21 3	2062.0	-27.00	69.23
100.00	18 1 46	2765.98	-29.67	74.57	288.04	86.50	18 47 52	1766.0	-28.10	47.26
110.00	19 32 42	2481.39	-34.14	53.17	288.24	89.12	20 14 4	1481.4	-30.93	24.90

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.4691	TRA	-1.5091	TC3	.3588	BAU	.1504	SGT	1834.2	SGR	609.9	SG3	319.6	ST	36.3	SR	24.2	SS	31.2
RDE	-.4353	RRA	.2896	RC3	-.1874	FAU	.08160	RRT	-.3592	RRF	.4039	RTF	-.8227	CRT	.5417	CRS	.6198	CST	.9936
FDE	.7977	FRA	2.1032	FC3	-2.5419	BSP	3095	SGB	1932.9	R23	-.0830	R13	.8268	LSA	50.1	MSA	19.0	SSA	1.4
BDE	.6400	BRA	1.5367	BC3	.4048	FSP	454	SG1	1848.6	SG2	564.7	THA	172.48	EL1	39.4	EL2	18.7	ALF	26.19

LAUNCH DATE JUL 13 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC — DISTANCE 378.108 — EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	34.016	GAL	-4.02	AZL	89.85	HCA	122.69	SMA	225.57	ECC	.33250	INC	.1447	V1	29.296
RP	221.52	LAP	.12	LOP	53.15	VP	24.696	GAP	19.39	AZP	90.08	TAL	343.79	TAP	106.48	RCA	150.56	APO	300.57	V2	24.819
RC	90.414	GL	.95	GP	-7.24	ZAL	116.57	ZAP	164.70	ETS	209.50	ZAE	163.69	ETE	331.88	ZAC	76.77	ETC	283.20	LVI	-10.78

PLANETOCENTRIC CONIC

C3	26.866	VHL	5.183	DLA	17.84	RAL	44.29	RAD	6645.8	VEL	12.117	PTH	7.09	VHP	6.211	DPA	7.61	RAP	39.87	ECC	1.4422

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIN	INJ 2 LAT	INJ 2 LONG
50.00	13 43 21	3566.06	-47.06	134.28	286.31	98.00	14 42 47	2566.1	-38.57	103.18
60.00	14 2 12	3515.87	-40.20	130.69	287.23	93.07	15 0 47	2515.9	-34.59	101.10
70.00	14 30 25	3432.76	-34.15	124.11	287.38	89.20	15 27 38	2432.8	-30.90	95.86
80.00	15 15 39	3291.01	-29.67	113.16	287.18	86.52	16 10 30	2291.0	-28.10	85.85
90.00	16 26 33	3062.16	-27.95	96.21	287.05	85.51	17 17 35	2062.2	-27.00	69.24
100.00	17 58 31	2765.48	-29.67	74.53	287.18	86.52	18 44 36	1765.5	-28.10	47.22
110.00	19 29 52	2479.58	-34.15	53.02	287.38	89.20	20 11 11	1479.6	-30.90	24.77

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.4714	TRA	-1.5004	TC3	.3891	BAU	.1582	SGT	1862.7	SGR	614.0	SG3	338.5	ST	36.9	SR	23.7	SS	32.3
RDE	-.4190	RRA	.2942	RC3	-.2065	FAU	.08509	RRT	-.3848	RRF	.4326	RTF	-.8278	CRT	.5360	CRS	.6182	CST	.9932
FDE	.8435	FRA	2.1794	FC3	-2.7419	BSP	3158	SGB	1961.3	R23	-.0890	R13	.8322	LSA	51.1	MSA	18.8	SSA	1.4
BDE	.6307	BRA	1.5289	BC3	.4405	FSP	484	SG1	1879.1	SG2	561.8	THA	172.06	EL1	39.7	EL2	18.6	ALF	24.79

LAUNCH DATE JUL 13 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC — DISTANCE 381.378 — EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	33.945	GAL	-3.94	AZL	89.81	HCA	123.79	SMA	223.73	ECC	.32684	INC	.1896	V1	29.296
RP	221.90	LAP	.16	LOP	54.25	VP	24.556	GAP	19.07	AZP	90.11	TAL	343.92	TAP	107.71	RCA	150.61	APO	296.86	V2	24.778
RC	92.473	GL	1.26	GP	-7.50	ZAL	116.35	ZAP	163.85	ETS	208.91	ZAE	163.43	ETE	331.04	ZAC	76.45	ETC	283.19	LVI	-10.45

PLANETOCENTRIC CONIC

C3	25.999	VHL	5.099	DLA	18.08	RAL	43.98	RAD	6645.4	VEL	12.082	PTH	7.06	VHP	6.043	DPA	7.45	RAP	40.22	ECC	1.4279

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIN	INJ 2 LAT	INJ 2 LONG
50.00	13 41 7	3562.83	-47.03	133.98	285.43	98.23	14 40 30	2562.8	-38.45	102.95
60.00	13 59 38	3513.52	-40.19	130.49	286.38	93.21	14 58 11	2513.5	-34.53	100.93
70.00	14 27 27	3431.64	-34.15	124.02	286.54	89.26	15 24 38	2431.6	-30.88	95.77
80.00	15 12 13	3291.29	-29.67	113.19	286.35	86.51	16 7 5	2291.3	-28.10	85.87
90.00	16 22 53	3063.18	-27.95	96.29	286.21	85.48	17 13 57	2063.2	-27.01	69.32
100.00	17 55 5	2765.76	-29.67	74.55	286.35	86.51	18 41 11	1765.8	-28.10	47.24
110.00	19 26 53	2478.46	-34.15	52.94	286.54	89.26	20 8 12	1478.5	-30.88	24.69

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.4736	TRA	-1.4913	TC3	.4203	BAU	.1661	SGT	1890.5	SGR	619.3	SG3	358.4	ST	37.5	SR	23.2	SS	33.6
RDE	-.4027	RRA	.2993	RC3	-.2271	FAU	.08874	RRT	-.4117	RRF	.4626	RTF	-.8327	CRT	.5293	CRS	.6156	CST	.9927
FDE	.8924	FRA	2.2583	FC3	-2.9549	BSP	3216	SGB	1989.4	R23	-.0953	R13	.8376	LSA	52.2	MSA	18.6	SSA	1.4
BDE	.6216	BRA	1.5210	BC3	.4778	FSP	517	SG1	1909.3	SG2	558.8	THA	171.59	EL1	40.1	EL2	18.5	ALF	23.39

LAUNCH DATE JUL 13 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 6 1973

DISTANCE 384.693

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.877 GAL -3.86 AZL 89.76 HCA 124.89 SMA 222.02 ECC .32147 INC .2353 V1 29.296
RP 222.28 LAP .19 LOP 55.35 VP 24.420 GAP 18.75 AZP 90.13 TAL 344.06 TAP 108.95 RCA 150.65 APO 293.40 V2 24.736
RC 94.587 GL 1.59 GP -7.79 ZAL 116.13 ZAP 162.99 ETS 208.39 ZAE 163.22 ETE 330.10 ZAC 76.12 ETC 283.18 LVI -10.10

PLANETOCENTRIC CONIC

C3 25.188 VHL 5.019 DLA 18.32 RAL 43.66 RAD 6645.1 VEL 12.048 PTH 7.03 VHP 5.880 DPA 7.27 RAP 40.56 ECC 1.4145

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 38 47	3560.19	-47.00	133.73	284.59	98.42	14 38 8	2560.2	-38.36	102.76
60.00	13 56 57	3511.81	-40.19	130.34	285.56	93.30	14 55 29	2511.8	-34.49	100.81
70.00	14 24 19	3431.24	-34.15	123.99	285.73	89.28	15 21 31	2431.2	-30.87	95.75
80.00	15 8 37	3292.40	-29.67	113.27	285.53	86.47	16 3 30	2292.4	-28.11	85.95
90.00	16 19 3	3065.08	-27.94	96.42	285.39	85.41	17 10 8	2065.1	-27.03	69.45
100.00	17 51 29	2766.87	-29.67	74.64	285.53	86.47	18 37 36	1766.9	-28.11	47.32
110.00	19 23 46	2478.06	-34.15	52.91	285.73	89.28	20 5 4	1478.1	-30.87	24.66

DIFFERENTIAL CORRECTIONS

TDE -.4759 TRA-1.4810 TC3 .4521 BAU .1739
RDE -.3662 RRA .3048 RC3 -.2496 FAU .09259
FDE .9448 FRA 2.3392 FC3-3.1824 BSP 3275
BDE .6129 BRA 1.5120 BC3 .5164 FSP 551

MID-COURSE EXECUTION ACCURACY

SGT 1916.6 SGR 625.8 SG3 379.4
RRT -.4394 RRF .4935 RTF -.8372
SGB 2016.1 R23 -.1021 R13 .8427
SG1 1938.0 SG2 555.9 THA 171.10

ORBIT DETERMINATION ACCURACY

ST 38.1 SR 22.7 SS 34.9
CRT .5217 CRS .6123 CST .9923
LSA 53.3 MSA 18.4 SSA 1.5
EL1 40.4 EL2 18.3 ALF 22.00

LAUNCH DATE JUL 13 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 8 1973

DISTANCE 388.047

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.813 GAL -3.78 AZL 89.72 HCA 125.98 SMA 220.43 ECC .31637 INC .2820 V1 29.296
RP 222.67 LAP .23 LOP 56.45 VP 24.289 GAP 18.43 AZP 90.17 TAL 344.20 TAP 110.18 RCA 150.69 APO 290.16 V2 24.694
RC 96.756 GL 1.93 GP -8.08 ZAL 115.90 ZAP 162.10 ETS 207.93 ZAE 163.06 ETE 329.03 ZAC 75.79 ETC 283.17 LVI -9.75

PLANETOCENTRIC CONIC

C3 24.430 VHL 4.943 DLA 18.59 RAL 43.33 RAD 6644.8 VEL 12.017 PTH 7.01 VHP 5.723 DPA 7.07 RAP 40.89 ECC 1.4021

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 36 22	3558.13	-46.98	133.53	283.78	98.57	14 35 41	2558.1	-38.29	102.62
60.00	13 54 10	3510.76	-40.18	130.25	284.76	93.37	14 52 41	2510.8	-34.46	100.73
70.00	14 21 3	3431.58	-34.15	124.01	284.94	89.26	15 18 15	2431.6	-30.88	95.77
80.00	15 4 50	3294.37	-29.66	113.41	284.74	86.39	15 59 44	2294.4	-28.14	86.09
90.00	16 14 59	3067.90	-27.92	96.63	284.59	85.31	17 6 7	2067.9	-27.06	69.65
100.00	17 47 42	2768.84	-29.66	74.78	284.74	86.39	18 33 51	1768.8	-28.14	47.46
110.00	19 20 30	2478.40	-34.15	52.93	284.94	89.26	20 1 48	1478.4	-30.88	24.69

DIFFERENTIAL CORRECTIONS

TDE -.4782 TRA-1.4705 TC3 .4845 BAU .1818
RDE -.3697 RRA .3110 RC3 -.2739 FAU .09664
FDE 1.0007 FRA 2.4229 FC3-3.4249 BSP 3335
BDE .6044 BRA 1.5030 BC3 .5568 FSP 586

MID-COURSE EXECUTION ACCURACY

SGT 1941.9 SGR 633.7 SG3 401.4
RRT -.4682 RRF .5253 RTF -.8416
SGB 2042.7 R23 -.1090 R13 .8476
SG1 1966.4 SG2 553.0 THA 170.56

ORBIT DETERMINATION ACCURACY

ST 38.7 SR 22.2 SS 36.2
CRT .5125 CRS .6077 CST .9918
LSA 54.5 MSA 18.1 SSA 1.5
EL1 40.8 EL2 18.1 ALF 20.60

LAUNCH DATE JUL 13 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 10 1973

DISTANCE 391.437

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.753 GAL -3.70 AZL 89.67 HCA 127.07 SMA 218.94 ECC .31153 INC .3298 V1 29.296
RP 223.06 LAP .26 LOP 57.54 VP 24.162 GAP 18.12 AZP 90.20 TAL 344.34 TAP 111.41 RCA 150.73 APO 287.14 V2 24.652
RC 98.976 GL 2.29 GP -8.40 ZAL 115.67 ZAP 161.19 ETS 207.53 ZAE 162.93 ETE 327.83 ZAC 75.44 ETC 283.16 LVI -9.39

PLANETOCENTRIC CONIC

C3 23.720 VHL 4.870 DLA 18.86 RAL 43.00 RAD 6644.5 VEL 11.988 PTH 6.98 VHP 5.571 DPA 6.85 RAP 41.21 ECC 1.3904

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 33 52	3556.69	-46.97	133.40	283.01	98.68	14 33 8	2556.7	-38.24	102.51
60.00	13 51 15	3510.37	-40.18	130.22	284.00	93.39	14 49 46	2510.4	-34.45	100.70
70.00	14 17 38	3432.70	-34.15	124.10	284.17	89.21	15 14 51	2432.7	-30.90	95.85
80.00	15 0 51	3297.24	-29.65	113.63	283.96	86.28	15 55 48	2297.2	-28.17	86.30
90.00	16 10 43	3071.70	-27.90	96.90	283.81	85.17	17 1 55	2071.7	-27.10	69.93
100.00	17 43 43	2771.72	-29.65	74.99	283.96	86.28	18 29 55	1771.7	-28.17	47.67
110.00	19 17 5	2479.52	-34.15	53.02	284.17	89.21	19 58 24	1479.5	-30.90	24.77

DIFFERENTIAL CORRECTIONS

TDE -.4810 TRA-1.4598 TC3 .5160 BAU .1893
RDE -.3528 RRA .3177 RC3 -.3002 FAU .10088
FDE 1.0610 FRA 2.5096 FC3-3.6818 BSP 3392
BDE .5965 BRA 1.4937 BC3 .5970 FSP 626

MID-COURSE EXECUTION ACCURACY

SGT 1966.0 SGR 643.3 SG3 424.6
RRT -.4972 RRF .5576 RTF -.8456
SGB 2088.6 R23 -.1168 R13 .8522
SG1 1994.0 SG2 550.3 THA 169.99

ORBIT DETERMINATION ACCURACY

ST 39.3 SR 21.8 SS 37.6
CRT .5021 CRS .6017 CST .9913
LSA 55.7 MSA 17.8 SSA 1.5
EL1 41.1 EL2 17.8 ALF 19.18

LAUNCH DATE JUL 13 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 12 1973

DISTANCE 394.862

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.695 GAL -3.63 AZL 89.62 HCA 128.16 SMA 217.54 ECC .30694 INC .3790 V1 29.296
RP 223.44 LAP .30 LOP 58.62 VP 24.038 GAP 17.81 AZP 90.23 TAL 344.48 TAP 112.64 RCA 150.77 APO 284.31 V2 24.611
RC 101.244 GL 2.66 GP -8.72 ZAL 115.44 ZAP 160.27 ETS 207.18 ZAE 162.84 ETE 326.50 ZAC 75.07 ETC 283.16 LVI -9.02

PLANETOCENTRIC CONIC

C3 23.057 VHL 4.802 DLA 19.15 RAL 42.66 RAD 6644.2 VEL 11.960 PTH 6.96 VHP 5.424 DPA 6.61 RAP 41.52 ECC 1.3795

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 31 15	3555.87	-46.96	133.32	282.28	98.74	14 30 31	2555.9	-38.21	102.46
60.00	13 48 13	3510.68	-40.18	130.25	283.27	93.37	14 46 44	2510.7	-34.46	100.72
70.00	14 14 3	3434.62	-34.14	124.25	283.43	89.12	15 11 18	2434.6	-30.93	95.99
80.00	14 56 40	3301.06	-29.63	113.91	283.21	86.13	15 51 41	2301.1	-28.22	86.57
90.00	16 6 13	3076.53	-27.87	97.25	283.06	85.00	16 57 30	2076.5	-27.15	70.27
100.00	17 39 32	2775.53	-29.63	75.28	283.21	86.13	18 25 47	1775.5	-28.22	47.94
110.00	19 13 30	2481.43	-34.14	53.17	283.43	89.12	19 54 51	1481.4	-30.93	24.91

DIFFERENTIAL CORRECTIONS

TDE -.4836 TRA-1.4476 TC3 .5475 BAU .1968
RDE -.3358 RRA .3250 RC3 -.3286 FAU .10531
FDE 1.1254 FRA 2.5982 FC3-3.9541 BSP 3446
BDE .5888 BRA 1.4836 BC3 .6385 FSP 666

MID-COURSE EXECUTION ACCURACY

SGT 1988.2 SGR 654.7 SG3 448.9
RRT -.5265 RRF .5902 RTF -.8492
SGB 2093.2 R23 -.1249 R13 .8567
SG1 2020.3 SG2 547.8 THA 169.37

ORBIT DETERMINATION ACCURACY

ST 39.8 SR 21.0 SS 39.1
CRT .4897 CRS .5940 CST .9907
LSA 57.0 MSA 17.6 SSA 1.5
EL1 41.4 EL2 17.6 ALF 17.75

LAUNCH DATE JUL 13 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 398.317 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	33.640	GAL	-3.56	AZL	89.57	HCA	129.24	SMA	216.24	ECC	.30258	INC	.4292	V1	29.296
RP	223.83	LAP	.33	LOP	59.71	VP	23.919	GAP	17.50	AZP	90.27	TAL	344.61	TAP	113.86	RCA	150.81	APO	281.66	V2	24.569
RC	103.560	GL	3.05	GP	-9.07	ZAL	115.21	ZAP	159.32	ETS	206.87	ZAE	162.78	ETE	325.03	ZAC	74.70	ETC	283.16	LVI	-8.63

PLANETOCENTRIC CONIC

C3	22.437	VHL	4.737	DLA	19.46	RAL	42.31	RAD	6643.9	VEL	11.934	PTH	6.94	VHP	5.282	DPA	6.35	RAP	41.81	ECC	1.3693

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 28 33	3555.69	-46.96	133.30	281.58	98.75	14 27 48	2555.7	-38.21	102.44
60.00	13 45 4	3511.71	-40.19	130.33	282.57	93.31	14 43 35	2511.7	-34.48	100.60
70.00	14 10 18	3437.36	-34.14	124.47	282.72	88.99	15 7 36	2437.4	-30.98	96.19
80.00	14 52 16	3305.86	-29.61	114.26	282.48	85.95	15 47 21	2305.9	-28.28	86.92
90.00	16 1 28	3082.44	-27.83	97.68	282.32	84.78	16 52 51	2082.4	-27.20	70.69
100.00	17 35 7	2780.33	-29.61	75.63	282.48	85.95	18 21 28	1780.3	-28.28	48.29
110.00	19 9 45	2484.18	-34.14	53.38	282.72	88.99	19 51 9	1484.2	-30.98	25.11

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4865	TRA	-1.4348	TC3	.5789	BAU	.2044	SGT	2008.8	SGR	668.3	SG3	474.4			ST	40.4	SR	20.3	SS	40.7
RDE	-.3184	RRA	.3329	RC3	-.3594	FAU	.10998	RRT	-.5559	RRF	.6229	RTF	-.8527			CRT	.4751	CRS	.5843	CST	.9902
FDE	1.1946	FRA	2.6894	FC3	-4.2436	BSP	3496	SGB	2117.1	R23	-.1335	R13	.8610			LSA	58.2	MSA	17.3	SSA	1.5
BDE	.5814	BRA	1.4730	BC3	.6814	FSP	709	SG1	2045.6	SG2	545.5	THA	168.71			EL1	41.7	EL2	17.3	ALF	16.30

LAUNCH DATE JUL 13 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 401.801 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	33.588	GAL	-3.49	AZL	89.52	HCA	130.32	SMA	215.01	ECC	.29845	INC	.4810	V1	29.296
RP	224.22	LAP	.37	LOP	60.79	VP	23.802	GAP	17.20	AZP	90.31	TAL	344.75	TAP	115.08	RCA	150.84	APO	279.18	V2	24.527
RC	105.921	GL	3.45	GP	-9.43	ZAL	114.98	ZAP	158.35	ETS	206.60	ZAE	162.75	ETE	323.41	ZAC	74.31	ETC	283.17	LVI	-8.24

PLANETOCENTRIC CONIC

C3	21.857	VHL	4.675	DLA	19.78	RAL	41.96	RAD	6643.7	VEL	11.910	PTH	6.92	VHP	5.144	DPA	6.06	RAP	42.09	ECC	1.3597

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 25 44	3556.14	-46.96	133.34	280.92	98.72	14 25 0	2556.1	-38.22	102.48
60.00	13 41 46	3513.45	-40.19	130.48	281.89	93.21	14 40 19	2513.4	-34.53	100.92
70.00	14 6 23	3440.95	-34.14	124.75	282.03	88.83	15 3 44	2440.9	-31.05	96.45
80.00	14 47 37	3311.67	-29.58	114.69	281.77	85.72	15 42 49	2311.7	-28.34	87.34
90.00	15 56 27	3089.46	-27.79	98.19	281.60	84.53	16 47 57	2089.5	-27.27	71.20
100.00	17 30 29	2786.14	-29.58	76.06	281.77	85.72	18 16 55	1786.1	-28.34	48.70
110.00	19 5 49	2487.77	-34.14	53.66	282.03	88.83	19 47 17	1487.8	-31.05	25.37

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4771	TRA	-1.4093	TC3	.6316	BAU	.2173	SGT	2014.8	SGR	684.3	SG3	501.1			ST	40.2	SR	19.6	SS	42.2
RDE	-.3006	RRA	.3414	RC3	-.3927	FAU	.11487	RRT	-.5929	RRF	.6552	RTF	-.8618			CRT	.4502	CRS	.5719	CST	.9885
FDE	1.2678	FRA	2.7823	FC3	-4.5498	BSP	3400	SGB	2127.8	R23	-.1299	R13	.8706			LSA	59.1	MSA	17.0	SSA	1.5
BDE	.5639	BRA	1.4500	BC3	.7437	FSP	753	SG1	2058.3	SG2	539.4	THA	167.76			EL1	41.3	EL2	17.0	ALF	14.99

LAUNCH DATE JUL 13 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 405.311 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	33.539	GAL	-3.42	AZL	89.47	HCA	131.40	SMA	213.87	ECC	.29453	INC	.5342	V1	29.296
RP	224.61	LAP	.40	LOP	61.86	VP	23.689	GAP	16.89	AZP	90.35	TAL	344.89	TAP	116.29	RCA	150.88	APO	276.86	V2	24.485
RC	108.326	GL	3.88	GP	-9.81	ZAL	114.75	ZAP	157.36	ETS	206.37	ZAE	162.73	ETE	321.64	ZAC	73.91	ETC	283.17	LVI	-7.83

PLANETOCENTRIC CONIC

C3	21.317	VHL	4.617	DLA	20.12	RAL	41.60	RAD	6643.4	VEL	11.888	PTH	6.90	VHP	5.011	DPA	5.75	RAP	42.36	ECC	1.3508

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 22 49	3557.30	-46.97	133.45	280.30	98.63	14 22 6	2557.3	-38.26	102.56
60.00	13 38 20	3515.98	-40.20	130.69	281.26	93.07	14 36 56	2516.0	-34.59	101.11
70.00	14 2 16	3445.48	-34.13	125.10	281.37	88.62	14 59 42	2445.5	-31.13	96.78
80.00	14 42 44	3318.83	-29.54	115.21	281.09	85.46	15 38 3	2318.6	-28.42	87.84
90.00	15 51 9	3097.75	-27.73	98.79	280.90	84.24	16 42 47	2097.8	-27.34	71.79
100.00	17 25 36	2793.10	-29.54	76.57	281.09	85.46	18 12 9	1793.1	-28.42	49.21
110.00	19 1 43	2492.30	-34.13	54.02	281.37	88.62	19 43 15	1492.3	-31.13	25.70

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4850	TRA	-1.4003	TC3	.6514	BAU	.2222	SGT	2036.9	SGR	702.8	SG3	529.1			ST	41.0	SR	18.9	SS	43.9
RDE	-.2824	RRA	.3506	RC3	-.4284	FAU	.11994	RRT	-.6179	RRF	.6869	RTF	-.8620			CRT	.4322	CRS	.5562	CST	.9884
FDE	1.3471	FRA	2.8782	FC3	-4.8710	BSP	3513	SGB	2154.8	R23	-.1448	R13	.8721			LSA	60.7	MSA	16.7	SSA	1.6
BDE	.5612	BRA	1.4435	BC3	.7796	FSP	800	SG1	2086.1	SG2	539.6	THA	167.09			EL1	41.9	EL2	16.6	ALF	13.40

LAUNCH DATE JUL 13 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 408.845 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	33.492	GAL	-3.36	AZL	89.41	HCA	132.47	SMA	212.79	ECC	.29082	INC	.5890	V1	29.296
RP	225.00	LAP	.43	LOP	62.94	VP	23.580	GAP	16.59	AZP	90.40	TAL	345.02	TAP	117.49	RCA	150.91	APO	274.68	V2	24.443
RC	110.773	GL	4.32	GP	-10.21	ZAL	114.51	ZAP	156.35	ETS	206.16	ZAE	162.73	ETE	319.70	ZAC	73.49	ETC	283.19	LVI	-7.41

PLANETOCENTRIC CONIC

C3	20.814	VHL	4.562	DLA	20.48	RAL	41.24	RAD	6643.2	VEL	11.867	PTH	6.88	VHP	4.883	DPA	5.41	RAP	42.61	ECC	1.3425

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 19 47	3559.15	-46.99	133.63	279.73	98.50	14 19 7	2559.1	-38.33	102.69
60.00	13 34 45	3519.30	-40.22	130.98	280.66	92.87	14 33 24	2519.3	-34.68	101.35
70.00	13 57 58	3450.94	-34.12	125.53	280.74	88.37	14 55 29	2450.9	-31.22	97.18
80.00	14 37 35	3326.74	-29.50	115.81	280.43	85.14	15 33 2	2326.7	-28.51	88.42
90.00	15 45 32	3107.35	-27.67	99.49	280.23	83.90	16 37 20	2107.3	-27.43	72.48
100.00	17 20 27	2801.21	-29.50	77.17	280.43	85.14	18 7 8	1801.2	-28.51	49.79
110.00	18 57 24	2497.76	-34.12	54.44	280.74	88.37	19 39 2	1497.8	-31.22	26.09

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4910	TRA	-1.3884	TC3	.6745	BAU	.2283	SGT	2055.1	SGR	724.4	SG3	558.4			ST	41.6	SR	18.1	SS	45.7
RDE	-.2635	RRA	.3606	RC3	-.4669	FAU	.12526	RRT	-.6435	RRF	.7176	RTF	-.8631			CRT	.4084	CRS	.5363	CST	.9880
FDE	1.4326	FRA	2.9768	FC3	-5.2103	BSP	3595	SGB	2179.0	R23	-.1578	R13	.8746			LSA	62.3	MSA	16.3	SSA	1.6
BDE	.5573	BRA	1.4344	BC3	.8203	FSP	850	SG1	2111.1	SG2	539.8	THA	166.31			EL1	42.4	EL2	16.2	ALF	11.81

LAUNCH DATE JUL 13 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 22 1973

DISTANCE 412.401

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.448 GAL -3.30 AZL 89.35 HCA 133.54 SMA 211.78 ECC .28730 INC .6456 V1 29.296
RP 225.39 LAP .47 LOP 64.01 VP 23.473 GAP 16.30 AZP 90.44 TAL 345.15 TAP 118.69 RCA 150.94 APO 272.63 V2 24.401
RC 113.259 GL 4.79 GP -10.64 ZAL 114.28 ZAP 155.32 ETS 205.98 ZAE 162.74 ETE 317.58 ZAC 73.05 ETC 283.20 LVI -6.97

PLANETOCENTRIC CONIC

C3 20.344 VHL 4.510 DLA 20.86 RAL 40.87 RAD 6643.0 VEL 11.847 PTH 6.86 VHP 4.759 DPA 5.05 RAP 42.85 ECC 1.3348

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 16 39	3561.71	-47.02	133.87	279.19	98.31	14 16 1	2561.7	-38.42	102.87
60.00	13 31 1	3523.44	-40.23	131.33	280.09	92.64	14 29 45	2523.4	-34.78	101.65
70.00	13 53 27	3457.39	-34.11	126.03	280.14	88.07	14 51 4	2457.4	-31.33	97.65
80.00	14 32 8	3336.09	-29.44	116.49	279.79	84.79	15 27 44	2336.1	-28.61	89.10
90.00	15 39 35	3118.34	-27.58	100.28	279.58	83.51	16 31 33	2118.3	-27.52	73.27
100.00	17 15 0	2810.56	-29.44	77.86	279.79	84.79	18 1 51	1810.6	-28.61	50.47
110.00	18 52 53	2504.21	-34.11	54.95	280.14	88.07	19 34 37	1504.2	-31.33	26.56

DIFFERENTIAL CORRECTIONS

TDE -.4961 TRA-1.3745 TC3 .6973 BAU .2347
RDE -.2439 RRA .3713 RC3 -.5082 FAU .13076
FDE 1.5249 FRA 3.0779 FC3-5.5642 BSP 3662
BDE .5528 BRA 1.4238 BC3 .8628 FSP 902

MID-COURSE EXECUTION ACCURACY

SGT 2069.8 SGR 749.0 SG3 588.9
RRT -.6685 RRF .7469 RTF -.8645
SGB 2201.2 R23 -.1701 R13 .8776
SG1 2133.8 SG2 540.4 THA 165.45

ORBIT DETERMINATION ACCURACY

ST 42.2 SR 17.3 SS 47.6
CRT .3782 CRS .5111 CST .9876
LSA 63.9 MSA 16.0 SSA 1.6
EL1 42.8 EL2 15.8 ALF 10.20

LAUNCH DATE JUL 13 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 24 1973

DISTANCE 415.978

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.406 GAL -3.24 AZL 89.30 HCA 134.60 SMA 210.84 ECC .28396 INC .7039 V1 29.296
RP 225.78 LAP .50 LOP 65.07 VP 23.370 GAP 16.00 AZP 90.49 TAL 345.28 TAP 119.88 RCA 150.97 APO 270.71 V2 24.359
RC 115.782 GL 5.27 GP -11.08 ZAL 114.06 ZAP 154.25 ETS 205.83 ZAE 162.75 ETE 315.29 ZAC 72.60 ETC 283.22 LVI -6.52

PLANETOCENTRIC CONIC

C3 19.908 VHL 4.462 DLA 21.26 RAL 40.50 RAD 6642.8 VEL 11.829 PTH 6.85 VHP 4.640 DPA 4.66 RAP 43.07 ECC 1.3276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 13 23	3565.01	-47.05	134.18	278.70	98.08	14 12 48	2565.0	-38.53	103.10
60.00	13 27 8	3528.42	-40.24	131.75	279.56	92.35	14 25 56	2528.4	-34.91	102.01
70.00	13 48 42	3464.88	-34.09	126.61	279.56	87.72	14 46 27	2464.9	-31.46	98.19
80.00	14 26 22	3346.76	-29.37	117.28	279.18	84.38	15 22 9	2346.8	-28.72	89.87
90.00	15 33 15	3130.85	-27.49	101.18	278.94	83.07	16 25 26	2130.8	-27.62	74.17
100.00	17 9 14	2821.23	-29.37	78.65	279.18	84.38	17 56 15	1821.2	-28.72	51.24
110.00	18 48 8	2511.70	-34.09	55.53	279.56	87.72	19 30 0	1511.7	-31.46	27.11

DIFFERENTIAL CORRECTIONS

TDE -.5001 TRA-1.3590 TC3 .7204 BAU .2417
RDE -.2237 RRA .3828 RC3 -.5528 FAU .13653
FDE 1.6230 FRA 3.1803 FC3-5.9371 BSP 3718
BDE .5479 BRA 1.4119 BC3 .9081 FSP 956

MID-COURSE EXECUTION ACCURACY

SGT 2081.4 SGR 777.3 SG3 620.7
RRT -.6926 RRF .7748 RTF -.8660
SGB 2221.8 R23 -.1818 R13 .8808
SG1 2154.8 SG2 541.6 THA 164.50

ORBIT DETERMINATION ACCURACY

ST 42.7 SR 16.4 SS 49.5
CRT .3401 CRS .4790 CST .9870
LSA 65.5 MSA 15.6 SSA 1.6
EL1 43.1 EL2 15.3 ALF 8.53

LAUNCH DATE JUL 13 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 26 1973

DISTANCE 419.573

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.366 GAL -3.18 AZL 89.24 HCA 135.67 SMA 209.95 ECC .28079 INC .7644 V1 29.296
RP 226.17 LAP .53 LOP 66.13 VP 23.269 GAP 15.71 AZP 90.55 TAL 345.41 TAP 121.07 RCA 151.00 APO 268.90 V2 24.318
RC 118.341 GL 5.78 GP -11.55 ZAL 113.83 ZAP 153.17 ETS 205.70 ZAE 162.75 ETE 312.80 ZAC 72.13 ETC 283.25 LVI -6.06

PLANETOCENTRIC CONIC

C3 19.503 VHL 4.416 DLA 21.68 RAL 40.12 RAD 6642.6 VEL 11.812 PTH 6.83 VHP 4.525 DPA 4.23 RAP 43.28 ECC 1.3210

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 10 0	3569.06	-47.09	134.57	278.25	97.78	14 9 29	2569.1	-38.67	103.39
60.00	13 23 4	3534.28	-40.26	132.25	279.06	92.01	14 21 58	2534.3	-35.06	102.44
70.00	13 43 43	3473.45	-34.06	127.28	279.02	87.33	14 41 36	2473.5	-31.60	98.82
80.00	14 20 16	3358.86	-29.29	118.17	278.59	83.92	15 16 14	2358.9	-28.84	90.75
90.00	15 26 30	3145.01	-27.36	102.20	278.33	82.57	16 18 55	2145.0	-27.72	75.20
100.00	17 3 7	2833.33	-29.29	79.54	278.59	83.92	17 50 21	1833.3	-28.84	52.12
110.00	18 43 9	2520.27	-34.06	56.20	279.02	87.33	19 25 9	1520.3	-31.60	27.74

DIFFERENTIAL CORRECTIONS

TDE -.5032 TRA-1.3419 TC3 .7424 BAU .2490
RDE -.2026 RRA .3952 RC3 -.6006 FAU .14248
FDE 1.7280 FRA 3.2847 FC3-6.3249 BSP 3765
BDE .5425 BRA 1.3989 BC3 .9549 FSP 1014

MID-COURSE EXECUTION ACCURACY

SGT 2089.6 SGR 809.2 SG3 653.8
RRT -.7155 RRF .8009 RTF -.8976
SGB 2240.8 R23 -.1928 R13 .8843
SG1 2173.9 SG2 543.4 THA 163.45

ORBIT DETERMINATION ACCURACY

ST 43.1 SR 15.5 SS 51.8
CRT .2920 CRS .4378 CST .9864
LSA 67.2 MSA 15.2 SSA 1.6
EL1 43.4 EL2 14.8 ALF 6.81

LAUNCH DATE JUL 13 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 28 1973

DISTANCE 423.186

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.328 GAL -3.13 AZL 89.17 HCA 136.72 SMA 209.11 ECC .27780 INC .8268 V1 29.296
RP 226.56 LAP .57 LOP 67.19 VP 23.171 GAP 15.42 AZP 90.60 TAL 345.53 TAP 122.25 RCA 151.02 APO 267.21 V2 24.276
RC 120.933 GL 6.30 GP -12.04 ZAL 113.61 ZAP 152.08 ETS 205.59 ZAE 162.74 ETE 310.14 ZAC 71.64 ETC 283.28 LVI -5.97

PLANETOCENTRIC CONIC

C3 19.127 VHL 4.373 DLA 22.12 RAL 39.74 RAD 6642.4 VEL 11.796 PTH 6.82 VHP 4.414 DPA 3.78 RAP 43.48 ECC 1.3148

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 6 29	3573.90	-47.13	135.03	277.85	97.43	14 6 3	2573.9	-38.83	103.74
60.00	13 18 49	3541.06	-40.27	132.82	278.60	91.62	14 17 50	2541.1	-35.22	102.94
70.00	13 38 28	3483.19	-34.03	128.04	278.50	86.88	14 36 31	2483.2	-31.75	99.54
80.00	14 13 45	3372.49	-29.19	119.17	278.01	83.40	15 9 58	2372.5	-28.97	91.75
90.00	15 19 16	3161.00	-27.22	103.35	277.73	82.01	16 11 57	2161.0	-27.82	76.36
100.00	16 56 37	2846.97	-29.19	80.54	278.01	83.40	17 44 4	1847.0	-28.97	53.11
110.00	18 37 54	2530.01	-34.03	56.96	278.50	86.88	19 20 4	1530.0	-31.75	28.46

DIFFERENTIAL CORRECTIONS

TDE -.5062 TRA-1.3239 TC3 .7623 BAU .2565
RDE -.1804 RRA .4083 RC3 -.6519 FAU .14866
FDE 1.8409 FRA 3.3904 FC3-6.7287 BSP 3805
BDE .5374 BRA 1.3854 BC3 1.0030 FSP 1072

MID-COURSE EXECUTION ACCURACY

SGT 2095.0 SGR 845.2 SG3 688.2
RRT -.7367 RRF .8250 RTF -.8689
SGB 2259.1 R23 -.2038 R13 .8878
SG1 2192.1 SG2 546.3 THA 162.31

ORBIT DETERMINATION ACCURACY

ST 43.5 SR 14.7 SS 53.6
CRT .2316 CRS .3848 CST .9857
LSA 69.0 MSA 14.9 SSA 1.6
EL1 43.6 EL2 14.2 ALF 5.01

LAUNCH DATE JUL 13 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 426.615 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.292 GAL -3.08 AZL 89.11 HCA 137.78 SMA 208.33 ECC .27496 INC .8914 V1 29.296
RP 226.95 LAP .60 LOP 68.24 VP 23.076 GAP 15.13 AZP 90.66 TAL 345.65 TAP 123.42 RCA 151.05 APO 265.61 V2 24.234
RC 123.556 GL 6.86 GP -12.56 ZAL 113.38 ZAP 150.91 ETS 205.49 ZAE 162.70 ETE 307.29 ZAC 71.13 ETC 283.32 LVI -5.07

PLANETOCENTRIC CONIC

C3 18.780 VHL 4.334 DLA 22.58 RAL 39.36 RAD 6642.3 VEL 11.781 PTH 6.81 VHP 4.307 DPA 3.29 RAP 43.66 ECC 1.3091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 2 49	3579.56	-47.18	135.57	277.49	97.02	14 2 29	2579.8	-39.03	104.14
60.00	13 14 22	3548.60	-40.29	133.48	278.18	91.17	14 13 31	2548.8	-35.41	103.51
70.00	13 32 55	3494.15	-33.98	128.89	278.01	86.38	14 31 9	2494.1	-31.92	100.35
80.00	14 6 49	3387.82	-29.06	120.29	277.46	82.82	15 3 17	2387.8	-29.10	92.87
90.00	15 11 29	3179.01	-27.04	104.63	277.14	81.39	16 4 29	2179.0	-27.93	77.66
100.00	16 49 41	2862.29	-29.06	81.66	277.46	82.82	17 37 23	1862.3	-29.10	54.23
110.00	18 32 21	2540.97	-33.98	57.81	278.01	86.38	19 14 42	1541.0	-31.92	29.27

DIFFERENTIAL CORRECTIONS

TDE -.5090 TRA-1.3049 TC3 .7793 BAU .2642
RDE -.1571 RRA .4224 RC3 -.7069 FAU .15507
FDE 1.9621 FRA 3.4978 FC3-7.1487 BSP 3840
BDE .5327 BRA 1.3718 BC3 1.0521 FSP 1133

MID-COURSE EXECUTION ACCURACY

SGT 2097.8 SGR 885.7 SG3 723.9
RRT -.7559 RRF .8472 RTF -.8699
SGB 2277.1 R23 -.2147 R13 .8914
SG1 2209.5 SG2 550.6 THA 161.08

ORBIT DETERMINATION ACCURACY

ST 43.6 SR 13.8 SS 55.9
CRT .1555 CRS .3164 CST .9849
LSA 70.8 MSA 14.5 SSA 1.7
EL1 43.9 EL2 13.6 ALF 3.11

LAUNCH DATE JUL 13 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 430.459 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.258 GAL -3.03 AZL 89.04 HCA 138.83 SMA 207.59 ECC .27227 INC .9586 V1 29.296
RP 227.34 LAP .63 LOP 69.29 VP 22.983 GAP 14.85 AZP 90.72 TAL 345.76 TAP 124.59 RCA 151.07 APO 264.12 V2 24.193
RC 126.208 GL 7.43 GP -13.11 ZAL 113.17 ZAP 149.74 ETS 205.41 ZAE 162.62 ETE 304.26 ZAC 70.59 ETC 283.36 LVI -4.55

PLANETOCENTRIC CONIC

C3 18.460 VHL 4.297 DLA 23.07 RAL 38.97 RAD 6642.1 VEL 11.768 PTH 6.79 VHP 4.204 DPA 2.77 RAP 43.82 ECC 1.3038

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 59 0	3586.07	-47.23	136.19	277.18	96.54	13 58 46	2586.1	-39.24	104.61
60.00	13 9 42	3557.56	-40.30	134.23	277.79	90.67	14 9 0	2557.6	-35.62	104.16
70.00	13 27 3	3506.43	-33.93	129.85	277.54	85.82	14 25 30	2506.4	-32.10	101.26
80.00	13 59 24	3405.00	-28.91	121.55	276.93	82.18	14 56 9	2405.0	-29.24	94.13
90.00	15 3 6	3199.33	-26.83	106.08	276.57	80.70	15 56 25	2199.3	-28.03	79.14
100.00	16 42 16	2879.48	-28.91	82.91	276.93	82.18	17 30 15	1879.5	-29.24	55.49
110.00	18 26 30	2553.25	-33.93	58.76	277.54	85.82	19 9 3	1553.2	-32.10	30.18

DIFFERENTIAL CORRECTIONS

TDE -.5115 TRA-1.2844 TC3 .7937 BAU .2722
RDE -.1325 RRA .4373 RC3 -.7658 FAU .16168
FDE 2.0911 FRA 3.6042 FC3-7.5824 BSP 3877
BDE .5284 BRA 1.3568 BC3 1.1028 FSP 1197

MID-COURSE EXECUTION ACCURACY

SGT 2096.7 SGR 930.6 SG3 760.7
RRT -.7730 RRF .8673 RTF -.8706
SGB 2294.0 R23 -.2251 R13 .8950
SG1 2225.5 SG2 556.2 THA 159.74

ORBIT DETERMINATION ACCURACY

ST 44.1 SR 13.0 SS 58.2
CRT .0606 CRS .2287 CST .9842
LSA 72.8 MSA 14.2 SSA 1.7
EL1 44.1 EL2 13.0 ALF 1.12

LAUNCH DATE JUL 13 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 434.116 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.226 GAL -2.99 AZL 88.97 HCA 139.87 SMA 206.90 ECC .26972 INC 1.0283 V1 29.296
RP 227.73 LAP .66 LOP 70.34 VP 22.893 GAP 14.57 AZP 90.79 TAL 345.87 TAP 125.75 RCA 151.10 APO 262.71 V2 24.152
RC 128.887 GL 8.03 GP -13.69 ZAL 112.95 ZAP 148.54 ETS 205.35 ZAE 162.50 ETE 301.07 ZAC 70.03 ETC 283.41 LVI -4.01

PLANETOCENTRIC CONIC

C3 18.167 VHL 4.262 DLA 23.59 RAL 38.58 RAD 6642.0 VEL 11.756 PTH 6.78 VHP 4.106 DPA 2.21 RAP 43.98 ECC 1.2990

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 55 1	3593.46	-47.29	136.89	276.92	96.00	13 54 55	2593.5	-39.49	105.15
60.00	13 4 49	3567.38	-40.30	135.06	277.44	90.10	14 4 16	2567.4	-35.85	104.69
70.00	13 20 51	3520.12	-33.85	130.91	277.11	85.19	14 19 31	2520.1	-32.30	102.28
80.00	13 51 24	3424.26	-28.72	122.95	276.40	81.47	14 48 29	2424.3	-29.37	95.54
90.00	14 53 58	3222.27	-26.56	107.71	276.01	79.92	15 47 40	2222.3	-28.13	80.81
100.00	16 34 16	2898.74	-28.72	84.31	276.40	81.47	17 22 35	1898.7	-29.37	56.91
110.00	18 20 17	2566.94	-33.85	59.83	277.11	85.19	19 3 4	1566.9	-32.30	31.20

DIFFERENTIAL CORRECTIONS

TDE -.5137 TRA-1.2632 TC3 .8052 BAU .2807
RDE -.1064 RRA .4532 RC3 -.8289 FAU .16853
FDE 2.2294 FRA 3.7113 FC3-8.0311 BSP 3913
BDE .5247 BRA 1.3421 BC3 1.1556 FSP 1264

MID-COURSE EXECUTION ACCURACY

SGT 2093.2 SGR 980.7 SG3 798.8
RRT -.7882 RRF .8854 RTF -.8710
SGB 2311.5 R23 -.2348 R13 .8988
SG1 2241.8 SG2 563.5 THA 158.29

ORBIT DETERMINATION ACCURACY

ST 44.3 SR 12.3 SS 60.6
CRT -.0572 CRS .1172 CST .9834
LSA 74.8 MSA 13.8 SSA 1.7
EL1 44.3 EL2 12.3 ALF 179.01

LAUNCH DATE JUL 13 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 437.787 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.196 GAL -2.94 AZL 88.90 HCA 140.91 SMA 206.25 ECC .26731 INC 1.1008 V1 29.296
RP 228.12 LAP .69 LOP 71.38 VP 22.805 GAP 14.29 AZP 90.85 TAL 345.98 TAP 126.90 RCA 151.12 APO 261.38 V2 24.110
RC 131.592 GL 8.66 GP -14.30 ZAL 112.74 ZAP 147.30 ETS 205.29 ZAE 162.32 ETE 297.74 ZAC 69.45 ETC 283.47 LVI -3.44

PLANETOCENTRIC CONIC

C3 17.898 VHL 4.231 DLA 24.13 RAL 38.19 RAD 6641.9 VEL 11.744 PTH 6.77 VHP 4.012 DPA 1.61 RAP 44.11 ECC 1.2946

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 50 52	3601.76	-47.34	137.69	276.71	95.39	13 50 53	2601.8	-39.76	105.76
60.00	12 59 39	3578.32	-40.30	135.99	277.12	89.47	13 59 18	2578.3	-36.10	105.71
70.00	13 14 15	3535.33	-33.76	132.09	276.69	84.50	14 13 10	2535.3	-32.50	103.42
80.00	13 42 46	3445.85	-28.49	124.51	275.89	80.68	14 40 12	2445.8	-29.51	97.13
90.00	14 43 57	3248.29	-26.24	109.55	275.44	79.06	15 38 5	2248.3	-28.21	82.71
100.00	16 25 38	2920.32	-28.49	85.88	275.89	80.68	17 14 18	1920.3	-29.51	58.50
110.00	18 13 41	2582.14	-33.76	61.00	276.69	84.50	18 56 43	1582.1	-32.50	32.34

DIFFERENTIAL CORRECTIONS

TDE -.5075 TRA-1.2331 TC3 .8305 BAU .2926
RDE -.0794 RRA .4695 RC3 -.8976 FAU .17581
FDE 2.3705 FRA 3.8121 FC3-8.5036 BSP 3850
BDE .5137 BRA 1.3195 BC3 1.2229 FSP 1325

MID-COURSE EXECUTION ACCURACY

SGT 2077.2 SGR 1036.3 SG3 838.0
RRT -.8059 RRF .9015 RTF -.8743
SGB 2321.3 R23 -.2357 R13 .9052
SG1 2251.2 SG2 566.1 THA 156.52

ORBIT DETERMINATION ACCURACY

ST 44.0 SR 11.8 SS 63.0
CRT -.1988 CRS -.0168 CST .9819
LSA 76.6 MSA 13.5 SSA 1.6
EL1 44.1 EL2 11.6 ALF 176.72

LAUNCH DATE JUL 13 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 7 1974

DISTANCE 441.468

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.167 GAL -2.90 AZL 88.82 HCA 141.95 SMA 205.64 ECC .26504 INC 1.1764 V1 29.296
RP 228.51 LAP .73 LOP 72.42 VP 22.720 GAP 14.01 AZP 90.93 TAL 346.08 TAP 128.04 RCA 151.14 APO 260.14 V2 24.069
RC 134.321 GL 9.32 GP -14.94 ZAL 112.53 ZAP 146.04 ETS 205.24 ZAE 162.08 ETE 294.29 ZAC 68.84 ETC 283.53 LVI -2.85

PLANETOCENTRIC CONIC

C3 17.656 VHL 4.202 DLA 24.70 RAL 37.79 RAD 6641.8 VEL 11.734 PTH 6.76 VHP 3.922 DPA .97 RAP 44.23 ECC 1.2906

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 46 31	3611.06	-47.40	138.58	276.55	94.71	13 46 42	2611.1	-40.06	106.44
60.00	12 54 14	3590.48	-40.29	137.03	276.85	88.77	13 54 5	2590.5	-36.37	106.63
70.00	13 7 13	3552.24	-33.64	133.39	276.31	83.74	14 6 25	2552.2	-32.72	104.69
80.00	13 33 22	3470.18	-28.21	126.26	275.39	79.79	14 31 12	2470.2	-29.63	98.93
90.00	14 32 51	3278.08	-25.84	111.63	274.87	78.09	15 27 29	2278.1	-28.26	84.89
100.00	16 16 14	2944.65	-28.21	87.63	275.39	79.79	17 5 19	1944.7	-29.63	60.30
110.00	18 6 39	2599.06	-33.64	62.31	276.31	83.74	18 49 58	1599.1	-32.72	33.61

DIFFERENTIAL CORRECTIONS

TDE -.5157 TRA-1.2165 TC3 .8186 BAU .2993
RDE -.0493 RRA .4879 RC3 -.9681 FAU .18273
FDE 2.5327 FRA 3.9219 FC3-8.9597 BSP 3964
BDE .5180 BRA 1.3107 BC3 1.2678 FSP 1400

MID-COURSE EXECUTION ACCURACY

SGT 2073.9 SGR 1096.7 SG3 878.0
RRT -.8131 RRF .9156 RTF -.8709
SGB 2346.0 R23 -.2504 R13 .9071
SG1 2272.5 SG2 582.5 THA 154.98

ORBIT DETERMINATION ACCURACY

ST 44.6 SR 11.6 SS 65.8
CRT -.3573 CRS -.1798 CST .9816
LSA 79.2 MSA 13.2 SSA 1.7
EL1 44.8 EL2 10.7 ALF 174.39

LAUNCH DATE JUL 13 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 9 1974

DISTANCE 445.160

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.140 GAL -2.86 AZL 88.74 HCA 142.99 SMA 205.06 ECC .26288 INC 1.2555 V1 29.296
RP 228.90 LAP .76 LOP 73.46 VP 22.637 GAP 13.73 AZP 91.00 TAL 346.18 TAP 129.17 RCA 151.16 APO 258.97 V2 24.028
RC 137.073 GL 10.00 GP -15.61 ZAL 112.33 ZAP 144.75 ETS 205.20 ZAE 161.76 ETE 290.76 ZAC 68.20 ETC 283.61 LVI -2.23

PLANETOCENTRIC CONIC

C3 17.437 VHL 4.176 DLA 25.30 RAL 37.38 RAD 6641.7 VEL 11.725 PTH 6.76 VHP 3.836 DPA .30 RAP 44.34 ECC 1.2870

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 41 57	3621.38	-47.45	139.57	276.44	93.94	13 42 19	2621.4	-40.39	107.21
60.00	12 48 30	3603.92	-40.26	138.17	276.61	87.99	13 48 34	2603.9	-36.65	107.66
70.00	12 59 41	3570.98	-33.50	134.83	275.94	82.90	13 59 12	2571.0	-32.94	106.11
80.00	13 23 2	3497.67	-27.86	128.23	274.89	78.82	14 21 20	2497.7	-29.74	100.96
90.00	14 20 21	3312.55	-25.33	114.03	274.28	76.99	15 15 34	2312.5	-28.28	87.41
100.00	16 5 54	2972.14	-27.86	89.60	274.89	78.82	16 55 26	1972.1	-29.74	62.33
110.00	17 59 7	2617.79	-33.50	63.75	275.94	82.90	18 42 45	1617.8	-32.94	35.02

DIFFERENTIAL CORRECTIONS

TDE -.5174 TRA-1.1928 TC3 .8148 BAU .3087
RDE -.0175 RRA .5069 RC3-1.0440 FAU .18993
FDE 2.7012 FRA 4.0257 FC3-9.4298 BSP 4008
BDE .5177 BRA 1.2960 BC3 1.3243 FSP 1473

MID-COURSE EXECUTION ACCURACY

SGT 2060.1 SGR 1163.0 SG3 918.8
RRT -.8218 RRF .9281 RTF -.8696
SGB 2365.7 R23 -.2577 R13 .9111
SG1 2269.3 SG2 596.4 THA 153.15

ORBIT DETERMINATION ACCURACY

ST 44.7 SR 11.7 SS 68.6
CRT -.5214 CRS -.3520 CST .9807
LSA 81.7 MSA 12.8 SSA 1.7
EL1 45.1 EL2 9.9 ALF 171.85

LAUNCH DATE JUL 13 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 11 1974

DISTANCE 448.862

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.114 GAL -2.83 AZL 88.66 HCA 144.02 SMA 204.52 ECC .26085 INC 1.3381 V1 29.296
RP 229.26 LAP .79 LOP 74.49 VP 22.555 GAP 13.46 AZP 91.08 TAL 346.27 TAP 130.29 RCA 151.17 APO 257.87 V2 23.988
RC 139.847 GL 10.72 GP -16.33 ZAL 112.13 ZAP 143.42 ETS 205.16 ZAE 161.35 ETE 287.19 ZAC 67.54 ETC 283.69 LVI -1.59

PLANETOCENTRIC CONIC

C3 17.242 VHL 4.152 DLA 25.93 RAL 36.97 RAD 6641.6 VEL 11.716 PTH 6.75 VHP 3.754 DPA -.43 RAP 44.44 ECC 1.2838

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 37 10	3632.77	-47.50	140.67	276.39	93.10	13 37 43	2632.8	-40.75	108.07
60.00	12 42 26	3618.72	-40.22	139.43	276.41	87.14	13 42 45	2618.7	-36.96	108.79
70.00	12 51 35	3591.76	-33.31	136.43	275.59	81.97	13 51 27	2591.8	-33.16	107.69
80.00	13 11 34	3529.01	-27.43	130.46	274.37	77.72	14 10 23	2529.0	-29.82	103.29
90.00	14 5 59	3353.23	-24.68	116.83	273.65	75.73	15 1 53	2353.2	-28.23	90.38
100.00	15 54 26	3003.48	-27.43	91.83	274.37	77.72	16 44 30	2003.5	-29.82	64.66
110.00	17 51 1	2638.58	-33.31	65.34	275.59	81.97	18 35 0	1638.6	-33.16	36.60

DIFFERENTIAL CORRECTIONS

TDE -.5175 TRA-1.1671 TC3 .8088 BAU .3194
RDE .0166 RRA .5268 RC3-1.1250 FAU .19732
FDE 2.8790 FRA 4.1250 FC3-9.9073 BSP 4045
BDE .5178 BRA 1.2805 BC3 1.3856 FSP 1546

MID-COURSE EXECUTION ACCURACY

SGT 2041.5 SGR 1235.6 SG3 960.3
RRT -.8290 RRF .9389 RTF -.8681
SGB 2306.3 R23 -.2624 R13 .9156
SG1 2306.6 SG2 611.5 THA 151.14

ORBIT DETERMINATION ACCURACY

ST 44.7 SR 12.3 SS 71.5
CRT -.6716 CRS -.5164 CST .9797
LSA 84.3 MSA 12.6 SSA 1.6
EL1 45.5 EL2 8.9 ALF 169.14

LAUNCH DATE JUL 13 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 13 1974

DISTANCE 452.573

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 33.089 GAL -2.79 AZL 88.58 HCA 145.09 SMA 204.02 ECC .25893 INC 1.4245 V1 29.296
RP 229.67 LAP .82 LOP 75.52 VP 22.476 GAP 13.19 AZP 91.17 TAL 346.36 TAP 131.41 RCA 151.19 APO 256.84 V2 23.947
RC 142.641 GL 11.47 GP -17.08 ZAL 111.94 ZAP 142.05 ETS 205.12 ZAE 160.85 ETE 283.60 ZAC 66.84 ETC 283.78 LVI -.92

PLANETOCENTRIC CONIC

C3 17.071 VHL 4.132 DLA 26.60 RAL 36.56 RAD 6641.5 VEL 11.709 PTH 6.74 VHP 3.676 DPA -1.19 RAP 44.52 ECC 1.2810

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 7	3645.32	-47.54	141.88	276.39	92.17	13 32 53	2645.3	-41.13	109.03
60.00	12 35 59	3635.01	-40.15	140.81	276.24	86.21	13 36 34	2635.0	-37.28	110.06
70.00	12 42 50	3614.85	-33.08	138.19	275.25	80.96	13 43 4	2614.8	-33.39	109.45
80.00	12 58 38	3565.20	-26.88	133.01	273.83	76.49	13 58 3	2565.2	-29.86	105.98
90.00	13 48 52	3402.92	-23.80	120.21	272.94	74.26	14 45 35	2402.9	-28.08	94.01
100.00	15 41 30	3039.67	-26.88	94.38	273.83	76.49	16 32 10	2039.7	-29.86	67.35
110.00	17 42 16	2661.67	-33.08	67.11	275.25	80.96	18 26 38	1661.7	-33.39	38.37

DIFFERENTIAL CORRECTIONS

TDE -.5170 TRA-1.1406 TC3 .7982 BAU .3310
RDE .0534 RRA .5478 RC3-1.2108 FAU .20475
FDE 3.0683 FRA 4.2215 FC-10.3835 BSP 4081
BDE .5197 BRA 1.2653 BC3 1.4503 FSP 1621

MID-COURSE EXECUTION ACCURACY

SGT 2019.3 SGR 1314.7 SG3 1002.3
RRT -.8346 RRF .9482 RTF -.8661
SGB 2409.6 R23 -.2648 R13 .9205
SG1 2326.2 SG2 628.6 THA 148.96

ORBIT DETERMINATION ACCURACY

ST 44.6 SR 13.4 SS 74.5
CRT -.7928 CRS -.6567 CST .9786
LSA 87.0 MSA 12.3 SSA 1.6
EL1 45.9 EL2 7.9 ALF 166.23

LAUNCH DATE JUL 13 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 456.293 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	33.066	GAL	-2.76	AZL	88.48	HCA	146.07	SMA	203.54	ECC	.25712	INC	1.5153
RP	230.05	LAP	.85	LOP	76.55	VP	22.399	GAP	12.92	AZP	91.26	TAL	346.44	TAP	132.51	RCA	151.21	APO	255.87
RC	145.456	GL	12.26	GP	-17.87	ZAL	111.74	ZAP	140.65	ETS	205.08	ZAE	160.25	ETE	280.05	ZAC	66.11	ETC	283.88

V1	29.296																		
V2	23.907																		
LVI	-.21																		

PLANETOCENTRIC CONIC

C3	16.924	VHL	4.114	DLA	27.30	RAL	36.13	RAD	6641.4	VEL	11.703	PTH	6.74	VHP	3.603	DPA	-2.01	RAP	44.58

ECC	1.2785																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 47	3659.08	-47.57	143.21	276.44	91.14	13 27 47	2659.1	-41.54	110.09
60.00	12 29 6	3652.91	-40.06	142.32	276.11	85.18	13 29 59	2652.9	-37.62	111.46
70.00	12 33 17	3640.57	-32.78	140.14	274.92	79.84	13 33 58	2640.6	-33.60	111.43
80.00	12 43 43	3607.84	-26.17	135.97	273.23	75.08	13 43 50	2607.8	-29.82	109.15
90.00	13 26 59	3467.96	-22.53	124.55	272.07	72.45	14 24 47	2468.0	-27.71	98.73
100.00	15 26 34	3082.31	-26.17	97.34	273.23	75.08	16 17 57	2082.3	-29.82	70.51
110.00	17 32 44	2687.39	-32.78	69.06	274.92	79.84	18 17 31	1687.4	-33.60	40.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5109	TRA	-1.1078	TC3	.7926	BAU	.3450	SGT	1986.5	SGR	1400.5	SG3	1044.4	ST	44.1	SR	14.9	SS	77.6
RDE	.0926	RRA	.5692	RC3	-1.3028	FAU	.21240	RRT	-.8410	RRF	.9563	RTF	-.8654	CRT	-.8794	CRS	-.7633	CST	.9770
FDE	3.2636	FRA	4.3057	FC	-10.8657	BSP	4061	SGB	2430.5	R23	-.2610	R13	.9269	LSA	89.6	MSA	12.1	SSA	1.6
BDE	.5192	BRA	1.2454	BC3	1.5249	FSP	1688	SG1	2344.2	SG2	642.2	THA	146.49	EL1	46.1	EL2	6.8	ALF	163.03

LAUNCH DATE JUL 13 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 460.019 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	33.045	GAL	-2.73	AZL	88.39	HCA	147.10	SMA	203.09	ECC	.25541	INC	1.6106
RP	230.44	LAP	.87	LOP	77.57	VP	22.324	GAP	12.65	AZP	91.35	TAL	346.51	TAP	133.61	RCA	151.22	APO	254.96
RC	148.289	GL	13.08	GP	-18.70	ZAL	111.55	ZAP	139.22	ETS	205.04	ZAE	159.54	ETE	276.56	ZAC	65.34	ETC	283.99

V1	29.296																		
V2	23.867																		
LVI	.53																		

PLANETOCENTRIC CONIC

C3	16.800	VHL	4.099	DLA	28.04	RAL	35.70	RAD	6641.4	VEL	11.698	PTH	6.73	VHP	3.534	DPA	-2.87	RAP	44.64

ECC	1.2785																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 21 9	3674.17	-47.58	144.67	276.55	90.02	13 22 23	2674.2	-41.98	111.28
60.00	12 21 44	3672.61	-39.94	143.98	276.00	84.06	13 22 57	2672.6	-37.97	113.01
70.00	12 22 50	3669.40	-32.42	142.31	274.58	78.61	13 23 59	2669.4	-33.80	113.65
80.00	12 25 50	3659.95	-25.21	139.55	272.54	73.44	13 26 50	2659.9	-29.67	113.01
90.00	12 52 20	3574.23	-20.19	131.45	270.73	69.77	13 51 54	2574.2	-26.74	106.35
100.00	15 8 42	3134.42	-25.21	100.91	272.54	73.44	16 0 56	2134.4	-29.67	74.38
110.00	17 22 16	2716.22	-32.42	71.22	274.58	78.61	18 7 32	1716.2	-33.80	42.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5146	TRA	-1.0848	TC3	.7559	BAU	.3565	SGT	1962.9	SGR	1492.9	SG3	1086.5	ST	44.3	SR	17.1	SS	81.0
RDE	.1368	RRA	.5932	RC3	-1.3959	FAU	.21941	RRT	-.8397	RRF	.9631	RTF	-.8594	CRT	-.9355	CRS	-.8420	CST	.9762
FDE	3.4834	FRA	4.3979	FC	-11.3062	BSP	4181	SGB	2466.1	R23	-.2638	R13	.9310	LSA	93.1	MSA	11.8	SSA	1.6
BDE	.5325	BRA	1.2364	BC3	1.5874	FSP	1773	SG1	2373.2	SG2	670.5	THA	144.13	EL1	47.1	EL2	5.7	ALF	159.81

LAUNCH DATE JUL 13 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 463.753 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	33.024	GAL	-2.70	AZL	88.29	HCA	148.11	SMA	202.67	ECC	.25380	INC	1.7110
RP	230.82	LAP	.90	LOP	78.59	VP	22.251	GAP	12.39	AZP	91.45	TAL	346.58	TAP	134.70	RCA	151.23	APO	254.11
RC	151.140	GL	13.95	GP	-19.58	ZAL	111.36	ZAP	137.75	ETS	205.00	ZAE	158.73	ETE	273.17	ZAC	64.53	ETC	284.12

V1	29.296																		
V2	23.827																		
LVI	1.30																		

PLANETOCENTRIC CONIC

C3	16.701	VHL	4.087	DLA	28.82	RAL	35.26	RAD	6641.3	VEL	11.694	PTH	6.73	VHP	3.469	DPA	-3.79	RAP	44.68

ECC	1.2749																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 15 10	3690.66	-47.56	146.27	276.71	88.79	13 16 40	2690.7	-42.45	112.59
60.00	12 13 49	3694.25	-39.77	145.80	275.92	82.84	13 15 23	2694.3	-38.33	114.74
70.00	12 11 13	3701.90	-31.95	144.73	274.23	77.24	13 12 55	2701.9	-33.97	116.18
80.00	12 2 49	3728.38	-23.80	144.14	271.65	71.42	13 4 57	2728.4	-29.27	118.06
84.21	11 29 59	3834.06	-17.93	149.55	269.26	67.05	12 33 53	2834.1	-25.83	125.18
100.00	14 45 40	3202.85	-23.80	105.51	271.65	71.42	15 39 3	2202.8	-29.27	79.42
110.00	17 10 40	2748.72	-31.95	73.64	274.23	77.24	17 56 29	1748.7	-33.97	45.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5104	TRA	-1.0541	TC3	.7287	BAU	.3717	SGT	1926.6	SGR	1592.9	SG3	1128.0	ST	43.8	SR	19.7	SS	84.3
RDE	.1835	RRA	.6170	RC3	-1.4966	FAU	.22677	RRT	-.8400	RRF	.9690	RTF	-.8649	CRT	-.9688	CRS	-.8941	CST	.9747
FDE	3.7041	FRA	4.4704	FC	-11.7549	BSP	4227	SGB	2499.8	R23	-.2587	R13	.9369	LSA	96.3	MSA	11.7	SSA	1.5
BDE	.5424	BRA	1.2214	BC3	1.6646	FSP	1846	SG1	2401.8	SG2	693.2	THA	141.42	EL1	47.8	EL2	4.5	ALF	156.25

LAUNCH DATE JUL 13 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 467.493 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	33.005	GAL	-2.68	AZL	88.18	HCA	149.13	SMA	202.28	ECC	.25228	INC	1.8169
RP	231.20	LAP	.93	LOP	79.60	VP	22.180	GAP	12.12	AZP	91.56	TAL	346.65	TAP	135.77	RCA	151.24	APO	253.31
RC	154.008	GL	14.85	GP	-20.51	ZAL	111.18	ZAP	136.24	ETS	204.95	ZAE	157.80	ETE	269.91	ZAC	63.69	ETC	284.25

V1	29.296																		
V2	23.787																		
LVI	2.11																		

PLANETOCENTRIC CONIC

C3	16.627	VHL	4.078	DLA	29.64	RAL	34.81	RAD	6641.3	VEL	11.690	PTH	6.72	VHP	3.409	DPA	-4.76	RAP	44.72

ECC	1.2736																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 8 46	3708.69	-47.52	148.01	276.93	87.45	13 10 35	2708.7	-42.93	114.04
60.00	12 5 15	3718.09	-39.55	147.79	275.86	81.51	13 7 13	2718.1	-38.69	116.66
70.00	11 58 11	3738.97	-31.36	147.45	273.84	75.73	13 0 30	2739.0	-34.10	119.06
80.00	11 25 7	3843.28	-21.10	151.61	270.14	68.38	12 29 10	2843.3	-28.14	126.40
80.73	11 0 32	3921.92	-18.44	156.26	268.96	66.37	12 5 54	2921.9	-26.57	131.86
100.00	14 7 59	3317.75	-21.10	112.98	270.14	68.38	15 3 17	2317.7	-28.14	87.77
110.00	16 57 37	2785.79	-31.36	76.37	273.84	75.73	17 44 3	1785.8	-34.10	47.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5062	TRA	-1.0228	TC3	.6955	BAU	.3883	SGT	1887.2	SGR	1701.0	SG3	1169.1	ST	43.4	SR	22.8	SS	87.8
RDE	.2350	RRA	.6419	RC3	-1.6023	FAU	.23398	RRT	-.8385	RRF	.9740	RTF	-.8495	CRT	-.9870	CRS	-.9292	CST	.9731
FDE	3.9396	FRA	4.5347	FC	-12.1830	BSP	4289	SGB	2540.7	R23	-.2508	R13	.9431	LSA	99.9	MSA	11.5	SSA	1.5
BDE	.5581	BRA	1.2075	BC3	1.7467	FSP	1919	SG1	2437.2	SG2	717.6	THA	138.54	EL1	48.9	EL2	3.2	ALF	152.47

LAUNCH DATE JUL 13 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 471.239 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.986	GAL	-2.65	AZL	88.07	HCA	150.14	SMA	201.90	ECC	.25086	INC	1.9289	V1	29.296
RP	231.56	LAP	.96	LOP	80.62	VP	22.110	GAP	11.86	AZP	91.67	TAL	346.70	TAP	136.84	RCA	151.26	APO	252.55	V2	23.748
RC	156.890	GL	15.81	GP	-21.48	ZAL	110.99	ZAP	134.69	ETS	204.68	ZAE	156.77	ETE	266.78	ZAC	62.81	ETC	284.41	LVI	2.97

PLANETOCENTRIC CONIC

C3	16.579	VHL	4.072	DLA	30.51	RAL	34.34	RAD	6641.3	VEL	11.688	PTH	6.72	VHP	3.354	DPA	-5.78	RAP	44.75	ECC	1.2728

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 1 56	3728.38	-47.45	149.91	277.19	85.99	13 4 4	2728.4	-43.44	115.66
60.00	11 55 55	3744.41	-39.26	149.97	275.81	80.06	12 58 20	2744.4	-39.05	118.81
70.00	11 43 13	3781.95	-30.60	150.57	273.39	74.03	12 46 15	2782.0	-34.15	122.42
78.05	10 38 29	3985.60	-18.96	161.25	268.69	65.64	11 44 54	2985.6	-27.35	136.82
78.05	10 38 29	3985.60	-18.96	161.25	268.69	65.64	11 44 54	2985.6	-27.35	136.82
78.05	10 38 29	3985.60	-18.96	161.25	268.69	65.64	11 44 54	2985.6	-27.35	136.82
110.00	16 42 39	2828.77	-30.60	79.49	273.39	74.03	17 29 48	1828.8	-34.15	51.34

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4992	TRA	-.9900	TC3	.6550	BAU	.4062	SGT	1841.9	SGR	1816.5	SG3	1208.6	ST	42.7	SR	26.3	SS	91.4
RDE	.2909	RRA	.6675	RC3	-1.7119	FAU	.24084	RRT	-.8351	RRF	.9782	RTF	-.8427	CRT	-.9957	CRS	-.9522	CST	.9710
FDE	4.1832	FRA	4.5869	FC	-12.5765	BSP	4359	SGB	2586.9	R23	-.2402	R13	.9494	LSA	103.6	MSA	11.4	SSA	1.4
BDE	.5778	BRA	1.1940	BC3	1.8329	FSP	1990	SG1	2478.0	SG2	742.7	THA	135.48	EL1	50.1	EL2	2.1	ALF	148.43

LAUNCH DATE JUL 13 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 474.990 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.969	GAL	-2.63	AZL	87.95	HCA	151.15	SMA	201.56	ECC	.24952	INC	2.0477	V1	29.296
RP	231.95	LAP	.99	LOP	81.63	VP	22.043	GAP	11.60	AZP	91.79	TAL	346.76	TAP	137.90	RCA	151.26	APO	251.85	V2	23.708
RC	159.785	GL	16.81	GP	-22.51	ZAL	110.81	ZAP	133.11	ETS	204.81	ZAE	155.62	ETE	263.82	ZAC	61.88	ETC	284.57	LVI	3.86

PLANETOCENTRIC CONIC

C3	16.558	VHL	4.069	DLA	31.43	RAL	33.86	RAD	6641.3	VEL	11.687	PTH	6.72	VHP	3.303	DPA	-6.87	RAP	44.77	ECC	1.2725

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 34	3749.90	-47.32	151.97	277.50	84.40	12 57 4	2749.9	-43.97	117.47
60.00	11 45 42	3773.59	-38.89	152.36	275.76	78.47	12 48 35	2773.6	-39.40	121.21
70.00	11 25 32	3833.20	-29.58	154.21	272.81	72.10	12 29 25	2833.2	-34.08	126.42
75.69	10 19 42	4038.55	-19.50	165.50	268.45	64.86	11 27 0	3038.5	-28.15	141.03
75.69	10 19 42	4038.55	-19.50	165.50	268.45	64.86	11 27 0	3038.5	-28.15	141.03
75.69	10 19 42	4038.55	-19.50	165.50	268.45	64.86	11 27 0	3038.5	-28.15	141.03
110.00	16 24 58	2880.02	-29.58	83.13	272.81	72.10	17 12 58	1880.0	-34.08	55.34

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4903	TRA	-.9550	TC3	.6097	BAU	.4261	SGT	1790.6	SGR	1940.0	SG3	1246.1	ST	41.8	SR	30.2	SS	95.1
RDE	.3523	RRA	.6935	RC3	-1.8259	FAU	.24738	RRT	-.8300	RRF	.9817	RTF	-.8347	CRT	-.9984	CRS	-.9676	CST	.9687
FDE	4.4373	FRA	4.6219	FC	-12.9347	BSP	4432	SGB	2640.0	R23	-.2266	R13	.9559	LSA	107.6	MSA	11.3	SSA	1.4
BDE	.6037	BRA	1.1802	BC3	1.9250	FSP	2057	SG1	2526.1	SG2	767.0	THA	132.24	EL1	51.6	EL2	1.4	ALF	144.15

LAUNCH DATE JUL 13 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 478.746 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.953	GAL	-2.61	AZL	87.83	HCA	152.15	SMA	201.23	ECC	.24826	INC	2.1738	V1	29.296
RP	232.33	LAP	1.02	LOP	82.63	VP	21.977	GAP	11.34	AZP	91.92	TAL	346.80	TAP	138.95	RCA	151.27	APO	251.19	V2	23.670
RC	162.693	GL	17.87	GP	-23.59	ZAL	110.62	ZAP	131.50	ETS	204.71	ZAE	154.36	ETE	261.03	ZAC	60.91	ETC	284.75	LVI	4.80

PLANETOCENTRIC CONIC

C3	16.565	VHL	4.070	DLA	32.39	RAL	33.36	RAD	6641.3	VEL	11.688	PTH	6.72	VHP	3.258	DPA	-8.01	RAP	44.78	ECC	1.2726

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 46 37	3773.45	-47.14	154.22	277.85	82.68	12 49 30	2773.4	-44.51	119.47
60.00	11 34 23	3806.11	-38.41	154.99	275.70	76.74	12 37 49	2806.1	-39.72	123.91
70.00	11 3 30	3897.51	-28.15	158.67	272.02	69.82	12 8 28	2897.5	-33.79	131.41
73.50	10 2 52	4085.02	-20.06	169.31	268.24	64.01	11 10 57	3085.0	-29.00	144.82
73.50	10 2 52	4085.02	-20.06	169.31	268.24	64.01	11 10 57	3085.0	-29.00	144.82
73.50	10 2 52	4085.02	-20.06	169.31	268.24	64.01	11 10 57	3085.0	-29.00	144.82
110.00	16 2 57	2944.33	-28.15	87.59	272.02	69.82	16 52 1	1944.3	-33.79	60.33

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4772	TRA	-.9174	TC3	.5633	BAU	.4485	SGT	1732.2	SGR	2072.2	SG3	1281.4	ST	40.7	SR	34.6	SS	98.7
RDE	.4188	RRA	.7194	RC3	-1.9455	FAU	.25373	RRT	-.8237	RRF	.9847	RTF	-.8257	CRT	-.9973	CRS	-.9778	CST	.9656
FDE	4.6947	FRA	4.6370	FC	-13.2605	BSP	4498	SGB	2700.8	R23	-.2097	R13	.9625	LSA	111.6	MSA	11.3	SSA	1.3
BDE	.6349	BRA	1.1658	BC3	2.0254	FSP	2115	SG1	2583.3	SG2	787.9	THA	128.83	EL1	53.4	EL2	1.9	ALF	139.62

LAUNCH DATE JUL 13 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 482.506 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.938	GAL	-2.60	AZL	87.69	HCA	153.15	SMA	200.93	ECC	.24708	INC	2.3082	V1	29.296
RP	232.70	LAP	1.04	LOP	83.63	VP	21.912	GAP	11.08	AZP	92.06	TAL	346.84	TAP	139.99	RCA	151.28	APO	250.57	V2	23.631
RC	165.610	GL	18.98	GP	-24.73	ZAL	110.43	ZAP	129.84	ETS	204.60	ZAE	152.99	ETE	258.40	ZAC	59.89	ETC	284.96	LVI	5.79

PLANETOCENTRIC CONIC

C3	16.604	VHL	4.075	DLA	33.42	RAL	32.83	RAD	6641.3	VEL	11.689	PTH	6.72	VHP	3.217	DPA	-9.21	RAP	44.79	ECC	1.2733

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 37 58	3799.25	-46.89	156.66	278.23	80.82	12 41 17	2799.2	-45.05	121.72
60.00	11 21 43	3842.63	-37.80	157.90	275.59	74.85	12 25 46	2842.6	-40.00	126.98
70.00	10 32 20	3989.19	-25.85	164.80	270.71	66.86	11 38 49	2989.2	-33.00	138.45
71.41	9 47 22	4127.03	-20.63	172.85	268.06	63.11	10 56 9	3127.0	-29.88	148.33
71.41	9 47 22	4127.03	-20.63	172.85	268.06	63.11	10 56 9	3127.0	-29.88	148.33
71.41	9 47 22	4127.03	-20.63	172.85	268.06	63.11	10 56 9	3127.0	-29.88	148.33
110.00	15 31 46	3036.01	-25.85	93.72	270.71	66.86	16 22 22	2036.0	-33.00	67.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4574	TRA	-.8739	TC3	.5213	BAU	.4741	SGT	1661.8	SGR	2212.8	SG3	1313.5	ST	39.0	SR	39.4	SS	102.2
RDE	.4910	RRA	.7440	RC3	-2.0712	FAU	.25987	RRT	-.8175	RRF	.9872	RTF	-.8169	CRT	-.9936	CRS	-.9846	CST	.9612
FDE	4.9525	FRA	4.6236	FC	-13.5500	BSP	4535	SGB	2767.3	R23	-.1890	R13	.9691	LSA	115.7	MSA	11.3	SSA	1.2
BDE	.6710	BRA	1.1477	BC3	2.1358	FSP	2158	SG1	2649.4	SG2	799.3	THA	125.22	EL1	55.4	EL2	3.1	ALF	134.73

LAUNCH DATE JUL 13 1973 FLIGHT TIME 202.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 486.269 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.924 GAL -2.58 AZL 87.55 HCA 154.15 SMA 200.04 ECC .24598 INC 2.4517 V1 29.296
RP 233.07 LAP 1.07 LOP 84.63 VP 21.849 GAP 10.83 AZP 92.21 TAL 346.87 TAP 141.02 RCA 151.29 APO 249.99 V2 23.593
RC 168.537 GL 20.15 GP -25.92 ZAL 110.24 ZAP 128.16 ETS 204.47 ZAE 151.52 ETE 255.96 ZAC 58.83 ETC 285.18 LVI 6.83

PLANETOCENTRIC CONIC

C3 16.677 VHL 4.084 DLA 34.50 RAL 32.29 RAD 6641.3 VEL 11.692 PTH 6.73 VHP 3.183 DPA -10.48 RAP 44.81 ECC 1.2745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 20 30	3827.64	-46.55	159.32	278.64	78.80	12 32 18	2827.6	-45.60	124.24
60.00	11 7 21	3884.18	-37.01	161.15	275.40	72.77	12 12 5	2884.2	-40.21	130.50
69.36	9 32 48	4165.92	-21.21	176.20	267.93	62.13	10 42 14	3165.9	-30.81	151.67
69.36	9 32 48	4165.92	-21.21	176.20	267.93	62.13	10 42 14	3165.9	-30.81	151.67
69.36	9 32 48	4165.92	-21.21	176.20	267.93	62.13	10 42 14	3165.9	-30.81	151.67
69.36	9 32 48	4165.92	-21.21	176.20	267.93	62.13	10 42 14	3165.9	-30.81	151.67
69.36	9 32 48	4165.92	-21.21	176.20	267.93	62.13	10 42 14	3165.9	-30.81	151.67

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4543 TRA -.8489 TC3 .4268 BAU .4964 SGT 1617.6 SGR 2362.9 SG3 1342.8 ST 38.5 SR 45.2 SS 106.6
RDE .5772 RRA .7753 RC3-2.1852 FAU .26358 RRT -.7969 RRF .9893 RTF -.7955 CRT -.9888 CRS -.9895 CST .9587
FDE 5.2585 FRA 4.6330 FC-13.6831 BSP 4798 SGB 2863.5 R23 -.1758 R13 .9736 LSA 121.5 MSA 11.3 SSA 1.2
BDE .7345 BRA 1.1497 BC3 2.2265 FSP 2239 SG1 2736.4 SG2 843.8 THA 122.02 EL1 59.2 EL2 4.4 ALF 130.44

LAUNCH DATE JUL 13 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 490.036 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.910 GAL -2.57 AZL 87.39 HCA 155.14 SMA 200.37 ECC .24495 INC 2.6053 V1 29.296
RP 233.44 LAP 1.09 LOP 85.63 VP 21.788 GAP 10.58 AZP 92.36 TAL 346.90 TAP 142.05 RCA 151.29 APO 249.46 V2 23.554
RC 171.472 GL 21.39 GP -27.17 ZAL 110.05 ZAP 126.44 ETS 204.31 ZAE 149.95 ETE 253.67 ZAC 57.71 ETC 285.42 LVI 7.92

PLANETOCENTRIC CONIC

C3 16.787 VHL 4.097 DLA 35.65 RAL 31.72 RAD 6641.4 VEL 11.697 PTH 6.73 VHP 3.154 DPA -11.81 RAP 44.82 ECC 1.2763

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 4	3858.92	-46.10	162.20	279.03	76.62	12 22 23	2858.9	-46.12	127.07
60.00	10 50 39	3932.22	-35.98	164.81	275.08	70.48	11 56 12	2932.2	-40.30	134.58
67.33	9 18 53	4202.49	-21.81	179.43	267.82	61.07	10 28 55	3202.5	-31.77	154.90
67.33	9 18 53	4202.49	-21.81	179.43	267.82	61.07	10 28 55	3202.5	-31.77	154.90
67.33	9 18 53	4202.49	-21.81	179.43	267.82	61.07	10 28 55	3202.5	-31.77	154.90
67.33	9 18 53	4202.49	-21.81	179.43	267.82	61.07	10 28 55	3202.5	-31.77	154.90
67.33	9 18 53	4202.49	-21.81	179.43	267.82	61.07	10 28 55	3202.5	-31.77	154.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4358 TRA -.8106 TC3 .3551 BAU .5244 SGT 1549.9 SGR 2521.3 SG3 1366.9 ST 37.0 SR 51.2 SS 110.5
RDE .6678 RRA .8016 RC3-2.3095 FAU .26763 RRT -.7790 RRF .9911 RTF -.7760 CRT -.9821 CRS -.9927 CST .9534
FDE 5.5402 FRA 4.5884 FC-13.8026 BSP 4950 SGB 2959.6 R23 -.1562 R13 .9787 LSA 126.7 MSA 11.4 SSA 1.1
BDE .7974 BRA 1.1400 BC3 2.3367 FSP 2285 SG1 2830.1 SG2 865.7 THA 118.50 EL1 62.9 EL2 5.7 ALF 125.70

LAUNCH DATE JUL 13 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 493.806 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.898 GAL -2.55 AZL 87.23 HCA 156.13 SMA 200.13 ECC .24398 INC 2.7704 V1 29.296
RP 233.80 LAP 1.12 LOP 86.62 VP 21.728 GAP 10.32 AZP 92.53 TAL 346.92 TAP 143.06 RCA 151.30 APO 248.95 V2 23.517
RC 174.413 GL 22.70 GP -28.48 ZAL 109.84 ZAP 124.68 ETS 204.12 ZAE 148.27 ETE 251.54 ZAC 56.54 ETC 285.69 LVI 9.07

PLANETOCENTRIC CONIC

C3 16.938 VHL 4.116 DLA 36.87 RAL 31.11 RAD 6641.4 VEL 11.704 PTH 6.74 VHP 3.131 DPA -13.21 RAP 44.84 ECC 1.2788

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 6 26	3893.59	-49.50	165.33	279.40	74.27	12 11 20	2893.6	-46.62	130.27
60.00	10 30 39	3989.42	-34.60	169.03	274.52	67.90	11 37 8	2989.4	-40.20	139.44
65.30	9 5 27	4237.18	-22.41	182.59	267.76	59.93	10 16 4	3237.2	-32.77	158.06
65.30	9 5 27	4237.18	-22.41	182.59	267.76	59.93	10 16 4	3237.2	-32.77	158.06
65.30	9 5 27	4237.18	-22.41	182.59	267.76	59.93	10 16 4	3237.2	-32.77	158.06
65.30	9 5 27	4237.18	-22.41	182.59	267.76	59.93	10 16 4	3237.2	-32.77	158.06
65.30	9 5 27	4237.18	-22.41	182.59	267.76	59.93	10 16 4	3237.2	-32.77	158.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4138 TRA -.7720 TC3 .2789 BAU .5548 SGT 1479.6 SGR 2689.5 SG3 1386.3 ST 35.2 SR 57.8 SS 114.3
RDE .7684 RRA .8277 RC3-2.4343 FAU .27078 RRT -.7567 RRF .9926 RTF -.7522 CRT -.9736 CRS -.9949 CST .9465
FDE 5.8246 FRA 4.5217 FC-13.8403 BSP 5123 SGB 3069.6 R23 -.1365 R13 .9831 LSA 132.3 MSA 11.5 SSA 1.0
BDE .8727 BRA 1.1318 BC3 2.4502 FSP 2321 SG1 2939.3 SG2 885.1 THA 115.02 EL1 67.3 EL2 6.9 ALF 121.01

LAUNCH DATE JUL 13 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 497.579 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.886 GAL -2.54 AZL 87.05 HCA 157.12 SMA 199.88 ECC .24308 INC 2.9483 V1 29.296
RP 234.17 LAP 1.15 LOP 87.61 VP 21.670 GAP 10.07 AZP 92.72 TAL 346.94 TAP 144.06 RCA 151.30 APO 248.48 V2 23.479
RC 177.360 GL 24.08 GP -29.86 ZAL 109.63 ZAP 122.90 ETS 203.90 ZAE 146.50 ETE 249.55 ZAC 55.33 ETC 285.98 LVI 10.27

PLANETOCENTRIC CONIC

C3 17.136 VHL 4.140 DLA 38.15 RAL 30.45 RAD 6641.5 VEL 11.712 PTH 6.74 VHP 3.115 DPA -14.68 RAP 44.87 ECC 1.2820

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 53 21	3932.28	-44.73	168.74	279.69	71.74	11 58 53	2932.3	-47.05	133.91
60.00	10 5 13	4061.40	-32.64	174.12	273.54	64.91	11 12 55	3061.4	-39.77	145.51
63.24	8 52 22	4270.50	-23.02	185.70	267.73	58.69	10 3 33	3270.5	-33.82	161.19
63.24	8 52 22	4270.50	-23.02	185.70	267.73	58.69	10 3 33	3270.5	-33.82	161.19
63.24	8 52 22	4270.50	-23.02	185.70	267.73	58.69	10 3 33	3270.5	-33.82	161.19
63.24	8 52 22	4270.50	-23.02	185.70	267.73	58.69	10 3 33	3270.5	-33.82	161.19
63.24	8 52 22	4270.50	-23.02	185.70	267.73	58.69	10 3 33	3270.5	-33.82	161.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3879 TRA -.7316 TC3 .1964 BAU .5876 SGT 1404.6 SGR 2865.4 SG3 1398.9 ST 33.1 SR 65.0 SS 118.1
RDE .8797 RRA .8513 RC3-2.5573 FAU .27280 RRT -.7274 RRF .9938 RTF -.7216 CRT -.9629 CRS -.9964 CST .9374
FDE 6.1060 FRA 4.4197 FC-13.7826 BSP 5318 SGB 3191.1 R23 -.1171 R13 .9869 LSA 138.3 MSA 11.6 SSA .9
BDE .9614 BRA 1.1225 BC3 2.5648 FSP 2345 SG1 3060.9 SG2 902.3 THA 111.60 EL1 72.5 EL2 8.0 ALF 116.46

LAUNCH DATE JUL 13 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 501.354 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.875	GAL	-2.53	AZL	86.88	HCA	158.11	SMA	199.68	ECC	.24225	INC	3.1407	V1	29.296
RP	234.53	LAP	1.17	LOP	88.60	VP	21.613	GAP	9.82	AZP	92.91	TAL	346.95	TAP	145.05	RCA	151.31	APO	248.05	V2	23.442
RC	180.313	GL	25.57	GP	-31.31	ZAL	109.40	ZAP	121.10	ETS	203.63	ZAE	144.64	ETE	247.69	ZAC	54.05	ETC	286.31	LVI	11.54

PLANETOCENTRIC CONIC

C3	17.387	VHL	4.170	DLA	39.52	RAL	29.75	RAD	6641.7	VEL	11.723	PTH	6.75	VHP	3.107	DPA	-16.21	RAP	44.91	ECC	1.2881

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 38 24	3975.87	-43.74	172.46	279.84	69.02	11 44 40	2975.9	-47.38	138.07
60.00	9 27 37	4166.55	-29.38	181.13	271.56	61.07	10 37 4	3166.6	-38.52	154.17
61.15	8 39 32	4302.67	-23.63	188.79	267.74	57.35	9 51 14	3302.7	-34.90	164.33
61.15	8 39 32	4302.67	-23.63	188.79	267.74	57.35	9 51 14	3302.7	-34.90	164.33
61.15	8 39 32	4302.67	-23.63	188.79	267.74	57.35	9 51 14	3302.7	-34.90	164.33
61.15	8 39 32	4302.67	-23.63	188.79	267.74	57.35	9 51 14	3302.7	-34.90	164.33
61.15	8 39 32	4302.67	-23.63	188.79	267.74	57.35	9 51 14	3302.7	-34.90	164.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3545	TRA	-.6890	TC3	.1160	BAU	.6236	SGT	1324.0	SGR	3050.5	SG3	1404.8	ST	30.5	SR	72.7	SS	121.6
RDE	1.0019	RRA	.8721	RC3	-2.6805	FAU	.27396	RRT	-.6916	RRF	.9948	RTF	-.6843	CRT	-.9482	CRS	-.9975	CST	.9238
FDE	6.3735	FRA	4.2838	FC	-13.6412	BSP	5513	SGB	3325.4	R23	-.0983	R13	.9900	LSA	144.4	MSA	11.8	SSA	.9
BDE	1.0627	BRA	1.1114	BC3	2.6830	FSP	2352	SG1	3197.9	SG2	912.2	THA	108.24	EL1	78.4	EL2	9.0	ALF	112.00

LAUNCH DATE JUL 13 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 505.131 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.865	GAL	-2.53	AZL	86.65	HCA	159.09	SMA	199.48	ECC	.24147	INC	3.3496	V1	29.296
RP	234.89	LAP	1.20	LOP	89.58	VP	21.557	GAP	9.58	AZP	93.13	TAL	346.95	TAP	146.04	RCA	151.31	APO	247.64	V2	23.405
RC	183.270	GL	27.13	GP	-32.81	ZAL	109.15	ZAP	119.27	ETS	203.33	ZAE	142.70	ETE	245.96	ZAC	52.72	ETC	286.67	LVI	12.86

PLANETOCENTRIC CONIC

C3	17.700	VHL	4.207	DLA	40.98	RAL	28.99	RAD	6641.8	VEL	11.736	PTH	6.77	VHP	3.106	DPA	-17.81	RAP	44.96	ECC	1.2913

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 21 0	4025.69	-42.44	176.54	279.77	66.08	11 28 6	3025.7	-47.56	142.87
59.02	8 26 50	4334.00	-24.24	191.89	267.79	55.89	9 39 4	3334.0	-36.03	167.51
59.02	8 26 50	4334.00	-24.24	191.89	267.79	55.89	9 39 4	3334.0	-36.03	167.51
59.02	8 26 50	4334.00	-24.24	191.89	267.79	55.89	9 39 4	3334.0	-36.03	167.51
59.02	8 26 50	4334.00	-24.24	191.89	267.79	55.89	9 39 4	3334.0	-36.03	167.51
59.02	8 26 50	4334.00	-24.24	191.89	267.79	55.89	9 39 4	3334.0	-36.03	167.51
59.02	8 26 50	4334.00	-24.24	191.89	267.79	55.89	9 39 4	3334.0	-36.03	167.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3221	TRA	-.6524	TC3	.0171	BAU	.6601	SGT	1256.1	SGR	3245.0	SG3	1403.4	ST	28.2	SR	81.5	SS	125.3
RDE	1.1421	RRA	.8941	RC3	-2.7896	FAU	.27286	RRT	-.6413	RRF	.9957	RTF	-.6331	CRT	-.9292	CRS	-.9982	CST	.9061
FDE	6.6511	FRA	4.1365	FC	-13.3458	BSP	5794	SGB	3479.7	R23	-.0819	R13	.9924	LSA	151.6	MSA	12.0	SSA	.8
BDE	1.1867	BRA	1.1068	BC3	2.7897	FSP	2362	SG1	3352.3	SG2	932.9	THA	105.14	EL1	85.7	EL2	9.9	ALF	108.04

LAUNCH DATE JUL 13 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 508.909 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.855	GAL	-2.52	AZL	86.42	HCA	160.07	SMA	199.29	ECC	.24075	INC	3.5776	V1	29.296
RP	235.24	LAP	1.22	LOP	90.57	VP	21.503	GAP	9.33	AZP	93.36	TAL	346.94	TAP	147.01	RCA	151.31	APO	247.27	V2	23.369
RC	186.232	GL	28.79	GP	-34.39	ZAL	108.89	ZAP	117.42	ETS	202.98	ZAE	140.67	ETE	244.33	ZAC	51.34	ETC	287.06	LVI	14.25

PLANETOCENTRIC CONIC

C3	18.086	VHL	4.253	DLA	42.52	RAL	28.17	RAD	6642.0	VEL	11.752	PTH	6.78	VHP	3.114	DPA	-19.48	RAP	45.04	ECC	1.2976

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 0 11	4083.89	-40.73	181.08	279.33	62.91	11 8 15	3083.9	-47.50	148.50
56.82	8 14 8	4364.81	-24.83	195.03	267.87	54.31	9 26 53	3364.8	-37.19	170.76
56.82	8 14 8	4364.81	-24.83	195.03	267.87	54.31	9 26 53	3364.8	-37.19	170.76
56.82	8 14 8	4364.81	-24.83	195.03	267.87	54.31	9 26 53	3364.8	-37.19	170.76
56.82	8 14 8	4364.81	-24.83	195.03	267.87	54.31	9 26 53	3364.8	-37.19	170.76
56.82	8 14 8	4364.81	-24.83	195.03	267.87	54.31	9 26 53	3364.8	-37.19	170.76
56.82	8 14 8	4364.81	-24.83	195.03	267.87	54.31	9 26 53	3364.8	-37.19	170.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2798	TRA	-.6120	TC3	-.0753	BAU	.7004	SGT	1182.3	SGR	3447.2	SG3	1393.0	ST	25.2	SR	90.9	SS	128.6
RDE	1.2965	RRA	.9100	RC3	-2.8956	FAU	.27073	RRT	-.5794	RRF	.9964	RTF	-.5699	CRT	-.8999	CRS	-.9987	CST	.8774
FDE	6.9033	FRA	3.9435	FC	-12.9594	BSP	6064	SGB	3644.4	R23	-.0664	R13	.9943	LSA	159.0	MSA	12.2	SSA	.7
BDE	1.3264	BRA	1.0967	BC3	2.8965	FSP	2348	SG1	3520.1	SG2	943.7	THA	102.12	EL1	93.7	EL2	10.7	ALF	104.22

LAUNCH DATE JUL 13 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 512.691 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.847	GAL	-2.52	AZL	86.17	HCA	161.04	SMA	199.12	ECC	.24009	INC	3.8272	V1	29.296
RP	235.59	LAP	1.24	LOP	91.54	VP	21.450	GAP	9.08	AZP	93.62	TAL	346.94	TAP	147.98	RCA	151.31	APO	246.92	V2	23.332
RC	189.197	GL	30.56	GP	-36.04	ZAL	108.60	ZAP	115.56	ETS	202.57	ZAE	138.56	ETE	242.79	ZAC	49.90	ETC	287.50	LVI	15.71

PLANETOCENTRIC CONIC

C3	18.556	VHL	4.308	DLA	44.16	RAL	27.25	RAD	6642.2	VEL	11.772	PTH	6.80	VHP	3.132	DPA	-21.22	RAP	45.15	ECC	1.3054

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 34 4	4154.65	-38.41	186.26	278.26	59.42	10 43 19	3154.7	-47.01	155.27
54.55	8 1 23	4395.17	-25.41	198.21	267.98	52.58	9 14 38	3395.2	-38.37	174.12
54.55	8 1 23	4395.17	-25.41	198.21	267.98	52.58	9 14 38	3395.2	-38.37	174.12
54.55	8 1 23	4395.17	-25.41	198.21	267.98	52.58	9 14 38	3395.2	-38.37	174.12
54.55	8 1 23	4395.17	-25.41	198.21	267.98	52.58	9 14 38	3395.2	-38.37	174.12
54.55	8 1 23	4395.17	-25.41	198.21	267.98	52.58	9 14 38	3395.2	-38.37	174.12
54.55	8 1 23	4395.17	-25.41	198.21	267.98	52.58	9 14 38	3395.2	-38.37	174.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2182	TRA	-.5586	TC3	-.1414	BAU	.7472	SGT	1082.5	SGR	3653.7	SG3	1371.9	ST	21.3	SR	100.5	SS	130.8
RDE	1.4608	RRA	.9114	RC3	-3.0086	FAU	.26859	RRT	-.5052	RRF	.9970	RTF	-.4935	CRT	-.8440	CRS	-.9991	CST	.8210
FDE	7.0986	FRA	3.6757	FC	-12.5307	BSP	6220	SGB	3810.6	R23	-.0516	R13	.9958	LSA	165.8	MSA	12.3	SSA	.6
BDE	1.4770	BRA	1.0690	BC3	3.0120	FSP	2279	SG1	3697.1	SG2	923.2	THA	99.08	EL1	102.1	EL2	11.2	ALF	100.25

LAUNCH DATE JUL 13 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 516.470 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.838	GAL	-2.52	AZL	85.90	HCA	162.01	SMA	198.98	ECC	.23948	INC	4.1020
RP	235.94	LAP	1.27	LOP	92.52	VP	21.399	GAP	8.84	AZP	93.90	TAL	346.92	TAP	148.03	RCA	151.31	APO	246.60
RC	192.165	GL	32.45	GP	-37.75	ZAL	108.29	ZAP	113.69	ETS	202.12	ZAE	136.39	ETE	241.34	ZAC	48.41	ETC	287.99

V1	29.296	V2	23.297	LVI	17.22														

PLANETOCENTRIC CONIC

C3	19.132	VHL	4.374	DLA	45.90	RAL	26.23	RAD	6642.4	VEL	11.796	PTH	6.82	VHP	3.162	DPA	-23.02	RAP	45.29

ECC	1.3149																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 57 57	4249.12	-34.94	192.62	273.96	55.38	10 8 46	3249.1	-45.71	164.00
52.20	7 48 27	4425.52	-25.94	201.47	268.13	50.70	9 2 12	3425.5	-39.58	177.62
52.20	7 48 27	4425.52	-25.94	201.47	268.13	50.70	9 2 12	3425.5	-39.58	177.62
52.20	7 48 27	4425.52	-25.94	201.47	268.13	50.70	9 2 12	3425.5	-39.58	177.62
52.20	7 48 27	4425.52	-25.94	201.47	268.13	50.70	9 2 12	3425.5	-39.58	177.62
52.20	7 48 27	4425.52	-25.94	201.47	268.13	50.70	9 2 12	3425.5	-39.58	177.62
52.20	7 48 27	4425.52	-25.94	201.47	268.13	50.70	9 2 12	3425.5	-39.58	177.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1733	TRA	-.5320	TC3	-.2636	BAU	.7879	SGT	1052.5	SGR	3873.5	SG3	1343.5	ST	18.8	SR	112.2	SS	134.1
RDE	1.6652	RRA	.9260	RC3	-3.0690	FAU	.26119	RRT	-.3978	RRF	.9976	RTF	-.3859	CRT	-.7709	CRS	-.9994	CST	.7483
FDE	7.3444	FRA	3.4564	FC	-11.8189	BSP	6684	SGB	4014.0	R23	-.0402	R13	.9968	LSA	175.5	MSA	12.6	SSA	.6
BDE	1.6742	BRA	1.0680	BC3	3.0803	FSP	2273	SG1	3897.6	SG2	959.7	THA	96.57	EL1	113.2	EL2	11.9	ALF	97.45

LAUNCH DATE JUL 13 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 520.251 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.831	GAL	-2.52	AZL	85.59	HCA	162.98	SMA	198.81	ECC	.23892	INC	4.4059
RP	236.29	LAP	1.29	LOP	93.49	VP	21.349	GAP	8.59	AZP	94.21	TAL	346.90	TAP	149.88	RCA	151.31	APO	246.31
RC	195.134	GL	34.46	GP	-39.52	ZAL	107.94	ZAP	111.82	ETS	201.60	ZAE	134.16	ETE	239.95	ZAC	46.86	ETC	288.53

V1	29.296	V2	23.261	LVI	18.81														

PLANETOCENTRIC CONIC

C3	19.833	VHL	4.453	DLA	47.76	RAL	25.09	RAD	6642.8	VEL	11.826	PTH	6.84	VHP	3.203	DPA	-24.89	RAP	45.47

ECC	1.3264																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.76	7 35 13	4455.86	-26.42	204.82	268.29	48.65	8 49 29	3455.9	-40.79	181.30
49.76	7 35 13	4455.86	-26.42	204.82	268.29	48.65	8 49 29	3455.9	-40.79	181.30
49.76	7 35 13	4455.86	-26.42	204.82	268.29	48.65	8 49 29	3455.9	-40.79	181.30
49.76	7 35 13	4455.86	-26.42	204.82	268.29	48.65	8 49 29	3455.9	-40.79	181.30
49.76	7 35 13	4455.86	-26.42	204.82	268.29	48.65	8 49 29	3455.9	-40.79	181.30
49.76	7 35 13	4455.86	-26.42	204.82	268.29	48.65	8 49 29	3455.9	-40.79	181.30
49.76	7 35 13	4455.86	-26.42	204.82	268.29	48.65	8 49 29	3455.9	-40.79	181.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1069	TRA	-.4946	TC3	-.3577	BAU	.8357	SGT	1008.1	SGR	4095.1	SG3	1302.7	ST	15.8	SR	124.1	SS	136.1
RDE	1.8841	RRA	.9222	RC3	-3.1316	FAU	.25376	RRT	-.2701	RRF	.9980	RTF	-.2572	CRT	-.6162	CRS	-.9996	CST	.5929
FDE	7.5124	FRA	3.1601	FC	-11.0769	BSP	7015	SGB	4217.4	R23	-.0294	R13	.9976	LSA	184.5	MSA	12.8	SSA	.5
BDE	1.8871	BRA	1.0464	BC3	3.1519	FSP	2204	SG1	4104.7	SG2	968.4	THA	94.03	EL1	124.5	EL2	12.4	ALF	94.52

LAUNCH DATE JUL 13 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 524.033 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.824	GAL	-2.52	AZL	85.26	HCA	163.95	SMA	198.67	ECC	.23841	INC	4.7446
RP	236.63	LAP	1.31	LOP	94.46	VP	21.300	GAP	8.35	AZP	94.56	TAL	346.87	TAP	150.82	RCA	151.31	APO	246.04
RC	198.104	GL	36.61	GP	-41.37	ZAL	107.56	ZAP	109.96	ETS	201.02	ZAE	131.86	ETE	238.61	ZAC	45.26	ETC	289.14

V1	29.296	V2	23.226	LVI	20.46														

PLANETOCENTRIC CONIC

C3	20.689	VHL	4.548	DLA	49.73	RAL	23.78	RAD	6643.1	VEL	11.861	PTH	6.88	VHP	3.259	DPA	-26.82	RAP	45.69

ECC	1.3405																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.22	7 21 30	4486.61	-26.82	208.28	268.44	46.41	8 36 17	3486.6	-41.99	185.21
47.22	7 21 30	4486.61	-26.82	208.28	268.44	46.41	8 36 17	3486.6	-41.99	185.21
47.22	7 21 30	4486.61	-26.82	208.28	268.44	46.41	8 36 17	3486.6	-41.99	185.21
47.22	7 21 30	4486.61	-26.82	208.28	268.44	46.41	8 36 17	3486.6	-41.99	185.21
47.22	7 21 30	4486.61	-26.82	208.28	268.44	46.41	8 36 17	3486.6	-41.99	185.21
47.22	7 21 30	4486.61	-26.82	208.28	268.44	46.41	8 36 17	3486.6	-41.99	185.21
47.22	7 21 30	4486.61	-26.82	208.28	268.44	46.41	8 36 17	3486.6	-41.99	185.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0282	TRA	-.4577	TC3	-.4450	BAU	.8880	SGT	980.2	SGR	4322.7	SG3	1251.3	ST	13.5	SR	137.0	SS	137.6
RDE	2.1330	RRA	.9092	RC3	-3.1721	FAU	.24436	RRT	-.1199	RRF	.9984	RTF	-.1062	CRT	-.3194	CRS	-.9997	CST	.2961
FDE	7.6418	FRA	2.8362	FC	-10.2252	BSP	7377	SGB	4432.5	R23	-.0200	R13	.9982	LSA	194.2	MSA	13.1	SSA	.4
BDE	2.1332	BRA	1.0179	BC3	3.2032	FSP	2122	SG1	4324.4	SG2	972.8	THA	91.64	EL1	137.1	EL2	12.8	ALF	91.82

LAUNCH DATE JUL 13 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 527.814 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.818	GAL	-2.52	AZL	84.88	HCA	164.91	SMA	198.55	ECC	.23794	INC	5.1239
RP	236.98	LAP	1.33	LOP	95.43	VP	21.252	GAP	8.11	AZP	94.95	TAL	346.84	TAP	151.75	RCA	151.30	APO	245.79
RC	201.073	GL	38.91	GP	-43.28	ZAL	107.13	ZAP	108.11	ETS	200.37	ZAE	129.53	ETE	237.32	ZAC	43.61	ETC	289.81

V1	29.296	V2	23.191	LVI	22.17														

PLANETOCENTRIC CONIC

C3	21.739	VHL	4.663	DLA	51.83	RAL	22.28	RAD	6643.6	VEL	11.905	PTH	6.91	VHP	3.331	DPA	-28.80	RAP	45.98

ECC	1.3578																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.57	7 7 10	4517.98	-27.12	211.86	268.55	43.98	8 22 28	3518.0	-43.14	189.40
44.57	7 7 10	4517.98	-27.12	211.86	268.55	43.98	8 22 28	3518.0	-43.14	189.40
44.57	7 7 10	4517.98	-27.12	211.86	268.55	43.98	8 22 28	3518.0	-43.14	189.40
44.57	7 7 10	4517.98	-27.12	211.86	268.55	43.98	8 22 28	3518.0	-43.14	189.40
44.57	7 7 10	4517.98	-27.12	211.86	268.55	43.98	8 22 28	3518.0	-43.14	189.40
44.57	7 7 10	4517.98	-27.12	211.86	268.55	43.98	8 22 28	3518.0	-43.14	189.40
44.57	7 7 10	4517.98	-27.12	211.86	268.55	43.98	8 22 28	3518.0	-43.14	189.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0628	TRA	-.4244	TC3	-.5283	BAU	.9391	SGT	980.2	SGR	4552.6	SG3	1188.4	ST	13.3	SR	150.8	SS	138.2
RDE	2.4154	RRA	.8626	RC3	-3.1677	FAU	.23306	RRT	.0476	RRF	.9987	RTF	.0618	CRT	.1214	CRS	-.9998	CST	-.1418
FDE	7.7178	FRA	2.4811	FC	-9.2811	BSP	7747	SGB	4656.9	R23	-.0119	R13	.9987	LSA	204.5	MSA	13.3	SSA	.4
BDE	2.4163	BRA	.9793	BC3	3.2312	FSP	2017	SG1	4552.8	SG2	979.0	THA	89.38	EL1	150.8	EL2	13.2	ALF	89.38

LAUNCH DATE JUL 13 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 531.595 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.812	GAL	-2.52	AZL	84.45	HCA	165.86	SMA	198.43	ECC	.23752	INC	5.5524	V1	29.296
RP	237.31	LAP	1.35	LOP	96.39	VP	21.206	GAP	7.87	AZP	95.39	TAL	346.80	TAP	152.67	RCA	151.30	APO	245.57	V2	23.157
RC	204.040	GL	41.36	GP	-45.25	ZAL	106.64	ZAP	106.29	ETS	199.65	ZAE	127.15	ETE	236.06	ZAC	41.92	ETC	290.56	LVI	23.95

PLANETOCENTRIC CONIC

C3	23.038	VHL	4.800	DLA	54.05	RAL	20.52	RAD	6644.2	VEL	11.959	PTH	6.96	VHP	3.424	DPA	-30.84	RAP	46.32	ECC	1.3791

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.81	6 51 58	4550.23	-27.28	215.56	268.58	41.34	8 7 48	3550.2	-44.22	193.89
41.81	6 51 58	4550.23	-27.28	215.56	268.58	41.34	8 7 48	3550.2	-44.22	193.89
41.81	6 51 58	4550.23	-27.28	215.56	268.58	41.34	8 7 48	3550.2	-44.22	193.89
41.81	6 51 58	4550.23	-27.28	215.56	268.58	41.34	8 7 48	3550.2	-44.22	193.89
41.81	6 51 58	4550.23	-27.28	215.56	268.58	41.34	8 7 48	3550.2	-44.22	193.89
41.81	6 51 58	4550.23	-27.28	215.56	268.58	41.34	8 7 48	3550.2	-44.22	193.89
41.81	6 51 58	4550.23	-27.28	215.56	268.58	41.34	8 7 48	3550.2	-44.22	193.89

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1701	TRA	-.3949	TC3	-.6023	BAU	.9947	SGT	1010.1	SGR	4785.0	SG3	1114.7	ST	15.8	SR	165.5	SS	137.9
RDE	2.7383	RRA	.8424	RC3	-3.1730	FAU	.21978	RRT	.2172	RRF	.9989	RTF	.2313	CRT	.5186	CRS	-.9998	CST	-.5333
FDE	7.7326	FRA	2.1095	FC3	-8.2590	BSP	8140	SGB	4890.5	R23	-.0049	R13	.9990	LSA	215.6	MSA	13.5	SSA	.3
BDE	2.7436	BRA	.9304	BC3	3.2297	FSP	1896	SG1	4790.3	SG2	984.9	THA	87.26	EL1	165.7	EL2	13.5	ALF	87.15

LAUNCH DATE JUL 13 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 535.376 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.806	GAL	-2.53	AZL	83.96	HCA	166.82	SMA	198.33	ECC	.23714	INC	6.0405	V1	29.296
RP	237.65	LAP	1.38	LOP	97.35	VP	21.160	GAP	7.63	AZP	95.88	TAL	346.76	TAP	153.58	RCA	151.30	APO	245.36	V2	23.123
RC	207.005	GL	43.99	GP	-47.27	ZAL	106.10	ZAP	104.50	ETS	198.85	ZAE	124.75	ETE	234.81	ZAC	40.19	ETC	291.41	LVI	25.78

PLANETOCENTRIC CONIC

C3	24.657	VHL	4.966	DLA	56.40	RAL	18.44	RAD	6644.8	VEL	12.026	PTH	7.02	VHP	3.539	DPA	-32.92	RAP	46.74	ECC	1.4058

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.93	6 35 34	4583.83	-27.25	219.40	268.44	38.50	7 51 58	3583.8	-45.16	198.74
38.93	6 35 34	4583.83	-27.25	219.40	268.44	38.50	7 51 58	3583.8	-45.16	198.74
38.93	6 35 34	4583.83	-27.25	219.40	268.44	38.50	7 51 58	3583.8	-45.16	198.74
38.93	6 35 34	4583.83	-27.25	219.40	268.44	38.50	7 51 58	3583.8	-45.16	198.74
38.93	6 35 34	4583.83	-27.25	219.40	268.44	38.50	7 51 58	3583.8	-45.16	198.74
38.93	6 35 34	4583.83	-27.25	219.40	268.44	38.50	7 51 58	3583.8	-45.16	198.74
38.93	6 35 34	4583.83	-27.25	219.40	268.44	38.50	7 51 58	3583.8	-45.16	198.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2962	TRA	-.3696	TC3	-.6659	BAU	1.0522	SGT	1071.4	SGR	5016.9	SG3	1030.4	ST	20.7	SR	181.2	SS	136.5
RDE	3.1112	RRA	.7836	RC3	-3.1218	FAU	.20442	RRT	.3754	RRF	.9991	RTF	.3892	CRT	.7450	CRS	-.9999	CST	-.7546
FDE	7.6795	FRA	1.7229	FC3	-7.1773	BSP	8566	SGB	5130.0	R23	.0011	R13	.9992	LSA	227.4	MSA	13.8	SSA	.3
BDE	3.1252	BRA	.8664	BC3	3.1921	FSP	1762	SG1	5033.6	SG2	989.7	THA	85.23	EL1	181.9	EL2	13.7	ALF	85.12

LAUNCH DATE JUL 13 1973 FLIGHT TIME 230.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 539.154 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.802	GAL	-2.53	AZL	83.40	HCA	167.77	SMA	198.24	ECC	.23680	INC	6.6013	V1	29.296
RP	237.98	LAP	1.40	LOP	98.31	VP	21.116	GAP	7.39	AZP	96.45	TAL	346.71	TAP	154.48	RCA	151.29	APO	245.18	V2	23.090
RC	209.964	GL	46.81	GP	-49.34	ZAL	105.49	ZAP	102.76	ETS	197.97	ZAE	122.33	ETE	233.57	ZAC	38.43	ETC	292.36	LVI	27.66

PLANETOCENTRIC CONIC

C3	26.699	VHL	5.167	DLA	58.88	RAL	15.91	RAD	6645.7	VEL	12.110	PTH	7.08	VHP	3.683	DPA	-35.03	RAP	47.25	ECC	1.4394

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.93	6 17 33	4619.17	-26.99	223.35	268.02	35.45	7 34 32	3619.2	-45.90	203.98
35.93	6 17 33	4619.17	-26.99	223.35	268.02	35.45	7 34 32	3619.2	-45.90	203.98
35.93	6 17 33	4619.17	-26.99	223.35	268.02	35.45	7 34 32	3619.2	-45.90	203.98
35.93	6 17 33	4619.17	-26.99	223.35	268.02	35.45	7 34 32	3619.2	-45.90	203.98
35.93	6 17 33	4619.17	-26.99	223.35	268.02	35.45	7 34 32	3619.2	-45.90	203.98
35.93	6 17 33	4619.17	-26.99	223.35	268.02	35.45	7 34 32	3619.2	-45.90	203.98
35.93	6 17 33	4619.17	-26.99	223.35	268.02	35.45	7 34 32	3619.2	-45.90	203.98

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4433	TRA	-.3513	TC3	-.7166	BAU	1.1144	SGT	1165.5	SGR	5245.8	SG3	936.4	ST	27.1	SR	197.6	SS	133.7
RDE	3.5398	RRA	.6991	RC3	-3.0387	FAU	.18764	RRT	.5109	RRF	.9993	RTF	.5242	CRT	.8549	CRS	-.9999	CST	-.8613
FDE	7.5367	FRA	1.3246	FC3	-6.0845	BSP	8973	SGB	5373.7	R23	.0063	R13	.9994	LSA	239.7	MSA	14.0	SSA	.2
BDE	3.5675	BRA	.7825	BC3	3.1220	FSP	1606	SG1	5280.8	SG2	995.3	THA	83.28	EL1	199.0	EL2	13.9	ALF	83.29

LAUNCH DATE JUL 13 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 542.931 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.797	GAL	-2.54	AZL	82.75	HCA	168.72	SMA	198.15	ECC	.23650	INC	7.2531	V1	29.296
RP	238.30	LAP	1.42	LOP	99.27	VP	21.073	GAP	7.15	AZP	97.11	TAL	346.66	TAP	155.38	RCA	151.29	APO	245.01	V2	23.056
RC	212.919	GL	49.83	GP	-51.45	ZAL	104.81	ZAP	101.07	ETS	197.01	ZAE	119.92	ETE	232.33	ZAC	36.65	ETC	293.42	LVI	29.58

PLANETOCENTRIC CONIC

C3	29.311	VHL	5.414	DLA	61.49	RAL	12.80	RAD	6646.7	VEL	12.217	PTH	7.17	VHP	3.862	DPA	-37.16	RAP	47.84	ECC	1.4824

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.82	5 57 18	4656.77	-26.42	227.39	267.14	32.21	7 14 54	3656.8	-46.35	209.60
32.82	5 57 18	4656.77	-26.42	227.39	267.14	32.21	7 14 54	3656.8	-46.35	209.60
32.82	5 57 18	4656.77	-26.42	227.39	267.14	32.21	7 14 54	3656.8	-46.35	209.60
32.82	5 57 18	4656.77	-26.42	227.39	267.14	32.21	7 14 54	3656.8	-46.35	209.60
32.82	5 57 18	4656.77	-26.42	227.39	267.14	32.21	7 14 54	3656.8	-46.35	209.60
32.82	5 57 18	4656.77	-26.42	227.39	267.14	32.21	7 14 54	3656.8	-46.35	209.60
32.82	5 57 18	4656.77	-26.42	227.39	267.14	32.21	7 14 54	3656.8	-46.35	209.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6153	TRA	-.3407	TC3	-.7503	BAU	1.1831	SGT	1286.3	SGR	5466.1	SG3	833.5	ST	34.5	SR	214.3	SS	129.1
RDE	4.0319	RRA	.5782	RC3	-2.9246	FAU	.16980	RRT	.6234	RRF	.9994	RTF	.6362	CRT	.9111	CRS	-.9999	CST	-.9155
FDE	7.2849	FRA	.9179	FC3	-5.0152	BSP	9326	SGB	5615.4	R23	.0104	R13	.9995	LSA	252.1	MSA	14.1	SSA	.2
BDE	4.0786	BRA	.6711	BC3	3.0193	FSP	1427	SG1	5526.6	SG2	994.8	THA	81.37	EL1	216.6	EL2	14.1	ALF	81.62

LAUNCH DATE JUL 13 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 546.705 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.793 GAL -2.55 AZL 81.98 HCA 169.66 SMA 198.08 ECC .23624 INC 8.0205 V1 29.296
RP 238.63 LAP 1.44 LOP 100.22 VP 21.031 GAP 6.92 AZP 97.89 TAL 346.61 TAP 156.27 RCA 151.26 APO 244.87 V2 23.024
RC 215.868 GL 53.06 GP -53.58 ZAL 104.05 ZAP 99.48 ETS 195.96 ZAE 117.53 ETE 231.08 ZAC 34.87 ETC 294.60 LVI 31.53

PLANETOCENTRIC CONIC

C3 32.708 VHL 5.719 DLA 64.19 RAL 8.86 RAD 6648.0 VEL 12.354 PTH 7.28 VHP 4.085 DPA -39.30 RAP 48.53 ECC 1.5383

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.63	5 33 58	4697.13	-25.49	231.47	265.54	28.84	6 52 15	3697.1	-46.40	215.53
29.63	5 33 58	4697.13	-25.49	231.47	265.54	28.84	6 52 15	3697.1	-46.40	215.53
29.63	5 33 58	4697.13	-25.49	231.47	265.54	28.84	6 52 15	3697.1	-46.40	215.53
29.63	5 33 58	4697.13	-25.49	231.47	265.54	28.84	6 52 15	3697.1	-46.40	215.53
29.63	5 33 58	4697.13	-25.49	231.47	265.54	28.84	6 52 15	3697.1	-46.40	215.53
29.63	5 33 58	4697.13	-25.49	231.47	265.54	28.84	6 52 15	3697.1	-46.40	215.53
29.63	5 33 58	4697.13	-25.49	231.47	265.54	28.84	6 52 15	3697.1	-46.40	215.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .8156 TRA -.3409 TC3 -.7673 BAU 1.2521 SGT 1432.9 SGR 5682.2 SG3 724.7 ST 42.5 SR 231.6 SS 122.7
RDE 4.6134 RRA .4279 RC3-2.7586 FAU .14987 RRT .7091 RRF .9995 RTF .7218 CRT .9413 CRS-1.0000 CST -.9446
FDE 6.9299 FRA .5430 FC3-3.9666 BSP 9786 SGB 5660.1 R23 .0132 R13 .9996 LSA 265.2 MSA 14.1 SSA .1
BDE 4.6850 BRA .5471 BC3 2.8633 FSP 1253 SG1 5775.1 SG2 994.1 THA 79.55 EL1 235.1 EL2 14.1 ALF 80.16

LAUNCH DATE JUL 13 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 550.476 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.790 GAL -2.56 AZL 81.06 HCA 170.60 SMA 198.01 ECC .23601 INC 8.9368 V1 29.296
RP 238.95 LAP 1.45 LOP 101.17 VP 20.990 GAP 6.68 AZP 98.82 TAL 346.55 TAP 157.15 RCA 151.28 APO 244.74 V2 22.991
RC 218.810 GL 56.52 GP -55.71 ZAL 103.20 ZAP 97.92 ETS 194.84 ZAE 115.18 ETE 229.80 ZAC 33.10 ETC 295.93 LVI 33.49

PLANETOCENTRIC CONIC

C3 37.220 VHL 6.101 DLA 66.96 RAL 3.74 RAD 6649.7 VEL 12.534 PTH 7.41 VHP 4.365 DPA -41.42 RAP 49.33 ECC 1.6126

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.39	5 6 8	4741.02	-24.09	235.50	262.79	25.39	6 25 9	3741.0	-45.93	221.66
26.39	5 6 8	4741.02	-24.09	235.50	262.79	25.39	6 25 9	3741.0	-45.93	221.66
26.39	5 6 8	4741.02	-24.09	235.50	262.79	25.39	6 25 9	3741.0	-45.93	221.66
26.39	5 6 8	4741.02	-24.09	235.50	262.79	25.39	6 25 9	3741.0	-45.93	221.66
26.39	5 6 8	4741.02	-24.09	235.50	262.79	25.39	6 25 9	3741.0	-45.93	221.66
26.39	5 6 8	4741.02	-24.09	235.50	262.79	25.39	6 25 9	3741.0	-45.93	221.66
26.39	5 6 8	4741.02	-24.09	235.50	262.79	25.39	6 25 9	3741.0	-45.93	221.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.0392 TRA -.3557 TC3 -.7650 BAU 1.3333 SGT 1597.7 SGR 5884.2 SG3 611.4 ST 50.5 SR 247.6 SS 113.7
RDE 5.2743 RRA .2172 RC3-2.5679 FAU .12973 RRT .7781 RRF .9995 RTF .7913 CRT .9588 CRS-1.0000 CST -.9615
FDE 6.4183 FRA .1821 FC3-3.0175 BSP 10123 SGB 6097.3 R23 .0137 R13 .9997 LSA 277.0 MSA 14.1 SSA .1
BDE 5.3757 BRA .4168 BC3 2.6795 FSP 1057 SG1 6017.8 SG2 981.4 THA 77.74 EL1 252.5 EL2 14.1 ALF 78.92

LAUNCH DATE JUL 13 1973 FLIGHT TIME 280.00 ARRIVAL DATE APR 19 1974

HELIOCENTRIC CONIC DISTANCE 634.084 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.792 GAL -3.23 AZL 99.10 HCA 191.21 SMA 198.04 ECC .23849 INC 9.0991 V1 29.296
RP 244.90 LAP 1.76 LOP 121.53 VP 20.340 GAP 1.77 AZP 81.07 TAL 343.12 TAP 174.33 RCA 150.81 APO 245.27 V2 22.397
RC 280.584 GL -55.84 GP 51.69 ZAL 106.50 ZAP 80.24 ETS 195.00 ZAE 100.40 ETE 169.59 ZAC 138.88 ETC 291.85 LVI -73.18

PLANETOCENTRIC CONIC

C3 39.152 VHL 6.257 DLA -35.87 RAL 64.05 RAD 6650.4 VEL 12.611 PTH 7.47 VHP 3.768 DPA 50.31 RAP 344.66 ECC 1.6443

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 55 25	2528.78	-8.83	67.65	293.58	136.94	19 37 34	1528.8	9.55	51.89
60.00	20 43 21	2241.25	.26	50.46	302.24	130.30	21 20 42	1241.2	16.11	32.11
66.95	23 23 40	1772.67	14.58	22.94	312.95	123.14	23 53 13	772.7	26.86	.82
66.95	23 23 40	1772.67	14.58	22.94	312.95	123.14	23 53 13	772.7	26.86	.82
66.95	23 23 40	1772.67	14.58	22.94	312.95	123.14	23 53 13	772.7	26.86	.82
66.95	23 23 40	1772.67	14.58	22.94	312.95	123.14	23 53 13	772.7	26.86	.82
66.95	23 23 40	1772.67	14.58	22.94	312.95	123.14	23 53 13	772.7	26.86	.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.4547 TRA 3.8424 TC3-2.6688 BAU 1.8296 SGT 5921.0 SGR 5570.3 SG3 829.4 ST 130.0 SR 94.3 SS 48.9
RDE 1.3915 RRA-4.0962 RC3 2.2574 FAU .19080 RRT -.9822 RRF -.9984 RTF .5799 CRT -.9545 CRS .9978 CST -.9328
FDE-2.0514 FRA 6.8976 FC3-4.2189 BSP 13949 SGB 8129.4 R23 .1037 R13 -.9930 LSA 165.8 MSA 26.1 SSA .3
BDE 2.8217 BRA 5.6163 BC3 3.4955 FSP 1500 SG1 8093.3 SG2 764.8 THA 136.78 EL1 158.9 EL2 23.0 ALF 144.44

LAUNCH DATE JUL 13 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 21 1974

HELIOCENTRIC CONIC DISTANCE 637.834 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.794 GAL -3.26 AZL 98.47 HCA 192.10 SMA 198.09 ECC .23882 INC 8.4723 V1 29.296
RP 245.11 LAP 1.77 LOP 122.44 VP 20.320 GAP 1.55 AZP 81.71 TAL 342.94 TAP 175.04 RCA 150.78 APO 245.40 V2 22.375
RC 283.198 GL -53.48 GP 49.76 ZAL 107.43 ZAP 78.96 ETS 195.65 ZAE 99.74 ETE 171.13 ZAC 137.15 ETC 291.09 LVI -71.52

PLANETOCENTRIC CONIC

C3 36.034 VHL 6.003 DLA -33.65 RAL 63.06 RAD 6649.3 VEL 12.487 PTH 7.38 VHP 3.588 DPA 48.61 RAP 346.16 ECC 1.5930

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 35 56	2565.03	-10.63	69.21	290.41	136.65	19 18 41	1565.0	7.75	53.44
60.00	20 12 19	2308.45	-2.70	53.67	297.95	130.23	20 50 48	1308.4	13.30	35.56
70.00	22 52 50	1834.76	9.78	24.64	307.19	122.89	23 23 24	834.8	22.34	3.33
70.96	23 43 5	1681.03	14.50	15.68	310.18	120.70	24 11 6	681.0	25.84	353.12
70.96	23 43 5	1681.03	14.50	15.68	310.18	120.70	24 11 6	681.0	25.84	353.12
70.96	23 43 5	1681.03	14.50	15.68	310.18	120.70	24 11 6	681.0	25.84	353.12
110.00	3 56 12	6169.61	9.78	291.47	307.19	122.89	5 39 1	5169.6	22.34	270.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.3638 TRA 3.8593 TC3-2.9552 BAU 1.8116 SGT 6104.0 SGR 5388.8 SG3 933.7 ST 131.0 SR 90.3 SS 51.5
RDE 1.2710 RRA-3.8781 RC3 2.3256 FAU .20981 RRT -.9825 RRF -.9983 RTF .9801 CRT -.9551 CRS .9972 CST -.9302
FDE-2.1394 FRA 7.6033 FC3-5.0408 BSP 14003 SGB 8142.4 R23 .1090 R13 -.9923 LSA 165.2 MSA 26.1 SSA .3
BDE 2.6839 BRA 5.4712 BC3 3.7605 FSP 1699 SG1 8107.3 SG2 754.8 THA 138.62 EL1 157.5 EL2 22.2 ALF 145.88

LAUNCH DATE JUL 13 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 23 1974

HELIOCENTRIC CONIC DISTANCE 641.589 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.797 GAL -3.30 AZL 97.93 HCA 192.99 SMA 198.15 ECC .23917 INC 7.9317 V1 29.296
RP 245.32 LAP 1.78 LOP 123.34 VP 20.302 GAP 1.33 AZP 82.27 TAL 342.76 TAP 175.76 RCA 150.75 APO 245.54 V2 22.354
RC 285.791 GL -51.27 GP 47.88 ZAL 108.32 ZAP 77.65 ETS 196.24 ZAE 98.99 ETE 172.58 ZAC 135.46 ETC 290.41 LVI -69.87

PLANETOCENTRIC CONIC

C3 33.542 VHL 5.792 DLA -31.56 RAL 62.24 RAD 6648.4 VEL 12.388 PTH 7.30 VHP 3.439 DPA 46.94 RAP 347.52 ECC 1.5520

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 19 25	2598.16	-12.27	70.66	287.85	136.34	19 2 43	1598.2	6.10	54.85
60.00	19 47 54	2362.71	-5.08	56.27	294.66	130.03	20 27 16	1362.7	10.98	38.28
70.00	21 53 48	1992.08	3.87	32.99	301.39	123.96	22 27 0	992.1	17.26	12.70
75.37	0 12 29	1573.64	14.27	7.32	307.75	118.45	0 38 43	573.6	24.74	344.42
75.37	0 12 29	1573.64	14.27	7.32	307.75	118.45	0 38 43	573.6	24.74	344.42
75.37	0 12 29	1573.64	14.27	7.32	307.75	118.45	0 38 43	573.6	24.74	344.42
110.00	2 57 11	1038.89	3.87	321.90	301.39	123.96	3 14 30	38.9	17.26	301.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.2793 TRA 3.8827 TC3-3.2402 BAU 1.8049 SGT 6284.3 SGR 5204.3 SG3 1032.2 ST 131.6 SR 86.3 SS 53.7
RDE 1.1719 RRA-3.6833 RC3 2.3880 FAU .22897 RRT -.9836 RRF -.9982 RTF .9810 CRT -.9575 CRS .9964 CST -.9298
FDE-2.2153 FRA 8.2197 FC3-5.9097 BSP 13921 SGB 8159.5 R23 .1118 R13 -.9919 LSA 164.3 MSA 25.6 SSA .3
BDE 2.5629 BRA 5.3381 BC3 4.0251 FSP 1853 SG1 8127.1 SG2 725.9 THA 140.46 EL1 156.0 EL2 21.0 ALF 147.20

LAUNCH DATE JUL 13 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 25 1974

HELIOCENTRIC CONIC DISTANCE 645.342 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.800 GAL -3.34 AZL 97.46 HCA 193.89 SMA 198.20 ECC .23954 INC 7.4603 V1 29.296
RP 245.53 LAP 1.79 LOP 124.24 VP 20.284 GAP 1.11 AZP 82.76 TAL 342.57 TAP 176.46 RCA 150.72 APO 245.68 V2 22.334
RC 288.361 GL -49.22 GP 46.06 ZAL 109.16 ZAP 76.34 ETS 196.75 ZAE 98.18 ETE 173.93 ZAC 133.82 ETC 289.81 LVI -68.23

PLANETOCENTRIC CONIC

C3 31.523 VHL 5.615 DLA -29.59 RAL 61.55 RAD 6647.6 VEL 12.306 PTH 7.24 VHP 3.316 DPA 45.31 RAP 348.75 ECC 1.5188

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 5 10	2629.02	-13.78	72.02	285.77	136.00	18 48 59	1629.0	4.55	56.15
60.00	19 27 44	2409.37	-7.12	58.53	292.06	129.77	20 7 53	1409.4	8.97	40.58
70.00	21 19 0	2082.05	.44	37.69	297.74	124.15	21 53 42	1082.1	14.13	17.80
80.00	0 10 9	1557.73	10.71	4.17	303.95	118.04	0 36 7	557.7	21.32	341.82
80.89	0 50 17	1429.38	13.92	356.34	305.64	116.38	1 14 6	429.4	23.60	333.19
100.00	2 53 1	1032.20	10.71	325.54	303.95	118.04	3 10 13	32.2	21.32	303.18
110.00	2 22 22	1128.87	.44	326.60	297.74	124.15	2 41 11	128.9	14.13	306.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.1954 TRA 3.9190 TC3-3.5171 BAU 1.7987 SGT 6463.0 SGR 5019.3 SG3 1123.9 ST 131.7 SR 82.1 SS 55.1
RDE 1.0689 RRA-3.4750 RC3 2.4178 FAU .24565 RRT -.9841 RRF -.9981 RTF .9814 CRT -.9581 CRS .9954 CST -.9264
FDE-2.2252 FRA 8.8006 FC3-6.7463 BSP 13988 SGB 8183.1 R23 .1156 R13 -.9914 LSA 162.7 MSA 25.5 SSA .4
BDE 2.4418 BRA 5.2378 BC3 4.2680 FSP 2021 SG1 8152.6 SG2 707.0 THA 142.28 EL1 153.9 EL2 20.1 ALF 148.56

LAUNCH DATE JUL 13 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 27 1974

HELIOCENTRIC CONIC DISTANCE 649.094 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.803 GAL -3.38 AZL 97.05 HCA 194.78 SMA 198.26 ECC .23992 INC 7.0456 V1 29.296
RP 245.73 LAP 1.79 LOP 125.14 VP 20.267 GAP .90 AZP 83.19 TAL 342.38 TAP 177.16 RCA 150.69 APO 245.83 V2 22.314
RC 290.907 GL -47.30 GP 44.31 ZAL 109.97 ZAP 75.03 ETS 197.20 ZAE 97.30 ETE 175.20 ZAC 132.22 ETC 289.28 LVI -66.62

PLANETOCENTRIC CONIC

C3 29.869 VHL 5.465 DLA -27.74 RAL 60.97 RAD 6647.0 VEL 12.239 PTH 7.19 VHP 3.214 DPA 43.73 RAP 349.87 ECC 1.4916

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 52 44	2658.03	-15.20	73.32	284.07	135.65	18 37 2	1658.0	3.10	57.36
60.00	19 10 36	2450.88	-8.92	60.55	289.96	129.47	19 51 27	1450.9	7.17	42.61
70.00	20 52 43	2150.62	-2.18	41.26	295.02	124.09	21 28 33	1150.6	11.67	21.58
80.00	23 3 2	1742.60	4.63	14.52	299.24	119.53	23 32 5	742.6	16.31	353.25
90.00	1 14 11	1332.34	9.04	346.73	301.62	116.91	1 36 24	332.3	19.35	324.44
100.00	1 49 50	1217.07	4.63	335.89	299.24	119.53	2 10 7	217.1	16.31	314.61
110.00	1 56 5	1197.44	-2.18	330.18	295.02	124.09	2 16 2	197.4	11.67	310.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.1170 TRA 3.9608 TC3-3.7895 BAU 1.7978 SGT 6640.3 SGR 4835.7 SG3 1208.4 ST 131.5 SR 77.9 SS 56.2
RDE .9764 RRA-3.2998 RC3 2.4309 FAU .26100 RRT -.9846 RRF -.9979 RTF .9818 CRT -.9589 CRS .9941 CST -.9226
FDE-2.2049 FRA 9.3208 FC3-7.5648 BSP 14043 SGB 8214.5 R23 .1187 R13 -.9908 LSA 160.9 MSA 25.5 SSA .4
BDE 2.3313 BRA 5.1551 BC3 4.5022 FSP 2171 SG1 8185.8 SG2 686.7 THA 144.07 EL1 151.7 EL2 19.2 ALF 149.87

LAUNCH DATE JUL 13 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 29 1974

HELIOCENTRIC CONIC DISTANCE 652.846 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.806 GAL -3.42 AZL 96.68 HCA 195.67 SMA 198.32 ECC .24032 INC 6.6777 V1 29.296
RP 245.93 LAP 1.80 LOP 126.03 VP 20.251 GAP .68 AZP 83.57 TAL 342.18 TAP 177.85 RCA 150.66 APO 245.98 V2 22.295
RC 293.430 GL -45.50 GP 42.63 ZAL 110.74 ZAP 73.73 ETS 197.58 ZAE 96.36 ETE 176.37 ZAC 130.68 ETC 288.81 LVI -65.06

PLANETOCENTRIC CONIC

C3 28.500 VHL 5.339 DLA -26.00 RAL 60.48 RAD 6646.4 VEL 12.184 PTH 7.14 VHP 3.128 DPA 42.21 RAP 350.90 ECC 1.4690

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 41 46	2685.50	-16.53	74.57	282.69	135.28	18 26 32	1685.5	1.72	58.51
60.00	18 55 48	2488.62	-10.55	62.41	288.27	129.13	19 37 16	1488.6	5.53	44.43
70.00	20 31 20	2207.70	-4.35	44.25	292.88	123.91	21 8 8	1207.7	9.57	24.67
80.00	22 28 18	1841.62	1.29	19.97	296.39	119.83	22 58 59	841.6	13.33	359.09
90.00	0 21 1	1490.76	4.06	355.69	297.92	118.01	0 45 52	490.8	15.20	334.20
100.00	1 15 6	1316.09	1.29	341.34	296.39	119.83	1 37 2	316.1	13.33	320.46
110.00	1 34 42	1254.52	-4.35	333.17	292.88	123.91	1 55 37	254.5	9.57	313.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.0402 TRA 4.0101 TC3-4.0526 BAU 1.7992 SGT 6815.1 SGR 4653.5 SG3 1284.9 ST 131.1 SR 73.8 SS 56.8
RDE .8894 RRA-3.1386 RC3 2.4239 FAU .27442 RRT -.9849 RRF -.9977 RTF .9820 CRT -.9594 CRS .9924 CST -.9176
FDE-2.1457 FRA 9.7902 FC3-8.3358 BSP 14156 SGB 8252.3 R23 .1217 R13 -.9902 LSA 158.8 MSA 25.6 SSA .4
BDE 2.2256 BRA 5.0924 BC3 4.7222 FSP 2318 SG1 8225.2 SG2 668.1 THA 145.82 EL1 149.4 EL2 18.3 ALF 151.14

LAUNCH DATE JUL 13 1973 FLIGHT TIME 292.00 ARRIVAL DATE MAY 1 1974

HELIOCENTRIC CONIC DISTANCE 656.597 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.809 GAL -3.47 AZL 96.35 HCA 196.56 SMA 198.38 ECC .24074 INC 6.3488 V1 29.296
RP 246.12 LAP 1.81 LOP 126.93 VP 20.236 GAP .46 AZP 83.91 TAL 341.98 TAP 178.54 RCA 150.63 APO 246.14 V2 22.276
RC 295.928 GL -43.82 GP 41.01 ZAL 111.48 ZAP 72.45 ETS 197.92 ZAE 95.38 ETE 177.45 ZAC 129.19 ETC 288.39 LVI -63.55

PLANETOCENTRIC CONIC

C3 27.359 VHL 5.231 DLA -24.35 RAL 60.08 RAD 6646.0 VEL 12.137 PTH 7.11 VHP 3.057 DPA 40.74 RAP 351.84 ECC 1.4503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 32 2	2711.65	-17.79	75.78	281.56	134.89	18 17 13	1711.7	.40	59.61
60.00	18 42 48	2523.43	-12.04	64.15	286.89	128.76	19 24 51	1523.4	4.00	46.11
70.00	20 13 17	2257.39	-6.24	46.87	291.18	123.65	20 50 55	1257.4	7.72	27.33
80.00	22 2 13	1916.46	-1.25	24.08	294.28	119.83	22 34 10	916.5	10.98	3.40
90.00	23 44 32	1586.51	.98	1.05	295.51	118.26	24 10 58	586.5	12.45	339.89
100.00	0 49 1	1390.93	-1.25	345.45	294.28	119.83	1 12 12	390.9	10.98	324.77
110.00	1 16 40	1304.21	-6.24	335.79	291.18	123.65	1 38 24	304.2	7.72	316.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.9718 TRA 4.0589 TC3-4.3152 BAU 1.8077 SGT 6989.9 SGR 4476.2 SG3 1354.2 ST 130.6 SR 70.0 SS 57.2
RDE .8151 RRA-2.9856 RC3 2.4096 FAU .28703 RRT -.9852 RRF -.9974 RTF .9823 CRT -.9604 CRS .9904 CST -.9128
FDE-2.0760 FRA10.1940 FC3-9.0828 BSP 14189 SGB 8300.3 R23 .1239 R13 -.9897 LSA 156.8 MSA 25.6 SSA .4
BDE 2.1337 BRA 5.0386 BC3 4.9424 FSP 2434 SG1 8275.0 SG2 648.1 THA 147.53 EL1 147.2 EL2 17.3 ALF 152.34

LAUNCH DATE JUL 13 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 3 1974

HELIOCENTRIC CONIC DISTANCE 660.347 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.812 GAL -3.51 AZL 96.05 HCA 197.45 SMA 198.45 ECC .24117 INC 6.0532 V1 29.296
RP 246.30 LAP 1.81 LOP 127.83 VP 20.221 GAP .25 AZP 84.22 TAL 341.77 TAP 179.23 RCA 150.59 APO 246.31 V2 22.258
RC 298.401 GL -42.24 GP 39.47 ZAL 112.19 ZAP 71.18 ETS 198.20 ZAE 94.36 ETE 178.46 ZAC 127.77 ETC 288.01 LVI -62.09

PLANETOCENTRIC CONIC

C3 26.401 VHL 5.138 DLA -22.79 RAL 59.74 RAD 6645.6 VEL 12.098 PTH 7.07 VHP 2.997 DPA 39.34 RAP 352.71 ECC 1.4345

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 23 19	2736.64	-18.99	76.95	280.65	134.48	18 8 55	1736.6	-.85	60.65
60.00	18 31 17	2555.88	-13.41	65.78	285.77	128.37	19 13 53	1555.9	2.57	47.66
70.00	19 57 42	2301.83	-7.91	49.23	289.82	123.33	20 36 3	1301.8	6.05	29.68
80.00	21 41 0	1978.50	-3.34	27.49	292.63	119.69	22 13 59	978.5	8.98	6.92
90.00	23 19 36	1660.51	-1.40	5.17	293.70	118.25	23 47 16	660.5	10.24	344.20
100.00	0 27 48	1452.97	-3.34	348.86	292.63	119.69	0 52 1	453.0	8.98	328.29
110.00	1 1 4	1348.65	-7.91	338.14	289.82	123.33	1 23 33	348.7	6.05	318.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.9024 TRA 4.1159 TC3-4.5636 BAU 1.8164 SGT 7160.7 SGR 4301.8 SG3 1415.4 ST 129.9 SR 66.4 SS 57.3
RDE .7460 RRA-2.8446 RC3 2.3788 FAU .29767 RRT -.9855 RRF -.9971 RTF .9825 CRT -.9614 CRS .9878 CST -.9072
FDE-1.9772 FRA10.5513 FC3-9.7613 BSP 14307 SGB 8353.5 R23 .1255 R13 -.9891 LSA 154.6 MSA 25.7 SSA .5
BDE 2.0434 BRA 5.0032 BC3 5.1464 FSP 2548 SG1 8329.9 SG2 627.8 THA 149.18 EL1 145.0 EL2 16.4 ALF 153.47

LAUNCH DATE JUL 13 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 5 1974

HELIOCENTRIC CONIC DISTANCE 664.098 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.816 GAL -3.56 AZL 95.79 HCA 198.34 SMA 198.52 ECC .24161 INC 5.7858 V1 29.296
RP 246.48 LAP 1.82 LOP 128.72 VP 20.208 GAP .03 AZP 84.51 TAL 341.56 TAP 179.90 RCA 150.55 APO 246.48 V2 22.241
RC 300.850 GL -40.74 GP 38.00 ZAL 112.88 ZAP 69.93 ETS 198.45 ZAE 93.31 ETE 179.38 ZAC 126.40 ETC 287.67 LVI -60.69

PLANETOCENTRIC CONIC

C3 25.592 VHL 5.059 DLA -21.31 RAL 59.47 RAD 6645.2 VEL 12.065 PTH 7.05 VHP 2.948 DPA 37.99 RAP 353.51 ECC 1.4212

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 15 28	2760.57	-20.13	78.08	279.92	134.07	18 1 29	1760.6	-2.06	61.65
60.00	18 20 59	2586.35	-14.70	67.33	284.87	127.96	19 4 5	1586.4	1.23	49.12
70.00	19 44 0	2342.31	-9.41	51.39	288.72	122.98	20 23 2	1342.3	4.52	31.81
80.00	21 23 2	2032.34	-5.15	30.46	291.32	119.45	21 56 54	1032.3	7.21	9.94
90.00	22 59 6	1722.47	-3.40	8.64	292.28	118.09	23 27 48	722.5	8.33	347.75
100.00	0 9 50	1506.81	-5.15	351.83	291.32	119.45	0 34 57	506.8	7.21	331.31
110.00	0 47 22	1389.13	-9.41	340.31	288.72	122.98	1 10 31	389.1	4.52	320.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.8360 TRA 4.1763 TC3-4.8045 BAU 1.8282 SGT 7330.2 SGR 4132.3 SG3 1469.0 ST 129.1 SR 62.9 SS 57.3
RDE .6843 RRA-2.7132 RC3 2.3380 FAU .30686 RRT -.9857 RRF -.9967 RTF .9827 CRT -.9628 CRS .9847 CST -.9011
FDE-1.8624 FRA10.8604 FC-10.3804 BSP 14434 SGB 8414.7 R23 .1266 R13 -.9887 LSA 152.4 MSA 25.8 SSA .5
BDE 1.9594 BRA 4.9802 BC3 5.3432 FSP 2649 SG1 8392.7 SG2 608.3 THA 150.77 EL1 142.8 EL2 15.4 ALF 154.54

LAUNCH DATE JUL 13 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 7 1974

HELIOCENTRIC CONIC DISTANCE 667.844 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.820 GAL -3.60 AZL 95.54 HCA 199.23 SMA 198.59 ECC .24207 INC 5.5426 V1 29.296
RP 246.65 LAP 1.82 LOP 129.61 VP 20.195 GAP -.18 AZP 84.78 TAL 341.35 TAP 180.58 RCA 150.52 APO 246.66 V2 22.224
RC 303.274 GL -39.34 GP 36.59 ZAL 113.55 ZAP 68.70 ETS 198.65 ZAE 92.23 ETE 180.23 ZAC 125.08 ETC 287.37 LVI -59.34

PLANETOCENTRIC CONIC

C3 24.908 VHL 4.991 DLA -19.91 RAL 59.25 RAD 6645.0 VEL 12.037 PTH 7.02 VHP 2.907 DPA 36.71 RAP 354.27 ECC 1.4099

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 8 22	2783.55	-21.21	79.19	279.35	133.64	17 54 46	1783.6	-3.21	62.61
60.00	18 11 42	2615.14	-15.90	68.82	284.15	127.54	18 55 17	1615.1	-.03	50.49
70.00	19 31 49	2379.65	-10.79	53.40	287.83	122.60	20 11 28	1379.6	3.10	33.77
80.00	21 7 26	2080.36	-6.75	33.12	290.27	119.15	21 42 7	1080.4	5.62	12.61
90.00	22 41 37	1776.54	-5.12	11.67	291.16	117.85	23 11 14	776.5	6.64	350.83
100.00	23 50 18	1554.83	-6.75	354.49	290.27	119.15	24 16 13	554.8	5.62	333.98
110.00	0 35 11	1426.46	-10.79	342.32	287.83	122.60	0 58 57	426.5	3.10	322.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7738 TRA 4.2375 TC3-5.0391 BAU 1.8433 SGT 7497.9 SGR 3968.2 SG3 1515.4 ST 128.2 SR 59.8 SS 57.1
RDE .6306 RRA-2.5889 RC3 2.2911 FAU .31493 RRT -.9859 RRF -.9963 RTF .9829 CRT -.9646 CRS .9809 CST -.8950
FDE-1.7412 FRA11.1173 FC-10.9461 BSP 14538 SGB 8483.2 R23 .1269 R13 -.9882 LSA 150.4 MSA 25.9 SSA .5
BDE 1.8826 BRA 4.9658 BC3 5.5355 FSP 2727 SG1 8462.7 SG2 588.6 THA 152.30 EL1 140.8 EL2 14.4 ALF 155.53

LAUNCH DATE JUL 13 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 9 1974

HELIOCENTRIC CONIC DISTANCE 671.591 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.823 GAL -3.65 AZL 95.32 HCA 200.12 SMA 198.66 ECC .24254 INC 5.3206 V1 29.296
RP 246.82 LAP 1.83 LOP 130.50 VP 20.183 GAP -.40 AZP 85.00 TAL 341.13 TAP 181.24 RCA 150.48 APO 246.84 V2 22.207
RC 305.673 GL -38.01 GP 35.25 ZAL 114.19 ZAP 67.50 ETS 198.82 ZAE 91.14 ETE 181.01 ZAC 123.83 ETC 287.10 LVI -58.05

PLANETOCENTRIC CONIC

C3 24.328 VHL 4.932 DLA -18.58 RAL 59.07 RAD 6644.7 VEL 12.013 PTH 7.00 VHP 2.873 DPA 35.49 RAP 354.98 ECC 1.4004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 1 56	2805.67	-22.25	80.28	278.91	133.21	17 48 42	1805.7	-4.32	63.54
60.00	18 3 18	2642.48	-17.02	70.25	283.59	127.10	18 47 20	1642.5	-1.24	51.80
70.00	19 20 52	2414.42	-12.06	55.30	287.13	122.20	20 1 7	1414.4	1.77	35.59
80.00	20 53 40	2124.00	-8.19	35.56	289.44	118.81	21 29 4	1124.0	4.16	15.02
90.00	22 26 22	1824.95	-6.66	14.40	290.27	117.55	22 56 47	825.0	5.11	353.56
100.00	23 36 32	1598.47	-8.19	356.93	289.44	118.81	24 3 10	598.5	4.16	336.39
110.00	0 24 15	1461.24	-12.06	344.22	287.13	122.20	0 48 36	461.2	1.77	324.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7106 TRA 4.3055 TC3-5.2590 BAU 1.8582 SGT 7661.9 SGR 3808.3 SG3 1554.4 ST 127.3 SR 56.7 SS 56.8
RDE .5808 RRA-2.4747 RC3 2.2325 FAU .32104 RRT -.9859 RRF -.9958 RTF .9830 CRT -.9665 CRS .9762 CST -.8880
FDE-1.6005 FRA11.3416 FC-11.4248 BSP 14717 SGB 8556.2 R23 .1269 R13 -.9877 LSA 148.2 MSA 26.1 SSA .6
BDE 1.8065 BRA 4.9661 BC3 5.7133 FSP 2809 SG1 8537.1 SG2 571.1 THA 153.77 EL1 138.7 EL2 13.4 ALF 156.46

LAUNCH DATE JUL 13 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 11 1974

HELIOCENTRIC CONIC DISTANCE 675.337 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.827 GAL -3.70 AZL 95.12 HCA 201.01 SMA 198.73 ECC .24302 INC 5.1166 V1 29.296
RP 246.98 LAP 1.83 LOP 131.39 VP 20.171 GAP -.61 AZP 85.22 TAL 340.90 TAP 181.91 RCA 150.44 APO 247.03 V2 22.191
RC 308.046 GL -36.76 GP 33.97 ZAL 114.82 ZAP 66.32 ETS 198.95 ZAE 90.03 ETE 181.73 ZAC 122.62 ETC 286.86 LVI -56.82

PLANETOCENTRIC CONIC

C3 23.834 VHL 4.882 DLA -17.32 RAL 58.93 RAD 6644.5 VEL 11.992 PTH 6.99 VHP 2.846 DPA 34.34 RAP 355.65 ECC 1.3923

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 56 4	2826.99	-23.24	81.34	278.59	132.76	17 43 11	1827.0	-5.39	64.44
60.00	17 55 39	2668.52	-18.09	71.63	283.16	126.65	18 40 7	1668.5	-2.38	53.04
70.00	19 10 59	2447.06	-13.24	57.09	286.58	121.78	19 51 46	1447.1	.52	37.29
80.00	20 41 22	2164.18	-9.50	37.82	288.79	118.44	21 17 26	1164.2	2.80	17.24
90.00	22 12 51	1869.04	-8.04	16.91	289.57	117.20	22 44 0	869.0	3.70	356.03
100.00	23 24 14	1638.65	-9.50	359.19	288.79	118.44	23 51 32	638.6	2.80	338.60
110.00	0 14 21	1493.87	-13.24	346.01	286.58	121.78	0 39 15	493.9	.52	326.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6531 TRA 4.3714 TC3-5.4769 BAU 1.8776 SGT 7825.6 SGR 3655.0 SG3 1587.2 ST 126.4 SR 54.0 SS 56.5
RDE .5388 RRA-2.3654 RC3 2.1734 FAU .32655 RRT -.9860 RRF -.9953 RTF .9832 CRT -.9690 CRS .9707 CST -.8814
FDE-1.4641 FRA11.5155 FC-11.8613 BSP 14838 SGB 8637.1 R23 .1260 R13 -.9873 LSA 146.2 MSA 26.3 SSA .6
BDE 1.7387 BRA 4.9703 BC3 5.8924 FSP 2864 SG1 8619.3 SG2 553.6 THA 155.16 EL1 136.9 EL2 12.3 ALF 157.33

LAUNCH DATE JUL 13 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 13 1974

HELIOCENTRIC CONIC DISTANCE 679.081 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.831 GAL -3.75 AZL 94.93 HCA 201.89 SMA 198.81 ECC .24352 INC 4.9289 V1 29.296
RP 247.14 LAP 1.84 LOP 132.28 VP 20.161 GAP -.83 AZP 85.42 TAL 340.68 TAP 182.57 RCA 150.39 APO 247.22 V2 22.176
RC 310.395 GL -35.57 GP 32.76 ZAL 115.43 ZAP 65.17 ETS 199.06 ZAE 88.92 ETE 182.38 ZAC 121.47 ETC 286.64 LVI -55.64

PLANETOCENTRIC CONIC

C3 23.416 VHL 4.839 DLA -16.11 RAL 58.63 RAD 6644.3 VEL 11.975 PTH 6.97 VHP 2.824 DPA 33.24 RAP 356.28 ECC 1.3854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 50 41	2847.57	-24.18	82.38	278.37	132.31	17 38 9	1847.6	-6.42	65.30
60.00	17 48 39	2693.43	-19.09	72.96	282.84	126.19	18 33 32	1693.4	-3.48	54.24
70.00	19 1 59	2477.85	-14.33	58.80	286.16	121.34	19 43 17	1477.9	-.65	38.90
80.00	20 30 16	2201.53	-10.71	39.94	288.28	118.04	21 6 57	1201.5	1.54	19.29
90.00	22 0 43	1909.71	-9.29	19.23	289.03	116.83	22 32 33	909.7	2.40	358.31
100.00	23 13 8	1676.00	-10.71	1.31	288.28	118.04	23 41 4	676.0	1.54	340.66
110.00	0 5 21	1524.67	-14.33	347.72	286.16	121.34	0 30 46	524.7	-.65	327.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.5944 TRA 4.4435 TC3-5.6801 BAU 1.8966 SGT 7986.0 SGR 3507.1 SG3 1613.7 ST 125.4 SR 51.4 SS 56.1
RDE .5007 RRA-2.2643 RC3 2.1074 FAU .33052 RRT -.9860 RRF -.9947 RTF .9833 CRT -.9718 CRS .9641 CST -.8746
FDE-1.3183 FRA11.6608 FC-12.2201 BSP 15025 SGB 8722.1 R23 .1243 R13 -.9870 LSA 144.3 MSA 26.4 SSA .6
BDE 1.6712 BRA 4.9872 BC3 6.0585 FSP 2918 SG1 8705.6 SG2 536.8 THA 156.49 EL1 135.1 EL2 11.3 ALF 158.13

LAUNCH DATE JUL 13 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC DISTANCE 682.824 EARTH TO MARS

RL 152.07 LAL -.00 LOL 290.46 VL 32.835 GAL -3.80 AZL 94.76 HCA 202.78 SMA 198.89 ECC .24403 INC 4.7551 V1 29.296
RP 247.29 LAP 1.84 LOP 133.17 VP 20.151 GAP -1.04 AZP 85.61 TAL 340.44 TAP 183.22 RCA 150.35 APO 247.42 V2 22.161
RC 312.717 GL -34.44 GP 31.61 ZAL 116.02 ZAP 64.05 ETS 199.14 ZAE 87.80 ETE 182.98 ZAC 120.37 ETC 286.45 LVI -54.51

PLANETOCENTRIC CONIC

C3 23.061 VHL 4.802 DLA -14.97 RAL 58.77 RAD 6644.2 VEL 11.960 PTH 6.96 VHP 2.806 DPA 32.21 RAP 356.89 ECC 1.3795

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 45 46	2867.47	-25.09	83.40	278.24	131.85	17 33 33	1867.5	-7.41	66.15
60.00	17 42 14	2717.31	-20.05	74.26	282.63	125.72	18 27 31	1717.3	-4.53	55.38
70.00	18 53 44	2507.07	-15.36	60.44	285.86	120.89	19 35 32	1507.1	-1.77	40.42
80.00	20 20 10	2236.54	-11.82	41.95	287.90	117.62	20 57 27	1236.5	.35	21.21
90.00	21 49 45	1947.58	-10.45	21.41	288.61	116.43	22 22 12	947.6	1.18	.42
100.00	23 3 2	1711.01	-11.82	3.32	287.90	117.62	23 31 33	711.0	.35	342.58
110.00	23 53 11	1553.89	-15.36	349.36	285.86	120.89	24 19 5	553.9	-1.77	329.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.5401 TRA 4.5142 TC3-5.8803 BAU 1.9190 SGT 8145.8 SGR 3365.6 SG3 1634.9 ST 124.5 SR 49.0 SS 55.7
RDE .4683 RRA-2.1683 RC3 2.0413 FAU .33385 RRT -.9859 RRF -.9940 RTF .9834 CRT -.9749 CRS .9565 CST -.8680
FDE-1.1760 FRA11.7674 FC-12.5334 BSP 15167 SGB 8813.7 R23 .1221 R13 -.9867 LSA 142.5 MSA 26.6 SSA .7
BDE 1.6097 BRA 5.0079 BC3 6.2245 FSP 2952 SG1 8798.2 SG2 521.4 THA 157.75 EL1 133.4 EL2 10.2 ALF 158.88

LAUNCH DATE JUL 13 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 17 1974

HELIOCENTRIC CONIC DISTANCE 686.565 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.839	GAL	-3.85	AZL	94.59	HCA	203.66	SMA	198.96	ECC	.24455	INC	4.5939
RP	247.44	LAP	1.84	LOP	134.06	VP	20.142	GAP	-1.25	AZP	85.79	TAL	340.21	TAP	183.87	RCA	150.31	APO	247.62
RC	315.013	GL	-33.37	GP	30.51	ZAL	116.60	ZAP	62.96	ETS	199.20	ZAE	86.68	ETE	183.53	ZAC	119.32	ETC	286.27

V1	29.296																		
V2	22.147																		
LVI	-53.44																		

PLANETOCENTRIC CONIC

C3	22.761	VHL	4.771	DLA	-13.87	RAL	58.73	RAD	6644.0	VEL	11.948	PTH	6.95	VHP	2.793	DPA	31.22	RAP	357.48
ECC	1.3746																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 14	2886.73	-25.96	84.41	278.20	131.38	17 29 21	1886.7	-8.37	66.97
60.00	17 36 19	2740.26	-20.96	75.52	282.50	125.25	18 21 59	1740.3	-5.53	56.49
70.00	18 46 10	2534.89	-16.33	62.02	285.66	120.42	19 28 25	1534.9	-2.83	41.87
80.00	20 10 56	2269.55	-12.85	43.85	287.63	117.18	20 48 46	1269.5	-.77	23.02
90.00	21 39 44	1983.11	-11.52	23.47	288.31	116.01	22 12 47	983.1	.03	2.40
100.00	22 53 48	1744.02	-12.85	5.22	287.63	117.18	23 22 52	744.0	-.77	344.39
110.00	23 45 36	1581.71	-16.33	350.94	285.66	120.42	24 11 58	581.7	-2.83	330.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.4848	TRA	4.5899	TC3	-6.0667	BAU	1.9410	SGT	8302.2	SGR	3229.0	SG3	1650.4	ST	123.6	SR	46.8	SS	55.3
RDE	.4389	RRA	-2.0792	RC3	1.9700	FAU	.33572	RRT	-.9857	RRF	-.9932	RTF	.9835	CRT	-.9783	CRS	.9475	CST	-.8612
FDE	-1.0276	FRA	11.8511	FC	-12.7695	BSP	15364	SGB	8908.0	R23	.1193	R13	-.9863	LSA	140.8	MSA	26.8	SSA	.7
BDE	1.5483	BRA	5.0389	BC3	6.3785	FSP	2986	SG1	8893.5	SG2	507.9	THA	158.95	EL1	131.9	EL2	9.1	ALF	159.57

LAUNCH DATE JUL 13 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC DISTANCE 690.306 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.843	GAL	-3.90	AZL	94.44	HCA	204.54	SMA	199.05	ECC	.24509	INC	4.4439
RP	247.58	LAP	1.84	LOP	134.94	VP	20.133	GAP	-1.46	AZP	85.96	TAL	339.97	TAP	184.51	RCA	150.26	APO	247.83
RC	317.282	GL	-32.35	GP	29.46	ZAL	117.17	ZAP	61.89	ETS	199.23	ZAE	85.57	ETE	184.04	ZAC	118.31	ETC	286.11

V1	29.296																		
V2	22.133																		
LVI	-52.41																		

PLANETOCENTRIC CONIC

C3	22.510	VHL	4.744	DLA	-12.82	RAL	58.72	RAD	6643.9	VEL	11.937	PTH	6.94	VHP	2.784	DPA	30.30	RAP	358.04
ECC	1.3705																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 37 4	2905.41	-26.80	85.40	278.22	130.91	17 25 29	1905.4	-9.30	67.77
60.00	17 30 51	2762.37	-21.82	76.76	282.46	124.76	18 16 53	1762.4	-6.50	57.56
70.00	18 39 11	2561.48	-17.24	63.54	285.54	119.95	19 21 52	1561.5	-3.84	43.27
80.00	20 2 27	2300.83	-13.82	45.67	287.45	116.73	20 40 48	1300.8	-1.83	24.74
90.00	21 30 32	2016.64	-12.51	25.44	288.11	115.57	22 4 9	1016.6	-1.05	4.28
100.00	22 45 19	1775.30	-13.82	7.04	287.45	116.73	23 14 54	775.3	-1.83	346.11
110.00	23 38 37	1608.30	-17.24	352.46	285.54	119.95	24 5 25	608.3	-3.84	332.18

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.4324	TRA	4.6654	TC3	-6.2477	BAU	1.9651	SGT	8457.2	SGR	3098.5	SG3	1661.3	ST	122.8	SR	44.8	SS	54.9
RDE	.4142	RRA	-1.9945	RC3	1.8994	FAU	.33701	RRT	-.9855	RRF	-.9923	RTF	.9835	CRT	-.9819	CRS	.9372	CST	-.8548
FDE	-.8851	FRA	11.9027	FC	-12.9615	BSP	15539	SGB	9007.0	R23	.1158	R13	-.9860	LSA	139.2	MSA	26.9	SSA	.7
BDE	1.4911	BRA	5.0738	BC3	6.5301	FSP	3006	SG1	8993.4	SG2	495.1	THA	160.09	EL1	130.4	EL2	8.0	ALF	160.22

LAUNCH DATE JUL 13 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC DISTANCE 694.045 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.847	GAL	-3.96	AZL	94.30	HCA	205.42	SMA	199.13	ECC	.24564	INC	4.3037
RP	247.71	LAP	1.85	LOP	135.83	VP	20.125	GAP	-1.67	AZP	86.11	TAL	339.73	TAP	185.15	RCA	150.22	APO	248.04
RC	319.522	GL	-31.38	GP	28.47	ZAL	117.73	ZAP	60.86	ETS	199.26	ZAE	84.45	ETE	184.50	ZAC	117.35	ETC	285.96

V1	29.296																		
V2	22.120																		
LVI	-51.43																		

PLANETOCENTRIC CONIC

C3	22.301	VHL	4.722	DLA	-11.82	RAL	58.74	RAD	6643.8	VEL	11.929	PTH	6.93	VHP	2.778	DPA	29.43	RAP	358.59
ECC	1.3670																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 33 12	2923.55	-27.60	86.38	278.31	130.42	17 21 56	1923.5	-10.20	68.55
60.00	17 25 47	2783.71	-22.64	77.96	282.48	124.27	18 12 11	1783.7	-7.43	58.59
70.00	18 32 42	2586.98	-18.10	65.02	285.50	119.47	19 15 49	1587.0	-4.81	44.61
80.00	19 54 36	2330.61	-14.72	47.42	287.36	116.27	20 33 27	1330.6	-2.83	26.37
90.00	21 22 4	2048.45	-13.44	27.31	287.99	115.12	21 56 12	1048.5	-2.07	6.05
100.00	22 37 28	1805.09	-14.72	8.79	287.36	116.27	23 7 33	805.1	-2.83	347.74
110.00	23 32 9	1633.80	-18.10	353.94	285.50	119.47	23 59 22	633.8	-4.81	333.52

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.3813	TRA	4.7431	TC3	-6.4202	BAU	1.9902	SGT	8610.7	SGR	2973.7	SG3	1667.9	ST	122.0	SR	42.9	SS	54.5
RDE	.3929	RRA	-1.9150	RC3	1.8280	FAU	.33743	RRT	-.9851	RRF	-.9912	RTF	.9836	CRT	-.9855	CRS	.9256	CST	-.8489
FDE	-.7459	FRA	11.9320	FC	-13.1000	BSP	15733	SGB	9109.7	R23	.1117	R13	-.9858	LSA	137.7	MSA	27.1	SSA	.8
BDE	1.4361	BRA	5.1151	BC3	6.6754	FSP	3020	SG1	9096.8	SG2	484.0	THA	161.16	EL1	129.1	EL2	6.9	ALF	160.82

LAUNCH DATE JUL 13 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 23 1974

HELIOCENTRIC CONIC DISTANCE 697.782 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.852	GAL	-4.01	AZL	94.17	HCA	206.31	SMA	199.21	ECC	.24619	INC	4.1726
RP	247.84	LAP	1.85	LOP	136.71	VP	20.119	GAP	-1.68	AZP	86.26	TAL	339.48	TAP	185.79	RCA	150.17	APO	248.26
RC	321.734	GL	-30.46	GP	27.52	ZAL	118.28	ZAP	59.85	ETS	199.26	ZAE	83.34	ETE	184.92	ZAC	116.43	ETC	285.83

V1	29.296																		
V2	22.107																		
LVI	-50.49																		

PLANETOCENTRIC CONIC

C3	22.129	VHL	4.704	DLA	-10.85	RAL	58.78	RAD	6643.8	VEL	11.922	PTH	6.93	VHP	2.775	DPA	28.60	RAP	359.12
ECC	1.3642																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 29 39	2941.17	-28.38	87.34	278.45	129.94	17 16 40	1941.2	-11.07	69.32
60.00	17 21 5	2804.35	-23.43	79.14	282.57	123.78	18 7 50	1804.3	-8.32	59.60
70.00	18 26 41	2611.48	-18.91	66.45	285.52	118.98	19 10 13	1611.5	-5.74	45.90
80.00	19 47 20	2359.07	-15.57	49.10	287.34	115.80	20 26 39	1359.1	-3.79	27.94
90.00	21 14 13	2078.76	-14.31	29.11	287.95	114.66	21 48 51	1078.8	-3.05	7.74
100.00	22 30 11	1833.54	-15.57	10.47	287.34	115.80	23 0 45	833.5	-3.79	349.31
110.00	23 26 8	1658.30	-18.91	355.37	285.52	118.98	23 53 46	658.3	-5.74	334.81

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.3303	TRA	4.8236	TC3	-6.5826	BAU	2.0156	SGT	8761.6	SGR	2854.1	SG3	1670.4	ST	121.2	SR	41.2	SS	54.2
RDE	.3742	RRA	-1.8403	RC3	1.7560	FAU	.33706	RRT	-.9847	RRF	-.9901	RTF	.9837	CRT	-.9891	CRS	.9123	CST	-.8431
FDE	-.6068	FRA	11.9414	FC	-13.1862	BSP	15932	SGB	9214.7	R23	.1070	R13	-.9856	LSA	136.3	MSA	27.3	SSA	.8
BDE	1.3819	BRA	5.1627	BC3	6.8128	FSP	3027	SG1	9202.5	SG2	474.2	THA	162.17	EL1	127.9	EL2	5.7	ALF	161.38

LAUNCH DATE JUL 13 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 25 1974

HELIOCENTRIC CONIC DISTANCE 701.518 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.856	GAL	-4.07	AZL	94.05	HCA	207.19	SMA	199.30	ECC	.24677	INC	4.0494	V1	29.296
RP	247.97	LAP	1.85	LOP	137.59	VP	20.112	GAP	-2.09	AZP	86.40	TAL	339.24	TAP	186.42	RCA	150.12	APO	248.48	V2	22.095
RC	323.917	GL	-29.57	GP	26.62	ZAL	118.82	ZAP	58.87	ETS	199.25	ZAE	82.24	ETE	185.31	ZAC	115.54	ETC	285.71	LVI	-49.59

PLANETOCENTRIC CONIC

C3	21.992	VHL	4.690	DLA	-9.93	RAL	58.84	RAD	6643.7	VEL	11.916	PTH	6.92	VHP	2.774	DPA	27.83	RAP	359.64	ECC	1.3619

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 26 21	2958.32	-29.12	88.30	278.65	129.44	17 15 39	1958.3	-11.92	70.07
60.00	17 16 43	2824.34	-24.18	80.30	282.72	123.28	18 3 48	1824.3	-9.19	60.56
70.00	18 21 5	2635.10	-19.68	67.85	285.61	118.49	19 5 0	1635.1	-6.63	47.14
80.00	19 40 33	2386.34	-16.37	50.73	287.38	115.32	20 20 19	1386.3	-4.71	29.45
90.00	21 6 54	2107.74	-15.12	30.85	287.98	114.18	21 42 2	1107.7	-3.97	9.37
100.00	22 23 25	1860.81	-16.37	12.10	287.38	115.32	22 54 26	860.8	-4.71	350.82
110.00	23 20 32	1681.91	-19.68	356.77	285.61	118.49	23 48 34	681.9	-6.63	336.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.2817	TRA	4.9048	TC3	-6.7390	BAU	2.0423	SGT	8911.4	SGR	2740.2	SG3	1669.5	ST	120.6	SR	39.6	SS	53.9
RDE	.3586	RRA	-1.7700	RC3	1.6848	FAU	.33606	RRT	-.9841	RRF	-.9888	RTF	.9837	CRT	-.9924	CRS	.8975	CST	-.8378
FDE	-.4741	FRA	11.9329	FC	-13.2296	BSP	16128	SGB	9323.2	R23	.1021	R13	-.9853	LSA	135.1	MSA	27.5	SSA	.6
BDE	1.3309	BRA	5.2144	BC3	6.9464	FSP	3027	SG1	9311.5	SG2	466.4	THA	163.12	EL1	126.9	EL2	4.6	ALF	161.92

LAUNCH DATE JUL 13 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 27 1974

HELIOCENTRIC CONIC DISTANCE 705.252 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.860	GAL	-4.12	AZL	93.93	HCA	208.07	SMA	199.38	ECC	.24735	INC	3.9335	V1	29.296
RP	248.09	LAP	1.85	LOP	138.47	VP	20.107	GAP	-2.30	AZP	86.53	TAL	338.98	TAP	187.05	RCA	150.07	APO	248.70	V2	22.084
RC	326.069	GL	-28.73	GP	25.77	ZAL	119.35	ZAP	57.92	ETS	199.24	ZAE	81.15	ETE	185.67	ZAC	114.70	ETC	285.60	LVI	-48.74

PLANETOCENTRIC CONIC

C3	21.884	VHL	4.678	DLA	-9.04	RAL	58.91	RAD	6643.7	VEL	11.911	PTH	6.92	VHP	2.776	DPA	27.10	RAP	.16	ECC	1.3602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 23 17	2975.02	-29.84	89.24	278.89	128.95	17 12 52	1975.0	-12.74	70.80
60.00	17 12 39	2843.74	-24.90	81.43	282.91	122.77	18 0 3	1843.7	-10.03	61.53
70.00	18 15 51	2657.90	-20.42	69.21	285.76	117.99	19 0 9	1657.9	-7.49	48.35
80.00	19 34 14	2412.56	-17.13	52.31	287.48	114.83	20 14 26	1412.6	-5.59	30.90
90.00	21 0 5	2135.53	-15.89	32.53	288.07	113.70	21 35 41	1135.5	-4.86	10.93
100.00	22 17 5	1887.03	-17.13	13.68	287.48	114.83	22 48 32	887.0	-5.59	352.27
110.00	23 15 18	1704.71	-20.42	358.13	285.76	117.99	23 43 42	704.7	-7.49	337.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.2344	TRA	4.9863	TC3	-6.8883	BAU	2.0699	SGT	9058.8	SGR	2631.1	SG3	1665.2	ST	120.1	SR	38.2	SS	53.5
RDE	.3459	RRA	-1.7029	RC3	1.6150	FAU	.33460	RRT	-.9834	RRF	-.9874	RTF	.9837	CRT	-.9953	CRS	.8812	CST	-.8335
FDE	-.3492	FRA	11.9017	FC	-13.2371	BSP	16322	SGB	9433.1	R23	.0964	R13	-.9851	LSA	134.1	MSA	27.6	SSA	.9
BDE	1.2819	BRA	5.2691	BC3	7.0751	FSP	3019	SG1	9421.9	SG2	459.3	THA	164.02	EL1	125.9	EL2	3.5	ALF	162.42

LAUNCH DATE JUL 13 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 29 1974

HELIOCENTRIC CONIC DISTANCE 708.985 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	290.46	VL	32.865	GAL	-4.18	AZL	93.82	HCA	208.94	SMA	199.47	ECC	.24794	INC	3.8242	V1	29.296
RP	248.20	LAP	1.85	LOP	139.35	VP	20.102	GAP	-2.51	AZP	86.65	TAL	338.73	TAP	187.67	RCA	150.01	APO	248.93	V2	22.073
RC	328.191	GL	-27.92	GP	24.95	ZAL	119.87	ZAP	57.00	ETS	199.21	ZAE	80.07	ETE	186.00	ZAC	113.89	ETC	285.50	LVI	-47.92

PLANETOCENTRIC CONIC

C3	21.803	VHL	4.669	DLA	-8.19	RAL	59.01	RAD	6643.6	VEL	11.908	PTH	6.92	VHP	2.780	DPA	26.42	RAP	.66	ECC	1.3588

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 20 27	2991.31	-30.53	90.17	279.18	128.44	17 10 18	1991.3	-13.54	71.52
60.00	17 8 51	2862.58	-25.59	82.55	283.15	122.26	17 56 33	1862.6	-10.84	62.46
70.00	18 10 58	2679.96	-21.12	70.54	285.95	117.49	18 55 38	1680.0	-8.31	49.53
80.00	19 28 18	2437.83	-17.85	53.85	287.64	114.34	20 8 56	1437.8	-6.43	32.30
90.00	20 53 43	2162.27	-16.62	34.15	288.21	113.22	21 29 45	1162.3	-5.71	12.43
100.00	22 11 10	1912.30	-17.85	15.21	287.64	114.34	22 43 2	912.3	-6.43	353.67
110.00	23 10 24	1726.77	-21.12	359.46	285.95	117.49	23 39 11	726.8	-8.31	336.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1865	TRA	5.0715	TC3	-7.0281	BAU	2.0975	SGT	9204.6	SGR	2527.0	SG3	1657.9	ST	119.5	SR	36.8	SS	53.3
RDE	.3348	RRA	-1.6403	RC3	1.5451	FAU	.33237	RRT	-.9825	RRF	-.9857	RTF	.9837	CRT	-.9976	CRS	.8630	CST	-.8293
FDE	-.2243	FRA	11.8622	FC	-13.1975	BSP	16537	SGB	9545.2	R23	.0908	R13	-.9849	LSA	133.1	MSA	27.8	SSA	.9
BDE	1.2329	BRA	5.3302	BC3	7.1960	FSP	3009	SG1	9534.4	SG2	454.4	THA	164.87	EL1	125.1	EL2	2.4	ALF	162.90

LAUNCH DATE JUL 14 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 347.909 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	34.948	GAL	-4.82	AZL	90.24	HCA	111.07	SMA	253.21	ECC	.40681	INC	.2364	V1	29.298
RP	217.98	LAP	-.22	LOP	42.49	VP	26.335	GAP	22.71	AZP	89.91	TAL	343.25	TAP	94.32	RCA	150.20	APO	356.22	V2	25.208
RC	74.281	GL	-1.33	GP	-5.22	ZAL	117.36	ZAP	172.11	ETS	223.03	ZAE	168.59	ETE	334.50	ZAC	79.36	ETC	283.39	LVI	-13.54

PLANETOCENTRIC CONIC

C3	38.746	VHL	6.225	DLA	16.14	RAL	46.71	RAD	6650.2	VEL	12.595	PTH	7.46	VHP	8.162	DPA	8.44	RAP	36.26	ECC	1.6377

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 56 9	3622.84	-47.46	139.71	296.17	93.84	14 56 31	2622.8	-40.44	107.32
60.00	14 17 19	3566.49	-40.30	134.99	296.52	90.15	15 16 45	2566.5	-35.83	104.83
70.00	14 48 25	3474.93	-34.06	127.40	296.34	87.26	15 46 20	2474.9	-31.62	98.93
80.00	15 36 40	3323.73	-29.51	115.58	295.99	85.26	16 32 3	2323.7	-28.48	88.21
90.00	16 49 3	3090.09	-27.79	98.24	295.82	84.51	17 40 33	2090.1	-27.27	71.24
100.00	18 19 32	2798.21	-29.51	76.95	295.99	85.26	19 6 10	1798.2	-28.48	49.57
110.00	19 47 51	2521.75	-34.06	56.31	296.34	87.26	20 29 53	1521.8	-31.62	27.85

DIFFERENTIAL CORRECTIONS

TDE	-.4510	TRA	-1.5350	TC3	.1379	BAU	.0817												
RDE	-.5800	RRA	.2659	RC3	-.0766	FAU	.05770												
FDE	.4965	FRA	1.4951	FC3	-1.2893	BSP	2484												
BDE	.7347	BRA	1.5579	BC3	.1578	FSP	247												

MID-COURSE EXECUTION ACCURACY

SGT	1537.9	SGR	599.2	SG3	190.0														
RRT	-.1840	RRF	.2080	RTF	-.7605														
SGB	1650.5	R23	-.0449	R13	.7623														
SG1	1542.6	SG2	587.2	THA	175.20														

ORBIT DETERMINATION ACCURACY

ST	30.3	SR	27.0	SS	22.2														
CRT	.5750	CRS	.6217	CST	.9958														
LSA	41.9	MSA	19.5	SSA	1.2														
EL1	36.1	EL2	18.5	ALF	39.27														

LAUNCH DATE JUL 14 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 350.450 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	34.830	GAL	-4.71	AZL	90.20	HCA	112.21	SMA	249.29	ECC	.39728	INC	.1989	V1	29.298
RP	218.35	LAP	-.18	LOP	43.63	VP	26.140	GAP	22.35	AZP	89.92	TAL	343.35	TAP	95.56	RCA	150.25	APO	348.33	V2	25.168
RC	75.647	GL	-1.14	GP	-5.39	ZAL	117.21	ZAP	171.44	ETS	220.60	ZAE	167.81	ETE	334.88	ZAC	79.11	ETC	283.36	LVI	-13.27

PLANETOCENTRIC CONIC

C3	37.086	VHL	6.090	DLA	16.28	RAL	46.50	RAD	6649.6	VEL	12.529	PTH	7.41	VHP	7.931	DPA	8.43	RAP	36.70	ECC	1.6103

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 54 45	3614.69	-47.42	138.93	295.01	94.44	14 55 0	2614.7	-40.18	106.71
60.00	14 15 44	3558.83	-40.30	134.34	295.44	90.60	15 15 3	2558.8	-35.65	104.25
70.00	14 46 36	3467.96	-34.08	126.85	295.32	87.58	15 44 24	2468.0	-31.51	98.42
80.00	15 34 37	3317.50	-29.55	115.12	294.99	85.50	16 29 54	2317.5	-28.41	87.76
90.00	16 46 53	3084.22	-27.82	97.81	294.83	84.72	17 38 17	2084.2	-27.22	70.82
100.00	18 17 29	2791.97	-29.55	76.49	294.99	85.50	19 4 1	1792.0	-28.41	49.12
110.00	19 46 2	2514.77	-34.08	55.77	295.32	87.58	20 27 57	1514.8	-31.51	27.34

DIFFERENTIAL CORRECTIONS

TDE	-.4518	TRA	-1.5311	TC3	.1598	BAU	.0899												
RDE	-.5630	RRA	.2667	RC3	-.0856	FAU	.05992												
FDE	.5216	FRA	1.5505	FC3	-1.3987	BSP	2555												
BDE	.7219	BRA	1.5542	BC3	.1813	FSP	266												

MID-COURSE EXECUTION ACCURACY

SGT	1571.8	SGR	599.9	SG3	201.8														
RRT	-.1988	RRF	.2249	RTF	-.7686														
SGB	1682.4	R23	-.0484	R13	.7705														
SG1	1577.1	SG2	585.9	THA	174.96														

ORBIT DETERMINATION ACCURACY

ST	31.0	SR	26.8	SS	23.0														
CRT	.5726	CRS	.6228	CST	.9956														
LSA	42.7	MSA	19.5	SSA	1.3														
EL1	36.4	EL2	18.7	ALF	37.86														

LAUNCH DATE JUL 14 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 353.101 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	34.718	GAL	-4.61	AZL	90.16	HCA	113.34	SMA	245.69	ECC	.38824	INC	.1606	V1	29.298
RP	218.71	LAP	-.15	LOP	44.76	VP	25.951	GAP	22.00	AZP	89.94	TAL	343.45	TAP	96.80	RCA	150.30	APO	341.08	V2	25.127
RC	77.098	GL	-.94	GP	-5.56	ZAL	117.05	ZAP	170.75	ETS	218.54	ZAE	167.09	ETE	335.07	ZAC	78.86	ETC	283.34	LVI	-13.00

PLANETOCENTRIC CONIC

C3	35.534	VHL	5.961	DLA	16.43	RAL	46.28	RAD	6649.1	VEL	12.467	PTH	7.36	VHP	7.708	DPA	8.40	RAP	37.13	ECC	1.5848

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 53 16	3606.94	-47.37	138.18	293.86	95.01	14 53 23	2606.9	-39.93	106.14
60.00	14 14 3	3551.60	-40.29	133.72	294.37	91.01	15 13 14	2551.6	-35.48	103.72
70.00	14 44 41	3461.44	-34.10	126.34	294.30	87.88	15 42 22	2461.4	-31.40	97.94
80.00	15 32 26	3311.76	-29.58	114.70	294.00	85.72	16 27 38	2311.8	-28.35	87.34
90.00	16 44 35	3078.88	-27.86	97.43	293.84	84.91	17 35 54	2078.9	-27.17	70.44
100.00	18 15 18	2786.23	-29.58	76.07	294.00	85.72	19 1 44	1786.2	-28.35	48.71
110.00	19 44 7	2508.26	-34.10	55.26	294.30	87.88	20 25 55	1508.3	-31.40	26.86

DIFFERENTIAL CORRECTIONS

TDE	-.4405	TRA	-1.5138	TC3	.1972	BAU	.1040												
RDE	-.5459	RRA	.2682	RC3	-.0952	FAU	.06206												
FDE	.5534	FRA	1.6121	FC3	-1.5119	BSP	2468												
BDE	.7014	BRA	1.5374	BC3	.2189	FSP	290												

MID-COURSE EXECUTION ACCURACY

SGT	1592.4	SGR	600.4	SG3	214.1														
RRT	-.2220	RRF	.2417	RTF	-.7854														
SGB	1701.8	R23	-.0414	R13	.7873														
SG1	1598.8	SG2	583.0	THA	174.48														

ORBIT DETERMINATION ACCURACY

ST	31.1	SR	26.5	SS	24.0														
CRT	.5619	CRS	.6260	CST	.9946														
LSA	43.2	MSA	19.6	SSA	1.3														
EL1	36.3	EL2	18.8	ALF	37.13														

LAUNCH DATE JUL 14 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 355.855 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	34.612	GAL	-4.50	AZL	90.12	HCA	114.48	SMA	242.39	ECC	.37969	INC	.1221	V1	29.298
RP	219.08	LAP	-.11	LOP	45.89	VP	25.769	GAP	21.66	AZP	89.95	TAL	343.56	TAP	98.04	RCA	150.36	APO	334.42	V2	25.087
RC	78.631	GL	-.72	GP	-5.75	ZAL	116.88	ZAP	170.03	ETS	216.77	ZAE	166.43	ETE	335.12	ZAC	78.60	ETC	283.31	LVI	-12.72

PLANETOCENTRIC CONIC

C3	34.088	VHL	5.839	DLA	16.58	RAL	46.05	RAD	6648.6	VEL	12.409	PTH	7.32	VHP	7.492	DPA	8.36	RAP	37.56	ECC	1.5610

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 51 41	3599.67	-47.33	137.49	292.73	95.55	14 51 41	2599.7	-39.69	105.60
60.00	14 12 16	3544.90	-40.28	133.15	293.33	91.40	15 11 21	2544.9	-35.32	103.22
70.00	14 42 38	3455.48	-34.11	125.88	293.30	88.16	15 40 14	2455.5	-31.30	97.51
80.00	15 30 8	3306.65	-29.60	114.32	293.02	85.92	16 25 15	2306.6	-28.29	86.97
90.00	16 42 9	3074.19	-27.88	97.08	292.87	85.08	17 33 23	2074.2	-27.12	70.10
100.00	18 13 0	2781.12	-29.60	75.69	293.02	85.92	18 59 21	1781.1	-28.29	48.34
110.00	19 42 5	2502.30	-34.11	54.80	293.30	88.16	20 23 47	1502.3	-31.30	26.42

DIFFERENTIAL CORRECTIONS

TDE	-.4462	TRA	-1.5134	TC3	.2167	BAU	.1100												
RDE	-.5294	RRA	.2696	RC3	-.1062	FAU	.06460												
FDE	.5803	FRA	1.6691	FC3	-1.6407	BSP	2596												
BDE	.6924	BRA	1.5372	BC3	.2413	FSP	309												

MID-COURSE EXECUTION ACCURACY

SGT	1630.1	SGR	601.3	SG3	227.2														
RRT	-.2364	RRF	.2615	RTF	-.7891														
SGB	1737.4	R23	-.0491	R13	.7913														
SG1	1637.2	SG2	581.7	THA	174.29														

ORBIT DETERMINATION ACCURACY

ST	31.9	SR	26.3	SS	24.9														
CRT	.5624	CRS	.6263	CST	.9946														
LSA	44.1	MSA	19.6	SSA	1.3														
EL1	36.8	EL2	18.9	ALF	35.43														

LAUNCH DATE JUL 14 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 358.699 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	34.511	GAL	-4.40	AZL	90.08	HCA	115.60	SMA	239.34	ECC	.37158	INC	.0825
RP	219.45	LAP	-.08	LOP	47.02	VP	25.594	GAP	21.31	AZP	89.96	TAL	343.68	TAP	99.28	RCA	150.41	APO	328.27
RC	80.245	GL	-.50	GP	-5.94	ZAL	116.70	ZAP	169.30	ETS	215.26	ZAE	165.82	ETE	335.03	ZAC	78.34	ETC	283.29

V1	29.298	V2	25.046	LVI	-12.43														

PLANETOCENTRIC CONIC

C3	32.738	VHL	5.722	DLA	16.75	RAL	45.80	RAD	6648.1	VEL	12.355	PTH	7.28	VHP	7.283	DPA	8.30	RAP	37.97

ECC	1.5388																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 50 2	3592.87	-47.28	136.84	291.64	96.05	14 49 54	2592.9	-39.47	105.10
60.00	14 10 23	3538.68	-40.27	132.62	292.30	91.76	15 9 21	2538.7	-35.16	102.76
70.00	14 40 29	3450.07	-34.12	125.46	292.31	88.41	15 37 59	2450.1	-31.21	97.11
80.00	15 27 42	3302.12	-29.62	113.99	292.06	86.09	16 22 44	2302.1	-28.23	86.65
90.00	16 39 34	3070.10	-27.91	96.79	291.91	85.23	17 30 44	2070.1	-27.08	69.81
100.00	18 10 33	2776.59	-29.62	75.35	292.06	86.09	18 56 50	1776.6	-28.23	48.02
110.00	19 39 55	2496.88	-34.12	54.38	292.31	88.41	20 21 32	1496.9	-31.21	26.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4499	TRA	-1.5104	TC3	.2401	BAU	.1171	SGT	1665.3	SGR	602.4	SG3	241.1	ST	32.7	SR	26.0	SS	25.8
RDE	-.5131	RRA	.2715	RC3	-.1181	FAU	.06727	RRT	-.2532	RRF	.2825	RTF	-.7941	CRT	.5611	CRS	.6265	CST	.9945
FDE	.6096	FRA	1.7287	FC3	-1.7790	BSP	2698	SGB	1770.9	R23	-.0554	R13	.7986	LSA	45.0	MSA	19.5	SSA	1.3
BDE	.6824	BRA	1.5346	BC3	.2675	FSP	329	SG1	1673.3	SG2	580.0	THA	174.05	EL1	37.3	EL2	18.9	ALF	33.88

LAUNCH DATE JUL 14 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 361.624 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	34.415	GAL	-4.30	AZL	90.04	HCA	116.73	SMA	236.32	ECC	.36389	INC	.0402
RP	219.82	LAP	-.04	LOP	48.14	VP	25.424	GAP	20.97	AZP	89.98	TAL	343.80	TAP	100.53	RCA	150.46	APO	322.59
RC	81.936	GL	-.27	GP	-6.15	ZAL	116.51	ZAP	168.55	ETS	213.95	ZAE	165.26	ETE	334.82	ZAC	78.07	ETC	283.26

V1	29.298	V2	25.005	LVI	-12.14														

PLANETOCENTRIC CONIC

C3	31.476	VHL	5.610	DLA	16.92	RAL	45.54	RAD	6647.6	VEL	12.304	PTH	7.24	VHP	7.080	DPA	8.23	RAP	38.38

ECC	1.5180																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 48 16	3586.54	-47.24	136.23	290.57	96.51	14 48 3	2586.5	-39.26	104.64
60.00	14 8 24	3532.97	-40.26	132.14	291.29	92.09	15 7 17	2533.0	-35.02	102.34
70.00	14 38 12	3445.21	-34.13	125.08	291.34	88.63	15 35 38	2445.2	-31.12	96.76
80.00	15 25 7	3298.21	-29.64	113.70	291.11	86.24	16 20 5	2298.2	-28.18	86.37
90.00	16 36 51	3066.67	-27.93	96.54	290.96	85.35	17 27 57	2066.7	-27.05	69.57
100.00	18 7 59	2772.68	-29.64	75.07	291.11	86.24	18 54 11	1772.7	-28.18	47.74
110.00	19 37 39	2492.03	-34.13	54.00	291.34	88.63	20 19 11	1492.0	-31.12	25.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4534	TRA	-1.5061	TC3	.2649	BAU	.1244	SGT	1699.3	SGR	603.7	SG3	255.7	ST	33.4	SR	25.7	SS	26.7
RDE	-.4968	RRA	.2737	RC3	-.1312	FAU	.07005	RRT	-.2715	RRF	.3046	RTF	-.7993	CRT	.5595	CRS	.6270	CST	.9944
FDE	.6417	FRA	1.7910	FC3	-1.9268	BSP	2789	SGB	1803.3	R23	-.0615	R13	.8021	LSA	46.0	MSA	19.5	SSA	1.3
BDE	.6726	BRA	1.5308	BC3	.2956	FSP	351	SG1	1708.2	SG2	578.0	THA	173.77	EL1	37.7	EL2	18.9	ALF	32.36

LAUNCH DATE JUL 14 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 364.624 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	34.324	GAL	-4.21	AZL	90.00	HCA	117.85	SMA	233.92	ECC	.35660	INC	.0000
RP	220.19	LAP	-.00	LOP	49.26	VP	25.260	GAP	20.63	AZP	90.00	TAL	343.93	TAP	101.77	RCA	150.50	APO	317.33
RC	83.701	GL	-.02	GP	-6.36	ZAL	116.31	ZAP	167.78	ETS	212.81	ZAE	164.77	ETE	334.50	ZAC	77.79	ETC	283.24

V1	29.298	V2	24.964	LVI	-11.85														

PLANETOCENTRIC CONIC

C3	30.297	VHL	5.504	DLA	17.10	RAL	45.27	RAD	6647.1	VEL	12.257	PTH	7.20	VHP	6.884	DPA	8.15	RAP	38.78

ECC	1.4986																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 46 26	3580.71	-47.19	135.68	289.53	96.93	14 46 7	2580.7	-39.06	104.22
60.00	14 6 18	3527.80	-40.24	131.70	290.31	92.39	15 5 6	2527.8	-34.89	101.97
70.00	14 35 49	3440.94	-34.14	124.75	290.39	88.83	15 33 10	2440.9	-31.05	96.45
80.00	15 22 24	3294.94	-29.66	113.46	290.17	86.37	16 17 19	2294.9	-28.14	86.13
90.00	16 33 58	3063.92	-27.94	96.34	290.03	85.45	17 25 2	2063.9	-27.02	69.37
100.00	18 5 16	2769.41	-29.66	74.82	290.17	86.37	18 51 25	1769.4	-28.14	47.50
110.00	19 35 15	2487.76	-34.14	53.66	290.39	88.83	20 16 43	1487.8	-31.05	25.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4561	TRA	-1.5005	TC3	.2919	BAU	.1321	SGT	1731.9	SGR	605.4	SG3	271.1	ST	34.1	SR	25.4	SS	27.7
RDE	-.4806	RRA	.2765	RC3	-.1453	FAU	.07295	RRT	-.2917	RRF	.3281	RTF	-.8050	CRT	.5568	CRS	.6273	CST	.9941
FDE	.6765	FRA	1.8559	FC3	-2.0848	BSP	2868	SGB	1834.7	R23	-.0669	R13	.8081	LSA	46.9	MSA	19.4	SSA	1.4
BDE	.6626	BRA	1.5258	BC3	.3261	FSP	376	SG1	1742.0	SG2	575.7	THA	173.46	EL1	38.1	EL2	18.9	ALF	30.89

LAUNCH DATE JUL 14 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 367.692 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	34.238	GAL	-4.11	AZL	89.96	HCA	118.98	SMA	231.50	ECC	.34968	INC	.0357
RP	220.57	LAP	.03	LOP	50.38	VP	25.102	GAP	20.30	AZP	90.02	TAL	344.06	TAP	103.02	RCA	150.55	APO	312.45
RC	85.536	GL	.24	GP	-6.58	ZAL	116.10	ZAP	167.00	ETS	211.02	ZAE	164.33	ETE	334.06	ZAC	77.51	ETC	283.22

V1	29.298	V2	24.923	LVI	-11.54														

PLANETOCENTRIC CONIC

C3	29.194	VHL	5.403	DLA	17.29	RAL	44.99	RAD	6646.7	VEL	12.212	PTH	7.17	VHP	6.695	DPA	8.06	RAP	39.17

ECC	1.4805																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 44 30	3575.39	-47.14	135.17	288.51	97.32	14 44 6	2575.4	-38.88	103.84
60.00	14 4 7	3523.18	-40.23	131.31	289.35	92.65	15 2 50	2523.2	-34.78	101.63
70.00	14 33 18	3437.27	-34.14	124.46	289.46	89.00	15 30 35	2437.3	-30.98	96.18
80.00	15 19 32	3292.35	-29.67	113.26	289.25	86.47	16 14 24	2292.4	-28.11	85.95
90.00	16 30 56	3061.88	-27.95	96.19	289.11	85.52	17 21 58	2061.9	-27.00	69.22
100.00	18 2 24	2766.82	-29.67	74.63	289.25	86.47	18 48 31	1766.8	-28.11	47.32
110.00	19 32 44	2484.09	-34.14	53.38	289.46	89.00	20 14 8	1484.1	-30.98	25.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4584	TRA	-1.4940	TC3	.3204	BAU	.1399	SGT	1763.3	SGR	607.7	SG3	287.4	ST	34.8	SR	25.1	SS	28.7
RDE	-.4646	RRA	.2796	RC3	-.1607	FAU	.07602	RRT	-.3134	RRF	.3530	RTF	-.8105	CRT	.5533	CRS	.6273	CST	.9938
FDE	.7134	FRA	1.9229	FC3	-2.2542	BSP	2942	SGB	1865.1	R23	-.0725	R13	.8140	LSA	47.9	MSA	19.3	SSA	1.4
BDE	.6527	BRA	1.5199	BC3	.3584	FSP	402	SG1	1774.8	SG2	573.3	THA	173.11	EL1	38.5	EL2	18.9	ALF	29.45

LAUNCH DATE JUL 14 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 370.820 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	34.156	GAL	-4.02	AZL	89.92	HCA	120.07	SMA	229.26	ECC	.34312	INC	.0779
RP	220.85	LAP	.07	LOP	51.49	VP	24.949	GAP	19.96	AZP	90.04	TAL	344.19	TAP	104.26	RCA	150.60	APO	307.92
RC	87.440	GL	.51	GP	-6.82	ZAL	115.89	ZAP	166.20	ETS	210.95	ZAE	163.95	ETE	333.52	ZAC	77.22	ETC	283.20

PLANETOCENTRIC CONIC																			
C3	28.163	VHL	5.307	DLA	17.49	RAL	44.69	RAD	6646.3	VEL	12.170	PTH	7.13	VHP	6.511	DPA	7.94	RAP	39.58
ECC	1.4635																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 42 29	3570.59	-47.10	134.71	287.53	97.67	14 42 0	2570.6	-38.72	103.50
60.00	14 1 49	3519.12	-40.22	130.96	288.41	92.88	15 0 28	2519.1	-34.68	101.33
70.00	14 30 39	3434.24	-34.14	124.22	288.55	89.14	15 27 53	2434.2	-30.93	95.96
80.00	15 16 31	3290.47	-29.68	113.12	288.35	86.54	16 11 22	2290.5	-28.09	85.81
90.00	16 27 44	3060.58	-27.96	96.10	288.21	85.57	17 18 45	2060.6	-26.98	69.13
100.00	17 59 23	2764.94	-29.68	74.49	288.35	86.54	18 45 28	1764.9	-28.09	47.18
110.00	19 30 5	2481.05	-34.14	53.14	288.55	89.14	20 11 26	1481.1	-30.93	24.88

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.4603	TRA	-1.4863	TC3	.3504	BAU	.1479	SGT	1793.4	SGR	610.4	SG3	304.6	ST	35.4	SR	24.7	SS	29.8
RDE	-.4485	RRA	.2831	RC3	-.1775	FAU	.07922	RRT	-.3367	RRF	.3791	RTF	-.8161	CRT	.5491	CRS	.6269	CST	.9934
FDE	.7532	FRA	1.9920	FC3	-2.4352	BSP	3007	SGB	1894.4	R23	-.0778	R13	.8199	LSA	48.9	MSA	19.1	SSA	1.4
BDE	.6426	BRA	1.5130	BC3	.3928	FSP	429	SG1	1806.4	SG2	570.6	THA	172.73	EL1	38.9	EL2	18.8	ALF	28.05

LAUNCH DATE JUL 14 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 374.005 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	34.078	GAL	-3.93	AZL	89.88	HCA	121.18	SMA	227.18	ECC	.33690	INC	.1215
RP	221.33	LAP	.10	LOP	52.60	VP	24.801	GAP	19.63	AZP	90.06	TAL	344.33	TAP	105.51	RCA	150.64	APO	303.71
RC	89.407	GL	.80	GP	-7.06	ZAL	115.67	ZAP	165.38	ETS	210.19	ZAE	163.62	ETE	332.87	ZAC	76.92	ETC	283.18

PLANETOCENTRIC CONIC																			
C3	27.199	VHL	5.215	DLA	17.71	RAL	44.39	RAD	6645.9	VEL	12.131	PTH	7.10	VHP	6.334	DPA	7.81	RAP	39.92
ECC	1.4476																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 40 23	3566.34	-47.06	134.31	286.58	97.98	14 39 49	2566.3	-38.57	103.20
60.00	13 59 25	3515.65	-40.20	130.67	287.50	93.08	14 58 0	2515.6	-34.59	101.08
70.00	14 27 53	3431.85	-34.15	124.04	287.65	89.25	15 25 4	2431.9	-30.89	95.79
80.00	15 13 21	3289.32	-29.68	113.04	287.46	86.59	16 8 11	2289.3	-28.07	85.73
90.00	16 24 22	3060.07	-27.96	96.06	287.33	85.59	17 15 23	2060.1	-26.98	69.10
100.00	17 56 13	2763.79	-29.68	74.41	287.46	86.59	18 42 17	1763.8	-28.07	47.10
110.00	19 27 19	2478.67	-34.15	52.95	287.65	89.25	20 8 38	1478.7	-30.89	24.71

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.4628	TRA	-1.4784	TC3	.3810	BAU	.1558	SGT	1823.1	SGR	614.0	SG3	322.7	ST	36.1	SR	24.3	SS	31.0
RDE	-.4324	RRA	.2871	RC3	-.1957	FAU	.08259	RRT	-.3610	RRF	.4065	RTF	-.8214	CRT	.5446	CRS	.6262	CST	.9931
FDE	.7961	FRA	2.0637	FC3	-2.6289	BSP	3077	SGB	1923.7	R23	-.0837	R13	.8256	LSA	49.9	MSA	19.0	SSA	1.4
BDE	.6334	BRA	1.5061	BC3	.4283	FSP	459	SG1	1837.9	SG2	567.9	THA	172.33	EL1	39.2	EL2	18.7	ALF	26.63

LAUNCH DATE JUL 14 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 377.240 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	34.004	GAL	-3.85	AZL	89.83	HCA	122.29	SMA	225.24	ECC	.33100	INC	.1657
RP	221.71	LAP	.14	LOP	53.70	VP	24.657	GAP	19.31	AZP	90.09	TAL	344.46	TAP	106.75	RCA	150.68	APO	299.79
RC	91.436	GL	1.10	GP	-7.32	ZAL	115.44	ZAP	164.54	ETS	209.52	ZAE	163.34	ETE	332.11	ZAC	76.61	ETC	283.17

PLANETOCENTRIC CONIC																			
C3	26.297	VHL	5.128	DLA	17.93	RAL	44.07	RAD	6645.5	VEL	12.094	PTH	7.07	VHP	6.162	DPA	7.67	RAP	40.28
ECC	1.4328																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 38 11	3562.64	-47.03	133.96	285.66	98.25	14 37 33	2562.6	-38.45	102.93
60.00	13 56 54	3512.78	-40.19	130.42	286.61	93.25	14 55 27	2512.8	-34.51	100.88
70.00	14 24 58	3430.14	-34.15	123.90	286.78	89.33	15 22 8	2430.1	-30.85	95.67
80.00	15 10 2	3288.93	-29.68	113.01	286.60	86.60	16 4 50	2288.9	-28.07	85.70
90.00	16 20 50	3060.36	-27.96	96.08	286.46	85.58	17 11 50	2060.4	-26.98	69.12
100.00	17 52 53	2763.40	-29.68	74.38	286.60	86.60	18 38 57	1763.4	-28.07	47.07
110.00	19 24 25	2476.96	-34.15	52.82	286.78	89.33	20 5 42	1477.0	-30.85	24.58

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.4653	TRA	-1.4695	TC3	.4126	BAU	.1636	SGT	1851.3	SGR	618.4	SG3	341.8	ST	36.7	SR	23.8	SS	32.2
RDE	-.4183	RRA	.2916	RC3	-.2154	FAU	.08615	RRT	-.3866	RRF	.4551	RTF	-.8284	CRT	.5394	CRS	.6250	CST	.9926
FDE	.8425	FRA	2.1377	FC3	-2.8360	BSP	3141	SGB	1951.8	R23	-.0897	R13	.8311	LSA	50.9	MSA	18.8	SSA	1.4
BDE	.6243	BRA	1.4981	BC3	.4655	FSP	490	SG1	1868.2	SG2	565.1	THA	171.90	EL1	39.6	EL2	18.6	ALF	25.22

LAUNCH DATE JUL 14 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 380.522 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.934	GAL	-3.76	AZL	89.79	HCA	123.39	SMA	223.43	ECC	.32540	INC	.2101
RP	222.09	LAP	.18	LOP	54.80	VP	24.518	GAP	18.99	AZP	90.12	TAL	344.60	TAP	107.99	RCA	150.73	APO	296.13
RC	93.523	GL	1.41	GP	-7.59	ZAL	115.21	ZAP	163.69	ETS	208.93	ZAE	163.12	ETE	331.24	ZAC	76.29	ETC	283.15

PLANETOCENTRIC CONIC																			
C3	25.454	VHL	5.045	DLA	18.17	RAL	43.75	RAD	6645.2	VEL	12.059	PTH	7.04	VHP	5.995	DPA	7.50	RAP	40.63
ECC	1.4189																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 35 53	3559.50	-47.00	133.66	284.78	98.47	14 35 13	2559.5	-38.34	102.71
60.00	13 54 17	3510.53	-40.18	130.23	285.76	93.38	14 52 47	2510.5	-34.45	100.71
70.00	14 21 56	3429.13	-34.15	123.82	285.94	89.37	15 19 5	2429.1	-30.84	95.59
80.00	15 6 32	3289.33	-29.68	113.04	285.75	86.59	16 1 21	2289.3	-28.07	85.73
90.00	16 17 6	3061.51	-27.95	96.16	285.62	85.54	17 8 8	2061.5	-26.99	69.20
100.00	17 49 24	2763.81	-29.68	74.41	285.75	86.59	18 35 27	1763.8	-28.07	47.10
110.00	19 21 22	2475.95	-34.15	52.74	285.94	89.37	20 2 38	1475.9	-30.84	24.51

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.4671	TRA	-1.4598	TC3	.4453	BAU	.1717	SGT	1878.2	SGR	623.9	SG3	361.9	ST	37.3	SR	23.3	SS	33.4
RDE	-.4002	RRA	.2965	RC3	-.2369	FAU	.08989	RRT	-.4136	RRF	.4651	RTF	-.8313	CRT	.5327	CRS	.6226	CST	.9922
FDE	.8908	FRA	2.2138	FC3	-3.0573	BSP	3197	SGB	1979.1	R23	-.0960	R13	.8365	LSA	52.0	MSA	18.6	SSA	1.5
BDE	.6151	BRA	1.4896	BC3	.5044	FSP	523	SG1	1897.6	SG2	562.2	THA	171.42	EL1	39.9	EL2	18.4	ALF	23.83

LAUNCH DATE JUL 14 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 383.847 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.867 GAL -3.68 AZL 89.74 HCA 124.48 SMA 221.74 ECC .32008 INC .2556 V1 29.298
RP 222.48 LAP .21 LOP 55.90 VP 24.384 GAP 18.67 AZP 90.14 TAL 344.75 TAP 109.23 RCA 150.77 APO 292.72 V2 24.715
RC 95.665 GL 1.74 GP -7.87 ZAL 114.98 ZAP 162.82 ETS 208.41 ZAE 162.93 ETE 330.26 ZAC 75.96 ETC 283.14 LVI -9.91

PLANETOCENTRIC CONIC

C3 24.666 VHL 4.986 DLA 18.42 RAL 43.42 RAD 6644.9 VEL 12.027 PTH 7.02 VHP 5.834 DPA 7.32 RAP 40.97 ECC 1.4059

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 33 31	3556.95	-46.97	133.42	283.93	98.66	14 32 48	2556.9	-38.25	102.53
60.00	13 51 33	3508.92	-40.18	130.10	284.93	93.47	14 50 2	2508.9	-34.41	100.60
70.00	14 18 45	3428.84	-34.15	123.80	285.12	89.39	15 15 54	2428.8	-30.83	95.57
80.00	15 2 52	3290.57	-29.67	113.13	284.93	86.54	15 57 42	2290.6	-28.09	85.82
90.00	16 13 11	3063.54	-27.94	96.31	284.79	85.46	17 4 15	2063.5	-27.02	69.34
100.00	17 45 43	2765.04	-29.67	74.50	284.93	86.54	18 31 48	1765.0	-28.09	47.19
110.00	19 18 11	2475.66	-34.15	52.72	285.12	89.39	19 59 27	1475.7	-30.83	24.49

DIFFERENTIAL CORRECTIONS

TDE -.4695 TRA-1.4495 TC3 .4775 BAU .1793
RDE -.3839 RRA .3019 RC3 -.2601 FAU .09378
FDE .9438 FRA 2.2926 FC3-3.2914 BSP 3258
BDE .6065 BRA 1.4606 BC3 .5437 FSP 558

MID-COURSE EXECUTION ACCURACY

SGT 1903.8 SGR 630.6 SG3 382.9
RRT -.4412 RRF .4958 RTF -.8359
SGB 2005.5 R23 -.1026 R13 .8416
SG1 1925.9 SG2 559.4 THA 170.91

ORBIT DETERMINATION ACCURACY

ST 37.9 SR 22.8 SS 34.7
CRT .5254 CRS .6197 CST .9916
LSA 53.1 MSA 18.3 SSA 1.5
EL1 40.3 EL2 18.3 ALF 22.43

LAUNCH DATE JUL 14 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 387.210 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.804 GAL -3.60 AZL 89.70 HCA 125.58 SMA 220.17 ECC .31504 INC .3021 V1 29.298
RP 222.86 LAP .25 LOP 56.99 VP 24.253 GAP 18.35 AZP 90.18 TAL 344.89 TAP 110.46 RCA 150.81 APO 289.53 V2 24.673
RC 97.860 GL 2.09 GP -8.17 ZAL 114.74 ZAP 161.93 ETS 207.96 ZAE 162.79 ETE 329.15 ZAC 75.62 ETC 283.13 LVI -9.56

PLANETOCENTRIC CONIC

C3 23.929 VHL 4.892 DLA 18.68 RAL 43.08 RAD 6644.5 VEL 11.996 PTH 6.99 VHP 5.678 DPA 7.12 RAP 41.29 ECC 1.3938

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 31 2	3554.99	-46.95	133.24	283.12	98.80	14 30 17	2555.0	-38.18	102.40
60.00	13 48 42	3507.97	-40.17	130.02	284.13	93.53	14 47 10	2508.0	-34.39	100.53
70.00	14 15 25	3429.29	-34.15	123.84	284.32	89.36	15 12 34	2429.3	-30.84	95.61
80.00	14 59 0	3292.67	-29.67	113.29	284.13	86.46	15 53 53	2292.7	-28.12	85.97
90.00	16 9 4	3066.51	-27.93	96.53	283.99	85.36	17 0 10	2066.5	-27.05	69.55
100.00	17 41 52	2767.14	-29.67	74.66	284.13	86.46	18 27 59	1767.1	-28.12	47.34
110.00	19 14 51	2476.11	-34.15	52.75	284.32	89.36	19 56 7	1476.1	-30.84	24.52

DIFFERENTIAL CORRECTIONS

TDE -.4724 TRA-1.4388 TC3 .5101 BAU .1870
RDE -.3674 RRA .3078 RC3 -.2852 FAU .09788
FDE 1.0003 FRA 2.3735 FC3-3.5414 BSP 3312
BDE .5984 BRA 1.4713 BC3 .5844 FSP 594

MID-COURSE EXECUTION ACCURACY

SGT 1928.6 SGR 638.7 SG3 405.2
RRT -.4694 RRF .5274 RTF -.8401
SGB 2031.6 R23 -.1099 R13 .8464
SG1 1953.9 SG2 556.7 THA 170.38

ORBIT DETERMINATION ACCURACY

ST 38.4 SR 22.3 SS 36.0
CRT .5171 CRS .6157 CST .9912
LSA 54.2 MSA 18.1 SSA 1.5
EL1 40.6 EL2 18.0 ALF 21.02

LAUNCH DATE JUL 14 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 390.610 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.744 GAL -3.53 AZL 89.65 HCA 126.66 SMA 218.70 ECC .31026 INC .3498 V1 29.298
RP 223.25 LAP .28 LOP 58.08 VP 24.127 GAP 18.04 AZP 90.21 TAL 345.03 TAP 111.69 RCA 150.84 APO 286.55 V2 24.631
RC 100.104 GL 2.45 GP -8.49 ZAL 114.50 ZAP 161.02 ETS 207.55 ZAE 162.69 ETE 327.92 ZAC 75.27 ETC 283.13 LVI -9.20

PLANETOCENTRIC CONIC

C3 23.239 VHL 4.821 DLA 18.96 RAL 42.73 RAD 6644.2 VEL 11.968 PTH 6.97 VHP 5.527 DPA 6.90 RAP 41.61 ECC 1.3825

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 28 28	3553.64	-46.94	133.11	282.34	98.90	14 27 42	2553.6	-38.13	102.30
60.00	13 45 44	3507.69	-40.17	129.99	283.36	93.54	14 44 11	2507.7	-34.38	100.51
70.00	14 11 56	3430.52	-34.15	123.93	283.55	89.31	15 9 7	2430.5	-30.86	95.69
80.00	14 54 57	3295.67	-29.65	113.51	283.35	86.34	15 49 53	2295.7	-28.15	86.19
90.00	16 4 44	3070.45	-27.91	96.81	283.20	85.21	16 55 54	2070.4	-27.09	69.84
100.00	17 37 49	2770.14	-29.65	74.88	283.35	86.34	18 23 59	1770.1	-28.15	47.55
110.00	19 11 23	2477.34	-34.15	52.85	283.55	89.31	19 52 40	1477.3	-30.86	24.61

DIFFERENTIAL CORRECTIONS

TDE -.4750 TRA-1.4275 TC3 .5430 BAU .1948
RDE -.3508 RRA .3144 RC3 -.3124 FAU .10221
FDE 1.0607 FRA 2.4574 FC3-3.8078 BSP 3372
BDE .5905 BRA 1.4617 BC3 .6265 FSP 633

MID-COURSE EXECUTION ACCURACY

SGT 1952.2 SGR 648.6 SG3 428.6
RRT -.4984 RRF .5596 RTF -.8441
SGB 2057.1 R23 -.1175 R13 .8511
SG1 1981.1 SG2 554.1 THA 169.79

ORBIT DETERMINATION ACCURACY

ST 39.0 SR 21.7 SS 37.4
CRT .5069 CRS .6101 CST .9906
LSA 55.4 MSA 17.8 SSA 1.5
EL1 40.9 EL2 17.8 ALF 19.59

LAUNCH DATE JUL 14 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 394.042 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.687 GAL -3.46 AZL 89.60 HCA 127.75 SMA 217.32 ECC .30573 INC .3986 V1 29.298
RP 223.64 LAP .32 LOP 59.17 VP 24.004 GAP 17.73 AZP 90.24 TAL 345.17 TAP 112.92 RCA 150.88 APO 283.76 V2 24.590
RC 102.397 GL 2.82 GP -8.81 ZAL 114.26 ZAP 160.09 ETS 207.20 ZAE 162.62 ETE 326.56 ZAC 74.91 ETC 283.13 LVI -8.82

PLANETOCENTRIC CONIC

C3 22.595 VHL 4.753 DLA 19.25 RAL 42.38 RAD 6644.0 VEL 11.941 PTH 6.94 VHP 5.381 DPA 6.65 RAP 41.91 ECC 1.3719

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 25 49	3552.91	-46.93	133.04	281.61	98.95	14 25 2	2552.9	-38.11	102.25
60.00	13 42 39	3508.10	-40.17	130.03	282.62	93.52	14 41 7	2508.1	-34.39	100.54
70.00	14 8 18	3432.55	-34.15	124.09	282.80	89.21	15 5 30	2432.6	-30.90	95.84
80.00	14 50 42	3299.61	-29.64	113.80	282.59	86.19	15 45 42	2299.6	-28.20	86.47
90.00	16 0 9	3075.42	-27.88	97.17	282.44	85.04	16 51 25	2075.4	-27.13	70.19
100.00	17 33 34	2774.09	-29.64	75.17	282.59	86.19	18 19 48	1774.1	-28.20	47.84
110.00	19 7 44	2479.37	-34.15	53.01	282.80	89.21	19 49 4	1479.4	-30.90	24.76

DIFFERENTIAL CORRECTIONS

TDE -.4775 TRA-1.4147 TC3 .5758 BAU .2023
RDE -.3339 RRA .3213 RC3 -.3418 FAU .10674
FDE 1.1254 FRA 2.5424 FC3-4.0897 BSP 3420
BDE .5827 BRA 1.4508 BC3 .6696 FSP 673

MID-COURSE EXECUTION ACCURACY

SGT 1973.1 SGR 660.2 SG3 453.0
RRT -.5276 RRF .5920 RTF -.8479
SGB 2080.7 R23 -.1255 R13 .8556
SG1 2006.2 SG2 551.6 THA 169.16

ORBIT DETERMINATION ACCURACY

ST 39.5 SR 21.0 SS 38.9
CRT .4951 CRS .6031 CST .9900
LSA 56.7 MSA 17.5 SSA 1.5
EL1 41.2 EL2 17.5 ALF 18.17

LAUNCH DATE JUL 14 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 397.505 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.833	GAL	-3.39	AZL	89.55	HCA	128.83	SMA	216.03	ECC	.30143	INC	.4489	V1	29.298
RP	224.03	LAP	.35	LOP	60.25	VP	23.885	GAP	17.42	AZP	90.28	TAL	345.31	TAP	114.14	RCA	150.92	APO	281.15	V2	24.548
RC	104.735	GL	3.22	GP	-9.16	ZAL	114.02	ZAP	159.13	ETS	206.89	ZAE	162.59	ETE	325.08	ZAC	74.53	ETC	283.13	LVI	-8.44

PLANETOCENTRIC CONIC

C3	21.994	VHL	4.690	DLA	19.58	RAL	42.02	RAD	6643.7	VEL	11.916	PTH	6.92	VHP	5.240	DPA	6.38	RAP	42.19	ECC	1.3620

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 23 3	3552.83	-46.93	133.03	280.91	98.95	14 22 16	2552.8	-38.11	102.24
60.00	13 39 26	3509.22	-40.18	130.12	281.92	93.45	14 37 55	2509.2	-34.42	100.62
70.00	14 4 30	3435.41	-34.14	124.31	282.09	89.08	15 1 45	2435.4	-30.95	96.05
80.00	14 46 14	3304.55	-29.61	114.17	281.86	86.00	15 41 19	2304.5	-28.26	86.82
90.00	15 55 21	3081.48	-27.84	97.61	281.69	84.82	16 46 42	2081.5	-27.19	70.62
100.00	17 29 6	2779.02	-29.61	75.53	281.86	86.00	18 15 25	1779.0	-28.26	48.19
110.00	19 3 56	2482.23	-34.14	53.23	282.09	89.08	19 45 18	1482.2	-30.95	24.97

DIFFERENTIAL CORRECTIONS

TDE	-.4802	TRA	-1.4023	TC3	.6077	BAU	.2097
RDE	-.3166	RRA	.3290	RC3	-.3735	FAU	.11147
FDE	1.1950	FRA	2.6314	FC3	-4.3877	BSP	3472
BDE	.5752	BRA	1.4404	BC3	.7133	FSP	716

MID-COURSE EXECUTION ACCURACY

SGT	1993.7	SGR	674.1	SG3	478.8
RRT	-.5568	RRF	.6244	RTF	-.8513
SGB	2104.6	R23	-.1339	R13	.8600
SG1	2031.6	SG2	549.5	THA	168.48

ORBIT DETERMINATION ACCURACY

ST	40.1	SR	20.4	SS	40.5
CRT	.4807	CRS	.5937	CST	.9894
LSA	57.9	MSA	17.3	SSA	1.6
EL1	41.5	EL2	17.2	ALF	16.71

LAUNCH DATE JUL 14 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 400.996 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.581	GAL	-3.32	AZL	89.50	HCA	129.91	SMA	214.82	ECC	.29734	INC	.5005	V1	29.298
RP	224.42	LAP	.38	LOP	61.33	VP	23.769	GAP	17.11	AZP	90.32	TAL	345.46	TAP	115.36	RCA	150.95	APO	278.70	V2	24.506
RC	107.119	GL	3.63	GP	-9.53	ZAL	113.78	ZAP	158.16	ETS	206.61	ZAE	162.57	ETE	323.40	ZAC	74.15	ETC	283.13	LVI	-8.05

PLANETOCENTRIC CONIC

C3	21.431	VHL	4.629	DLA	19.88	RAL	41.66	RAD	6643.5	VEL	11.892	PTH	6.90	VHP	5.104	DPA	6.09	RAP	42.47	ECC	1.3527

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 20 11	3553.37	-46.93	133.08	280.24	98.92	14 19 25	2553.4	-38.12	102.28
60.00	13 36 5	3511.06	-40.19	130.28	281.24	93.35	14 34 36	2511.1	-34.47	100.75
70.00	14 0 31	3439.11	-34.14	124.60	281.39	88.91	14 57 50	2439.1	-31.01	96.32
80.00	14 41 32	3310.49	-29.58	114.61	281.14	85.77	15 36 43	2310.5	-28.33	87.25
90.00	15 50 16	3088.64	-27.79	98.13	280.97	84.56	16 41 44	2088.6	-27.26	71.14
100.00	17 24 24	2784.96	-29.58	75.97	281.14	85.77	18 10 49	1785.0	-28.33	48.62
110.00	18 59 57	2485.92	-34.14	53.52	281.39	88.91	19 41 23	1485.9	-31.01	25.23

DIFFERENTIAL CORRECTIONS

TDE	-.4716	TRA	-1.3768	TC3	.6604	BAU	.2224
RDE	-.2991	RRA	.3371	RC3	-.4079	FAU	.11645
FDE	1.2687	FRA	2.7205	FC3	-4.7041	BSP	3381
BDE	.5584	BRA	1.4174	BC3	.7762	FSP	781

MID-COURSE EXECUTION ACCURACY

SGT	1999.4	SGR	690.3	SG3	505.7
RRT	-.5933	RRF	.6565	RTF	-.8603
SGB	2115.2	R23	-.1307	R13	.8695
SG1	2044.2	SG2	543.6	THA	167.53

ORBIT DETERMINATION ACCURACY

ST	39.9	SR	19.7	SS	42.0
CRT	.4570	CRS	.5820	CST	.9878
LSA	58.8	MSA	17.0	SSA	1.5
EL1	41.1	EL2	17.0	ALF	15.40

LAUNCH DATE JUL 14 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 404.511 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.533	GAL	-3.25	AZL	89.45	HCA	130.98	SMA	213.69	ECC	.29347	INC	.5535	V1	29.298
RP	224.81	LAP	.42	LOP	62.40	VP	23.657	GAP	16.81	AZP	90.36	TAL	345.59	TAP	116.58	RCA	150.98	APO	276.41	V2	24.464
RC	109.544	GL	4.06	GP	-9.91	ZAL	113.54	ZAP	157.17	ETS	206.37	ZAE	162.58	ETE	321.60	ZAC	73.74	ETC	283.14	LVI	-7.64

PLANETOCENTRIC CONIC

C3	20.907	VHL	4.572	DLA	20.22	RAL	41.29	RAD	6643.2	VEL	11.871	PTH	6.88	VHP	4.972	DPA	5.78	RAP	42.73	ECC	1.3441

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 17 14	3554.62	-46.95	133.20	279.62	98.83	14 16 28	2554.6	-38.17	102.37
60.00	13 32 36	3513.69	-40.20	130.50	280.60	93.20	14 31 10	2513.7	-34.54	100.94
70.00	13 56 21	3443.74	-34.13	124.98	280.73	88.70	14 53 45	2443.7	-31.10	96.65
80.00	14 36 36	3317.58	-29.55	115.13	280.46	85.50	15 31 53	2317.6	-28.41	87.76
90.00	15 44 54	3097.09	-27.74	98.74	280.27	84.26	16 36 31	2097.1	-27.34	71.74
100.00	17 19 28	2792.05	-29.55	76.50	280.46	85.50	18 6 0	1792.0	-28.41	49.13
110.00	18 55 47	2490.56	-34.13	53.88	280.73	88.70	19 37 18	1490.6	-31.10	25.57

DIFFERENTIAL CORRECTIONS

TDE	-.4800	TRA	-1.3680	TC3	.6810	BAU	.2273
RDE	-.2809	RRA	.3461	RC3	-.4447	FAU	.12161
FDE	1.3495	FRA	2.8140	FC3	-5.0356	BSP	3490
BDE	.5561	BRA	1.4111	BC3	.8133	FSP	809

MID-COURSE EXECUTION ACCURACY

SGT	2021.5	SGR	709.1	SG3	533.9
RRT	-.6180	RRF	.6879	RTF	-.8705
SGB	2142.3	R23	-.1455	R13	.8710
SG1	2072.1	SG2	543.9	THA	166.85

ORBIT DETERMINATION ACCURACY

ST	40.7	SR	18.9	SS	43.8
CRT	.4398	CRS	.5671	CST	.9876
LSA	60.4	MSA	16.7	SSA	1.6
EL1	41.7	EL2	16.6	ALF	13.78

LAUNCH DATE JUL 14 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 408.051 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.487	GAL	-3.19	AZL	89.39	HCA	132.05	SMA	212.63	ECC	.28981	INC	.6079	V1	29.298
RP	225.20	LAP	.45	LOP	63.47	VP	23.548	GAP	16.51	AZP	90.41	TAL	345.73	TAP	117.78	RCA	151.01	APO	274.26	V2	24.422
RC	112.011	GL	4.50	GP	-10.31	ZAL	113.30	ZAP	156.15	ETS	206.17	ZAE	162.60	ETE	319.62	ZAC	73.33	ETC	283.15	LVI	-7.22

PLANETOCENTRIC CONIC

C3	20.419	VHL	4.519	DLA	20.58	RAL	40.92	RAD	6643.0	VEL	11.850	PTH	6.87	VHP	4.845	DPA	5.44	RAP	42.97	ECC	1.3361

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 14 10	3556.56	-46.97	133.38	279.05	98.69	14 13 26	2556.6	-38.24	102.51
60.00	13 28 59	3517.10	-40.21	130.79	280.00	93.00	14 27 36	2517.1	-34.62	101.19
70.00	13 52 0	3449.31	-34.12	125.40	280.10	88.44	14 49 29	2449.3	-31.19	97.06
80.00	14 31 23	3325.82	-29.50	115.74	279.79	85.18	15 26 49	2325.8	-28.50	88.36
90.00	15 39 13	3106.83	-27.67	99.45	279.59	83.92	16 31 0	2106.8	-27.42	72.44
100.00	17 14 15	2800.29	-29.50	77.11	279.79	85.18	18 0 55	1800.3	-28.50	49.73
110.00	18 51 26	2496.13	-34.12	54.32	280.10	88.44	19 33 2	1496.1	-31.19	25.98

DIFFERENTIAL CORRECTIONS

TDE	-.4865	TRA	-1.3562	TC3	.7033	BAU	.2331
RDE	-.2621	RRA	.3557	RC3	-.4842	FAU	.12697
FDE	1.4364	FRA	2.9094	FC3	-5.3631	BSP	3576
BDE	.5526	BRA	1.4021	BC3	.8539	FSP	859

MID-COURSE EXECUTION ACCURACY

SGT	2039.2	SGR	730.8	SG3	563.3
RRT	-.6429	RRF	.7182	RTF	-.8614
SGB	2166.2	R23	-.1588	R13	.8734
SG1	2096.7	SG2	544.4	THA	166.07

ORBIT DETERMINATION ACCURACY

ST	41.4	SR	18.1	SS	45.5
CRT	.4170	CRS	.5480	CST	.9873
LSA	62.0	MSA	16.3	SSA	1.6
EL1	42.2	EL2	16.2	ALF	12.17

LAUNCH DATE JUL 14 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 411.612 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.443	GAL	-3.13	AZL	89.34	HCA	135.12	SMA	211.64	ECC	.28633	INC	.6641
RP	225.59	LAP	.48	LOP	64.54	VP	23.442	GAP	16.22	AZP	90.45	TAL	345.86	TAP	118.98	RCA	151.04	APO	272.24
RC	114.516	GL	4.97	GP	-10.73	ZAL	113.06	ZAP	155.11	ETS	205.98	ZAE	162.62	ETE	317.47	ZAC	72.89	ETC	283.17

V1	29.298	V2	24.380	LVI	-6.78														

PLANETOCENTRIC CONIC

C3	19.965	VHL	4.468	DLA	20.85	RAL	40.54	RAD	6642.8	VEL	11.831	PTH	6.85	VHP	4.722	DPA	5.07	RAP	43.21

ECC	1.3286																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 10 59	3559.20	-46.99	133.63	278.51	98.50	14 10 18	2559.2	-38.33	102.69
60.00	13 25 12	3521.33	-40.22	131.15	279.43	92.76	14 23 54	2521.3	-34.73	101.49
70.00	13 47 26	3455.86	-34.11	125.91	279.49	88.14	14 45 2	2455.9	-31.31	97.53
80.00	14 25 53	3335.29	-29.45	116.44	279.15	84.82	15 21 28	2335.3	-28.61	89.04
90.00	15 33 12	3117.96	-27.59	100.25	278.94	83.52	16 25 10	2118.0	-27.52	73.25
100.00	17 8 45	2809.77	-29.45	77.80	279.15	84.82	17 55 35	1809.8	-28.61	50.41
110.00	18 46 52	2502.68	-34.11	54.83	279.49	88.14	19 28 35	1502.7	-31.31	26.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4910	TRA	-1.3418	TC3	.7276	BAU	.2398	SGT	2052.7	SGR	755.8	SG3	594.1	ST	41.9	SR	17.3	SS	47.4
RDE	-.2428	RRA	.3660	RC3	-.5270	FAU	.13263	RRT	-.6678	RRF	.7474	RTF	-.8628	CRT	.3674	CRS	.5237	CST	.9868
FDE	1.5281	FRA	3.0056	FC3	-5.7512	BSP	3635	SGB	2187.4	R23	-.1708	R13	.6764	LSA	63.6	MSA	15.9	SSA	1.6
BDE	.5477	BRA	1.3908	BC3	.8984	FSP	911	SG1	2118.4	SG2	545.1	THA	165.18	EL1	42.5	EL2	15.7	ALF	10.55

LAUNCH DATE JUL 14 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 415.194 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.401	GAL	-3.08	AZL	89.28	HCA	134.18	SMA	210.71	ECC	.28303	INC	.7220
RP	225.98	LAP	.52	LOP	65.60	VP	23.339	GAP	15.92	AZP	90.50	TAL	346.00	TAP	120.18	RCA	151.07	APO	270.34
RC	117.057	GL	5.46	GP	-11.18	ZAL	112.83	ZAP	154.04	ETS	205.82	ZAE	162.65	ETE	315.13	ZAC	72.44	ETC	283.19

V1	29.298	V2	24.338	LVI	-6.34														

PLANETOCENTRIC CONIC

C3	19.542	VHL	4.421	DLA	21.35	RAL	40.16	RAD	6642.6	VEL	11.813	PTH	6.83	VHP	4.604	DPA	4.67	RAP	43.42

ECC	1.3216																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 7 41	3562.58	-47.03	133.95	278.02	98.25	14 7 4	2562.6	-38.45	102.93
60.00	13 21 16	3526.39	-40.24	131.58	278.89	92.47	14 20 3	2526.4	-34.86	101.86
70.00	13 42 39	3463.44	-34.09	126.50	278.91	87.79	14 40 22	2463.4	-31.43	98.09
80.00	14 20 4	3346.09	-29.38	117.23	278.53	84.40	15 15 50	2346.1	-28.72	89.82
90.00	15 26 49	3130.62	-27.49	101.16	278.30	83.07	16 18 59	2130.6	-27.61	74.16
100.00	17 2 56	2820.56	-29.38	78.60	278.53	84.40	17 49 57	1820.6	-28.72	51.19
110.00	18 42 5	2510.26	-34.09	55.42	278.91	87.79	19 23 55	1510.3	-31.43	27.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4952	TRA	-1.3264	TC3	.7504	BAU	.2466	SGT	2063.7	SGR	784.2	SG3	626.2	ST	42.4	SR	16.4	SS	49.4
RDE	-.2225	RRA	.3771	RC3	-.5726	FAU	.13844	RRT	-.6917	RRF	.7750	RTF	-.8644	CRT	.3501	CRS	.4924	CST	.9862
FDE	1.6281	FRA	3.1055	FC3	-6.1327	BSP	3689	SGB	2207.7	R23	-.1824	R13	.8798	LSA	65.3	MSA	15.6	SSA	1.6
BDE	.5429	BRA	1.3789	BC3	.9439	FSP	968	SG1	2139.0	SG2	546.4	THA	164.22	EL1	42.8	EL2	15.2	ALF	8.86

LAUNCH DATE JUL 14 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 418.793 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.362	GAL	-3.02	AZL	89.22	HCA	135.24	SMA	209.83	ECC	.27991	INC	.7818
RP	226.37	LAP	.55	LOP	66.66	VP	23.239	GAP	15.63	AZP	90.56	TAL	346.12	TAP	121.36	RCA	151.10	APO	268.56
RC	119.633	GL	5.96	GP	-11.65	ZAL	112.59	ZAP	152.95	ETS	205.69	ZAE	162.66	ETE	312.61	ZAC	71.97	ETC	283.22

V1	29.298	V2	24.297	LVI	-5.87														

PLANETOCENTRIC CONIC

C3	19.150	VHL	4.376	DLA	21.77	RAL	39.77	RAD	6642.5	VEL	11.797	PTH	6.82	VHP	4.490	DPA	4.25	RAP	43.63

ECC	1.3152																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 4 16	3566.70	-47.07	134.34	277.57	97.95	14 3 42	2566.7	-38.59	103.22
60.00	13 17 10	3532.32	-40.25	132.08	278.40	92.13	14 16 3	2532.3	-35.01	102.30
70.00	13 37 37	3472.10	-34.07	127.18	278.36	87.39	14 35 29	2472.1	-31.57	98.72
80.00	14 13 54	3358.30	-29.29	118.13	277.94	83.94	15 9 53	2358.3	-28.84	90.71
90.00	15 20 0	3144.92	-27.37	102.19	277.68	82.57	16 12 25	2144.9	-27.72	75.19
100.00	16 56 46	2832.77	-29.29	79.50	277.94	83.94	17 43 59	1832.8	-28.84	52.08
110.00	18 37 3	2518.92	-34.07	56.09	278.36	87.39	19 19 2	1518.9	-31.57	27.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4983	TRA	-1.3093	TC3	.7723	BAU	.2539	SGT	2071.2	SGR	816.3	SG3	659.5	ST	42.8	SR	15.6	SS	51.4
RDE	-.2016	RRA	.3889	RC3	-.6218	FAU	.14451	RRT	-.7143	RRF	.8009	RTF	-.8857	CRT	.3030	CRS	.4523	CST	.9855
FDE	1.7334	FRA	3.2054	FC3	-6.5330	BSP	3737	SGB	2226.2	R23	-.1935	R13	.8832	LSA	66.9	MSA	15.2	SSA	1.7
BDE	.5375	BRA	1.3658	BC3	.9915	FSP	1024	SG1	2157.6	SG2	548.4	THA	163.16	EL1	43.1	EL2	14.7	ALF	7.13

LAUNCH DATE JUL 14 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 422.410 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.324	GAL	-2.97	AZL	89.16	HCA	136.30	SMA	209.01	ECC	.27695	INC	.8437
RP	226.76	LAP	.58	LOP	67.72	VP	23.142	GAP	15.34	AZP	90.61	TAL	346.25	TAP	122.54	RCA	151.12	APO	266.89
RC	122.241	GL	6.49	GP	-12.14	ZAL	112.36	ZAP	151.83	ETS	205.57	ZAE	162.68	ETE	309.90	ZAC	71.48	ETC	283.25

V1	29.298	V2	24.255	LVI	-8.39														

PLANETOCENTRIC CONIC

C3	18.787	VHL	4.334	DLA	22.21	RAL	39.39	RAD	6642.3	VEL	11.782	PTH	6.81	VHP	4.380	DPA	3.79	RAP	43.81

ECC	1.3092																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 43	3571.61	-47.11	134.81	277.16	97.60	14 0 14	2571.6	-38.76	103.57
60.00	13 12 53	3539.17	-40.27	132.66	277.93	91.73	14 11 52	2539.2	-35.18	102.80
70.00	13 32 20	3481.91	-34.03	127.94	277.84	86.94	14 30 21	2481.9	-31.73	99.45
80.00	14 7 22	3372.05	-29.19	119.14	277.36	83.42	15 3 34	2372.0	-28.97	91.71
90.00	15 12 43	3161.05	-27.22	103.35	277.08	82.01	16 5 24	2161.1	-27.82	76.36
100.00	16 50 13	2846.52	-29.19	80.50	277.36	83.42	17 37 40	1846.5	-28.97	53.08
110.00	18 31 46	2528.73	-34.03	56.86	277.84	86.94	19 13 55	1528.7	-31.73	28.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5017	TRA	-1.2914	TC3	.7918	BAU	.2612	SGT	2076.2	SGR	852.5	SG3	694.1	ST	43.2	SR	14.7	SS	53.5
RDE	-.1795	RRA	.4015	RC3	-.6744	FAU	.15078	RRT	-.7351	RRF	.8248	RTF	-.8670	CRT	.2438	CRS	.4005	CST	.9849
FDE	1.8478	FRA	3.3073	FC3	-6.9482	BSP	3777	SGB	2244.4	R23	-.2045	R13	.8867	LSA	68.7	MSA	14.9	SSA	1.7
BDE	.5328	BRA	1.3523	BC3	1.0400	FSP	1084	SG1	2175.5	SG2	551.6	THA	162.01	EL1	43.4	EL2	14.2	ALF	5.31

LAUNCH DATE JUL 14 1973 FLIGHT TIME 170.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 426.043 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.289 GAL -2.92 AZL 89.09 HCA 137.35 SMA 208.23 ECC .27415 INC .9079 V1 29.298
RP 227.15 LAP .62 LOP 68.77 VP 23.048 GAP 15.05 AZP 90.67 TAL 346.37 TAP 123.72 RCA 151.14 APO 265.32 V2 24.214
RC 124.878 GL 7.04 GP -12.66 ZAL 112.14 ZAP 150.69 ETS 205.47 ZAE 162.63 ETE 307.01 ZAC 70.97 ETC 283.29 LVI -4.89

PLANETOCENTRIC CONIC

C3 18.452 VHL 4.296 DLA 22.67 RAL 39.00 RAD 6642.1 VEL 11.768 PTH 6.79 VHP 4.274 DPA 3.30 RAP 43.99 ECC 1.3037

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 57 1	3577.32	-47.16	135.35	276.80	97.18	13 56 38	2577.3	-38.95	103.98
60.00	13 8 25	3546.97	-40.28	133.33	277.51	91.28	14 7 32	2547.0	-35.37	103.37
70.00	13 26 45	3492.94	-33.99	128.80	277.35	86.43	14 24 58	2492.9	-31.90	100.26
80.00	14 0 23	3387.47	-29.06	120.27	276.81	82.84	14 56 50	2387.5	-29.10	92.84
90.00	15 4 53	3179.21	-27.04	104.65	276.49	81.38	15 57 52	2179.2	-27.93	77.68
100.00	16 43 15	2861.95	-29.06	81.63	276.81	82.84	17 30 57	1861.9	-29.10	54.21
110.00	18 26 11	2539.76	-33.99	57.72	277.35	86.43	19 8 31	1539.8	-31.90	29.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5042 TRA-1.2720 TC3 .8094 BAU .2690 SGT 2077.6 SGR 893.1 SG3 730.0 ST 43.5 SR 13.8 SS 55.8
RDE -.1563 RRA .4149 RC3 -.7309 FAU .15732 RRT -.7541 RRF .8468 RTF -.8679 CRT .1691 CRS .3336 CST .9841
FDE 1.9690 FRA 3.4091 FC3-7.3813 BSP 3810 SGB 2261.4 R23 -.2151 R13 .8904 LSA 70.6 MSA 14.5 SSA 1.7
BDE .5279 BRA 1.3379 BC3 1.0906 FSP 1145 SG1 2192.1 SG2 859.9 THA 160.75 EL1 43.6 EL2 13.6 ALF 3.40

LAUNCH DATE JUL 14 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 429.690 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.255 GAL -2.87 AZL 89.03 HCA 138.40 SMA 207.50 ECC .27150 INC .9744 V1 29.298
RP 227.54 LAP .65 LOP 69.82 VP 22.955 GAP 14.77 AZP 90.73 TAL 346.49 TAP 124.88 RCA 151.17 APO 263.84 V2 24.172
RC 127.544 GL 7.62 GP -13.21 ZAL 111.91 ZAP 149.51 ETS 205.38 ZAE 162.56 ETE 303.94 ZAC 70.44 ETC 283.34 LVI -4.37

PLANETOCENTRIC CONIC

C3 18.143 VHL 4.259 DLA 23.16 RAL 38.60 RAD 6642.0 VEL 11.754 PTH 6.78 VHP 4.172 DPA 2.77 RAP 44.14 ECC 1.2986

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 53 11	3583.87	-47.21	135.98	276.49	96.70	13 52 54	2583.9	-39.17	104.45
60.00	13 3 43	3555.77	-40.29	134.08	277.12	90.77	14 2 59	2555.8	-35.58	104.03
70.00	13 20 52	3505.27	-33.93	129.76	276.88	85.87	14 19 17	2505.3	-32.08	101.17
80.00	13 52 55	3404.75	-28.91	121.53	276.27	82.19	14 49 40	2404.8	-29.24	94.11
90.00	14 56 26	3199.66	-26.82	106.11	275.91	80.69	15 49 45	2199.7	-28.03	79.16
100.00	16 35 47	2879.22	-28.91	82.90	276.27	82.19	17 23 46	1879.2	-29.24	55.47
110.00	18 20 18	2552.09	-33.93	58.67	276.88	85.87	19 2 50	1552.1	-32.08	30.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5067 TRA-1.2520 TC3 .8228 BAU .2769 SGT 2076.3 SGR 938.1 SG3 767.1 ST 43.8 SR 13.0 SS 58.1
RDE -.1319 RRA .4293 RC3 -.7912 FAU .16401 RRT -.7710 RRF .8668 RTF -.8685 CRT .0745 CRS .2467 CST .9834
FDE 2.0992 FRA 3.5123 FC3-7.8263 BSP 3848 SGB 2278.4 R23 -.2255 R13 .8940 LSA 72.5 MSA 14.2 SSA 1.7
BDE .5236 BRA 1.3236 BC3 1.1415 FSP 1210 SG1 2208.1 SG2 861.8 THA 159.40 EL1 43.8 EL2 12.9 ALF 1.39

LAUNCH DATE JUL 14 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 433.350 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.224 GAL -2.83 AZL 88.96 HCA 139.44 SMA 208.82 ECC .26899 INC 1.0434 V1 29.298
RP 227.93 LAP .68 LOP 70.86 VP 22.866 GAP 14.49 AZP 90.79 TAL 346.60 TAP 126.04 RCA 151.19 APO 262.45 V2 24.131
RC 130.237 GL 8.22 GP -13.79 ZAL 111.70 ZAP 148.31 ETS 205.30 ZAE 162.45 ETE 300.71 ZAC 69.88 ETC 283.39 LVI -3.83

PLANETOCENTRIC CONIC

C3 17.860 VHL 4.226 DLA 23.67 RAL 38.20 RAD 6641.9 VEL 11.743 PTH 6.77 VHP 4.075 DPA 2.21 RAP 44.29 ECC 1.2939

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 49 11	3591.30	-47.27	136.69	276.23	96.16	13 49 2	2591.3	-39.42	104.99
60.00	12 58 49	3565.62	-40.30	134.91	276.76	90.20	13 58 14	2565.6	-35.81	104.76
70.00	13 14 38	3519.01	-33.86	130.82	276.44	85.24	14 13 17	2519.0	-32.28	102.20
80.00	13 44 53	3424.10	-28.72	122.93	275.74	81.47	14 41 58	2424.1	-29.37	95.53
90.00	14 47 15	3222.75	-26.56	107.74	275.34	79.91	15 40 57	2222.7	-28.13	80.85
100.00	16 27 45	2898.57	-28.72	84.30	275.74	81.47	17 16 4	1898.6	-29.37	56.90
110.00	18 14 4	2565.62	-33.86	59.74	276.44	85.24	18 56 50	1565.8	-32.28	31.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5089 TRA-1.2308 TC3 .8332 BAU .2852 SGT 2071.6 SGR 988.1 SG3 805.3 ST 44.0 SR 12.3 SS 60.5
RDE -.1060 RRA .4444 RC3 -.8556 FAU .17093 RRT -.7859 RRF .8847 RTF -.8987 CRT -.0425 CRS .1361 CST .9826
FDE 2.2375 FRA 3.6144 FC3-8.2857 BSP 3877 SGB 2295.2 R23 -.2353 R13 .8978 LSA 74.6 MSA 13.8 SSA 1.7
BDE .5198 BRA 1.3086 BC3 1.1943 FSP 1275 SG1 2223.5 SG2 869.3 THA 157.93 EL1 44.0 EL2 12.2 ALF 179.27

LAUNCH DATE JUL 14 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 437.023 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.193 GAL -2.79 AZL 88.88 HCA 140.48 SMA 206.18 ECC .26661 INC 1.1152 V1 29.298
RP 228.32 LAP .71 LOP 71.90 VP 22.779 GAP 14.21 AZP 90.86 TAL 346.71 TAP 127.19 RCA 151.21 APO 261.15 V2 24.090
RC 132.954 GL 8.85 GP -14.39 ZAL 111.48 ZAP 147.07 ETS 205.24 ZAE 162.27 ETE 297.34 ZAC 69.30 ETC 283.45 LVI -3.27

PLANETOCENTRIC CONIC

C3 17.601 VHL 4.195 DLA 24.21 RAL 37.80 RAD 6641.7 VEL 11.732 PTH 6.76 VHP 3.982 DPA 1.61 RAP 44.41 ECC 1.2897

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 45 0	3599.62	-47.33	137.48	276.01	95.55	13 45 0	2599.6	-39.69	105.60
60.00	12 53 39	3576.57	-40.30	135.85	276.45	89.57	13 53 15	2576.6	-36.06	105.58
70.00	13 8 1	3534.23	-33.77	132.00	276.03	84.55	14 6 55	2534.2	-32.49	103.34
80.00	13 36 13	3445.75	-28.49	124.50	275.23	80.68	14 33 39	2445.8	-29.51	97.12
90.00	14 37 11	3248.90	-26.23	109.59	274.77	79.04	15 31 19	2248.9	-28.21	82.75
100.00	16 19 5	2920.22	-28.49	85.87	275.23	80.68	17 7 45	1920.2	-29.51	58.49
110.00	18 7 27	2581.05	-33.77	60.92	276.03	84.55	18 50 28	1581.1	-32.49	32.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5032 TRA-1.2014 TC3 .8580 BAU .2971 SGT 2056.0 SGR 1043.9 SG3 844.9 ST 43.7 SR 11.7 SS 63.0
RDE -.0790 RRA .4599 RC3 -.9260 FAU .17835 RRT -.8034 RRF .9008 RTF -.8719 CRT -.1851 CRS .0013 CST .9810
FDE 2.3808 FRA 3.7111 FC3-8.7721 BSP 3820 SGB 2305.8 R23 -.2361 R13 .9043 LSA 76.3 MSA 13.5 SSA 1.7
BDE .5094 BRA 1.2865 BC3 1.2624 FSP 1338 SG1 2233.7 SG2 872.1 THA 156.15 EL1 43.8 EL2 11.5 ALF 176.95

LAUNCH DATE JUL 14 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 440.707 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.165	GAL	-2.75	AZL	88.81	HCA	141.52	SMA	205.58	ECC	.26437	INC	1.1900	VI	29.298
RP	228.70	LAP	.74	LOP	72.94	VP	22.694	GAP	13.03	AZP	90.93	TAL	346.81	TAP	128.33	RCA	151.23	APO	259.92	V2	24.049
RC	135.694	GL	9.50	GP	-15.03	ZAL	111.27	ZAP	145.80	ETS	205.18	ZAE	162.03	ETE	293.86	ZAC	68.70	ETC	283.51	LVI	-2.68

PLANETOCENTRIC CONIC

C3	17.368	VHL	4.167	DLA	24.78	RAL	37.40	RAD	6641.6	VEL	11.722	PTH	6.75	VHP	3.892	DPA	.98	RAP	44.53	ECC	1.2858

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 40 39	3608.92	-47.39	138.37	275.85	94.86	13 40 48	2608.9	-40.00	106.28
60.00	12 48 13	3588.73	-40.29	136.88	276.17	88.87	13 48 2	2588.7	-36.33	106.50
70.00	13 0 58	3551.14	-33.65	133.31	275.64	83.79	14 0 10	2551.1	-32.70	104.61
80.00	13 26 47	3470.14	-28.21	126.26	274.72	79.80	14 24 38	2470.1	-29.63	98.93
90.00	14 26 1	3278.85	-25.63	111.69	274.20	78.06	15 20 40	2278.9	-28.26	84.94
100.00	16 9 39	2944.61	-28.21	87.63	274.72	79.80	16 58 44	1944.6	-29.63	60.29
110.00	18 0 25	2597.96	-33.65	62.23	275.64	83.79	18 43 43	1598.0	-32.70	33.53

DIFFERENTIAL CORRECTIONS

TDE	-.5107	TRA	-1.1849	TC3	.8452	BAU	.3036												
RDE	-.0490	RRA	.4776	RC3	-.9978	FAU	.18532												
FDE	2.5436	FRA	3.8178	FC3	-9.2378	BSP	3930												
BDE	.5130	BRA	1.2776	BC3	1.3076	FSP	1414												

MID-COURSE EXECUTION ACCURACY

SGT	2051.4	SGR	1104.2	SG3	885.1														
RRT	-.8106	RRF	.9149	RTF	-.8685														
SGB	2329.7	R23	-.2306	R13	.9083														
SG1	2254.2	SG2	586.5	THA	154.57														

ORBIT DETERMINATION ACCURACY

ST	44.2	SR	11.4	SS	65.8														
CRT	-.3460	CRS	-.1636	CST	.9807														
LSA	79.0	MSA	13.2	SSA	1.7														
EL1	44.4	EL2	10.7	ALF	174.58														

LAUNCH DATE JUL 14 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 444.401 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.138	GAL	-2.71	AZL	88.73	HCA	142.55	SMA	205.01	ECC	.26225	INC	1.2681	VI	29.298
RP	229.09	LAP	.77	LOP	73.98	VP	22.611	GAP	13.66	AZP	91.01	TAL	346.91	TAP	129.46	RCA	151.24	APO	258.77	V2	24.008
RC	138.457	GL	10.19	GP	-15.70	ZAL	111.07	ZAP	144.50	ETS	205.13	ZAE	161.71	ETE	290.29	ZAC	68.06	ETC	283.58	LVI	-2.07

PLANETOCENTRIC CONIC

C3	17.158	VHL	4.142	DLA	25.37	RAL	36.99	RAD	6641.5	VEL	11.713	PTH	6.74	VHP	3.807	DPA	.30	RAP	44.63	ECC	1.2824

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 36 5	3619.23	-47.44	139.36	275.74	94.10	13 36 24	2619.2	-40.32	107.05
60.00	12 42 29	3602.14	-40.26	138.02	275.93	88.10	13 42 32	2602.1	-36.62	107.52
70.00	12 53 27	3569.86	-33.50	134.75	275.27	82.95	13 52 56	2569.9	-32.93	106.02
80.00	13 16 26	3497.68	-27.86	128.23	274.22	78.81	14 14 44	2497.7	-29.74	100.96
90.00	14 13 28	3313.50	-25.32	114.10	273.61	76.96	15 8 41	2313.5	-28.28	87.48
100.00	15 59 18	2972.15	-27.86	89.60	274.22	78.81	16 48 50	1972.2	-29.74	62.33
110.00	17 52 53	2616.68	-33.50	63.67	275.27	82.95	18 36 30	1616.7	-32.93	34.94

DIFFERENTIAL CORRECTIONS

TDE	-.5126	TRA	-1.1618	TC3	.8398	BAU	.3130												
RDE	-.0174	RRA	.4956	RC3	-1.0753	FAU	.19264												
FDE	2.7125	FRA	3.9164	FC3	-9.7204	BSP	3975												
BDE	.5129	BRA	1.2631	BC3	1.3643	FSP	1487												

MID-COURSE EXECUTION ACCURACY

SGT	2037.1	SGR	1170.4	SG3	928.0														
RRT	-.8188	RRF	.9273	RTF	-.8668														
SGB	2349.4	R23	-.2579	R13	.9102														
SG1	2270.7	SG2	602.8	THA	152.73														

ORBIT DETERMINATION ACCURACY

ST	44.4	SR	11.5	SS	68.6														
CRT	-.5128	CRS	-.3387	CST	.9799														
LSA	81.4	MSA	12.8	SSA	1.7														
EL1	44.8	EL2	9.8	ALF	172.03														

LAUNCH DATE JUL 14 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 448.105 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.113	GAL	-2.67	AZL	88.65	HCA	143.58	SMA	204.48	ECC	.26025	INC	1.3495	VI	29.298
RP	229.48	LAP	.80	LOP	75.01	VP	22.530	GAP	13.38	AZP	91.09	TAL	347.00	TAP	130.58	RCA	151.26	APO	257.69	V2	23.967
RC	141.241	GL	10.90	GP	-16.41	ZAL	110.86	ZAP	143.17	ETS	205.08	ZAE	161.30	ETE	286.69	ZAC	67.40	ETC	283.67	LVI	-1.43

PLANETOCENTRIC CONIC

C3	16.971	VHL	4.120	DLA	26.00	RAL	36.57	RAD	6641.5	VEL	11.705	PTH	6.74	VHP	3.726	DPA	-.42	RAP	44.71	ECC	1.2793

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 31 18	3630.59	-47.49	140.46	275.68	93.26	13 31 48	2630.6	-40.68	107.91
60.00	12 36 26	3616.90	-40.22	139.27	275.73	87.25	13 36 43	2616.9	-36.92	108.65
70.00	12 45 21	3590.59	-33.32	136.34	274.92	82.03	13 45 12	2590.6	-33.15	107.60
80.00	13 4 57	3529.05	-27.43	130.46	273.70	77.72	14 3 46	2529.1	-29.82	103.29
90.00	13 59 1	3354.41	-24.66	116.91	272.97	75.70	14 54 55	2354.4	-28.23	90.47
100.00	15 47 49	3003.52	-27.43	91.83	273.70	77.72	16 37 53	2003.5	-29.82	64.66
110.00	17 44 47	2637.41	-33.32	65.26	274.92	82.03	18 28 45	1637.4	-33.15	36.52

DIFFERENTIAL CORRECTIONS

TDE	-.5127	TRA	-1.1364	TC3	.8333	BAU	.3237												
RDE	.0164	RRA	.5145	RC3	-1.1380	FAU	.20017												
FDE	2.8914	FRA	4.0109	FC3	-10.2112	BSP	4012												
BDE	.5130	BRA	1.2474	BC3	1.4266	FSP	1561												

MID-COURSE EXECUTION ACCURACY

SGT	2017.9	SGR	1242.8	SG3	967.8														
RRT	-.8259	RRF	.9381	RTF	-.8652														
SGB	2370.0	R23	-.2622	R13	.9149														
SG1	2288.0	SG2	618.0	THA	150.69														

ORBIT DETERMINATION ACCURACY

ST	44.4	SR	12.1	SS	71.5														
CRT	-.6665	CRS	-.5071	CST	.9789														
LSA	84.0	MSA	12.6	SSA	1.7														
EL1	45.1	EL2	8.9	ALF	169.29														

LAUNCH DATE JUL 14 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 451.618 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	33.089	GAL	-2.64	AZL	88.57	HCA	144.61	SMA	203.97	ECC	.25836	INC	1.4347	VI	29.298
RP	229.86	LAP	.83	LOP	76.03	VP	22.452	GAP	13.11	AZP	91.17	TAL	347.09	TAP	131.70	RCA	151.28	APO	256.67	V2	23.927
RC	144.046	GL	11.65	GP	-17.16	ZAL	110.67	ZAP	141.80	ETS	205.03	ZAE	160.80	ETE	283.08	ZAC	66.71	ETC	283.76	LVI	-.77

PLANETOCENTRIC CONIC

C3	16.807	VHL	4.100	DLA	26.66	RAL	36.15	RAD	6641.4	VEL	11.698	PTH	6.73	VHP	3.650	DPA	-1.19	RAP	44.78	ECC	1.2766

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 15	3643.07	-47.53	141.66	275.68	92.34	13 26 58	2643.1	-41.07	108.86
60.00	12 30 0	3633.11	-40.16	140.65	275.56	86.32	13 30 33	2633.1	-37.25	109.91
70.00	12 36 37	3613.59	-33.09	138.09	274.58	81.01	13 36 50	2613.6	-33.37	109.36
80.00	12 52 0	3565.25	-26.88	133.01	273.15	76.49	13 51 26	2565.3	-29.86	105.98
90.00	13 41 46	3404.47	-23.77	120.31	272.25	74.22	14 38 30	2404.5	-28.07	94.12
100.00	15 34 52	3039.73	-26.88	94.38	273.15	76.49	16 25 32	2039.7	-29.86	67.35
110.00	17 36 3	2660.41	-33.09	67.01	274.58	81.01	18 20 24	1660.4	-33.37	38.27

DIFFERENTIAL CORRECTIONS

TDE	-.5115	TRA	-1.1096	TC3	.8219	BAU	.3353												
RDE	.0529	RRA	.5343	RC3	-1.2453	FAU	.20770												
FDE	3.0806	FRA	4.1014	FC3	-10.6992	BSP	4040												
BDE	.5142	BRA	1.2316	BC3	1.4921	FSP	1635												

MID-COURSE EXECUTION ACCURACY

SGT	1994.1	SGR	1321.5	SG3	1009.9														
RRT	-.8315	RRF	.9475	RTF	-.8632														
SGB	2392.2	R23	-.2642	R13	.9200														
SG1	2306.4	SG2	634.8	THA	148.49														

ORBIT DETERMINATION ACCURACY

ST	44.2	SR	13.2	SS	74.5														
CRT	-.7904	CRS	-.6507	CST	.9777														
LSA	86.7	MSA	12.3	SSA	1.6														
EL1	45.5	EL2	7.8	ALF	166.35														

LAUNCH DATE JUL 14 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 455.539 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.066 GAL -2.61 AZL 88.48 HCA 145.63 SMA 203.90 ECC .25657 INC 1.5241 V1 29.298
RP 230.25 LAP .86 LOP 77.06 VP 22.375 GAP 12.84 AZP 91.26 TAL 347.17 TAP 132.60 RCA 151.29 APO 255.72 V2 23.887
RC 146.870 GL 12.43 GP -17.95 ZAL 110.47 ZAP 140.40 ETS 204.98 ZAE 160.20 ETE 279.50 ZAC 65.98 ETC 283.86 LVI -.07

PLANETOCENTRIC CONIC

C3 16.665 VHL 4.082 DLA 27.35 RAL 35.72 RAD 6641.3 VEL 11.692 PTH 6.73 VHP 3.577 DPA -2.00 RAP 44.84 ECC 1.2743

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 57	3656.74	-47.56	142.98	275.72	91.32	13 21 53	2656.7	-41.48	109.91
60.00	12 23 8	3650.90	-40.07	142.15	275.42	85.30	13 23 59	2650.9	-37.59	111.30
70.00	12 27 7	3639.18	-32.80	140.03	274.24	79.90	13 27 46	2639.2	-33.59	111.32
80.00	12 37 4	3607.90	-26.17	135.98	272.55	75.08	13 37 12	2607.9	-29.62	109.15
90.00	13 19 37	3470.34	-22.48	124.71	271.37	72.38	14 17 28	2470.3	-27.70	98.90
100.00	15 19 56	3082.37	-26.17	97.35	272.55	75.08	16 11 18	2082.4	-29.82	70.52
110.00	17 26 33	2686.00	-32.80	68.95	274.24	79.90	18 11 19	1686.0	-33.59	40.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5056 TRA-1.0776 TC3 .8156 BAU .3493 SGT 1961.3 SGR 1407.2 SG3 1052.5 ST 43.7 SR 14.7 SS 77.5
RDE .0919 RRA .5546 RC3-1.3392 FAU .21552 RRT -.8377 RRF .9555 RTF -.8624 CRT -.8789 CRS -.7601 CST .9761
FDE 3.2774 FRA 4.1818 FC-11.1959 BSP 4025 SGB 2413.9 R23 -.2601 R13 .9264 LSA 89.4 MSA 12.1 SSA 1.6
BDE .5139 BRA 1.2120 BC3 1.5680 FSP 1704 SG1 2325.2 SG2 648.2 THA 145.99 EL1 45.7 EL2 6.7 ALF 163.13

LAUNCH DATE JUL 14 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 459.267 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.044 GAL -2.58 AZL 88.38 HCA 146.65 SMA 203.06 ECC .25489 INC 1.6180 V1 29.298
RP 230.63 LAP .89 LOP 78.08 VP 22.301 GAP 12.58 AZP 91.35 TAL 347.25 TAP 133.90 RCA 151.30 APO 254.82 V2 23.847
RC 149.713 GL 13.25 GP -18.77 ZAL 110.29 ZAP 138.96 ETS 204.93 ZAE 159.49 ETE 275.99 ZAC 65.22 ETC 283.98 LVI .66

PLANETOCENTRIC CONIC

C3 16.548 VHL 4.068 DLA 28.08 RAL 35.29 RAD 6641.3 VEL 11.687 PTH 6.72 VHP 3.509 DPA -2.86 RAP 44.89 ECC 1.2723

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 15 20	3671.72	-47.58	144.43	275.83	90.20	13 16 32	2671.7	-41.91	111.08
60.00	12 15 49	3670.45	-39.95	143.80	275.31	84.19	13 16 59	2670.4	-37.94	112.84
70.00	12 16 42	3667.82	-32.44	142.19	273.91	78.67	13 17 50	2667.8	-33.79	113.53
80.00	12 19 11	3660.05	-25.20	139.55	271.86	73.44	13 20 11	2660.0	-29.67	113.02
90.00	12 43 34	3581.09	-20.03	131.89	269.99	69.61	13 43 16	2581.1	-26.66	106.83
100.00	15 2 2	3134.52	-25.20	100.92	271.86	73.44	15 54 17	2134.5	-29.67	74.39
110.00	17 16 9	2714.64	-32.44	71.11	273.91	78.67	18 1 23	1714.6	-33.79	42.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5085 TRA-1.0547 TC3 .7774 BAU .3609 SGT 1936.1 SGR 1498.9 SG3 1094.6 ST 43.8 SR 16.9 SS 80.9
RDE .1356 RRA .5772 RC3-1.4340 FAU .22268 RRT -.8361 RRF .9624 RTF -.8559 CRT -.9356 CRS -.8402 CST .9753
FDE 3.4962 FRA 4.2674 FC-11.6498 BSP 4137 SGB 2448.5 R23 -.2626 R13 .9306 LSA 92.8 MSA 11.9 SSA 1.6
BDE .5263 BRA 1.2023 BC3 1.6312 FSP 1787 SG1 2353.1 SG2 676.6 THA 143.60 EL1 46.6 EL2 5.6 ALF 159.87

LAUNCH DATE JUL 14 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 463.002 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.024 GAL -2.55 AZL 88.28 HCA 147.67 SMA 202.65 ECC .25330 INC 1.7167 V1 29.298
RP 231.01 LAP .92 LOP 79.10 VP 22.228 GAP 12.31 AZP 91.45 TAL 347.32 TAP 134.98 RCA 151.32 APO 253.98 V2 23.807
RC 152.572 GL 14.10 GP -19.65 ZAL 110.10 ZAP 137.49 ETS 204.87 ZAE 158.67 ETE 272.59 ZAC 64.42 ETC 284.10 LVI 1.42

PLANETOCENTRIC CONIC

C3 16.454 VHL 4.056 DLA 28.85 RAL 34.85 RAD 6641.2 VEL 11.683 PTH 6.72 VHP 3.445 DPA -3.77 RAP 44.92 ECC 1.2708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 9 23	3688.06	-47.57	146.01	275.98	88.99	13 10 51	2688.1	-42.37	112.38
60.00	12 7 57	3691.90	-39.79	145.60	275.23	82.97	13 9 29	2691.9	-38.29	114.55
70.00	12 5 10	3700.07	-31.98	144.59	273.56	77.32	13 6 51	2700.1	-33.97	116.03
80.00	11 56 5	3728.66	-23.79	144.16	270.97	71.41	12 58 14	2728.7	-29.27	118.08
84.02	11 22 51	3835.62	-18.04	149.71	268.63	67.09	12 26 47	2835.6	-25.92	125.32
100.00	14 38 57	3203.13	-23.79	105.53	270.97	71.41	15 32 20	2203.1	-29.27	79.45
110.00	17 4 37	2746.89	-31.98	73.51	273.56	77.32	17 50 24	1746.9	-33.97	44.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5052 TRA-1.0254 TC3 .7468 BAU .3756 SGT 1900.3 SGR 1598.2 SG3 1136.4 ST 43.5 SR 19.5 SS 84.3
RDE .1824 RRA .5999 RC3-1.5356 FAU .23004 RRT -.8358 RRF .9683 RTF -.8610 CRT -.9693 CRS -.8935 CST .9738
FDE 3.7211 FRA 4.3388 FC-12.1037 BSP 4195 SGB 2483.0 R23 -.2576 R13 .9365 LSA 96.1 MSA 11.7 SSA 1.6
BDE .5371 BRA 1.1880 BC3 1.7076 FSP 1864 SG1 2382.4 SG2 699.9 THA 140.88 EL1 47.4 EL2 4.4 ALF 156.29

LAUNCH DATE JUL 14 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 466.743 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 33.005 GAL -2.53 AZL 88.18 HCA 148.68 SMA 202.26 ECC .25181 INC 1.8207 V1 29.298
RP 231.39 LAP .95 LOP 80.11 VP 22.157 GAP 12.05 AZP 91.56 TAL 347.38 TAP 136.06 RCA 151.33 APO 253.19 V2 23.767
RC 155.447 GL 15.00 GP -20.56 ZAL 109.92 ZAP 135.99 ETS 204.80 ZAE 157.75 ETE 269.32 ZAC 63.59 ETC 284.24 LVI 2.22

PLANETOCENTRIC CONIC

C3 16.384 VHL 4.048 DLA 29.67 RAL 34.39 RAD 6641.2 VEL 11.680 PTH 6.72 VHP 3.385 DPA -4.73 RAP 44.95 ECC 1.2696

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 3 3	3705.89	-47.53	147.74	276.19	87.66	13 4 49	2705.9	-42.86	113.82
60.00	11 59 27	3715.48	-39.57	147.57	275.17	81.65	13 1 22	2715.5	-38.66	116.45
70.00	11 52 14	3736.79	-31.40	147.30	273.17	75.82	12 54 31	2736.8	-34.10	118.89
80.00	11 17 45	3845.61	-21.05	151.76	269.44	68.32	12 21 51	2845.6	-28.11	126.57
80.64	10 54 16	3920.68	-18.54	156.22	268.33	66.42	11 59 37	2920.7	-26.65	131.79
100.00	14 0 37	3320.08	-21.05	113.12	269.44	68.32	14 55 57	2320.1	-28.11	87.94
110.00	16 51 40	2783.61	-31.40	76.21	273.17	75.82	17 38 4	1783.6	-34.10	47.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5000 TRA -.9949 TC3 .7099 BAU .3918 SGT 1859.5 SGR 1704.9 SG3 1177.3 ST 42.9 SR 22.5 SS 87.8
RDE .2331 RRA .6233 RC3-1.6419 FAU .23723 RRT -.8337 RRF .9734 RTF -.8449 CRT -.9874 CRS -.9287 CST .9720
FDE 3.9546 FRA 4.3993 FC-12.5354 BSP 4254 SGB 2522.8 R23 -.2498 R13 .9427 LSA 99.6 MSA 11.5 SSA 1.5
BDE .5516 BRA 1.1740 BC3 1.7888 FSP 1937 SG1 2416.5 SG2 724.5 THA 137.98 EL1 48.4 EL2 3.2 ALF 152.47

LAUNCH DATE JUL 14 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 470.489 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.987 GAL -2.51 AZL 88.07 HCA 149.69 SMA 201.89 ECC .25041 INC 1.9306 V1 29.298
RP 231.77 LAP .97 LOP 81.12 VP 22.088 GAP 11.79 AZP 91.67 TAL 347.44 TAP 137.13 RCA 151.34 APO 252.45 V2 23.728
RC 158.336 GL 15.94 GP -21.53 ZAL 109.74 ZAP 134.44 ETS 204.72 ZAE 156.71 ETE 266.19 ZAC 62.72 ETC 284.39 LVI 3.07

PLANETOCENTRIC CONIC

C3 16.339 VHL 4.042 DLA 30.52 RAL 33.92 RAD 6641.2 VEL 11.678 PTH 6.71 VHP 3.330 DPA -9.75 RAP 44.96 ECC 1.2689

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 56 16	3725.35	-47.46	149.61	276.45	86.22	12 58 22	2725.3	-43.36	115.41
60.00	11 50 13	3741.48	-39.29	149.73	275.12	80.22	12 52 35	2741.5	-39.02	118.57
70.00	11 37 25	3779.29	-30.65	150.38	272.72	74.14	12 40 25	2779.3	-34.15	122.21
78.01	10 32 37	3983.12	-19.06	161.11	268.06	65.70	11 39 0	2983.1	-27.41	136.65
78.01	10 32 37	3983.12	-19.06	161.11	268.06	65.70	11 39 0	2983.1	-27.41	136.65
78.01	10 32 37	3983.12	-19.06	161.11	268.06	65.70	11 39 0	2983.1	-27.41	136.65
110.00	16 36 52	2826.11	-30.65	79.30	272.72	74.14	17 23 58	1826.1	-34.15	51.13

DIFFERENTIAL CORRECTIONS
TDE -.4933 TRA -.9632 TC3 .6671 BAU .4096
RDE .2886 RRA .6476 RC3-1.7524 FAU .24414
FDE 4.2003 FRA 4.4494 FC-12.9361 BSP 4329
BDE .5715 BRA 1.1607 BC3 1.8751 FSP 2010

MID-COURSE EXECUTION ACCURACY
SGT 1814.3 SGR 1819.4 SG3 1217.0
RRT -.8298 RRF .9776 RTF -.8376
SGB 2569.4 R23 -.2390 R13 .9491
SG1 2457.6 SG2 749.5 THA 134.90

ORBIT DETERMINATION ACCURACY
ST 42.3 SR 26.0 SS 91.4
CRT -.9959 CRS -.9521 CST .9700
LSA 103.4 MSA 11.4 SSA 1.5
EL1 49.6 EL2 2.0 ALF 148.42

LAUNCH DATE JUL 14 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 474.241 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.970 GAL -2.49 AZL 87.95 HCA 150.70 SMA 201.55 ECC .24909 INC 2.0469 V1 29.298
RP 232.14 LAP 1.00 LOP 82.13 VP 22.021 GAP 11.53 AZP 91.79 TAL 347.49 TAP 138.18 RCA 151.35 APO 251.75 V2 23.689
RC 161.238 GL 16.93 GP -22.54 ZAL 109.56 ZAP 132.86 ETS 204.63 ZAE 155.56 ETE 263.22 ZAC 61.81 ETC 284.55 LVI 3.95

PLANETOCENTRIC CONIC

C3 16.320 VHL 4.040 DLA 31.42 RAL 33.44 RAD 6641.2 VEL 11.677 PTH 6.71 VHP 3.280 DPA -6.82 RAP 44.97 ECC 1.2686

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 49 0	3746.57	-47.35	151.65	276.76	84.65	12 51 26	2746.6	-43.89	117.18
60.00	11 40 7	3770.24	-38.93	152.09	275.07	78.65	12 42 58	2770.2	-39.36	120.93
70.00	11 19 58	3829.82	-29.65	153.98	272.15	72.22	12 23 48	2829.8	-34.09	126.15
75.69	10 14 8	4035.18	-19.60	165.29	267.82	64.93	11 21 23	3035.2	-28.21	140.80
75.69	10 14 8	4035.18	-19.60	165.29	267.82	64.93	11 21 23	3035.2	-28.21	140.80
75.69	10 14 8	4035.18	-19.60	165.29	267.82	64.93	11 21 23	3035.2	-28.21	140.80
110.00	16 19 25	2876.64	-29.65	82.89	272.15	72.22	17 7 21	1876.6	-34.09	55.07

DIFFERENTIAL CORRECTIONS
TDE -.4839 TRA -.9290 TC3 .6222 BAU .4298
RDE .3492 RRA .6719 RC3-1.8691 FAU .25099
FDE 4.4539 FRA 4.4812 FC-13.3141 BSP 4392
BDE .5967 BRA 1.1465 BC3 1.9699 FSP 2074

MID-COURSE EXECUTION ACCURACY
SGT 1762.9 SGR 1942.4 SG3 1255.3
RRT -.8245 RRF .9812 RTF -.8294
SGB 2623.1 R23 -.2248 R13 .9558
SG1 2506.6 SG2 773.0 THA 131.64

ORBIT DETERMINATION ACCURACY
ST 41.4 SR 30.0 SS 95.0
CRT -.9984 CRS -.9675 CST .9676
LSA 107.3 MSA 11.4 SSA 1.4
EL1 51.1 EL2 1.4 ALF 144.11

LAUNCH DATE JUL 14 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 477.998 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.954 GAL -2.47 AZL 87.83 HCA 151.70 SMA 201.23 ECC .24785 INC 2.1705 V1 29.298
RP 232.51 LAP 1.03 LOP 83.13 VP 21.955 GAP 11.27 AZP 91.91 TAL 347.53 TAP 139.23 RCA 151.35 APO 251.10 V2 23.650
RC 164.150 GL 17.97 GP -23.61 ZAL 109.38 ZAP 131.25 ETS 204.53 ZAE 154.31 ETE 260.43 ZAC 60.85 ETC 284.74 LVI 4.87

PLANETOCENTRIC CONIC

C3 16.329 VHL 4.041 DLA 32.38 RAL 32.95 RAD 6641.2 VEL 11.678 PTH 6.71 VHP 3.235 DPA -7.96 RAP 44.98 ECC 1.2687

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 41 9	3769.75	-47.18	153.87	277.10	82.95	12 43 59	2769.8	-44.43	119.16
60.00	11 28 59	3802.24	-38.47	154.68	275.00	76.94	12 32 21	2802.2	-39.69	123.59
70.00	10 58 20	3892.97	-28.26	158.36	271.37	69.97	12 3 13	2893.0	-33.82	131.06
73.54	9 57 33	4080.95	-20.15	169.05	267.61	64.10	11 5 34	3080.9	-29.04	144.52
73.54	9 57 33	4080.95	-20.15	169.05	267.61	64.10	11 5 34	3080.9	-29.04	144.52
73.54	9 57 33	4080.95	-20.15	169.05	267.61	64.10	11 5 34	3080.9	-29.04	144.52
110.00	15 57 46	2939.79	-28.26	87.28	271.37	69.97	16 46 46	1939.8	-33.82	59.98

DIFFERENTIAL CORRECTIONS
TDE -.4706 TRA -.8927 TC3 .5724 BAU .4518
RDE .4152 RRA .6964 RC3-1.8890 FAU .25732
FDE 4.7136 FRA 4.4987 FC-13.6424 BSP 4470
BDE .6276 BRA 1.1322 BC3 2.0697 FSP 2137

MID-COURSE EXECUTION ACCURACY
SGT 1704.5 SGR 2073.1 SG3 1290.9
RRT -.8175 RRF .9842 RTF -.8197
SGB 2683.8 R23 -.2078 R13 .9624
SG1 2563.8 SG2 793.7 THA 128.23

ORBIT DETERMINATION ACCURACY
ST 40.2 SR 34.3 SS 98.7
CRT -.9971 CRS -.9777 CST .9644
LSA 111.4 MSA 11.4 SSA 1.3
EL1 52.9 EL2 2.0 ALF 139.53

LAUNCH DATE JUL 14 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 481.759 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.939 GAL -2.45 AZL 87.70 HCA 152.70 SMA 200.93 ECC .24669 INC 2.3016 V1 29.298
RP 232.89 LAP 1.06 LOP 84.13 VP 21.891 GAP 11.01 AZP 92.05 TAL 347.57 TAP 140.27 RCA 151.36 APO 250.50 V2 23.612
RC 167.073 GL 19.07 GP -24.73 ZAL 109.20 ZAP 129.60 ETS 204.40 ZAE 152.94 ETE 257.80 ZAC 59.85 ETC 284.94 LVI 5.84

PLANETOCENTRIC CONIC

C3 16.368 VHL 4.046 DLA 33.38 RAL 32.43 RAD 6641.2 VEL 11.679 PTH 6.71 VHP 3.194 DPA -9.15 RAP 44.97 ECC 1.2694

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 32 38	3795.10	-46.94	156.27	277.47	81.11	12 35 53	2795.1	-44.97	121.35
60.00	11 16 32	3838.09	-37.88	157.55	274.89	75.08	12 20 30	2838.1	-39.97	126.60
70.00	10 28 2	3982.02	-26.04	164.33	270.12	67.08	11 34 24	2982.0	-33.08	137.90
71.47	9 42 15	4122.40	-20.71	172.53	267.43	63.22	10 50 57	3122.4	-29.91	147.98
71.47	9 42 15	4122.40	-20.71	172.53	267.43	63.22	10 50 57	3122.4	-29.91	147.98
71.47	9 42 15	4122.40	-20.71	172.53	267.43	63.22	10 50 57	3122.4	-29.91	147.98
110.00	15 27 28	3028.84	-26.04	93.25	270.12	67.08	16 17 57	2028.8	-33.08	66.82

DIFFERENTIAL CORRECTIONS
TDE -.4505 TRA -.8499 TC3 .5306 BAU .4779
RDE .4858 RRA .7186 RC3-2.1184 FAU .26392
FDE 4.9675 FRA 4.4774 FC-13.9595 BSP 4496
BDE .6625 BRA 1.1130 BC3 2.1839 FSP 2174

MID-COURSE EXECUTION ACCURACY
SGT 1633.8 SGR 2212.9 SG3 1323.7
RRT -.8109 RRF .9868 RTF -.8103
SGB 2750.7 R23 -.1867 R13 .9691
SG1 2630.5 SG2 804.3 THA 124.60

ORBIT DETERMINATION ACCURACY
ST 38.5 SR 39.0 SS 102.2
CRT -.9931 CRS -.9845 CST .9600
LSA 115.4 MSA 11.4 SSA 1.2
EL1 54.8 EL2 3.2 ALF 134.63

LAUNCH DATE JUL 14 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 485.522 EARTH TO MARS
RL 152.07 LAL -.00 LOL 291.42 VL 32.925 GAL -2.43 AZL 87.56 HCA 153.69 SMA 200.65 ECC .24561 INC 2.4417 V1 29.298
RP 233.25 LAP 1.08 LOP 85.13 VP 21.829 GAP 10.76 AZP 92.19 TAL 347.61 TAP 141.30 RCA 151.37 APO 249.93 V2 23.573
RC 170.003 GL 20.22 GP -25.90 ZAL 109.02 ZAP 127.92 ETS 204.25 ZAE 151.48 ETE 255.36 ZAC 58.80 ETC 285.16 LVI 6.86

PLANETOCENTRIC CONIC
C3 16.440 VHL 4.055 DLA 34.45 RAL 31.89 RAD 6641.2 VEL 11.682 PTH 6.72 VHP 3.160 DPA -10.40 RAP 44.97 ECC 1.2706

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 23 20	3822.95	-46.61	158.88	277.87	79.13	12 27 3	2822.9	-45.51	123.82
60.00	11 2 27	3878.77	-37.12	160.73	274.72	73.04	12 7 6	2878.8	-40.19	130.04
69.46	9 27 50	4160.87	-21.29	175.84	267.29	62.26	10 37 11	3160.9	-30.82	151.28
69.46	9 27 50	4160.87	-21.29	175.84	267.29	62.26	10 37 11	3160.9	-30.82	151.28
69.46	9 27 50	4160.87	-21.29	175.84	267.29	62.26	10 37 11	3160.9	-30.82	151.28
69.46	9 27 50	4160.87	-21.29	175.84	267.29	62.26	10 37 11	3160.9	-30.82	151.28
69.46	9 27 50	4160.87	-21.29	175.84	267.29	62.26	10 37 11	3160.9	-30.82	151.28

DIFFERENTIAL CORRECTIONS
TDE -.4467 TRA -.8257 TC3 .4317 BAU .4997
RDE .5708 RRA .7478 RC3-2.2320 FAU .26757
FDE 5.2745 FRA 4.4857 FC-14.0902 BSP 4759
BDE .7248 BRA 1.1141 BC3 2.2734 FSP 2258

MID-COURSE EXECUTION ACCURACY
SGT 1588.5 SGR 2359.9 SG3 1352.9
RRT -.7886 RRF .9889 RTF -.7872
SGB 2844.7 R23 -.1734 R13 .9737
SG1 2715.0 SG2 849.0 THA 121.37

ORBIT DETERMINATION ACCURACY
ST 38.0 SR 44.8 SS 106.6
CRT -.9881 CRS -.9894 CST .9573
LSA 121.2 MSA 11.4 SSA 1.2
EL1 58.6 EL2 4.5 ALF 130.31

LAUNCH DATE JUL 14 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 489.290 EARTH TO MARS
RL 152.07 LAL -.00 LOL 291.42 VL 32.912 GAL -2.42 AZL 87.41 HCA 154.69 SMA 200.39 ECC .24460 INC 2.5915 V1 29.298
RP 233.62 LAP 1.11 LOP 86.13 VP 21.768 GAP 10.50 AZP 92.34 TAL 347.63 TAP 142.32 RCA 151.37 APO 249.40 V2 23.536
RC 172.941 GL 21.44 GP -27.13 ZAL 108.83 ZAP 126.21 ETS 204.07 ZAE 149.91 ETE 253.07 ZAC 57.71 ETC 285.40 LVI 7.93

PLANETOCENTRIC CONIC
C3 16.547 VHL 4.068 DLA 35.57 RAL 31.32 RAD 6641.3 VEL 11.687 PTH 6.72 VHP 3.131 DPA -11.71 RAP 44.97 ECC 1.2723

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 13 7	3853.56	-46.18	161.71	278.27	76.99	12 17 20	2853.6	-46.04	126.58
60.00	10 46 10	3925.61	-36.13	164.31	274.42	70.78	11 51 36	2925.6	-40.30	134.02
67.46	9 14 7	4196.91	-21.87	179.03	267.19	61.22	10 24 4	3196.9	-31.77	154.45
67.46	9 14 7	4196.91	-21.87	179.03	267.19	61.22	10 24 4	3196.9	-31.77	154.45
67.46	9 14 7	4196.91	-21.87	179.03	267.19	61.22	10 24 4	3196.9	-31.77	154.45
67.46	9 14 7	4196.91	-21.87	179.03	267.19	61.22	10 24 4	3196.9	-31.77	154.45
67.46	9 14 7	4196.91	-21.87	179.03	267.19	61.22	10 24 4	3196.9	-31.77	154.45

DIFFERENTIAL CORRECTIONS
TDE -.4275 TRA -.7889 TC3 .3576 BAU .5274
RDE .6597 RRA .7727 RC3-2.3570 FAU .27170
FDE 5.5556 FRA 4.4451 FC-14.2153 BSP 4917
BDE .7861 BRA 1.1043 BC3 2.3839 FSP 2307

MID-COURSE EXECUTION ACCURACY
SGT 1521.0 SGR 2516.1 SG3 1377.6
RRT -.7696 RRF .9907 RTF -.7666
SGB 2940.1 R23 -.1537 R13 .9788
SG1 2808.4 SG2 870.0 THA 117.85

ORBIT DETERMINATION ACCURACY
ST 36.4 SR 50.7 SS 110.4
CRT -.9811 CRS -.9926 CST .9517
LSA 126.3 MSA 11.5 SSA 1.1
EL1 62.2 EL2 5.8 ALF 125.53

LAUNCH DATE JUL 14 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 493.060 EARTH TO MARS
RL 152.07 LAL -.00 LOL 291.42 VL 32.900 GAL -2.41 AZL 87.25 HCA 155.68 SMA 200.14 ECC .24365 INC 2.7521 V1 29.298
RP 233.99 LAP 1.13 LOP 87.12 VP 21.709 GAP 10.25 AZP 92.51 TAL 347.65 TAP 143.33 RCA 151.38 APO 248.90 V2 23.498
RC 175.886 GL 22.72 GP -28.42 ZAL 108.64 ZAP 124.46 ETS 203.87 ZAE 148.25 ETE 250.93 ZAC 56.57 ETC 285.66 LVI 9.05

PLANETOCENTRIC CONIC
C3 16.693 VHL 4.086 DLA 36.76 RAL 30.72 RAD 6641.3 VEL 11.693 PTH 6.73 VHP 3.108 DPA -13.09 RAP 44.98 ECC 1.2747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 1 45	3887.42	-45.62	164.78	278.63	74.68	12 6 33	2887.4	-46.54	129.70
60.00	10 26 47	3981.06	-34.81	168.42	273.90	68.26	11 33 8	2981.1	-40.23	136.73
65.47	9 0 51	4231.25	-22.47	182.14	267.12	60.10	10 11 22	3231.2	-32.75	157.57
65.47	9 0 51	4231.25	-22.47	182.14	267.12	60.10	10 11 22	3231.2	-32.75	157.57
65.47	9 0 51	4231.25	-22.47	182.14	267.12	60.10	10 11 22	3231.2	-32.75	157.57
65.47	9 0 51	4231.25	-22.47	182.14	267.12	60.10	10 11 22	3231.2	-32.75	157.57
65.47	9 0 51	4231.25	-22.47	182.14	267.12	60.10	10 11 22	3231.2	-32.75	157.57

DIFFERENTIAL CORRECTIONS
TDE -.4055 TRA -.7514 TC3 .2775 BAU .5574
RDE .7583 RRA .7965 RC3-2.4824 FAU .27495
FDE 5.8405 FRA 4.3782 FC-14.2596 BSP 5088
BDE .8599 BRA 1.0950 BC3 2.4978 FSP 2344

MID-COURSE EXECUTION ACCURACY
SGT 1450.8 SGR 2681.3 SG3 1397.4
RRT -.7451 RRF .9923 RTF -.7407
SGB 3048.6 R23 -.1339 R13 .9832
SG1 2915.9 SG2 889.8 THA 114.37

ORBIT DETERMINATION ACCURACY
ST 34.6 SR 57.2 SS 114.3
CRT -.9723 CRS -.9948 CST .9446
LSA 131.9 MSA 11.5 SSA 1.0
EL1 66.5 EL2 7.0 ALF 120.83

LAUNCH DATE JUL 14 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 496.833 EARTH TO MARS
RL 152.07 LAL -.00 LOL 291.42 VL 32.888 GAL -2.40 AZL 87.08 HCA 156.66 SMA 199.91 ECC .24277 INC 2.9248 V1 29.298
RP 234.35 LAP 1.16 LOP 88.11 VP 21.651 GAP 10.00 AZP 92.69 TAL 347.67 TAP 144.33 RCA 151.38 APO 248.44 V2 23.461
RC 178.836 GL 24.08 GP -29.77 ZAL 108.44 ZAP 122.69 ETS 203.63 ZAE 146.49 ETE 248.94 ZAC 55.37 ETC 285.95 LVI 10.23

PLANETOCENTRIC CONIC
C3 16.884 VHL 4.109 DLA 38.02 RAL 30.07 RAD 6641.4 VEL 11.701 PTH 6.73 VHP 3.091 DPA -14.53 RAP 44.99 ECC 1.2779

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 49 1	3925.08	-44.88	168.11	278.93	72.20	11 54 26	2925.1	-46.98	133.23
60.00	10 2 25	4050.09	-32.96	173.34	272.99	65.36	11 9 55	3050.1	-39.86	144.57
63.45	8 47 57	4264.10	-23.07	185.20	267.08	58.90	9 59 1	3264.1	-33.78	160.65
63.45	8 47 57	4264.10	-23.07	185.20	267.08	58.90	9 59 1	3264.1	-33.78	160.65
63.45	8 47 57	4264.10	-23.07	185.20	267.08	58.90	9 59 1	3264.1	-33.78	160.65
63.45	8 47 57	4264.10	-23.07	185.20	267.08	58.90	9 59 1	3264.1	-33.78	160.65
63.45	8 47 57	4264.10	-23.07	185.20	267.08	58.90	9 59 1	3264.1	-33.78	160.65

DIFFERENTIAL CORRECTIONS
TDE -.3790 TRA -.7133 TC3 .1928 BAU .5899
RDE .8673 RRA .8190 RC3-2.6063 FAU .27713
FDE 6.1226 FRA 4.2854 FC-14.2104 BSP 5284
BDE .9465 BRA 1.0861 BC3 2.6134 FSP 2371

MID-COURSE EXECUTION ACCURACY
SGT 1377.9 SGR 2855.1 SG3 1411.3
RRT -.7140 RRF .9935 RTF -.7082
SGB 3170.2 R23 -.1146 R13 .9869
SG1 3037.8 SG2 906.7 THA 110.97

ORBIT DETERMINATION ACCURACY
ST 32.5 SR 64.3 SS 118.1
CRT -.9611 CRS -.9964 CST .9349
LSA 137.9 MSA 11.7 SSA 1.0
EL1 71.6 EL2 8.1 ALF 116.26

LAUNCH DATE JUL 14 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 500.609 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.877	GAL	-2.39	AZL	86.89	HCA	157.65	SMA	199.70	ECC	.24105	INC	3.1114	V1	29.298
RP	234.71	LAP	1.18	LOP	89.09	VP	21.595	GAP	9.75	AZP	92.88	TAL	347.67	TAP	145.32	RCA	151.38	APO	248.02	V2	23.424
RC	181.791	GL	25.52	GP	-31.19	ZAL	108.23	ZAP	120.90	ETS	203.35	ZAE	144.65	ETE	247.08	ZAC	54.13	ETC	286.27	LVI	11.46

PLANETOCENTRIC CONIC

C3	17.125	VHL	4.138	DLA	39.36	RAL	29.39	RAD	6641.5	VEL	11.711	PTH	6.74	VHP	3.082	DPA	-18.04	RAP	45.02	ECC	1.2818

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 34 33	3967.36	-43.94	171.74	279.11	69.54	11 40 40	2967.4	-47.33	137.25
60.00	9 27 36	4147.58	-30.00	179.80	271.23	61.72	10 36 43	3147.6	-38.80	152.63
61.40	8 35 19	4295.82	-23.67	188.24	267.09	57.59	9 46 54	3295.8	-34.84	163.73
61.40	8 35 19	4295.82	-23.67	188.24	267.09	57.59	9 46 54	3295.8	-34.84	163.73
61.40	8 35 19	4295.82	-23.67	188.24	267.09	57.59	9 46 54	3295.8	-34.84	163.73
61.40	8 35 19	4295.82	-23.67	188.24	267.09	57.59	9 46 54	3295.8	-34.84	163.73
61.40	8 35 19	4295.82	-23.67	188.24	267.09	57.59	9 46 54	3295.8	-34.84	163.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3457	TRA	-.6725	TC3	.1088	BAU	.6254	SGT	1299.0	SGR	3037.2	SG3	1418.2	ST	30.0	SR	72.0	SS	121.6
RDE	.9869	RRA	.8382	RC3	-2.7297	FAU	.27840	RRT	-.6755	RRF	.9946	RTF	-.6683	CRT	-.9458	CRS	-.9974	CST	.9208
FDE	6.3931	FRA	4.1563	FC	-14.0742	BSP	5477	SGB	3303.3	R23	-.0958	R13	.9900	LSA	144.0	MSA	11.8	SSA	.9
BDE	1.0457	BRA	1.0746	BC3	2.7319	FSP	2379	SG1	3173.6	SG2	916.6	THA	107.63	EL1	77.5	EL2	9.1	ALF	111.81

LAUNCH DATE JUL 14 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 504.385 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.867	GAL	-2.39	AZL	86.69	HCA	158.63	SMA	199.50	ECC	.24119	INC	3.3135	V1	29.298
RP	235.06	LAP	1.21	LOP	90.08	VP	21.539	GAP	9.50	AZP	93.09	TAL	347.68	TAP	146.30	RCA	151.38	APO	247.62	V2	23.387
RC	184.750	GL	27.05	GP	-32.66	ZAL	108.01	ZAP	119.08	ETS	203.03	ZAE	142.72	ETE	245.35	ZAC	52.83	ETC	286.62	LVI	12.76

PLANETOCENTRIC CONIC

C3	17.424	VHL	4.174	DLA	40.77	RAL	28.64	RAD	6641.7	VEL	11.724	PTH	6.76	VHP	3.080	DPA	-17.61	RAP	45.06	ECC	1.2868

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 17 47	4015.46	-42.72	175.72	279.08	66.67	11 24 43	3015.5	-47.55	141.88
59.31	8 22 48	4326.75	-24.27	191.29	267.13	56.18	9 34 55	3326.7	-35.95	166.85
59.31	8 22 48	4326.75	-24.27	191.29	267.13	56.18	9 34 55	3326.7	-35.95	166.85
59.31	8 22 48	4326.75	-24.27	191.29	267.13	56.18	9 34 55	3326.7	-35.95	166.85
59.31	8 22 48	4326.75	-24.27	191.29	267.13	56.18	9 34 55	3326.7	-35.95	166.85
59.31	8 22 48	4326.75	-24.27	191.29	267.13	56.18	9 34 55	3326.7	-35.95	166.85
59.31	8 22 48	4326.75	-24.27	191.29	267.13	56.18	9 34 55	3326.7	-35.95	166.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3127	TRA	-.6367	TC3	.0092	BAU	.6619	SGT	1231.2	SGR	3228.3	SG3	1418.1	ST	27.6	SR	80.6	SS	125.3
RDE	1.1234	RRA	.8577	RC3	-2.8414	FAU	.27764	RRT	-.6224	RRF	.9955	RTF	-.6142	CRT	-.9259	CRS	-.9982	CST	.9021
FDE	6.6711	FRA	4.0128	FC	-13.7949	BSP	5754	SGB	3455.1	R23	-.0793	R13	.9924	LSA	151.1	MSA	12.0	SSA	.8
BDE	1.1661	BRA	1.0682	BC3	2.8414	FSP	2391	SG1	3326.1	SG2	935.3	THA	104.53	EL1	84.6	EL2	9.9	ALF	107.82

LAUNCH DATE JUL 14 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 508.164 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.858	GAL	-2.38	AZL	86.47	HCA	159.60	SMA	199.32	ECC	.24048	INC	3.5336	V1	29.298
RP	235.42	LAP	1.23	LOP	91.06	VP	21.486	GAP	9.26	AZP	93.31	TAL	347.67	TAP	147.27	RCA	151.39	APO	247.25	V2	23.351
RC	187.714	GL	28.67	GP	-34.20	ZAL	107.78	ZAP	117.25	ETS	202.67	ZAE	140.71	ETE	243.72	ZAC	51.48	ETC	287.01	LVI	14.11

PLANETOCENTRIC CONIC

C3	17.791	VHL	4.218	DLA	42.28	RAL	27.84	RAD	6641.8	VEL	11.740	PTH	6.77	VHP	3.087	DPA	-19.25	RAP	45.12	ECC	1.2928

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 57 53	4071.27	-41.12	180.12	278.73	63.57	11 5 45	3071.3	-47.54	147.28
57.16	8 10 20	4357.08	-24.86	194.37	267.21	54.64	9 22 57	3357.1	-37.08	170.03
57.16	8 10 20	4357.08	-24.86	194.37	267.21	54.64	9 22 57	3357.1	-37.08	170.03
57.16	8 10 20	4357.08	-24.86	194.37	267.21	54.64	9 22 57	3357.1	-37.08	170.03
57.16	8 10 20	4357.08	-24.86	194.37	267.21	54.64	9 22 57	3357.1	-37.08	170.03
57.16	8 10 20	4357.08	-24.86	194.37	267.21	54.64	9 22 57	3357.1	-37.08	170.03
57.16	8 10 20	4357.08	-24.86	194.37	267.21	54.64	9 22 57	3357.1	-37.08	170.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2705	TRA	-.5983	TC3	-.0881	BAU	.7010	SGT	1160.6	SGR	3426.5	SG3	1409.2	ST	24.7	SR	89.9	SS	128.7
RDE	1.2742	RRA	.8730	RC3	-2.9460	FAU	.27548	RRT	-.5561	RRF	.9962	RTF	-.5467	CRT	-.8950	CRS	-.9987	CST	.8718
FDE	6.9292	FRA	3.8336	FC	-13.4052	BSP	6032	SGB	3617.7	R23	-.0638	R13	.9942	LSA	158.5	MSA	12.2	SSA	.7
BDE	1.3026	BRA	1.0584	BC3	2.9473	FSP	2383	SG1	3491.7	SG2	946.6	THA	101.53	EL1	92.6	EL2	10.7	ALF	103.99

LAUNCH DATE JUL 14 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 511.946 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.849	GAL	-2.38	AZL	86.23	HCA	160.58	SMA	199.15	ECC	.23983	INC	3.7739	V1	29.298
RP	235.77	LAP	1.25	LOP	92.03	VP	21.433	GAP	9.01	AZP	93.56	TAL	347.66	TAP	148.24	RCA	151.39	APO	246.91	V2	23.315
RC	190.680	GL	30.39	GP	-35.81	ZAL	107.52	ZAP	115.40	ETS	202.25	ZAE	138.63	ETE	242.17	ZAC	50.08	ETC	287.44	LVI	15.52

PLANETOCENTRIC CONIC

C3	18.238	VHL	4.271	DLA	43.87	RAL	26.94	RAD	6642.0	VEL	11.758	PTH	6.79	VHP	3.103	DPA	-20.95	RAP	45.20	ECC	1.3001

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 33 17	4138.31	-36.97	185.10	277.82	60.19	10 42 15	3138.3	-47.16	153.71
54.95	7 57 48	4387.01	-25.43	197.49	267.32	52.96	9 10 55	3387.0	-38.25	173.31
54.95	7 57 48	4387.01	-25.43	197.49	267.32	52.96	9 10 55	3387.0	-38.25	173.31
54.95	7 57 48	4387.01	-25.43	197.49	267.32	52.96	9 10 55	3387.0	-38.25	173.31
54.95	7 57 48	4387.01	-25.43	197.49	267.32	52.96	9 10 55	3387.0	-38.25	173.31
54.95	7 57 48	4387.01	-25.43	197.49	267.32	52.96	9 10 55	3387.0	-38.25	173.31
54.95	7 57 48	4387.01	-25.43	197.49	267.32	52.96	9 10 55	3387.0	-38.25	173.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2099	TRA	-.5491	TC3	-.1606	BAU	.7469	SGT	1068.8	SGR	3629.2	SG3	1389.9	ST	20.8	SR	99.2	SS	131.0
RDE	1.4329	RRA	.8745	RC3	-3.0590	FAU	.27347	RRT	-.4760	RRF	.9969	RTF	-.4644	CRT	-.8359	CRS	-.9991	CST	.8122
FDE	7.1259	FRA	3.5822	FC	-12.9814	BSP	6192	SGB	3783.3	R23	-.0494	R13	.9957	LSA	165.2	MSA	12.3	SSA	.6
BDE	1.4482	BRA	1.0326	BC3	3.0632	FSP	2317	SG1	3667.1	SG2	930.2	THA	98.53	EL1	100.8	EL2	11.3	ALF	100.07

LAUNCH DATE JUL 14 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 515.725 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.841 GAL -2.38 AZL 85.96 HCA 161.55 SMA 198.09 ECC .23924 INC 4.0377 V1 29.298
RP 236.12 LAP 1.28 LOP 93.01 VP 21.382 GAP 8.77 AZP 93.83 TAL 347.64 TAP 149.19 RCA 151.39 APO 246.80 V2 23.279
RC 193.649 GL 32.22 GP -37.48 ZAL 107.24 ZAP 113.56 ETS 201.78 ZAE 136.49 ETE 240.72 ZAC 48.63 ETC 287.91 LVI 17.00

PLANETOCENTRIC CONIC

C3 18.781 VHL 4.334 DLA 45.56 RAL 25.96 RAD 6642.3 VEL 11.781 PTH 6.81 VHP 3.129 DPA -22.72 RAP 45.32 ECC 1.3091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 0 17	4225.20	-35.85	191.07	275.88	56.34	10 10 43	3225.2	-46.11	161.83
52.66	7 45 7	4416.81	-25.96	200.69	267.46	51.14	8 58 44	3416.8	-39.43	176.72
52.66	7 45 7	4416.81	-25.96	200.69	267.46	51.14	8 58 44	3416.8	-39.43	176.72
52.66	7 45 7	4416.81	-25.96	200.69	267.46	51.14	8 58 44	3416.8	-39.43	176.72
52.66	7 45 7	4416.81	-25.96	200.69	267.46	51.14	8 58 44	3416.8	-39.43	176.72
52.66	7 45 7	4416.81	-25.96	200.69	267.46	51.14	8 58 44	3416.8	-39.43	176.72
52.66	7 45 7	4416.81	-25.96	200.69	267.46	51.14	8 58 44	3416.8	-39.43	176.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1629 TRA -.5218 TC3 -.2812 BAU .7880 SGT 1037.7 SGR 3843.5 SG3 1363.1 ST 18.3 SR 110.6 SS 134.3
RDE 1.6283 RRA .8859 RC3-3.1255 FAU .26673 RRT -.3640 RRF .9974 RTF -.3522 CRT -.7555 CRS -.9994 CST .7319
FDE 7.3679 FRA 3.3672 FC-12.2951 BSP 6628 SGB 3981.1 R23 -.0377 R13 .9968 LSA 174.5 MSA 12.6 SSA .6
BDE 1.6364 BRA 1.0282 BC3 3.1382 FSP 2309 SG1 3863.2 SG2 961.6 THA 95.99 EL1 111.5 EL2 11.9 ALF 97.20

LAUNCH DATE JUL 14 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 519.506 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.834 GAL -2.38 AZL 85.67 HCA 162.51 SMA 198.85 ECC .23869 INC 4.3288 V1 29.298
RP 236.46 LAP 1.30 LOP 93.98 VP 21.333 GAP 8.52 AZP 94.13 TAL 347.62 TAP 150.13 RCA 151.38 APO 246.31 V2 23.244
RC 196.619 GL 34.17 GP -39.21 ZAL 106.93 ZAP 111.71 ETS 201.26 ZAE 134.29 ETE 239.32 ZAC 47.12 ETC 288.43 LVI 18.54

PLANETOCENTRIC CONIC

C3 19.440 VHL 4.409 DLA 47.36 RAL 24.86 RAD 6642.6 VEL 11.809 PTH 6.83 VHP 3.167 DPA -24.54 RAP 45.47 ECC 1.3199

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 59 11	4379.35	-29.61	200.47	270.60	50.89	9 12 10	3379.4	-42.81	175.17
50.28	7 32 10	4446.65	-26.45	203.96	267.61	49.16	8 46 17	3446.7	-40.63	180.30
50.28	7 32 10	4446.65	-26.45	203.96	267.61	49.16	8 46 17	3446.7	-40.63	180.30
50.28	7 32 10	4446.65	-26.45	203.96	267.61	49.16	8 46 17	3446.7	-40.63	180.30
50.28	7 32 10	4446.65	-26.45	203.96	267.61	49.16	8 46 17	3446.7	-40.63	180.30
50.28	7 32 10	4446.65	-26.45	203.96	267.61	49.16	8 46 17	3446.7	-40.63	180.30
50.28	7 32 10	4446.65	-26.45	203.96	267.61	49.16	8 46 17	3446.7	-40.63	180.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0960 TRA -.4859 TC3 -.3765 BAU .8350 SGT 997.4 SGR 4061.6 SG3 1325.0 ST 15.3 SR 122.2 SS 136.4
RDE 1.8389 RRA .8829 RC3-3.1909 FAU .25962 RRT -.2328 RRF .9979 RTF -.2200 CRT -.5866 CRS -.9995 CST .5623
FDE 7.5430 FRA 3.0901 FC-11.5618 BSP 6962 SGB 4182.3 R23 -.0270 R13 .9976 LSA 183.3 MSA 12.8 SSA .5
BDE 1.8414 BRA 1.0078 BC3 3.2130 FSP 2247 SG1 4068.6 SG2 968.3 THA 93.47 EL1 122.6 EL2 12.4 ALF 94.25

LAUNCH DATE JUL 14 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 523.288 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.827 GAL -2.38 AZL 85.35 HCA 163.48 SMA 198.71 ECC .23819 INC 4.6520 V1 29.298
RP 236.81 LAP 1.32 LOP 94.95 VP 21.284 GAP 8.28 AZP 94.46 TAL 347.59 TAP 151.07 RCA 151.38 APO 246.05 V2 23.209
RC 199.589 GL 36.25 GP -41.01 ZAL 106.59 ZAP 109.87 ETS 200.67 ZAE 132.03 ETE 237.99 ZAC 45.57 ETC 289.01 LVI 20.14

PLANETOCENTRIC CONIC

C3 20.240 VHL 4.499 DLA 49.27 RAL 23.61 RAD 6642.9 VEL 11.843 PTH 6.86 VHP 3.219 DPA -26.43 RAP 45.67 ECC 1.3331

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.81	7 18 48	4476.75	-26.87	207.34	267.76	47.01	8 33 25	3476.8	-41.81	184.09
47.81	7 18 48	4476.75	-26.87	207.34	267.76	47.01	8 33 25	3476.8	-41.81	184.09
47.81	7 18 48	4476.75	-26.87	207.34	267.76	47.01	8 33 25	3476.8	-41.81	184.09
47.81	7 18 48	4476.75	-26.87	207.34	267.76	47.01	8 33 25	3476.8	-41.81	184.09
47.81	7 18 48	4476.75	-26.87	207.34	267.76	47.01	8 33 25	3476.8	-41.81	184.09
47.81	7 18 48	4476.75	-26.87	207.34	267.76	47.01	8 33 25	3476.8	-41.81	184.09
47.81	7 18 48	4476.75	-26.87	207.34	267.76	47.01	8 33 25	3476.8	-41.81	184.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0182 TRA -.4513 TC3 -.4685 BAU .8830 SGT 976.8 SGR 4284.3 SG3 1276.1 ST 13.3 SR 134.8 SS 138.0
RDE 2.0783 RRA .8711 RC3-3.2324 FAU .25036 RRT -.0796 RRF .9982 RTF -.0461 CRT -.2725 CRS -.9997 CST .2484
FDE 7.6841 FRA 2.7852 FC-10.7087 BSP 7338 SGB 4394.2 R23 -.0177 R13 .9982 LSA 193.0 MSA 13.0 SSA .4
BDE 2.0784 BRA .9811 BC3 3.2661 FSP 2173 SG1 4285.0 SG2 973.5 THA 91.10 EL1 134.9 EL2 12.8 ALF 91.55

LAUNCH DATE JUL 14 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 527.069 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.821 GAL -2.38 AZL 84.99 HCA 164.44 SMA 198.59 ECC .23773 INC 5.0128 V1 29.298
RP 237.14 LAP 1.34 LOP 95.91 VP 21.237 GAP 8.04 AZP 94.83 TAL 347.56 TAP 152.00 RCA 151.38 APO 245.80 V2 23.174
RC 202.557 GL 38.47 GP -42.86 ZAL 106.21 ZAP 108.04 ETS 200.01 ZAE 129.73 ETE 236.69 ZAC 43.97 ETC 289.66 LVI 21.80

PLANETOCENTRIC CONIC

C3 21.218 VHL 4.606 DLA 51.29 RAL 22.17 RAD 6643.4 VEL 11.884 PTH 6.90 VHP 3.286 DPA -28.36 RAP 45.93 ECC 1.3492

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.24	7 4 53	4507.37	-27.19	210.82	267.88	44.67	8 20 0	3507.4	-42.96	188.12
45.24	7 4 53	4507.37	-27.19	210.82	267.88	44.67	8 20 0	3507.4	-42.96	188.12
45.24	7 4 53	4507.37	-27.19	210.82	267.88	44.67	8 20 0	3507.4	-42.96	188.12
45.24	7 4 53	4507.37	-27.19	210.82	267.88	44.67	8 20 0	3507.4	-42.96	188.12
45.24	7 4 53	4507.37	-27.19	210.82	267.88	44.67	8 20 0	3507.4	-42.96	188.12
45.24	7 4 53	4507.37	-27.19	210.82	267.88	44.67	8 20 0	3507.4	-42.96	188.12
45.24	7 4 53	4507.37	-27.19	210.82	267.88	44.67	8 20 0	3507.4	-42.96	188.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0726 TRA -.4200 TC3 -.5543 BAU .9354 SGT 983.2 SGR 4510.4 SG3 1216.4 ST 13.3 SR 148.2 SS 138.8
RDE 2.3475 RRA .8484 RC3-3.2508 FAU .23934 RRT .0864 RRF .9986 RTF .1002 CRT .1745 CRS -.9998 CST -.1952
FDE 7.7705 FRA 2.4551 FC3-9.7656 BSP 7716 SGB 4616.3 R23 -.0097 R13 .9986 LSA 203.1 MSA 13.3 SSA .4
BDE 2.3486 BRA .9467 BC3 3.2977 FSP 2076 SG1 4511.2 SG2 979.4 THA 88.87 EL1 148.3 EL2 13.1 ALF 89.09

LAUNCH DATE JUL 14 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 530.850 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.815 GAL -2.38 AZL 84.58 HCA 165.39 SMA 198.48 ECC .23732 INC 5.4185 V1 29.298
RP 237.48 LAP 1.36 LOP 96.87 VP 21.191 GAP 7.80 AZP 95.24 TAL 347.52 TAP 152.91 RCA 151.38 APO 245.58 V2 23.140
RC 205.523 GL 40.84 GP -44.78 ZAL 105.78 ZAP 106.24 ETS 199.29 ZAE 127.40 ETE 235.43 ZAC 42.32 ETC 290.38 LVI 25.52

PLANETOCENTRIC CONIC

C3 22.418 VHL 4.735 DLA 53.44 RAL 20.51 RAD 6643.9 VEL 11.934 PTH 6.94 VHP 3.371 DPA -30.35 RAP 46.24 ECC 1.3689

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.56	6 50 9	4538.84	-27.39	214.43	267.93	42.13	8 5 48	3538.8	-44.04	192.45
42.56	6 50 9	4538.84	-27.39	214.43	267.93	42.13	8 5 48	3538.8	-44.04	192.45
42.56	6 50 9	4538.84	-27.39	214.43	267.93	42.13	8 5 48	3538.8	-44.04	192.45
42.56	6 50 9	4538.84	-27.39	214.43	267.93	42.13	8 5 48	3538.8	-44.04	192.45
42.56	6 50 9	4538.84	-27.39	214.43	267.93	42.13	8 5 48	3538.8	-44.04	192.45
42.56	6 50 9	4538.84	-27.39	214.43	267.93	42.13	8 5 48	3538.8	-44.04	192.45
42.56	6 50 9	4538.84	-27.39	214.43	267.93	42.13	8 5 48	3538.8	-44.04	192.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1782 TRA -.3915 TC3 -.6316 BAU .9907 SGT 1018.2 SGR 4736.7 SG3 1145.5 ST 16.1 SR 162.4 SS 138.6
RDE 2.6519 RRA .8087 RC3-3.2445 FAU .22669 RRT .2535 RRF .9988 RTF .2673 CRT .5506 CRS -.9998 CST -.5653
FDE 7.7937 FRA 2.0942 FC3-8.7541 BSP 8096 SGB 4845.0 R23 -.0027 R13 .9989 LSA 213.7 MSA 13.5 SSA .3
BDE 2.6578 BRA .8985 BC3 3.3054 FSP 1958 SG1 4744.1 SG2 983.4 THA 86.74 EL1 162.6 EL2 13.4 ALF 86.85

LAUNCH DATE JUL 14 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC DISTANCE 534.630 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.810 GAL -2.39 AZL 84.12 HCA 166.35 SMA 198.38 ECC .23695 INC 5.8785 V1 29.298
RP 237.81 LAP 1.39 LOP 97.83 VP 21.146 GAP 7.56 AZP 95.71 TAL 347.48 TAP 153.82 RCA 151.37 APO 245.39 V2 23.106
RC 208.485 GL 43.37 GP -46.75 ZAL 105.31 ZAP 104.48 ETS 198.49 ZAE 125.04 ETE 234.19 ZAC 40.64 ETC 291.18 LVI 25.30

PLANETOCENTRIC CONIC

C3 23.905 VHL 4.889 DLA 55.71 RAL 18.54 RAD 6644.5 VEL 11.995 PTH 6.99 VHP 3.478 DPA -32.38 RAP 46.63 ECC 1.3934

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.77	6 34 22	4571.47	-27.42	218.16	267.84	39.40	7 50 34	3571.5	-45.01	197.12
39.77	6 34 22	4571.47	-27.42	218.16	267.84	39.40	7 50 34	3571.5	-45.01	197.12
39.77	6 34 22	4571.47	-27.42	218.16	267.84	39.40	7 50 34	3571.5	-45.01	197.12
39.77	6 34 22	4571.47	-27.42	218.16	267.84	39.40	7 50 34	3571.5	-45.01	197.12
39.77	6 34 22	4571.47	-27.42	218.16	267.84	39.40	7 50 34	3571.5	-45.01	197.12
39.77	6 34 22	4571.47	-27.42	218.16	267.84	39.40	7 50 34	3571.5	-45.01	197.12
39.77	6 34 22	4571.47	-27.42	218.16	267.84	39.40	7 50 34	3571.5	-45.01	197.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .3009 TRA -.3683 TC3 -.6987 BAU 1.0478 SGT 1085.4 SGR 4964.9 SG3 1064.5 ST 21.1 SR 177.5 SS 137.5
RDE 3.0021 RRA .7543 RC3-3.2032 FAU .21196 RRT .4043 RRF .9990 RTF .4176 CRT .7581 CRS -.9999 CST -.7678
FDE 7.7550 FRA 1.7250 FC3-7.6765 BSP 8501 SGB 5082.1 R23 .0033 R13 .9991 LSA 225.1 MSA 13.7 SSA .3
BDE 3.0171 BRA .8394 BC3 3.2785 FSP 1825 SG1 4985.0 SG2 988.7 THA 84.74 EL1 178.3 EL2 13.7 ALF 84.83

LAUNCH DATE JUL 14 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC DISTANCE 538.409 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.805 GAL -2.40 AZL 83.60 HCA 167.30 SMA 198.29 ECC .23662 INC 6.4043 V1 29.298
RP 238.14 LAP 1.41 LOP 98.79 VP 21.102 GAP 7.32 AZP 96.25 TAL 347.43 TAP 154.72 RCA 151.37 APO 245.21 V2 23.073
RC 211.443 GL 46.08 GP -48.76 ZAL 104.77 ZAP 102.75 ETS 197.62 ZAE 122.66 ETE 232.96 ZAC 38.92 ETC 292.08 LVI 27.13

PLANETOCENTRIC CONIC

C3 25.765 VHL 5.076 DLA 58.10 RAL 16.19 RAD 6645.3 VEL 12.072 PTH 7.05 VHP 3.610 DPA -34.44 RAP 47.09 ECC 1.4240

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.87	6 17 10	4605.62	-27.23	222.01	267.52	36.46	7 33 56	3605.6	-45.80	202.15
36.87	6 17 10	4605.62	-27.23	222.01	267.52	36.46	7 33 56	3605.6	-45.80	202.15
36.87	6 17 10	4605.62	-27.23	222.01	267.52	36.46	7 33 56	3605.6	-45.80	202.15
36.87	6 17 10	4605.62	-27.23	222.01	267.52	36.46	7 33 56	3605.6	-45.80	202.15
36.87	6 17 10	4605.62	-27.23	222.01	267.52	36.46	7 33 56	3605.6	-45.80	202.15
36.87	6 17 10	4605.62	-27.23	222.01	267.52	36.46	7 33 56	3605.6	-45.80	202.15
36.87	6 17 10	4605.62	-27.23	222.01	267.52	36.46	7 33 56	3605.6	-45.80	202.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4443 TRA -.3513 TC3 -.7536 BAU 1.1086 SGT 1163.1 SGR 5188.3 SG3 973.5 ST 27.5 SR 193.3 SS 135.0
RDE 3.4016 RRA .6759 RC3-3.1291 FAU .19566 RRT .5330 RRF .9992 RTF .5457 CRT .8606 CRS -.9999 CST -.8671
FDE 7.6305 FRA 1.3413 FC3-6.5746 BSP 8888 SGB 5321.5 R23 .0084 R13 .9993 LSA 236.9 MSA 13.9 SSA .2
BDE 3.4305 BRA .7618 BC3 3.2185 FSP 1670 SG1 5227.9 SG2 993.5 THA 82.81 EL1 194.7 EL2 13.9 ALF 82.98

LAUNCH DATE JUL 14 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC DISTANCE 542.187 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.801 GAL -2.40 AZL 82.99 HCA 168.24 SMA 198.20 ECC .23633 INC 7.0120 V1 29.298
RP 238.47 LAP 1.43 LOP 99.75 VP 21.059 GAP 7.09 AZP 96.87 TAL 347.37 TAP 155.62 RCA 151.36 APO 245.05 V2 23.040
RC 214.394 GL 48.98 GP -50.81 ZAL 104.17 ZAP 101.09 ETS 196.67 ZAE 120.29 ETE 231.73 ZAC 37.19 ETC 293.09 LVI 29.00

PLANETOCENTRIC CONIC

C3 28.122 VHL 5.303 DLA 60.61 RAL 13.31 RAD 6646.3 VEL 12.168 PTH 7.13 VHP 3.774 DPA -36.53 RAP 47.64 ECC 1.4628

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.86	5 58 0	4641.81	-26.78	225.96	266.81	33.34	7 15 22	3641.8	-46.34	207.55
33.86	5 58 0	4641.81	-26.78	225.96	266.81	33.34	7 15 22	3641.8	-46.34	207.55
33.86	5 58 0	4641.81	-26.78	225.96	266.81	33.34	7 15 22	3641.8	-46.34	207.55
33.86	5 58 0	4641.81	-26.78	225.96	266.81	33.34	7 15 22	3641.8	-46.34	207.55
33.86	5 58 0	4641.81	-26.78	225.96	266.81	33.34	7 15 22	3641.8	-46.34	207.55
33.86	5 58 0	4641.81	-26.78	225.96	266.81	33.34	7 15 22	3641.8	-46.34	207.55
33.86	5 58 0	4641.81	-26.78	225.96	266.81	33.34	7 15 22	3641.8	-46.34	207.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .6119 TRA -.3407 TC3 -.7907 BAU 1.1729 SGT 1305.0 SGR 5408.2 SG3 874.1 ST 34.9 SR 209.6 SS 131.1
RDE 3.8639 RRA .5702 RC3-3.0177 FAU .17780 RRT .6379 RRF .9994 RTF .6501 CRT .9139 CRS -.9999 CST -.9183
FDE 7.4160 FRA .9582 FC3-5.4736 BSP 9304 SGB 5563.4 R23 .0125 R13 .9994 LSA 249.3 MSA 14.0 SSA .2
BDE 3.9120 BRA .6642 BC3 3.1196 FSP 1507 SG1 5474.1 SG2 992.9 THA 80.95 EL1 212.1 EL2 14.0 ALF 81.30

LAUNCH DATE JUL 14 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC DISTANCE 545.962 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.797	GAL	-2.41	AZL	82.28	HCA	169.19	SMA	198.13	ECC	.23608	INC	7.7222	V1	29.298
RP	238.79	LAP	1.44	LOP	100.70	VP	21.018	GAP	6.85	AZP	97.59	TAL	347.32	TAP	156.50	RCA	151.36	APO	244.90	V2	23.008
RC	217.340	GL	52.08	GP	-52.90	ZAL	103.50	ZAP	99.49	ETS	195.65	ZAE	117.94	ETE	230.50	ZAC	35.44	ETC	294.21	LVI	30.90

PLANETOCENTRIC CONIC

C3	31.157	VHL	5.582	DLA	63.22	RAL	9.71	RAD	6647.5	VEL	12.292	PTH	7.23	VHP	3.977	DPA	-38.62	RAP	48.29	ECC	1.5128

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.77	5 36 7	4680.54	-25.98	229.96	265.49	30.07	6 54 8	3680.5	-46.53	213.28
30.77	5 36 7	4680.54	-25.98	229.96	265.49	30.07	6 54 8	3680.5	-46.53	213.28
30.77	5 36 7	4680.54	-25.98	229.96	265.49	30.07	6 54 8	3680.5	-46.53	213.28
30.77	5 36 7	4680.54	-25.98	229.96	265.49	30.07	6 54 8	3680.5	-46.53	213.28
30.77	5 36 7	4680.54	-25.98	229.96	265.49	30.07	6 54 8	3680.5	-46.53	213.28
30.77	5 36 7	4680.54	-25.98	229.96	265.49	30.07	6 54 8	3680.5	-46.53	213.28
30.77	5 36 7	4680.54	-25.98	229.96	265.49	30.07	6 54 8	3680.5	-46.53	213.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8045	TRA	-.3413	TC3	-.8121	BAU	1.2418	SGT	1452.2	SGR	5618.8	SG3	767.6	ST	42.9	SR	226.1	SS	125.2
RDE	4.3953	RRA	.4301	RC3	-2.8686	FAU	.15864	RRT	.7190	RRF	.9995	RTF	.7309	CRT	.9426	CRS	-.9999	CST	-.9459
FDE	7.0874	FRA	.5864	FC3	-4.4082	BSP	9697	SGB	5803.5	R23	.0155	R13	.9995	LSA	261.6	MSA	14.1	SSA	.1
BDE	4.4684	BRA	.5491	BC3	2.9813	FSP	1327	SG1	5718.1	SG2	991.7	THA	79.14	EL1	229.7	EL2	14.1	ALF	79.82

LAUNCH DATE JUL 14 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 549.734 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.794	GAL	-2.42	AZL	81.44	HCA	170.12	SMA	198.07	ECC	.23585	INC	8.5637	V1	29.298
RP	239.10	LAP	1.46	LOP	101.65	VP	20.977	GAP	6.61	AZP	98.44	TAL	347.26	TAP	157.38	RCA	151.35	APO	244.78	V2	22.975
RC	220.278	GL	55.40	GP	-54.99	ZAL	102.75	ZAP	97.98	ETS	194.55	ZAE	115.62	ETE	229.24	ZAC	33.70	ETC	295.46	LVI	32.82

PLANETOCENTRIC CONIC

C3	35.136	VHL	5.928	DLA	65.91	RAL	5.11	RAD	6648.9	VEL	12.451	PTH	7.35	VHP	4.230	DPA	-40.70	RAP	49.04	ECC	1.5783

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.61	5 10 27	4722.39	-24.77	233.94	263.21	26.71	6 29 9	3722.4	-46.26	219.25
27.61	5 10 27	4722.39	-24.77	233.94	263.21	26.71	6 29 9	3722.4	-46.26	219.25
27.61	5 10 27	4722.39	-24.77	233.94	263.21	26.71	6 29 9	3722.4	-46.26	219.25
27.61	5 10 27	4722.39	-24.77	233.94	263.21	26.71	6 29 9	3722.4	-46.26	219.25
27.61	5 10 27	4722.39	-24.77	233.94	263.21	26.71	6 29 9	3722.4	-46.26	219.25
27.61	5 10 27	4722.39	-24.77	233.94	263.21	26.71	6 29 9	3722.4	-46.26	219.25
27.61	5 10 27	4722.39	-24.77	233.94	263.21	26.71	6 29 9	3722.4	-46.26	219.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0236	TRA	-.3538	TC3	-.8126	BAU	1.3141	SGT	1615.2	SGR	5823.3	SG3	656.7	ST	51.1	SR	242.5	SS	117.3
RDE	5.0135	RRA	.2518	RC3	-2.6768	FAU	.13815	RRT	.7817	RRF	.9995	RTF	.7938	CRT	.9595	CRS	-1.0000	CST	-.9621
FDE	6.6367	FRA	.2463	FC3	-3.4039	BSP	10165	SGB	6043.1	R23	.0167	R13	.9996	LSA	273.8	MSA	14.1	SSA	.1
BDE	5.1170	BRA	.4343	BC3	2.7974	FSP	1149	SG1	5962.5	SG2	983.9	THA	77.42	EL1	247.4	EL2	14.1	ALF	78.54

LAUNCH DATE JUL 14 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 22 1974

HELIOCENTRIC CONIC DISTANCE 637.086 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.800	GAL	-3.14	AZL	98.85	HCA	191.60	SMA	198.18	ECC	.23870	INC	8.6528	V1	29.298
RP	245.22	LAP	1.77	LOP	122.89	VP	20.316	GAP	1.49	AZP	81.33	TAL	343.62	TAP	175.22	RCA	150.88	APO	245.49	V2	22.365
RC	284.497	GL	-55.14	GP	50.99	ZAL	106.23	ZAP	79.23	ETS	195.97	ZAE	99.38	ETE	171.12	ZAC	138.23	ETC	291.55	LVI	-72.55

PLANETOCENTRIC CONIC

C3	37.734	VHL	6.143	DLA	-35.23	RAL	63.68	RAD	6649.9	VEL	12.555	PTH	7.43	VHP	3.705	DPA	49.75	RAP	345.31	ECC	1.6210

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 45 22	2536.28	-9.20	67.97	292.39	136.89	19 27 38	1536.3	9.18	52.21
60.00	20 29 29	2258.94	-.52	51.30	300.67	130.30	21 7 8	1258.9	15.37	33.03
68.06	23 24 27	1744.84	14.69	20.80	311.88	122.39	23 53 32	744.8	26.67	358.51
68.06	23 24 27	1744.84	14.69	20.80	311.88	122.39	23 53 32	744.8	26.67	358.51
68.06	23 24 27	1744.84	14.69	20.80	311.88	122.39	23 53 32	744.8	26.67	358.51
68.06	23 24 27	1744.84	14.69	20.80	311.88	122.39	23 53 32	744.8	26.67	358.51
68.06	23 24 27	1744.84	14.69	20.80	311.88	122.39	23 53 32	744.8	26.67	358.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.5297	TRA	3.8720	TC3	-2.8559	BAU	1.8481	SGT	6117.7	SGR	5470.8	SG3	856.8	ST	135.4	SR	94.3	SS	50.3
RDE	1.4084	RRA	-3.9416	RC3	2.2946	FAU	.19621	RRT	-.9827	RRF	-.9983	RTF	.5402	CRT	-.9591	CRS	.9977	CST	-.9376
FDE	-2.1764	FRA	6.9861	FC3	-4.5018	BSP	14162	SGB	8207.0	R23	.1080	R13	-.9925	LSA	170.6	MSA	25.4	SSA	.3
BDE	2.8953	BRA	5.5253	BC3	3.6635	FSP	1560	SG1	8171.9	SG2	758.3	THA	138.25	EL1	163.5	EL2	22.1	ALF	145.55

LAUNCH DATE JUL 14 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 24 1974

HELIOCENTRIC CONIC DISTANCE 640.839 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.803	GAL	-3.17	AZL	98.26	HCA	192.50	SMA	198.24	ECC	.23904	INC	8.2626	V1	29.298
RP	245.43	LAP	1.78	LOP	123.79	VP	20.298	GAP	1.28	AZP	81.93	TAL	343.44	TAP	175.93	RCA	150.85	APO	245.62	V2	22.344
RC	287.079	GL	-52.84	GP	49.09	ZAL	107.12	ZAP	77.92	ETS	196.58	ZAE	98.66	ETE	172.58	ZAC	136.52	ETC	290.83	LVI	-70.90

PLANETOCENTRIC CONIC

C3	34.879	VHL	5.906	DLA	-33.06	RAL	62.77	RAD	6648.8	VEL	12.441	PTH	7.34	VHP	3.539	DPA	48.07	RAP	346.76	ECC	1.5740

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 27 0	2571.39	-10.95	69.49	289.46	136.60	19 9 52	1571.4	7.43	53.71
60.00	20 0 57	2321.32	-3.26	54.28	296.76	130.19	20 39 39	1321.3	12.75	36.21
70.00	22 26 58	1890.96	7.69	27.65	304.93	123.38	22 58 29	891.0	20.59	6.76
72.11	23 45 11	1650.64	14.55	13.36	309.25	120.02	24 12 42	650.6	25.62	350.67
72.11	23 45 11	1650.64	14.55	13.36	309.25	120.02	24 12 42	650.6	25.62	350.67
72.11	23 45 11	1650.64	14.55	13.36	309.25	120.02	24 12 42	650.6	25.62	350.67
110.00	3 30 20	6225.82	7.69	294.47	304.93	123.38	5 14 6	5225.8	20.59	273.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.4369	TRA	3.8866	TC3	-3.1483	BAU	1.8370	SGT	6297.6	SGR	5287.2	SG3	956.9	ST	136.2	SR	90.2	SS	52.8
RDE	1.2955	RRA	-3.7208	RC3	2.3680	FAU	.21563	RRT	-.9836	RRF	-.9982	RTF	.9809	CRT	-.9610	CRS	.9970	CST	-.9370
FDE	-2.2750	FRA	7.6212	FC3	-5.3522	BSP	14114	SGB	8222.8	R23	.1113	R13	-.9920	LSA	169.9	MSA	25.0	SSA	.3
BDE	2.7599	BRA	5.3805	BC3	3.9395	FSP	1725	SG1	8190.1	SG2	733.0	THA	140.07	EL1	162.0	EL2	21.0	ALF	146.90

LAUNCH DATE JUL 14 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 28 1974

HELIOCENTRIC CONIC DISTANCE 644.590 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.806	GAL	-3.21	AZL	97.75	HCA	193.39	SMA	198.29	ECC	.23941	INC	7.7508
RP	245.63	LAP	1.79	LOP	124.69	VP	20.281	GAP	1.06	AZP	82.46	TAL	343.25	TAP	176.64	RCA	150.82	APO	245.76
RC	289.637	GL	-50.70	GP	47.24	ZAL	107.97	ZAP	76.61	ETS	197.11	ZAE	97.87	ETE	173.96	ZAC	134.85	ETC	290.19

V1	29.298																		
V2	22.324																		
LVI	-69.26																		

PLANETOCENTRIC CONIC

C3	32.583	VHL	5.708	DLA	-31.02	RAL	62.01	RAD	6648.0	VEL	12.349	PTH	7.27	VHP	3.401	DPA	46.43	RAP	348.08

ECC	1.5362																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 11 20	2603.74	-12.54	70.90	287.08	136.28	18 54 44	1603.7	5.82	55.08
60.00	19 38 5	2372.94	-5.53	56.76	293.72	129.98	20 17 37	1372.9	10.55	38.79
70.00	21 39 11	2016.51	2.94	34.26	300.09	124.04	22 12 48	1016.5	16.43	14.10
76.69	0 16 53	1537.28	14.28	4.58	306.95	117.83	0 42 30	537.3	24.51	341.58
76.69	0 16 53	1537.28	14.28	4.58	306.95	117.83	0 42 30	537.3	24.51	341.58
76.69	0 16 53	1537.28	14.28	4.58	306.95	117.83	0 42 30	537.3	24.51	341.58
110.00	2 42 34	1063.33	2.94	323.18	300.09	124.04	3 0 17	63.3	16.43	303.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.3453	TRA 3.9156	TC3-3.4335	BAU 1.8273	SGT 6476.1	SGR 5103.0	SG3 1051.0	ST 136.5	SR 85.9	SS 54.5
RDE 1.1815	RRA-3.5268	RC3 2.4100	FAU .23288	RRT -.9841	RRF -.9981	RTF .9813	CRT -.9615	CRS .9962	CST -.9341
FDE-2.3108	FRA 8.2197	FC3-6.1876	BSP 14186	SGB 8245.0	R23 .1152	R13 -.9915	LSA 168.4	MSA 24.9	SSA .3
BDE 2.6261	BRA 5.2697	BC3 4.1949	FSP 1898	SG1 8214.0	SG2 714.9	THA 141.87	EL1 160.0	EL2 20.1	ALF 148.27

LAUNCH DATE JUL 14 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 28 1974

HELIOCENTRIC CONIC DISTANCE 648.341 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.809	GAL	-3.25	AZL	97.30	HCA	194.28	SMA	198.35	ECC	.23979	INC	7.3025
RP	245.83	LAP	1.80	LOP	125.59	VP	20.264	GAP	.84	AZP	82.92	TAL	343.05	TAP	177.33	RCA	150.79	APO	245.91
RC	292.172	GL	-48.70	GP	45.45	ZAL	108.79	ZAP	75.30	ETS	197.58	ZAE	97.00	ETE	175.24	ZAC	133.23	ETC	289.61

V1	29.298																		
V2	22.305																		
LVI	-67.64																		

PLANETOCENTRIC CONIC

C3	30.712	VHL	5.542	DLA	-29.10	RAL	61.37	RAD	6647.3	VEL	12.274	PTH	7.21	VHP	3.287	DPA	44.83	RAP	349.28

ECC	1.5054																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 57 45	2633.97	-14.03	72.24	285.14	135.95	18 41 39	1634.0	4.30	56.36
60.00	19 18 59	2417.87	-7.49	58.94	291.30	129.72	19 59 17	1417.9	8.61	41.00
70.00	21 7 30	2098.71	-.20	38.56	296.78	124.15	21 42 29	1098.7	13.54	18.73
80.00	23 38 21	1626.10	8.50	8.03	302.10	118.73	24 5 27	626.1	19.56	346.13
82.85	1 1 2	1373.42	13.90	352.19	304.94	115.82	1 23 55	373.4	23.36	328.96
100.00	2 25 9	1100.57	8.50	329.40	302.10	118.73	2 43 29	100.6	19.56	307.50
110.00	2 10 52	1145.53	-.20	327.47	296.78	124.15	2 29 58	145.5	13.54	307.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.2617	TRA 3.9486	TC3-3.7169	BAU 1.8245	SGT 6653.3	SGR 4919.5	SG3 1138.3	ST 136.5	SR 81.6	SS 55.8
RDE 1.0787	RRA-3.3458	RC3 2.4353	FAU .24894	RRT -.9845	RRF -.9979	RTF .9816	CRT -.9620	CRS .9951	CST -.9306
FDE-2.3129	FRA 8.7576	FC3-7.0174	BSP 14226	SGB 8274.6	R23 .1187	R13 -.9909	LSA 166.6	MSA 24.9	SSA .4
BDE 2.5058	BRA 5.1755	BC3 4.4436	FSP 2054	SG1 8245.2	SG2 696.7	THA 143.65	EL1 157.8	EL2 19.3	ALF 149.60

LAUNCH DATE JUL 14 1973 FLIGHT TIME 290.00 ARRIVAL DATE APR 30 1974

HELIOCENTRIC CONIC DISTANCE 652.092 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.812	GAL	-3.30	AZL	96.91	HCA	195.17	SMA	198.41	ECC	.24018	INC	6.9064
RP	246.02	LAP	1.80	LOP	126.48	VP	20.249	GAP	.62	AZP	83.33	TAL	342.86	TAP	178.03	RCA	150.76	APO	246.07
RC	294.682	GL	-46.83	GP	43.73	ZAL	109.57	ZAP	73.99	ETS	197.98	ZAE	96.09	ETE	176.43	ZAC	131.65	ETC	289.11

V1	29.298																		
V2	22.286																		
LVI	-66.05																		

PLANETOCENTRIC CONIC

C3	29.171	VHL	5.401	DLA	-27.28	RAL	60.84	RAD	6646.7	VEL	12.211	PTH	7.17	VHP	3.192	DPA	43.28	RAP	350.38

ECC	1.4801																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 45 51	2662.48	-15.42	73.52	283.56	135.59	18 30 14	1662.5	2.87	57.55
60.00	19 2 40	2458.16	-9.23	60.91	289.35	129.41	19 43 39	1458.2	6.86	42.96
70.00	20 42 54	2163.43	-2.67	41.93	294.27	124.06	21 18 58	1163.4	11.20	22.28
80.00	22 48 56	1768.91	3.75	15.97	298.25	119.64	23 18 25	768.9	15.53	354.82
90.00	0 52 15	1383.88	7.44	349.67	300.28	117.36	1 15 19	383.9	18.06	327.67
100.00	1 35 44	1243.38	3.75	337.34	298.25	119.64	1 56 27	243.4	15.53	316.18
110.00	1 46 16	1210.25	-2.67	330.85	294.27	124.06	2 6 27	210.3	11.20	311.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.1824	TRA 3.9870	TC3-3.9949	BAU 1.8267	SGT 6828.6	SGR 4737.8	SG3 1218.4	ST 136.2	SR 77.4	SS 56.6
RDE .9864	RRA-3.1762	RC3 2.4454	FAU .26378	RRT -.9849	RRF -.9977	RTF .9819	CRT -.9627	CRS .9938	CST -.9268
FDE-2.2860	FRA 9.2340	FC3-7.8285	BSP 14265	SGB 8311.2	R23 .1215	R13 -.9903	LSA 164.7	MSA 24.9	SSA .4
BDE 2.3950	BRA 5.0975	BC3 4.6839	FSP 2193	SG1 8283.7	SG2 675.8	THA 145.39	EL1 155.5	EL2 18.3	ALF 150.87

LAUNCH DATE JUL 14 1973 FLIGHT TIME 292.00 ARRIVAL DATE MAY 2 1974

HELIOCENTRIC CONIC DISTANCE 655.842 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.815	GAL	-3.34	AZL	96.55	HCA	196.06	SMA	198.48	ECC	.24059	INC	6.5538
RP	246.21	LAP	1.81	LOP	127.38	VP	20.234	GAP	.41	AZP	83.70	TAL	342.65	TAP	178.71	RCA	150.72	APO	246.23
RC	297.167	GL	-45.07	GP	42.08	ZAL	110.32	ZAP	72.70	ETS	198.33	ZAE	95.12	ETE	177.53	ZAC	130.13	ETC	288.65

V1	29.298																		
V2	22.267																		
LVI	-64.51																		

PLANETOCENTRIC CONIC

C3	27.891	VHL	5.281	DLA	-25.57	RAL	60.39	RAD	6646.2	VEL	12.159	PTH	7.12	VHP	3.112	DPA	41.79	RAP	351.38

ECC	1.4590																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 35 20	2689.55	-16.73	74.75	282.26	135.22	18 20 10	1689.6	1.51	58.68
60.00	18 48 29	2494.99	-10.82	62.73	287.76	129.06	19 30 4	1495.0	5.25	44.74
70.00	20 22 38	2218.17	-4.75	44.80	292.28	123.86	20 59 36	1218.2	9.18	25.23
80.00	22 17 14	1859.48	.69	20.95	295.66	119.85	22 48 14	859.5	12.78	.13
90.00	0 7 52	1515.38	3.27	357.07	297.09	118.11	0 33 7	515.4	14.50	335.68
100.00	1 4 2	1333.96	.69	342.32	295.66	119.85	1 26 16	334.0	12.78	321.50
110.00	1 26 0	1264.99	-4.75	333.72	292.28	123.86	1 47 5	265.0	9.18	314.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.1061	TRA 4.0326	TC3-4.2642	BAU 1.8312	SGT 7002.1	SGR 4558.8	SG3 1290.9	ST 135.6	SR 73.3	SS 57.1
RDE .9006	RRA-3.0215	RC3 2.4363	FAU .27672	RRT -.9852	RRF -.9975	RTF .9821	CRT -.9631	CRS .9921	CST -.9218
FDE-2.2237	FRA 9.6646	FC3-8.5896	BSP 14350	SGB 8355.4	R23 .1242	R13 -.9898	LSA 162.5	MSA 25.0	SSA .4
BDE 2.2906	BRA 5.0390	BC3 4.9111	FSP 2325	SG1 8329.4	SG2 657.6	THA 147.09	EL1 153.2	EL2 17.5	ALF 152.11

LAUNCH DATE JUL 14 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 4 1974

HELIOCENTRIC CONIC DISTANCE 659.592 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.818 GAL -3.38 AZL 96.24 HCA 196.95 SMA 198.54 ECC .24102 INC 6.2379 V1 29.298
RP 246.39 LAP 1.82 LOP 128.27 VP 20.219 GAP .19 AZP 84.03 TAL 342.44 TAP 179.40 RCA 150.69 APO 246.40 V2 22.249
RC 299.628 GL -43.42 GP 40.50 ZAL 111.04 ZAP 71.42 ETS 198.62 ZAE 94.12 ETE 178.55 ZAC 128.67 ETC 288.25 LVI -63.03

PLANETOCENTRIC CONIC

C3 26.819 VHL 5.179 DLA -23.95 RAL 60.02 RAD 6645.7 VEL 12.115 PTH 7.09 VHP 3.045 DPA 40.36 RAP 352.31 ECC 1.4414

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 25 57	2715.36	-17.97	75.95	281.21	134.83	18 11 13	1715.4	.22	59.76
60.00	18 35 59	2529.10	-12.28	64.43	286.47	128.69	19 18 9	1529.1	3.75	46.38
70.00	20 5 23	2266.27	-6.57	47.34	290.70	123.59	20 43 10	1266.3	7.39	27.80
80.00	21 52 45	1930.26	-1.71	24.83	293.70	119.81	22 24 55	930.3	10.54	4.19
90.00	23 33 58	1603.82	.42	2.01	294.89	118.28	24 0 42	603.8	11.94	340.91
100.00	0 39 33	1404.73	-1.71	346.20	293.70	119.81	1 2 58	404.7	10.54	325.56
110.00	1 8 46	1313.09	-6.57	336.26	290.70	123.59	1 30 39	313.1	7.39	316.72

DIFFERENTIAL CORRECTIONS

TDE-2.0317 TRA 4.0840 TC3-4.5228 BAU 1.8379
RDE .8234 RRA-2.8774 RC3 2.4124 FAU .28802
FDE-2.1381 FRA10.0426 FC3-9.2973 BSP 14464
BDE 2.1922 BRA 4.9959 BC3 5.1260 FSP 2446

MID-COURSE EXECUTION ACCURACY

SGT 7172.3 SGR 4382.6 SG3 1355.5
RRT -.9854 RRF -.9972 RTF .9823
SGB 8405.3 R23 .1261 R13 -.9892
SG1 8381.0 SG2 638.0 THA 148.74

ORBIT DETERMINATION ACCURACY

ST 134.8 SR 69.4 SS 57.3
CRT -.9637 CRS .9899 CST -.9165
LSA 160.2 MSA 25.1 SSA .5
EL1 150.7 EL2 16.6 ALF 153.26

LAUNCH DATE JUL 14 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 6 1974

HELIOCENTRIC CONIC DISTANCE 663.339 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.822 GAL -3.43 AZL 95.95 HCA 197.84 SMA 198.61 ECC .24146 INC 5.9529 V1 29.298
RP 246.57 LAP 1.82 LOP 129.17 VP 20.206 GAP -.02 AZP 84.33 TAL 342.23 TAP 180.07 RCA 150.66 APO 246.57 V2 22.232
RC 302.065 GL -41.87 GP 38.98 ZAL 111.74 ZAP 70.16 ETS 198.87 ZAE 93.08 ETE 179.49 ZAC 127.27 ETC 287.89 LVI -61.59

PLANETOCENTRIC CONIC

C3 25.917 VHL 5.091 DLA -22.42 RAL 59.71 RAD 6645.4 VEL 12.078 PTH 7.06 VHP 2.990 DPA 38.99 RAP 353.17 ECC 1.4265

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 17 33	2740.05	-19.15	77.11	280.37	134.43	18 3 13	1740.1	-1.02	60.79
60.00	18 24 53	2560.98	-13.63	66.04	285.43	128.30	19 7 34	1561.0	2.35	47.91
70.00	19 50 24	2309.56	-8.19	49.64	289.42	123.27	20 28 54	1309.6	5.76	30.09
80.00	21 32 34	1989.84	-3.72	28.11	292.17	119.65	22 5 43	989.8	8.61	7.56
90.00	23 10 27	1674.11	-1.84	5.93	293.21	118.22	23 38 21	674.1	9.82	344.98
100.00	0 19 21	1464.31	-3.72	349.48	292.17	119.65	0 43 46	464.3	8.61	328.93
110.00	0 53 46	1356.38	-8.19	338.56	289.42	123.27	1 16 23	356.4	5.76	319.01

DIFFERENTIAL CORRECTIONS

TDE-1.9625 TRA 4.1372 TC3-4.7768 BAU 1.8492
RDE .7551 RRA-2.7421 RC3 2.3799 FAU .29814
FDE-2.0369 FRA10.3682 FC3-9.9591 BSP 14555
BDE 2.1028 BRA 4.9634 BC3 5.3368 FSP 2547

MID-COURSE EXECUTION ACCURACY

SGT 7341.9 SGR 4211.7 SG3 1412.9
RRT -.9856 RRF -.9969 RTF .9825
SGB 8464.1 R23 .1275 R13 -.9887
SG1 8441.5 SG2 619.0 THA 150.34

ORBIT DETERMINATION ACCURACY

ST 134.0 SR 65.8 SS 57.3
CRT -.9646 CRS .9873 CST -.9107
LSA 157.9 MSA 25.2 SSA .5
EL1 148.5 EL2 15.6 ALF 154.36

LAUNCH DATE JUL 14 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 667.088 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.826 GAL -3.47 AZL 95.69 HCA 198.73 SMA 198.68 ECC .24191 INC 5.6945 V1 29.298
RP 246.74 LAP 1.83 LOP 130.06 VP 20.194 GAP -.24 AZP 84.61 TAL 342.02 TAP 180.74 RCA 150.62 APO 246.74 V2 22.215
RC 304.476 GL -40.41 GP 37.54 ZAL 112.41 ZAP 68.92 ETS 199.08 ZAE 92.02 ETE 180.35 ZAC 125.92 ETC 287.57 LVI -60.21

PLANETOCENTRIC CONIC

C3 25.155 VHL 5.015 DLA -20.96 RAL 59.47 RAD 6645.1 VEL 12.047 PTH 7.03 VHP 2.944 DPA 37.68 RAP 353.97 ECC 1.4140

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 9 56	2763.74	-20.28	78.24	279.69	134.01	17 56 1	1763.7	-2.21	61.78
60.00	18 14 55	2591.00	-14.89	67.57	284.59	127.89	18 58 6	1591.0	1.03	49.34
70.00	19 37 11	2349.17	-9.67	51.76	288.39	122.92	20 16 20	1349.2	4.26	32.17
80.00	21 15 19	2042.01	-5.48	30.99	290.95	119.40	21 49 21	1042.0	6.89	10.48
90.00	22 50 53	1733.78	-3.76	9.27	291.89	118.05	23 19 47	733.8	7.98	348.40
100.00	0 2 7	1516.49	-5.48	352.36	290.95	119.40	0 27 24	516.5	6.89	331.85
110.00	0 40 33	1395.98	-9.67	340.68	288.39	122.92	1 3 49	396.0	4.26	321.09

DIFFERENTIAL CORRECTIONS

TDE-1.8958 TRA 4.1939 TC3-5.0218 BAU 1.8629
RDE .6944 RRA-2.6152 RC3 2.3383 FAU .30692
FDE-1.9220 FRA10.6450 FC-10.5631 BSP 14667
BDE 2.0190 BRA 4.9425 BC3 5.5394 FSP 2636

MID-COURSE EXECUTION ACCURACY

SGT 7509.2 SGR 4045.6 SG3 1462.9
RRT -.9858 RRF -.9965 RTF .9827
SGB 8529.6 R23 .1282 R13 -.9882
SG1 8508.5 SG2 599.5 THA 151.88

ORBIT DETERMINATION ACCURACY

ST 133.1 SR 62.4 SS 57.1
CRT -.9659 CRS .9840 CST -.9047
LSA 155.6 MSA 25.3 SSA .5
EL1 146.2 EL2 14.7 ALF 155.38

LAUNCH DATE JUL 14 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 670.834 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.829 GAL -3.52 AZL 95.46 HCA 199.61 SMA 198.75 ECC .24238 INC 5.4589 V1 29.298
RP 246.90 LAP 1.83 LOP 130.95 VP 20.182 GAP -.45 AZP 84.86 TAL 341.80 TAP 181.41 RCA 150.58 APO 246.93 V2 22.199
RC 306.863 GL -39.03 GP 36.16 ZAL 113.06 ZAP 67.71 ETS 199.25 ZAE 90.93 ETE 181.14 ZAC 124.62 ETC 287.28 LVI -58.89

PLANETOCENTRIC CONIC

C3 24.908 VHL 4.951 DLA -19.58 RAL 59.27 RAD 6644.8 VEL 12.020 PTH 7.01 VHP 2.906 DPA 36.43 RAP 354.73 ECC 1.4033

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 3 6	2786.51	-21.35	79.34	279.17	133.59	17 49 32	1786.5	-3.36	62.73
60.00	18 5 55	2619.42	-16.07	69.04	283.93	127.47	18 49 35	1619.4	-.22	50.70
70.00	19 25 23	2385.82	-11.02	53.74	287.57	122.53	20 5 9	1385.8	2.86	34.09
80.00	21 0 17	2088.84	-7.03	33.60	289.97	119.09	21 35 5	1088.8	5.33	13.08
90.00	22 34 4	1786.28	-5.43	12.22	290.84	117.80	23 3 51	786.3	6.34	351.38
100.00	23 43 8	1563.31	-7.03	354.97	289.97	119.09	24 9 12	563.3	5.33	334.45
110.00	0 28 45	1432.64	-11.02	342.66	287.57	122.53	0 52 38	432.6	2.86	323.01

DIFFERENTIAL CORRECTIONS

TDE-1.8316 TRA 4.2543 TC3-5.2562 BAU 1.8782
RDE .6404 RRA-2.4971 RC3 2.2878 FAU .31424
FDE-1.7963 FRA10.8804 FC-11.1005 BSP 14797
BDE 1.9403 BRA 4.9330 BC3 5.7325 FSP 2713

MID-COURSE EXECUTION ACCURACY

SGT 7673.9 SGR 3884.5 SG3 1505.8
RRT -.9859 RRF -.9961 RTF .9829
SGB 8601.1 R23 .1282 R13 -.9878
SG1 8581.5 SG2 580.6 THA 153.35

ORBIT DETERMINATION ACCURACY

ST 132.1 SR 59.2 SS 56.8
CRT -.9675 CRS .9801 CST -.8983
LSA 153.4 MSA 25.4 SSA .6
EL1 144.1 EL2 13.7 ALF 156.33

LAUNCH DATE JUL 14 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 674.579 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.833 GAL -3.57 AZL 95.24 HCA 200.50 SMA 198.83 ECC .24286 INC 5.2433 V1 29.298
RP 247.06 LAP 1.83 LOP 131.84 VP 20.171 GAP -.66 AZP 85.09 TAL 341.57 TAP 182.07 RCA 150.54 APO 247.12 V2 22.183
RC 309.224 GL -37.72 GP 34.85 ZAL 113.70 ZAP 66.52 ETS 199.39 ZAE 89.84 ETE 181.87 ZAC 123.39 ETC 287.02 LVI -57.62

PLANETOCENTRIC CONIC

C3 23.958 VHL 4.895 DLA -18.27 RAL 59.11 RAD 6644.6 VEL 11.997 PTH 8.99 VHP 2.874 DPA 35.25 RAP 355.44 ECC 1.3943

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 56 51	2808.44	-22.36	80.42	278.77	133.15	17 43 39	1808.4	-4.46	63.65
60.00	17 57 46	2646.44	-17.19	70.46	283.41	127.03	18 41 52	1646.4	-1.41	51.99
70.00	19 14 46	2420.06	-12.26	55.61	286.92	122.13	19 55 6	1420.1	1.55	35.88
80.00	20 46 57	2131.57	-8.44	35.99	289.20	118.75	21 22 28	1131.6	3.90	15.44
90.00	22 19 20	1833.54	-6.93	14.89	290.02	117.49	22 49 54	833.5	4.84	354.04
100.00	23 29 49	1606.04	-8.44	357.36	289.20	118.75	23 56 35	606.0	3.90	336.81
110.00	0 18 9	1466.88	-12.26	344.52	286.92	122.13	0 42 35	466.9	1.55	324.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7679 TRA 4.3187 TC3-5.4799 BAU 1.8948 SGT 7835.9 SGR 3728.3 SG3 1541.8 ST 131.0 SR 56.2 SS 56.4
RDE .5910 RRA-2.3873 RC3 2.2290 FAU .32000 RRT -.9859 RRF -.9955 RTF .9829 CRT -.9693 CRS .9752 CST -.8911
FDE-1.6550 FRA11.0800 FC-11.5633 BSP 14959 SGB 8677.6 R23 .1279 R13 -.9873 LSA 151.1 MSA 25.6 SSA .6
BDE 1.8640 BRA 4.9346 BC3 5.9158 FSP 2784 SG1 8659.3 SG2 563.8 THA 154.75 EL1 141.9 EL2 12.7 ALF 157.23

LAUNCH DATE JUL 14 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 678.324 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.837 GAL -3.62 AZL 95.05 HCA 201.38 SMA 198.91 ECC .24335 INC 5.0450 V1 29.298
RP 247.22 LAP 1.84 LOP 132.72 VP 20.160 GAP -.68 AZP 85.30 TAL 341.34 TAP 182.73 RCA 150.50 APO 247.31 V2 22.168
RC 311.559 GL -36.49 GP 33.60 ZAL 114.32 ZAP 65.37 ETS 199.49 ZAE 88.73 ETE 182.54 ZAC 122.20 ETC 286.79 LVI -56.41

PLANETOCENTRIC CONIC

C3 23.490 VHL 4.847 DLA -17.02 RAL 59.00 RAD 6644.4 VEL 11.978 PTH 8.98 VHP 2.849 DPA 34.12 RAP 356.11 ECC 1.3866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 51 9	2829.61	-23.36	81.47	278.49	132.71	17 38 18	1829.6	-5.52	64.55
60.00	17 50 19	2672.23	-18.24	71.83	283.02	126.58	18 34 51	1672.2	-2.55	53.22
70.00	19 5 9	2452.25	-13.42	57.38	286.41	121.70	19 46 1	1452.3	.32	37.56
80.00	20 35 0	2171.05	-9.73	38.21	288.60	118.37	21 11 11	1171.0	2.57	17.61
90.00	22 6 13	1876.77	-8.28	17.35	289.37	117.14	22 37 30	876.8	3.46	356.47
100.00	23 17 52	1645.52	-9.73	359.58	288.60	118.37	23 45 17	645.5	2.57	338.98
110.00	0 8 31	1499.07	-13.42	346.30	286.41	121.70	0 33 30	499.1	.32	326.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7088 TRA 4.3831 TC3-5.6982 BAU 1.9146 SGT 7997.1 SGR 3578.3 SG3 1571.8 ST 129.9 SR 53.4 SS 56.0
RDE .5487 RRA-2.2831 RC3 2.1680 FAU .32495 RRT -.9859 RRF -.9950 RTF .9830 CRT -.9716 CRS .9695 CST -.8842
FDE-1.5156 FRA11.2368 FC-11.9760 BSP 15090 SGB 8761.2 R23 .1268 R13 -.9869 LSA 149.0 MSA 25.8 SSA .6
BDE 1.7947 BRA 4.9421 BC3 6.0967 FSP 2835 SG1 8744.1 SG2 547.1 THA 156.10 EL1 140.0 EL2 11.7 ALF 158.06

LAUNCH DATE JUL 14 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC DISTANCE 682.066 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.841 GAL -3.67 AZL 94.86 HCA 202.27 SMA 198.98 ECC .24385 INC 4.8621 V1 29.298
RP 247.37 LAP 1.84 LOP 133.61 VP 20.151 GAP -1.09 AZP 85.50 TAL 341.11 TAP 183.38 RCA 150.46 APO 247.51 V2 22.154
RC 313.869 GL -35.31 GP 32.41 ZAL 114.92 ZAP 64.24 ETS 199.58 ZAE 87.62 ETE 183.15 ZAC 121.07 ETC 286.58 LVI -55.25

PLANETOCENTRIC CONIC

C3 23.093 VHL 4.805 DLA -15.83 RAL 58.92 RAD 6644.2 VEL 11.962 PTH 8.96 VHP 2.829 DPA 33.06 RAP 356.75 ECC 1.3800

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 45 55	2850.06	-24.30	82.51	278.30	132.25	17 33 25	1850.1	-6.54	65.41
60.00	17 43 30	2696.92	-19.23	73.15	282.74	126.12	18 28 27	1696.9	-3.63	54.40
70.00	18 56 23	2482.70	-14.50	59.07	286.04	121.27	19 37 45	1482.7	-.84	39.15
80.00	20 24 11	2207.85	-10.91	40.30	288.13	117.97	21 0 59	1207.8	1.32	19.63
90.00	21 54 25	1916.77	-9.51	19.64	288.87	116.76	22 26 22	916.8	2.17	358.70
100.00	23 7 3	1682.32	-10.91	1.67	288.13	117.97	23 35 6	682.3	1.32	341.00
110.00	23 55 49	1529.51	-14.50	347.99	286.04	121.27	24 21 18	529.5	-.84	328.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6483 TRA 4.4534 TC3-5.9020 BAU 1.9341 SGT 8154.7 SGR 3433.7 SG3 1595.8 ST 128.8 SR 50.9 SS 55.5
RDE .5105 RRA-2.1866 RC3 2.1008 FAU .32844 RRT -.9859 RRF -.9943 RTF .9831 CRT -.9742 CRS .9626 CST -.8770
FDE-1.3673 FRA11.3666 FC-12.3132 BSP 15282 SGB 8848.1 R23 .1248 R13 -.9866 LSA 146.9 MSA 26.0 SSA .7
BDE 1.7255 BRA 4.9613 BC3 6.2647 FSP 2884 SG1 8832.2 SG2 531.1 THA 157.37 EL1 138.0 EL2 10.7 ALF 158.82

LAUNCH DATE JUL 14 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 685.808 EARTH TO MARS

RL 152.07 LAL -.00 LOL 291.42 VL 32.845 GAL -3.72 AZL 94.69 HCA 203.15 SMA 199.06 ECC .24437 INC 4.6925 V1 29.298
RP 247.51 LAP 1.84 LOP 134.50 VP 20.142 GAP -1.30 AZP 85.68 TAL 340.88 TAP 184.03 RCA 150.42 APO 247.71 V2 22.140
RC 316.151 GL -34.20 GP 31.28 ZAL 115.51 ZAP 63.14 ETS 199.63 ZAE 86.51 ETE 183.71 ZAC 119.98 ETC 286.39 LVI -54.14

PLANETOCENTRIC CONIC

C3 22.756 VHL 4.770 DLA -14.69 RAL 58.87 RAD 6644.0 VEL 11.948 PTH 8.95 VHP 2.813 DPA 32.05 RAP 357.37 ECC 1.3745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 8	2869.85	-25.20	83.53	278.20	131.79	17 28 58	1869.8	-7.53	66.25
60.00	17 37 15	2720.62	-20.18	74.44	282.56	125.66	18 22 35	1720.6	-4.67	55.54
70.00	18 48 20	2511.62	-15.52	60.70	285.77	120.81	19 30 12	1511.6	-1.94	40.66
80.00	20 14 21	2242.41	-12.00	42.29	287.79	117.54	20 51 43	1242.4	.15	21.53
90.00	21 43 43	1954.10	-10.65	21.79	288.49	116.35	22 16 17	954.1	.97	.79
100.00	22 57 12	1716.89	-12.00	3.65	287.79	117.54	23 25 49	716.9	.15	342.90
110.00	23 47 47	1558.44	-15.52	349.62	285.77	120.81	24 13 45	558.4	-1.94	329.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.5927 TRA 4.5232 TC3-6.1015 BAU 1.9565 SGT 8312.0 SGR 3295.1 SG3 1614.5 ST 127.8 SR 48.5 SS 55.1
RDE .4779 RRA-2.0953 RC3 2.0324 FAU .33111 RRT -.9857 RRF -.9936 RTF .9832 CRT -.9771 CRS .9546 CST -.8699
FDE-1.2240 FRA11.4623 FC-12.5972 BSP 15445 SGB 8941.3 R23 .1225 R13 -.9862 LSA 145.0 MSA 26.2 SSA .7
BDE 1.6628 BRA 4.9849 BC3 6.4310 FSP 2919 SG1 8926.3 SG2 517.2 THA 158.58 EL1 136.3 EL2 9.7 ALF 159.53

LAUNCH DATE JUL 14 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC DISTANCE 689.548 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.849	GAL	-3.77	AZL	94.54	HCA	204.03	SMA	199.14	ECC	.24490	INC	4.5350
RP	247.65	LAP	1.85	LOP	135.38	VP	20.134	GAP	-1.51	AZP	85.86	TAL	340.64	TAP	184.67	RCA	150.37	APO	247.91
RC	318.406	GL	-33.14	GP	30.20	ZAL	116.09	ZAP	62.06	ETS	199.67	ZAE	85.39	ETE	184.22	ZAC	118.94	ETC	286.22

V1 29.298
V2 22.126
LVI -53.08

PLANETOCENTRIC CONIC

C3	22.471	VHL	4.740	DLA	-13.61	RAL	58.85	RAD	6643.9	VEL	11.936	PTH	6.94	VHP	2.802	DPA	31.10	RAP	357.96

ECC 1.3698

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 43	2889.02	-26.06	84.53	278.18	131.32	17 24 52	1889.0	-8.48	67.07
60.00	17 31 28	2743.42	-21.08	75.70	282.46	125.18	18 17 12	1743.4	-5.67	56.64
70.00	18 40 56	2539.20	-16.47	62.27	285.59	120.35	19 23 15	1539.2	-3.00	42.10
80.00	20 5 19	2275.06	-13.02	44.17	287.55	117.11	20 43 14	1275.1	-.95	23.32
90.00	21 33 56	1989.20	-11.70	23.83	288.22	115.93	22 7 5	989.2	-.16	2.74
100.00	22 48 11	1749.53	-13.02	5.54	287.55	117.11	23 17 21	749.5	-.95	344.69
110.00	23 40 22	1586.02	-16.47	351.18	285.59	120.35	24 6 48	586.0	-3.00	331.02

DIFFERENTIAL CORRECTIONS

TDE-1.5377	TRA 4.5951	TC3-6.2916	BAU 1.9800		
RDE .4495	RRA-2.0091	RC3 1.9628	FAU .33298		
FDE-1.0810	FRA11.5290	FC-12.8288	BSP 15612		
BDE 1.6021	BRA 5.0151	BC3 6.5907	FSP 2941		

MID-COURSE EXECUTION ACCURACY

SGT 8466.9	SGR 3162.4	SG3 1628.3			
RRT -.9855	RRF -.9927	RTF .9833			
SGB 9038.2	R23 .1192	R13 -.9860			
SG1 9024.1	SG2 503.5	THA 159.73			

ORBIT DETERMINATION ACCURACY

ST 126.7	SR 46.4	SS 54.6			
CRT -.9804	CRS .9454	CST -.8631			
LSA 143.2	MSA 26.3	SSA .7			
EL1 134.7	EL2 8.6	ALF 160.18			

LAUNCH DATE JUL 14 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 693.287 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.853	GAL	-3.83	AZL	94.39	HCA	204.91	SMA	199.23	ECC	.24544	INC	4.3881
RP	247.78	LAP	1.85	LOP	136.27	VP	20.127	GAP	-1.72	AZP	86.02	TAL	340.40	TAP	185.31	RCA	150.33	APO	248.13
RC	320.632	GL	-32.14	GP	29.17	ZAL	116.65	ZAP	61.02	ETS	199.69	ZAE	84.28	ETE	184.69	ZAC	117.95	ETC	286.06

V1 29.298
V2 22.113
LVI -52.07

PLANETOCENTRIC CONIC

C3	22.233	VHL	4.715	DLA	-12.56	RAL	58.86	RAD	6643.8	VEL	11.926	PTH	6.93	VHP	2.793	DPA	30.20	RAP	358.54

ECC 1.3659

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 32 39	2907.63	-26.90	85.52	278.23	130.85	17 21 7	1907.6	-9.41	67.87
60.00	17 26 8	2765.41	-21.94	76.93	282.45	124.70	18 12 13	1765.4	-6.63	57.70
70.00	18 34 6	2565.60	-17.38	63.78	285.50	119.88	19 16 51	1565.6	-4.00	43.48
80.00	19 57 1	2306.06	-13.98	45.98	287.40	116.65	20 35 27	1306.1	-2.00	25.02
90.00	21 24 56	2022.39	-12.68	25.77	288.05	115.49	21 58 39	1022.4	-1.23	4.60
100.00	22 39 52	1780.53	-13.98	7.35	287.40	116.65	23 9 33	780.5	-2.00	346.39
110.00	23 33 32	1612.41	-17.38	352.70	285.50	119.88	24 0 24	612.4	-4.00	332.40

DIFFERENTIAL CORRECTIONS

TDE-1.4835	TRA 4.6698	TC3-6.4719	BAU 2.0041		
RDE .4242	RRA-1.9288	RC3 1.8914	FAU .33386		
FDE -.9358	FRA11.5749	FC-13.0004	BSP 15804		
BDE 1.5429	BRA 5.0524	BC3 6.7428	FSP 2961		

MID-COURSE EXECUTION ACCURACY

SGT 8619.6	SGR 3035.3	SG3 1637.6			
RRT -.9852	RRF -.9917	RTF .9833			
SGB 9138.4	R23 .1156	R13 -.9857			
SG1 9125.2	SG2 491.9	THA 160.81			

ORBIT DETERMINATION ACCURACY

ST 125.7	SR 44.4	SS 54.1			
CRT -.9837	CRS .9346	CST -.8561			
LSA 141.4	MSA 26.5	SSA .8			
EL1 133.1	EL2 7.5	ALF 160.79			

LAUNCH DATE JUL 14 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 24 1974

HELIOCENTRIC CONIC DISTANCE 697.024 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.858	GAL	-3.88	AZL	94.25	HCA	205.79	SMA	199.31	ECC	.24600	INC	4.2508
RP	247.91	LAP	1.85	LOP	137.15	VP	20.120	GAP	-1.93	AZP	86.17	TAL	340.15	TAP	185.94	RCA	150.28	APO	248.34
RC	322.829	GL	-31.17	GP	28.20	ZAL	117.21	ZAP	60.01	ETS	199.69	ZAE	83.18	ETE	185.12	ZAC	117.00	ETC	285.92

V1 29.298
V2 22.101
LVI -51.11

PLANETOCENTRIC CONIC

C3	22.035	VHL	4.694	DLA	-11.57	RAL	58.89	RAD	6643.7	VEL	11.918	PTH	6.92	VHP	2.788	DPA	29.36	RAP	359.09

ECC 1.3626

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 28 54	2925.70	-27.70	86.50	278.34	130.37	17 17 40	1925.7	-10.31	68.65
60.00	17 21 11	2786.65	-22.76	78.13	282.49	124.21	18 7 38	1786.6	-7.55	58.73
70.00	18 27 45	2590.93	-18.23	65.25	285.49	119.39	19 10 56	1590.9	-4.96	44.81
80.00	19 49 19	2335.60	-14.87	47.71	287.33	116.19	20 28 15	1335.6	-3.00	26.65
90.00	21 16 38	2053.93	-13.60	27.64	287.96	115.04	21 50 52	1053.9	-2.25	6.36
100.00	22 32 11	1810.07	-14.87	9.08	287.33	116.19	23 2 21	810.1	-3.00	348.02
110.00	23 27 12	1637.75	-18.23	354.17	285.49	119.39	23 54 29	637.7	-4.96	333.73

DIFFERENTIAL CORRECTIONS

TDE-1.4303	TRA 4.7467	TC3-6.6426	BAU 2.0289		
RDE .4022	RRA-1.8531	RC3 1.8187	FAU .33384		
FDE -.7931	FRA11.5990	FC-13.1165	BSP 16009		
BDE 1.4858	BRA 5.0956	BC3 6.8871	FSP 2975		

MID-COURSE EXECUTION ACCURACY

SGT 8770.0	SGR 2913.2	SG3 1642.5			
RRT -.9847	RRF -.9907	RTF .9833			
SGB 9241.2	R23 .1115	R13 -.9854			
SG1 9228.6	SG2 481.8	THA 161.84			

ORBIT DETERMINATION ACCURACY

ST 124.8	SR 42.5	SS 53.7			
CRT -.9871	CRS .9224	CST -.8494			
LSA 139.8	MSA 26.8	SSA .8			
EL1 131.7	EL2 6.5	ALF 161.36			

LAUNCH DATE JUL 14 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 26 1974

HELIOCENTRIC CONIC DISTANCE 700.760 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.862	GAL	-3.94	AZL	94.12	HCA	206.67	SMA	199.40	ECC	.24656	INC	4.1221
RP	248.03	LAP	1.85	LOP	138.03	VP	20.114	GAP	-2.14	AZP	86.32	TAL	339.90	TAP	186.58	RCA	150.23	APO	248.56
RC	324.997	GL	-30.26	GP	27.27	ZAL	117.76	ZAP	59.02	ETS	199.68	ZAE	82.08	ETE	185.51	ZAC	116.09	ETC	285.79

V1 29.298
V2 22.089
LVI -50.18

PLANETOCENTRIC CONIC

C3	21.873	VHL	4.677	DLA	-10.61	RAL	58.94	RAD	6643.7	VEL	11.911	PTH	6.92	VHP	2.786	DPA	28.56	RAP	359.64

ECC 1.3600

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 25 25	2943.27	-28.47	87.46	278.50	129.88	17 14 29	1943.3	-11.18	69.41
60.00	17 16 35	2807.20	-23.54	79.30	282.60	123.71	18 3 22	1807.2	-8.45	59.74
70.00	18 21 52	2615.30	-19.04	66.68	285.54	118.91	19 5 27	1615.3	-5.88	46.10
80.00	19 42 11	2363.86	-15.72	49.39	287.34	115.72	20 21 35	1363.9	-3.95	28.21
90.00	21 8 55	2084.01	-14.46	29.43	287.95	114.57	21 43 39	1084.0	-3.21	8.04
100.00	22 25 3	1838.33	-15.72	10.76	287.34	115.72	22 55 41	838.3	-3.95	349.57
110.00	23 21 18	1662.12	-19.04	355.60	285.54	118.91	23 49 0	662.1	-5.88	335.01

DIFFERENTIAL CORRECTIONS

TDE-1.3786	TRA 4.8253	TC3-6.8053	BAU 2.0545		
RDE .3837	RRA-1.7815	RC3 1.7468	FAU .33323		
FDE -.6564	FRA11.6019	FC-13.1893	BSP 16211		
BDE 1.4310	BRA 5.1437	BC3 7.0259	FSP 2979		

MID-COURSE EXECUTION ACCURACY

SGT 8918.7	SGR 2796.7	SG3 1643.8			
RRT -.9842	RRF -.9894	RTF .9834			
SGB 9346.9	R23 .1066	R13 -.9852			
SG1 9334.9	SG2 472.6	THA 162.80			

ORBIT DETERMINATION ACCURACY

ST 123.9	SR 40.8	SS 53.3			
CRT -.9904	CRS .9087	CST -.8434			
LSA 138.4	MSA 26.9	SSA .8			
EL1 130.4	EL2 5.4	ALF 161.89			

LAUNCH DATE JUL 14 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 28 1974

HELIOCENTRIC CONIC DISTANCE 704.495 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.867	GAL	-3.99	AZL	94.00	HCA	207.55	SMA	199.48	ECC	.24714	INC	4.0011	V1	29.298
RP	248.14	LAP	1.85	LOP	138.91	VP	20.109	GAP	-2.35	AZP	86.45	TAL	339.65	TAP	187.20	RCA	150.18	APO	248.78	V2	22.076
RC	327.134	GL	-29.38	GP	26.39	ZAL	118.30	ZAP	58.06	ETS	199.66	ZAE	80.99	ETE	185.87	ZAC	115.22	ETC	285.68	LVI	-49.30

PLANETOCENTRIC CONIC

C3	21.743	VHL	4.663	DLA	-9.69	RAL	59.01	RAD	6643.6	VEL	11.905	PTH	6.91	VHP	2.786	DPA	27.81	RAP	.17	ECC	1.3578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 22 12	2960.38	-29.21	88.41	278.72	129.38	17 11 33	1960.4	-12.02	70.16
60.00	17 12 18	2827.13	-24.29	80.46	282.77	123.21	17 59 26	1827.1	-9.31	60.71
70.00	18 16 22	2638.81	-19.80	68.07	285.65	118.41	19 0 21	1638.8	-6.77	47.34
80.00	19 35 32	2390.98	-16.51	51.01	287.40	115.24	20 15 23	1391.0	-4.86	29.70
90.00	21 1 45	2112.80	-15.26	31.15	288.00	114.10	21 36 58	1112.8	-4.14	9.65
100.00	22 18 24	1865.45	-16.51	12.38	287.40	115.24	22 49 29	865.5	-4.86	351.07
110.00	23 15 48	1685.62	-19.80	356.99	285.65	118.41	23 43 54	685.6	-6.77	336.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.3284	TRA	4.9054	TC3	-6.9612	BAU	2.0813	SGT	9066.4	SGR	2685.3	SG3	1641.6	ST	123.2	SR	39.3	SS	52.9
RDE	.3677	RRA	-1.7143	RC3	1.6751	FAU	.33193	RRT	-.9835	RRF	-.9881	RTF	.9833	CRT	-.9934	CRS	.8932	CST	-.8375
FDE	-.5224	FRA	11.5893	FC	-13.2160	BSP	16409	SGB	9455.7	R23	.1016	R13	-.9849	LSA	137.0	MSA	27.2	SSA	.9
BDE	1.3783	BRA	5.1963	BC3	7.1599	FSP	2976	SG1	9444.2	SG2	465.7	THA	163.72	EL1	129.2	EL2	4.3	ALF	162.40

LAUNCH DATE JUL 14 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 30 1974

HELIOCENTRIC CONIC DISTANCE 708.228 EARTH TO MARS

RL	152.07	LAL	-.00	LOL	291.42	VL	32.871	GAL	-4.05	AZL	93.89	HCA	208.43	SMA	199.57	ECC	.24773	INC	3.8872	V1	29.298
RP	248.25	LAP	1.85	LOP	139.79	VP	20.105	GAP	-2.56	AZP	86.58	TAL	339.39	TAP	187.82	RCA	150.13	APO	249.01	V2	22.067
RC	329.241	GL	-28.54	GP	25.55	ZAL	118.83	ZAP	57.13	ETS	199.63	ZAE	79.91	ETE	186.20	ZAC	114.38	ETC	285.57	LVI	-48.46

PLANETOCENTRIC CONIC

C3	21.643	VHL	4.652	DLA	-8.81	RAL	59.10	RAD	6643.6	VEL	11.901	PTH	6.91	VHP	2.789	DPA	27.11	RAP	.70	ECC	1.3562

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 19 13	2977.06	-29.93	89.35	278.98	128.88	17 8 50	1977.1	-12.84	70.89
60.00	17 8 19	2846.47	-25.00	81.59	282.99	122.70	17 55 46	1846.5	-10.14	61.67
70.00	18 11 14	2661.52	-20.53	69.43	285.82	117.91	18 55 35	1661.5	-7.62	48.54
80.00	19 29 19	2417.07	-17.26	52.58	287.53	114.75	20 9 36	1417.1	-5.74	31.15
90.00	20 55 3	2140.45	-16.03	32.83	288.11	113.62	21 30 43	1140.5	-5.02	11.20
100.00	22 12 11	1891.54	-17.26	13.95	287.53	114.75	22 43 42	891.5	-5.74	352.52
110.00	23 10 40	1708.34	-20.53	358.34	285.82	117.91	23 39 8	708.3	-7.62	337.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.2790	TRA	4.9867	TC3	-7.1093	BAU	2.1088	SGT	9211.9	SGR	2579.3	SG3	1636.7	ST	122.4	SR	37.9	SS	52.6
RDE	.3544	RRA	-1.6504	RC3	1.6055	FAU	.33030	RRT	-.9828	RRF	-.9866	RTF	.9834	CRT	-.9961	CRS	.8761	CST	-.8323
FDE	-.3943	FRA	11.5576	FC	-13.2124	BSP	16615	SGB	9566.2	R23	.0958	R13	-.9847	LSA	135.8	MSA	27.4	SSA	.9
BDE	1.3272	BRA	5.2527	BC3	7.2883	FSP	2968	SG1	9555.2	SG2	459.1	THA	164.58	EL1	128.1	EL2	3.2	ALF	162.87

LAUNCH DATE JUL 15 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 12 1973

HELIOCENTRIC CONIC DISTANCE 344.393 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	35.050	GAL	-4.73	AZL	90.25	HCA	109.55	SMA	256.65	ECC	.41444	INC	.2537
RP	217.81	LAP	-.24	LOP	41.92	VP	26.487	GAP	22.97	AZP	89.91	TAL	343.76	TAP	93.33	RCA	150.28	APO	363.02
RC	73.631	GL	-1.41	GP	-5.12	ZAL	116.49	ZAP	172.63	ETS	225.70	ZAE	168.77	ETE	334.91	ZAC	79.44	ETC	283.38

V1	29.299																		
V2	25.227																		
LVI	-13.62																		

PLANETOCENTRIC CONIC

C3	39.610	VHL	6.294	DLA	16.08	RAL	46.82	RAD	6650.5	VEL	12.629	PTH	7.48	VHP	8.334	DPA	8.55	RAP	36.27
ECC	1.6519																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 52 53	3627.20	-47.48	140.13	296.78	93.51	14 53 20	2627.2	-40.58	107.65
60.00	14 14 7	3570.64	-40.30	135.34	297.08	89.91	15 13 38	2570.6	-35.92	105.14
70.00	14 45 19	3478.81	-34.04	127.70	296.87	87.08	15 43 18	2478.8	-31.68	99.22
80.00	15 33 40	3327.30	-29.49	115.85	296.51	85.12	16 29 7	2327.3	-28.52	88.46
90.00	16 46 6	3093.50	-27.76	98.48	296.33	84.39	17 37 39	2093.5	-27.31	71.49
100.00	18 16 32	2801.77	-29.49	77.21	296.51	85.12	19 3 14	1801.8	-28.52	49.83
110.00	19 44 46	2525.63	-34.04	56.62	296.87	87.08	20 26 51	1525.6	-31.68	28.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4431	TRA	-1.5114	TC3	.1304	BAU	.0788	SGT	1496.7	SGR	601.0	SG3	180.7	ST	29.5	SR	27.2	SS	21.2
RDE	-.5923	RRA	.2634	RC3	-.0719	FAU	.05613	RRT	-.1719	RRF	.1945	RTF	-.7508	CRT	.5777	CRS	.6239	CST	.9957
FDE	.4694	FRA	1.4179	FC3	-1.2268	BSP	2396	SGB	1612.9	R23	-.0423	R13	.7525	LSA	41.0	MSA	19.4	SSA	1.2
BDE	.7397	BRA	1.5341	BC3	.1489	FSP	233	SG1	1500.9	SG2	590.4	THA	175.33	EL1	35.7	EL2	18.4	ALF	41.09

LAUNCH DATE JUL 15 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 346.841 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	34.927	GAL	-4.62	AZL	90.22	HCA	110.69	SMA	252.45	ECC	.40448	INC	.2164
RP	218.16	LAP	-.20	LOP	43.06	VP	26.286	GAP	22.62	AZP	89.92	TAL	343.88	TAP	94.56	RCA	150.34	APO	354.56
RC	74.953	GL	-1.23	GP	-5.29	ZAL	116.34	ZAP	171.98	ETS	222.88	ZAE	167.97	ETE	335.35	ZAC	79.20	ETC	283.35

V1	29.299																		
V2	25.188																		
LVI	-13.35																		

PLANETOCENTRIC CONIC

C3	37.873	VHL	6.154	DLA	16.22	RAL	46.61	RAD	6649.9	VEL	12.560	PTH	7.43	VHP	8.097	DPA	8.54	RAP	36.72
ECC	1.6233																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 51 31	3618.67	-47.44	139.31	295.58	94.15	14 51 49	2618.7	-40.31	107.01
60.00	14 12 35	3562.58	-40.30	134.66	295.97	90.38	15 11 57	2562.6	-35.74	104.53
70.00	14 43 33	3471.40	-34.07	127.12	295.82	87.42	15 41 25	2471.4	-31.56	98.67
80.00	15 31 40	3320.60	-29.53	115.35	295.48	85.38	16 27 1	2320.6	-28.45	87.98
90.00	16 44 0	3087.15	-27.80	98.02	295.31	84.62	17 35 27	2087.2	-27.25	71.03
100.00	18 14 32	2795.07	-29.53	76.72	295.48	85.38	19 1 7	1795.1	-28.45	49.35
110.00	19 43 0	2518.21	-34.07	56.04	295.82	87.42	20 24 58	1518.2	-31.56	27.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4432	TRA	-1.5068	TC3	.1522	BAU	.0872	SGT	1529.7	SGR	601.8	SG3	191.9	ST	30.1	SR	27.1	SS	22.0
RDE	-.5753	RRA	.2638	RC3	-.0805	FAU	.05829	RRT	-.1860	RRF	.2103	RTF	-.7592	CRT	.5752	CRS	.6254	CST	.9955
FDE	.4932	FRA	1.4700	FC3	-1.3323	BSP	2467	SGB	1643.8	R23	-.0452	R13	.7611	LSA	41.7	MSA	19.5	SSA	1.3
BDE	.7263	BRA	1.5298	BC3	.1722	FSP	250	SG1	1534.5	SG2	589.4	THA	175.09	EL1	36.0	EL2	18.5	ALF	39.74

LAUNCH DATE JUL 15 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 349.410 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	34.810	GAL	-4.52	AZL	90.18	HCA	111.82	SMA	248.59	ECC	.39505	INC	.1790
RP	218.53	LAP	-.17	LOP	44.19	VP	26.092	GAP	22.26	AZP	89.93	TAL	343.98	TAP	95.80	RCA	150.39	APO	346.80
RC	76.362	GL	-1.03	GP	-5.46	ZAL	116.18	ZAP	171.31	ETS	220.49	ZAE	167.22	ETE	335.61	ZAC	78.95	ETC	283.33

V1	29.299																		
V2	25.148																		
LVI	-13.09																		

PLANETOCENTRIC CONIC

C3	36.254	VHL	6.021	DLA	16.36	RAL	46.39	RAD	6649.3	VEL	12.496	PTH	7.38	VHP	7.868	DPA	8.52	RAP	37.15
ECC	1.5966																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 50 3	3610.55	-47.40	138.53	294.40	94.74	14 50 14	2610.6	-40.05	106.40
60.00	14 10 56	3554.97	-40.29	134.01	294.88	90.82	15 10 11	2555.0	-35.56	103.97
70.00	14 41 41	3464.46	-34.09	126.58	294.78	87.74	15 39 25	2464.5	-31.45	98.16
80.00	15 29 33	3314.41	-29.56	114.90	294.47	85.62	16 24 48	2314.4	-28.38	87.8
90.00	16 41 46	3081.35	-27.84	97.60	294.31	84.82	17 33 7	2081.3		
100.00	18 12 25	2788.89	-29.56	76.26	294.47	85.62	18 58 54	1788.9	-28.38	
110.00	19 41 7	2511.28	-34.09	55.50	294.78	87.74	20 22 58	1511.3	-31.45	27.0

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4442	TRA	-1.5021	TC3	.1755	BAU	.0956	SGT	1562.9	SGR	602.6	SG3	203.7	ST	30.8	SR	26.9	SS	22.
RDE	-.5586	RRA	.2646	RC3	-.0899	FAU	.06055	RRT	-.2009	RRF	.2272	RTF	-.7674	CRT	.5731	CRS	.6270	CST	.9951
FDE	.5186	FRA	1.5238	FC3	-1.4459	BSP	2534	SGB	1675.0	R23	-.0485	R13	.7695	LSA	42.5	MSA	19.5	SSA	1.3
BDE	.7137	BRA	1.5253	BC3	.1972	FSP	268	SG1	1568.3	SG2	588.3	THA	174.84	EL1	36.3	EL2	18.6	ALF	38.34

LAUNCH DATE JUL 15 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 352.088 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	34.699	GAL	-4.41	AZL	90.14	HCA	112.96	SMA	245.05	ECC	.38610	INC	.1406
RP	218.89	LAP	-.13	LOP	45.33	VP	25.904	GAP	21.91	AZP	89.94	TAL	344.09	TAP	97.05	RCA	150.44	APO	339.67
RC	77.855	GL	-.83	GP	-5.63	ZAL	116.00	ZAP	170.61	ETS	218.45	ZAE	166.53	ETE	335.70	ZAC	78.70	ETC	283.30

V1	29.299																		
V2	25.107																		
LVI	-12.81																		

PLANETOCENTRIC CONIC

C3	34.741	VHL	5.894	DLA	16.51	RAL	46.16	RAD	6648.8	VEL	12.436	PTH	7.34	VHP	7.646	DPA	8.49	RAP	37.58
ECC	1.5717																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 48 30	3602.85	-47.35	137.79	293.24	95.31	14 48 33	2602.8	-39.80	105.84
60.00	14 9 11	3547.79	-40.29	133.40	293.80	91.23	15 8 19	2547.8	-35.39	103.44
70.00	14 39 41	3458.00	-34.10	126.08	293.75	88.04	15 37 19	2458.0	-31.34	97.69
80.00	15 27 19	3308.74	-29.59	114.48	293.46	85.84	16 22 27	2308.7	-28.31	87.12
90.00	16 39 24	3076.07	-27.87	97.22	293.31	85.01	17 30 40	2076.1	-27.14	70.24
100.00	18 10 10	2783.21	-29.59	75.84	293.46	85.84	18 56 34	1783.2	-28.31	48.49
110.00	19 39 7	2504.82	-34.10	54.99	293.75	88.04	20 20 52	1504.8	-31.34	26.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4340	TRA	-1.4860	TC3	.2131	BAU	.1093	SGT	1584.6	SGR	603.3	SG3	216.2	ST	30.9	SR	26.6	SS	23.8
RDE	-.5417	RRA	.2661	RC3	-.0999	FAU	.06273	RRT	-.2238	RRF	.2443	RTF	-.7639	CRT	.5632	CRS	.6302	CST	.9942
FDE	.5502	FRA	1.5841	FC3	-1.5632	BSP	2460	SGB	1695.6	R23	-.0421	R13	.7860	LSA	43.0	MSA	19.6	SSA	1.3
BDE	.6941	BRA	1.5097	BC3	.2354	FSP	293	SG1	1591.3	SG2	585.5	THA	174.36	EL1	36.2	EL2	18.9	ALF	37.57

LAUNCH DATE JUL 15 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 354.866 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	34.594	GAL	-4.31	AZL	90.10	HCA	114.09	SMA	241.80	ECC	.37764	INC	.1011	V1	29.299
RP	219.26	LAP	-.09	LOP	46.46	VP	25.724	GAP	21.57	AZP	89.96	TAL	344.21	TAP	98.30	RCA	150.49	APO	333.11	V2	25.067
RC	79.428	GL	-.61	GP	-5.82	ZAL	115.82	ZAP	169.89	ETS	216.72	ZAE	165.89	ETE	335.67	ZAC	78.44	ETC	283.27	LVI	-12.53

PLANETOCENTRIC CONIC

C3	33.332	VHL	5.773	DLA	16.66	RAL	45.91	RAD	6648.3	VEL	12.379	PTH	7.30	VHP	7.432	DPA	8.44	RAP	38.00	ECC	1.5486

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 46 52	3595.63	-47.30	137.10	292.11	95.84	14 46 47	2595.6	-39.56	105.31
60.00	14 7 20	3541.14	-40.27	132.83	292.74	91.62	15 6 21	2541.1	-35.22	102.94
70.00	14 37 35	3452.11	-34.12	125.62	292.74	88.31	15 35 7	2452.1	-31.24	97.26
80.00	15 24 56	3303.70	-29.62	114.10	292.48	86.03	16 20 0	2303.7	-28.25	86.76
90.00	16 36 53	3071.45	-27.90	96.89	292.32	85.18	17 28 5	2071.4	-27.10	69.91
100.00	18 7 48	2778.17	-29.62	75.47	292.48	86.03	18 54 6	1778.2	-28.25	48.13
110.00	19 37 1	2498.93	-34.12	54.53	292.74	88.31	20 18 40	1498.9	-31.24	26.18

DIFFERENTIAL CORRECTIONS

TDE	-.4392	TRA	-1.4843	TC3	.2347	BAU	.1157												
RDE	-.5255	RRA	.2675	RC3	-.1113	FAU	.06535												
FDE	.5767	FRA	1.6392	FC3	-1.6973	BSP	2581												
BDE	.6648	BRA	1.5082	BC3	.2597	FSP	312												

MID-COURSE EXECUTION ACCURACY

SGT	1621.0	SGR	604.4	SG3	229.4				
RRT	-.2385	RRF	.2642	RTF	-.7879				
SGB	1730.0	R23	-.0497	R13	.7902				
SG1	1628.3	SG2	584.3	THA	174.17				

ORBIT DETERMINATION ACCURACY

ST	31.7	SR	26.4	SS	24.7
CRT	.5637	CRS	.6305	CST	.9943
LSA	43.9	MSA	19.6	SSA	1.3
EL1	36.7	EL2	18.8	ALF	35.92

LAUNCH DATE JUL 15 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 357.731 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	34.494	GAL	-4.21	AZL	90.06	HCA	115.21	SMA	238.80	ECC	.36962	INC	.0618	V1	29.299
RP	219.63	LAP	-.06	LOP	47.58	VP	25.549	GAP	21.22	AZP	89.97	TAL	344.33	TAP	99.54	RCA	150.53	APO	327.06	V2	25.026
RC	81.081	GL	-.38	GP	-6.02	ZAL	115.63	ZAP	169.16	ETS	215.22	ZAE	165.31	ETE	335.51	ZAC	78.18	ETC	283.25	LVI	-12.25

PLANETOCENTRIC CONIC

C3	32.016	VHL	5.658	DLA	16.83	RAL	45.65	RAD	6647.8	VEL	12.326	PTH	7.26	VHP	7.225	DPA	8.38	RAP	38.41	ECC	1.5269

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 45 8	3588.89	-47.25	136.46	291.00	96.34	14 44 57	2588.9	-39.34	104.82
60.00	14 5 23	3534.99	-40.26	132.31	291.70	91.97	15 4 18	2535.0	-35.07	102.49
70.00	14 35 21	3446.76	-34.13	125.20	291.74	88.56	15 32 48	2446.8	-31.15	96.87
80.00	15 22 26	3299.25	-29.64	113.77	291.50	86.20	16 17 25	2299.2	-28.20	86.44
90.00	16 34 14	3067.45	-27.92	96.60	291.35	85.32	17 25 22	2067.5	-27.06	69.62
100.00	18 5 17	2773.72	-29.64	75.14	291.50	86.20	18 51 31	1773.7	-28.20	47.81
110.00	19 34 48	2493.58	-34.13	54.12	291.74	88.56	20 16 21	1493.6	-31.15	25.79

DIFFERENTIAL CORRECTIONS

TDE	-.4433	TRA	-1.4815	TC3	.2583	BAU	.1226												
RDE	-.5093	RRA	.2693	RC3	-.1238	FAU	.06804												
FDE	.6066	FRA	1.6974	FC3	-1.8399	BSP	2686												
BDE	.6752	BRA	1.5058	BC3	.2864	FSP	332												

MID-COURSE EXECUTION ACCURACY

SGT	1656.3	SGR	605.6	SG3	243.4				
RRT	-.2552	RRF	.2851	RTF	-.7927				
SGB	1763.5	R23	-.0561	R13	.7953				
SG1	1664.5	SG2	582.7	THA	173.92				

ORBIT DETERMINATION ACCURACY

ST	32.5	SR	26.1	SS	25.6
CRT	.5628	CRS	.6314	CST	.9941
LSA	44.8	MSA	19.5	SSA	1.3
EL1	37.2	EL2	18.9	ALF	34.34

LAUNCH DATE JUL 15 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 360.677 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	34.399	GAL	-4.11	AZL	90.02	HCA	116.33	SMA	236.02	ECC	.36201	INC	.0198	V1	29.299
RP	220.00	LAP	-.02	LOP	48.70	VP	25.381	GAP	20.88	AZP	89.99	TAL	344.46	TAP	100.79	RCA	150.58	APO	321.47	V2	24.985
RC	82.809	GL	-.14	GP	-6.22	ZAL	115.42	ZAP	168.40	ETS	213.92	ZAE	164.79	ETE	335.24	ZAC	77.91	ETC	283.22	LVI	-11.96

PLANETOCENTRIC CONIC

C3	30.786	VHL	5.549	DLA	17.00	RAL	45.37	RAD	6647.3	VEL	12.277	PTH	7.22	VHP	7.024	DPA	8.31	RAP	38.82	ECC	1.5067

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 43 19	3582.63	-47.20	135.86	289.92	96.79	14 43 2	2582.6	-39.13	104.36
60.00	14 3 20	3529.35	-40.25	131.83	290.69	92.30	15 2 9	2529.4	-34.93	102.08
70.00	14 33 1	3441.98	-34.13	124.83	290.76	88.78	15 30 23	2442.0	-31.07	96.52
80.00	15 19 47	3295.42	-29.65	113.49	290.54	86.35	16 14 42	2295.4	-28.15	86.17
90.00	16 31 26	3064.11	-27.94	96.35	290.40	85.44	17 22 30	2064.1	-27.02	69.38
100.00	18 2 39	2769.89	-29.65	74.86	290.54	86.35	18 48 48	1769.9	-28.15	47.54
110.00	19 32 27	2488.80	-34.13	53.74	290.76	88.78	20 13 56	1488.8	-31.07	25.44

DIFFERENTIAL CORRECTIONS

TDE	-.4463	TRA	-1.4764	TC3	.2849	BAU	.1302												
RDE	-.4932	RRA	.2715	RC3	-.1373	FAU	.07088												
FDE	.6387	FRA	1.7579	FC3	-1.9931	BSP	2769												
BDE	.6652	BRA	1.5012	BC3	.3163	FSP	355												

MID-COURSE EXECUTION ACCURACY

SGT	1689.4	SGR	607.1	SG3	258.2				
RRT	-.2739	RRF	.3074	RTF	-.8082				
SGB	1795.1	R23	-.0618	R13	.8011				
SG1	1698.6	SG2	580.7	THA	173.63				

ORBIT DETERMINATION ACCURACY

ST	33.2	SR	25.8	SS	26.5
CRT	.5610	CRS	.6321	CST	.9939
LSA	45.8	MSA	19.4	SSA	1.3
EL1	37.6	EL2	18.9	ALF	32.84

LAUNCH DATE JUL 15 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 363.894 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	34.309	GAL	-4.02	AZL	89.98	HCA	117.45	SMA	233.46	ECC	.35480	INC	.0099	V1	29.299
RP	220.38	LAP	.02	LOP	49.82	VP	25.218	GAP	20.54	AZP	90.01	TAL	344.59	TAP	102.04	RCA	150.63	APO	316.29	V2	24.944
RC	84.610	GL	.11	GP	-6.44	ZAL	115.21	ZAP	167.63	ETS	212.79	ZAE	164.33	ETE	334.86	ZAC	77.63	ETC	283.20	LVI	-11.66

PLANETOCENTRIC CONIC

C3	29.638	VHL	5.444	DLA	17.18	RAL	45.08	RAD	6646.9	VEL	12.230	PTH	7.18	VHP	6.829	DPA	8.23	RAP	39.21	ECC	1.4878

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 41 25	3576.87	-47.16	135.31	288.87	97.21	14 41 2	2576.9	-38.93	103.95
60.00	14 1 11	3524.25	-40.23	131.40	289.69	92.59	14 59 55	2524.3	-34.81	101.71
70.00	14 30 33	3437.79	-34.14	124.50	289.80	88.97	15 27 51	2437.8	-30.99	96.22
80.00	15 17 0	3292.25	-29.67	113.26	289.59	86.47	16 11 52	2292.3	-28.11	85.94
90.00	16 28 29	3061.46	-27.95	96.16	289.45	85.54	17 19 31	2061.5	-26.99	69.19
100.00	17 59 51	2766.72	-29.67	74.62	289.59	86.47	18 45 58	1766.7	-28.11	47.31
110.00	19 29 59	2484.61	-34.14	53.42	289.80	88.97	20 11 24	1484.6	-30.99	25.14

DIFFERENTIAL CORRECTIONS

TDE	-.4492	TRA	-1.4706	TC3	.3125	BAU	.1377												
RDE	-.4773	RRA	.2742	RC3	-.1520	FAU	.07383												
FDE	.6735	FRA	1.8207	FC3	-2.1565	BSP	2853												
BDE	.6554	BRA	1.4960	BC3	.3475	FSP	380												

MID-COURSE EXECUTION ACCURACY

SGT	1721.6	SGR	609.0	SG3	273.7				
RRT	-.2939	RRF	.3308	RTF	-.8036				
SGB	1826.1	R23	-.0675	R13	.8069				
SG1	1732.1	SG2	578.6	THA	173.31				

ORBIT DETERMINATION ACCURACY

ST	33.9	SR	25.5	SS	27.5
CRT	.5587	CRS	.6328	CST	.9936
LSA	46.7	MSA	19.4	SSA	1.4
EL1	38.0	EL2	18.9	ALF	31.37

LAUNCH DATE JUL 15 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 366.778 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	34.224	GAL	-3.93	AZL	89.94	HCA	118.56	SMA	231.08	ECC	.34796	INC	.0560
RP	220.76	LAP	.05	LOP	50.93	VP	25.061	GAP	20.21	AZP	90.03	TAL	344.73	TAP	103.29	RCA	150.67	APO	311.48
RC	86.480	GL	.37	GP	-6.66	ZAL	114.99	ZAP	166.84	ETS	211.81	ZAE	163.92	ETE	334.37	ZAC	77.35	ETC	283.18

V1	29.299																		
V2	24.902																		
LVI	-11.35																		

PLANETOCENTRIC CONIC

C3	28.565	VHL	5.345	DLA	17.37	RAL	44.78	RAD	6646.4	VEL	12.186	PTH	7.15	VHP	6.641	DPA	8.12	RAP	39.60
ECC	1.4701																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 39 26	3571.63	-47.11	134.81	287.85	97.60	14 38 57	2571.6	-38.76	103.57
60.00	13 58 56	3519.71	-40.22	131.01	288.72	92.85	14 57 35	2519.7	-34.69	101.38
70.00	14 27 58	3434.22	-34.14	124.22	288.86	89.14	15 25 12	2434.2	-30.93	95.96
80.00	15 14 4	3289.76	-29.68	113.07	288.66	86.57	16 8 53	2289.8	-28.08	85.76
90.00	16 25 23	3059.52	-27.96	96.02	288.53	85.61	17 16 23	2059.5	-26.97	69.06
100.00	17 56 55	2764.23	-29.68	74.44	288.66	86.57	18 43 0	1764.2	-28.08	47.13
110.00	19 27 24	2481.04	-34.14	53.14	288.86	89.14	20 8 45	1481.0	-30.93	24.88

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4512	TRA	-1.4633	TC3	.3428	BAU	.1458	SGT	1752.1	SGR	611.4	SG3	290.2	ST	34.5	SR	25.2
RDE	-.4614	RRA	.2772	RC3	-.1680	FAU	.07696	RRT	-.3158	RRF	.3557	RTF	-.8094	CRT	.5553	CRS	.6330
FDE	.7104	FRA	1.8856	FC3	-2.3324	BSP	2919	SGB	1855.7	R23	-.0728	R13	.8130	LSA	47.6	MSA	19.2
BDE	.6453	BRA	1.4893	BC3	.3817	FSP	406	SG1	1764.0	SG2	576.2	THA	172.96	EL1	38.4	EL2	18.8

SS	28.5				
CST	.9933				
SSA	1.4				
ALF	29.95				

LAUNCH DATE JUL 15 1973 FLIGHT TIME 138.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 369.922 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	34.142	GAL	-3.84	AZL	89.90	HCA	119.67	SMA	228.87	ECC	.34147	INC	.0997
RP	221.14	LAP	.09	LOP	52.04	VP	24.908	GAP	19.88	AZP	90.05	TAL	344.86	TAP	104.54	RCA	150.72	APO	307.02
RC	88.416	GL	.65	GP	-6.90	ZAL	114.76	ZAP	166.04	ETS	210.95	ZAE	163.57	ETE	333.79	ZAC	77.06	ETC	283.16

V1	29.299																		
V2	24.861																		
LVI	-11.04																		

PLANETOCENTRIC CONIC

C3	27.561	VHL	5.250	DLA	17.58	RAL	44.48	RAD	6646.0	VEL	12.146	PTH	7.11	VHP	6.459	DPA	8.01	RAP	39.97
ECC	1.4536																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 37 21	3566.91	-47.07	134.36	286.87	97.94	14 36 48	2566.9	-38.59	103.24
60.00	13 56 34	3515.74	-40.20	130.67	287.78	93.08	14 55 10	2515.7	-34.59	101.09
70.00	14 25 15	3431.28	-34.15	123.99	287.94	89.27	15 22 27	2431.3	-30.87	95.75
80.00	15 10 59	3287.98	-29.69	112.94	287.75	86.64	16 5 47	2288.0	-28.06	85.63
90.00	16 22 7	3058.34	-27.97	95.93	287.62	85.65	17 13 6	2058.3	-26.96	68.97
100.00	17 53 51	2762.45	-29.69	74.31	287.75	86.64	18 39 53	1762.5	-28.06	47.00
110.00	19 24 42	2478.09	-34.15	52.91	287.94	89.27	20 6 0	1478.1	-30.87	24.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4540	TRA	-1.4559	TC3	.3731	BAU	.1535	SGT	1782.4	SGR	614.4	SG3	307.6	ST	35.2	SR	24.8
RDE	-.4454	RRA	.2807	RC3	-.1854	FAU	.08021	RRT	-.3387	RRF	.3818	RTF	-.8148	CRT	.5520	CRS	.6333
FDE	.7513	FRA	1.9534	FC3	-2.5194	BSP	2990	SGB	1885.3	R23	-.0784	R13	.8188	LSA	48.6	MSA	19.1
BDE	.6361	BRA	1.4827	BC3	.4166	FSP	434	SG1	1795.9	SG2	573.7	THA	172.58	EL1	38.7	EL2	18.8

SS	29.6				
CST	.9929				
SSA	1.4				
ALF	28.51				

LAUNCH DATE JUL 15 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 373.120 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	34.065	GAL	-3.75	AZL	89.86	HCA	120.78	SMA	226.81	ECC	.33532	INC	.1421
RP	221.52	LAP	.12	LOP	53.15	VP	24.761	GAP	19.55	AZP	90.07	TAL	345.00	TAP	105.79	RCA	150.76	APO	302.87
RC	90.414	GL	.94	GP	-7.14	ZAL	114.53	ZAP	165.22	ETS	210.19	ZAE	163.27	ETE	333.10	ZAC	76.76	ETC	283.14

V1	29.299																		
V2	24.819																		
LVI	-10.72																		

PLANETOCENTRIC CONIC

C3	26.623	VHL	5.160	DLA	17.79	RAL	44.16	RAD	6645.7	VEL	12.107	PTH	7.08	VHP	6.283	DPA	7.87	RAP	40.34
ECC	1.4382																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 35 11	3562.74	-47.03	133.97	285.91	98.24	14 34 33	2562.7	-38.45	102.94
60.00	13 54 6	3512.36	-40.19	130.39	286.86	93.27	14 52 38	2512.4	-34.50	100.85
70.00	14 22 25	3428.99	-34.15	123.81	287.04	89.38	15 19 34	2429.0	-30.83	95.58
80.00	15 7 45	3286.94	-29.69	112.86	286.86	86.68	16 2 32	2286.9	-28.04	85.56
90.00	16 18 41	3057.94	-27.97	95.90	286.72	85.66	17 9 39	2057.9	-26.96	68.94
100.00	17 50 36	2761.41	-29.69	74.23	286.86	86.68	18 36 38	1761.4	-28.04	46.93
110.00	19 21 52	2475.81	-34.15	52.73	287.04	89.38	20 3 7	1475.8	-30.83	24.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4560	TRA	-1.4473	TC3	.4050	BAU	.1614	SGT	1811.1	SGR	618.1	SG3	325.8	ST	35.8	SR	24.4
RDE	-.4296	RRA	.2845	RC3	-.2043	FAU	.08364	RRT	-.3632	RRF	.4092	RTF	-.8201	CRT	.5474	CRS	.6328
FDE	.7940	FRA	2.0227	FC3	-2.7198	BSP	3055	SGB	1913.7	R23	-.0841	R13	.8245	LSA	49.6	MSA	18.9
BDE	.6265	BRA	1.4750	BC3	.4536	FSP	464	SG1	1826.5	SG2	571.1	THA	172.16	EL1	39.1	EL2	18.7

SS	30.8				
CST	.9925				
SSA	1.4				
ALF	27.10				

LAUNCH DATE JUL 15 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 376.367 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.992	GAL	-3.67	AZL	89.81	HCA	121.88	SMA	224.90	ECC	.32949	INC	.1656
RP	221.90	LAP	.16	LOP	54.25	VP	24.619	GAP	19.22	AZP	90.10	TAL	345.15	TAP	107.03	RCA	150.80	APO	299.00
RC	92.473	GL	1.25	GP	-7.40	ZAL	114.29	ZAP	164.38	ETS	209.53	ZAE	163.02	ETE	332.30	ZAC	76.45	ETC	283.13

V1	29.299																		
V2	24.778																		
LVI	-10.40																		

PLANETOCENTRIC CONIC

C3	25.747	VHL	5.074	DLA	18.01	RAL	43.83	RAD	6645.3	VEL	12.071	PTH	7.05	VHP	6.112	DPA	7.72	RAP	40.69
ECC	1.4237																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 32 55	3559.13	-46.99	133.63	284.99	98.50	14 32 14	2559.1	-38.33	102.69
60.00	13 51 32	3509.59	-40.18	130.15	285.97	93.43	14 50 1	2509.6	-34.43	100.64
70.00	14 19 27	3427.38	-34.15	123.69	286.16	89.45	15 16 34	2427.4	-30.80	95.47
80.00	15 4 21	3286.66	-29.69	112.84	285.98	86.69	15 59 7	2286.7	-28.04	85.54
90.00	16 15 4	3058.36	-27.97	95.94	285.85	85.65	17 6 3	2058.4	-26.96	68.97
100.00	17 47 13	2761.14	-29.69	74.21	285.98	86.69	18 33 14	1761.1	-28.04	46.91
110.00	19 18 53	2474.20	-34.15	52.60	286.16	89.45	20 0 8	1474.2	-30.80	24.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4583	TRA	-1.4380	TC3	.4377	BAU	.1694	SGT	1838.6	SGR	622.7	SG3	345.0	ST	36.4	SR	23.9
RDE	-.4137	RRA	.2888	RC3	-.2248	FAU	.08726	RRT	-.3888	RRF	.4378	RTF	-.8251	CRT	.5423	CRS	.6319
FDE	.8401	FRA	2.0938	FC3	-2.9342	BSP	3113	SGB	1941.2	R23	-.0901	R13	.8300	LSA	50.6	MSA	18.7
BDE	.6174	BRA	1.4667	BC3	.4920	FSP	495	SG1	1856.1	SG2	568.3	THA	171.72	EL1	39.4	EL2	18.6

SS	32.0				
CST	.9920				
SSA	1.5				
ALF	25.70				

LAUNCH DATE JUL 15 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 379.661 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.923	GAL	-3.58	AZL	89.77	HCA	122.98	SMA	223.12	ECC	.32395	INC	.2301	V1	29.299
RP	222.28	LAP	.19	LOP	55.35	VP	24.480	GAP	18.90	AZP	90.13	TAL	345.29	TAP	108.27	RCA	150.84	APO	295.40	V2	24.736
RC	94.587	GL	1.56	GP	-7.67	ZAL	114.05	ZAP	163.52	ETS	208.94	ZAE	162.82	ETE	331.40	ZAC	76.13	ETC	283.12	LVI	-10.06

PLANETOCENTRIC CONIC

C3	24.927	VHL	4.993	DLA	18.25	RAL	43.49	RAD	6645.0	VEL	12.037	PTH	7.02	VHP	5.947	DPA	7.56	RAP	41.04	ECC	1.4102

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 30 35	3556.09	-46.96	133.34	284.10	98.72	14 29 51	2556.1	-38.22	102.47
60.00	13 48 51	3507.44	-40.17	129.97	285.11	93.56	14 47 18	2507.4	-34.37	100.49
70.00	14 16 21	3426.47	-34.15	123.62	285.31	89.50	15 13 27	2426.5	-30.79	95.40
80.00	15 0 47	3287.19	-29.69	112.88	285.13	86.67	15 55 34	2287.2	-28.05	85.58
90.00	16 11 17	3059.63	-27.96	96.03	285.00	85.60	17 2 16	2059.6	-26.97	69.06
100.00	17 43 39	2761.66	-29.69	74.25	285.13	86.67	18 29 41	1761.7	-28.05	46.95
110.00	19 15 47	2473.29	-34.15	52.53	285.31	89.50	19 57 0	1473.3	-30.79	24.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4610	TRA	-1.4282	TC3	.4709	BAU	.1772	SGT	1865.3	SGR	628.4	SG3	365.3	ST	37.0	SR	23.4	SS	33.2
RDE	-.3977	RRA	.2936	RC3	-.2470	FAU	.09106	RRT	-.4153	RRF	.4674	RTF	-.8300	CRT	.5367	CRS	.6303	CST	.9915
FDE	.8898	FRA	2.1676	FC3	-3.1625	BSP	3175	SGB	1968.3	R23	-.0965	R13	.8353	LSA	51.7	NSA	18.5	SSA	1.5
BDE	.6088	BRA	1.4580	BC3	.5317	FSP	528	SG1	1885.3	SG2	565.6	THA	171.24	EL1	39.8	EL2	18.4	ALF	24.29

LAUNCH DATE JUL 15 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 382.996 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.857	GAL	-3.50	AZL	89.72	HCA	124.08	SMA	221.46	ECC	.31870	INC	.2756	V1	29.299
RP	222.67	LAP	.23	LOP	56.45	VP	24.347	GAP	18.58	AZP	90.15	TAL	345.44	TAP	109.51	RCA	150.88	APO	292.04	V2	24.694
RC	96.756	GL	1.90	GP	-7.96	ZAL	113.80	ZAP	162.64	ETS	208.42	ZAE	162.66	ETE	330.38	ZAC	75.80	ETC	283.11	LVI	-9.72

PLANETOCENTRIC CONIC

C3	24.161	VHL	4.915	DLA	18.50	RAL	43.15	RAD	6644.6	VEL	12.006	PTH	7.00	VHP	5.787	DPA	7.37	RAP	41.37	ECC	1.3976

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 28 8	3553.63	-46.93	133.11	283.25	98.90	14 27 22	2553.6	-38.13	102.30
60.00	13 46 3	3505.92	-40.16	129.84	284.27	93.64	14 44 29	2505.9	-34.33	100.38
70.00	14 13 6	3426.29	-34.15	123.60	284.48	89.50	15 10 12	2426.3	-30.78	95.39
80.00	14 57 3	3288.54	-29.68	112.98	284.30	86.62	15 51 51	2288.5	-28.07	85.67
90.00	16 7 18	3061.79	-27.95	96.18	284.16	85.53	16 58 19	2061.8	-27.00	69.22
100.00	17 39 55	2763.01	-29.68	74.35	284.30	86.62	18 25 58	1763.0	-28.07	47.04
110.00	19 12 33	2473.11	-34.15	52.52	284.48	89.50	19 53 46	1473.1	-30.78	24.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4631	TRA	-1.4177	TC3	.5046	BAU	.1850	SGT	1890.6	SGR	635.4	SG3	386.6	ST	37.6	SR	22.9	SS	34.5
RDE	-.3816	RRA	.2988	RC3	-.2710	FAU	.09504	RRT	-.4430	RRF	.4982	RTF	-.8346	CRT	.5295	CRS	.6276	CST	.9910
FDE	.9424	FRA	2.2439	FC3	-3.4056	BSP	3229	SGB	1994.5	R23	-.1031	R13	.8405	LSA	52.8	NSA	18.3	SSA	1.5
BDE	.6001	BRA	1.4489	BC3	.5728	FSP	563	SG1	1913.4	SG2	562.9	THA	170.72	EL1	40.1	EL2	18.2	ALF	22.69

LAUNCH DATE JUL 15 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 386.369 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.794	GAL	-3.43	AZL	89.68	HCA	125.17	SMA	219.90	ECC	.31372	INC	.3220	V1	29.299
RP	223.06	LAP	.26	LOP	57.54	VP	24.217	GAP	18.27	AZP	90.19	TAL	345.59	TAP	110.75	RCA	150.92	APO	288.89	V2	24.652
RC	98.976	GL	2.25	GP	-8.26	ZAL	113.56	ZAP	161.75	ETS	207.96	ZAE	162.55	ETE	329.25	ZAC	75.46	ETC	283.10	LVI	-9.37

PLANETOCENTRIC CONIC

C3	23.445	VHL	4.842	DLA	18.76	RAL	42.79	RAD	6644.3	VEL	11.976	PTH	6.97	VHP	5.633	DPA	7.16	RAP	41.69	ECC	1.3858

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 25 37	3551.76	-46.92	132.93	282.43	99.03	14 24 49	2551.8	-38.07	102.17
60.00	13 43 9	3505.07	-40.16	129.77	283.47	93.69	14 41 34	2505.1	-34.31	100.32
70.00	14 9 43	3426.85	-34.15	123.65	283.68	89.48	15 6 50	2426.9	-30.79	95.43
80.00	14 53 8	3290.76	-29.67	113.15	283.49	86.53	15 47 59	2290.8	-28.09	85.83
90.00	16 3 6	3064.89	-27.94	96.41	283.35	85.41	16 54 11	2064.9	-27.03	69.44
100.00	17 36 0	2765.24	-29.67	74.51	283.49	86.53	18 22 5	1765.2	-28.09	47.20
110.00	19 9 9	2473.67	-34.15	52.56	283.68	89.48	19 50 23	1473.7	-30.79	24.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4661	TRA	-1.4068	TC3	.5378	BAU	.1925	SGT	1914.7	SGR	643.8	SG3	409.0	ST	38.2	SR	22.4	SS	35.8
RDE	-.3653	RRA	.3046	RC3	-.2970	FAU	.09922	RRT	-.4709	RRF	.5296	RTF	-.8187	CRT	.5217	CRS	.6239	CST	.9905
FDE	.9992	FRA	2.3223	FC3	-3.6640	BSP	3290	SGB	2020.1	R23	-.1105	R13	.8453	LSA	54.0	NSA	18.1	SSA	1.5
BDE	.5922	BRA	1.4393	BC3	.6143	FSP	600	SG1	1940.8	SG2	560.3	THA	170.18	EL1	40.4	EL2	18.0	ALF	21.47

LAUNCH DATE JUL 15 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 389.777 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.735	GAL	-3.35	AZL	89.63	HCA	126.25	SMA	218.45	ECC	.30900	INC	.3694	V1	29.299
RP	223.44	LAP	.30	LOP	58.62	VP	24.091	GAP	17.95	AZP	90.22	TAL	345.73	TAP	111.99	RCA	150.95	APO	285.95	V2	24.611
RC	101.244	GL	2.61	GP	-8.57	ZAL	113.31	ZAP	160.83	ETS	207.56	ZAE	162.47	ETE	327.99	ZAC	75.11	ETC	283.09	LVI	-9.00

PLANETOCENTRIC CONIC

C3	22.776	VHL	4.772	DLA	19.04	RAL	42.44	RAD	6644.1	VEL	11.948	PTH	6.95	VHP	5.483	DPA	6.94	RAP	41.99	ECC	1.3748

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 23 0	3550.51	-46.90	132.81	281.65	99.12	14 22 10	2550.5	-38.02	102.08
60.00	13 40 8	3504.88	-40.16	129.75	282.69	93.70	14 38 33	2504.9	-34.31	100.31
70.00	14 6 11	3428.19	-34.15	123.75	282.90	89.42	15 3 19	2428.2	-30.82	95.53
80.00	14 49 1	3293.89	-29.66	113.38	282.71	86.41	15 43 55	2293.9	-28.13	86.06
90.00	15 58 42	3068.96	-27.91	96.71	282.56	85.27	16 49 51	2069.0	-27.07	69.73
100.00	17 31 53	2768.36	-29.66	74.75	282.71	86.41	18 18 1	1768.4	-28.13	47.43
110.00	19 5 37	2475.01	-34.15	52.67	282.90	89.42	19 46 52	1475.0	-30.82	24.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4688	TRA	-1.3953	TC3	.5710	BAU	.2001	SGT	1937.6	SGR	653.9	SG3	432.6	ST	38.7	SR	21.8	SS	37.2
RDE	-.3488	RRA	.3108	RC3	-.3251	FAU	.10361	RRT	-.4996	RRF	.5615	RTF	-.8426	CRT	.5120	CRS	.6189	CST	.9899
FDE	1.0601	FRA	2.4032	FC3	-3.9384	BSP	3342	SGB	2045.0	R23	-.1182	R13	.8499	LSA	55.1	NSA	17.8	SSA	1.5
BDE	.5843	BRA	1.4296	BC3	.6570	FSP	639	SG1	1967.4	SG2	557.8	THA	169.58	EL1	40.7	EL2	17.8	ALF	20.04

LAUNCH DATE JUL 15 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 393.217 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.679	GAL	-3.28	AZL	89.58	HCA	127.36	SMA	217.10	ECC	.30452	INC	.4182
RP	223.83	LAP	.33	LOP	59.71	VP	23.969	GAP	17.64	AZP	90.25	TAL	345.88	TAP	113.22	RCA	190.99	APO	283.20
RC	103.560	GL	2.99	GP	-8.91	ZAL	113.06	ZAP	159.90	ETS	207.20	ZAE	162.42	ETE	326.59	ZAC	74.75	ETC	283.09

V1	29.299	V2	24.569	LVI	-8.63														

PLANETOCENTRIC CONIC

C3	22.150	VHL	4.706	DLA	19.33	RAL	42.07	RAD	6643.8	VEL	11.922	PTH	6.93	VHP	5.339	DPA	6.69	RAP	42.29

ECC	1.3645																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 20 17	3549.88	-46.89	132.75	280.91	99.17	14 19 27	2549.9	-38.00	102.04
60.00	13 36 59	3505.39	-40.16	129.80	281.95	93.67	14 35 25	2505.4	-34.32	100.34
70.00	14 2 29	3430.32	-34.15	123.92	282.15	89.32	14 59 39	2430.3	-30.86	95.88
80.00	14 44 43	3297.96	-29.64	113.68	281.94	86.25	15 39 41	2298.0	-28.18	86.35
90.00	15 54 4	3074.07	-27.88	97.08	281.79	85.08	16 45 18	2074.1	-27.12	70.09
100.00	17 27 34	2772.43	-29.64	75.05	281.94	86.25	18 13 47	1772.4	-28.18	47.72
110.00	19 1 55	2477.14	-34.15	52.83	282.15	89.32	19 43 12	1477.1	-30.86	24.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4714	TRA	-1.3825	TC3	.6052	BAU	.2079	SGT	1958.4	SGR	665.8	SG3	457.3	ST	39.2	SR	21.1	SS	38.7
RDE	-.3321	RRA	.3176	RC3	-.3555	FAU	.10825	RRT	-.5287	RRF	.5938	RTF	-.8464	CRT	.5006	CRS	.6124	CST	.9893
FDE	1.1251	FRA	2.4854	FC3	-4.2307	BSP	3396	SGB	2068.5	R23	-.1260	R13	.8546	LSA	56.3	MSA	17.5	SSA	1.6
BDE	.5766	BRA	1.4185	BC3	.7019	FSP	681	SG1	1992.5	SG2	555.5	THA	168.94	EL1	41.0	EL2	17.5	ALF	18.61

LAUNCH DATE JUL 15 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 396.687 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.625	GAL	-3.21	AZL	89.53	HCA	128.42	SMA	215.82	ECC	.30027	INC	.4681
RP	224.22	LAP	.37	LOP	60.79	VP	23.851	GAP	17.34	AZP	90.29	TAL	346.02	TAP	114.44	RCA	151.02	APO	280.63
RC	105.921	GL	3.39	GP	-9.25	ZAL	112.80	ZAP	158.94	ETS	206.89	ZAE	162.41	ETE	325.06	ZAC	74.37	ETC	283.09

V1	29.299	V2	24.527	LVI	-8.25														

PLANETOCENTRIC CONIC

C3	21.567	VHL	4.644	DLA	19.64	RAL	41.70	RAD	6643.5	VEL	11.898	PTH	6.91	VHP	5.199	DPA	6.42	RAP	42.57

ECC	1.3549																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 17 29	3549.88	-46.89	132.75	280.20	99.17	14 16 39	2549.9	-38.00	102.04
60.00	13 33 43	3506.62	-40.17	129.90	281.24	93.60	14 32 10	2506.6	-34.35	100.43
70.00	13 58 38	3433.29	-34.15	124.15	281.43	89.18	14 55 51	2433.3	-30.91	95.89
80.00	14 40 11	3303.01	-29.62	114.05	281.20	86.06	15 35 14	2303.0	-28.24	86.71
90.00	15 49 11	3080.26	-27.85	97.53	281.04	84.86	16 40 31	2080.3	-27.18	70.54
100.00	17 23 3	2777.49	-29.62	75.42	281.20	86.06	18 9 20	1777.5	-28.24	48.08
110.00	18 58 4	2480.11	-34.15	53.07	281.43	89.18	19 39 24	1480.1	-30.91	24.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4749	TRA	-1.3701	TC3	.6366	BAU	.2150	SGT	1978.4	SGR	679.9	SG3	483.2	ST	39.8	SR	20.5	SS	40.3
RDE	-.3150	RRA	.3250	RC3	-.3881	FAU	.11302	RRT	-.5573	RRF	.6259	RTF	-.8497	CRT	.4873	CRS	.6037	CST	.9887
FDE	1.1957	FRA	2.5715	FC3	-4.5369	BSP	3448	SGB	2092.0	R23	-.1349	R13	.8587	LSA	57.7	MSA	17.2	SSA	1.6
BDE	.5699	BRA	1.4081	BC3	.7456	FSP	724	SG1	2017.4	SG2	553.6	THA	168.26	EL1	41.3	EL2	17.2	ALF	17.13

LAUNCH DATE JUL 15 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 400.185 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.574	GAL	-3.15	AZL	89.48	HCA	129.49	SMA	214.63	ECC	.29623	INC	.5194
RP	224.61	LAP	.40	LOP	61.86	VP	23.736	GAP	17.03	AZP	90.33	TAL	346.17	TAP	115.66	RCA	151.05	APO	278.21
RC	108.326	GL	3.80	GP	-9.62	ZAL	112.55	ZAP	157.96	ETS	206.61	ZAE	162.42	ETE	323.37	ZAC	73.99	ETC	283.10

V1	29.299	V2	24.485	LVI	-7.86														

PLANETOCENTRIC CONIC

C3	21.021	VHL	4.585	DLA	19.96	RAL	41.32	RAD	6643.3	VEL	11.875	PTH	6.89	VHP	5.063	DPA	6.12	RAP	42.83

ECC	1.3460																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 14 34	3550.52	-46.90	132.81	279.54	99.12	14 13 45	2550.5	-38.02	102.08
60.00	13 30 20	3508.55	-40.17	130.06	280.56	93.49	14 28 48	2508.5	-34.40	100.57
70.00	13 54 36	3437.09	-34.14	124.44	280.73	89.00	14 51 53	2437.1	-30.98	96.17
80.00	14 35 26	3309.08	-29.59	114.50	280.48	85.82	15 30 35	2309.1	-28.31	87.15
90.00	15 44 3	3087.56	-27.80	98.05	280.31	84.60	16 35 30	2087.6	-27.25	71.06
100.00	17 18 17	2783.55	-29.59	75.87	280.48	85.82	18 4 41	1783.5	-28.31	48.52
110.00	18 54 2	2483.91	-34.14	53.36	280.73	89.00	19 35 26	1483.9	-30.98	25.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4667	TRA	-1.3447	TC3	.6901	BAU	.2276	SGT	1984.2	SGR	696.4	SG3	510.4	ST	39.6	SR	19.7	SS	41.9
RDE	-.2975	RRA	.3328	RC3	-.4237	FAU	.11812	RRT	-.5934	RRF	.6577	RTF	-.8486	CRT	.4646	CRS	.5929	CST	.9870
FDE	1.2704	FRA	2.6569	FC3	-4.8648	BSP	3358	SGB	2102.8	R23	-.1316	R13	.8682	LSA	58.5	MSA	17.0	SSA	1.6
BDE	.5535	BRA	1.3853	BC3	.8098	FSP	769	SG1	2030.2	SG2	547.8	THA	167.30	EL1	40.9	EL2	16.9	ALF	15.82

LAUNCH DATE JUL 15 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 403.707 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.526	GAL	-3.09	AZL	89.43	HCA	130.56	SMA	213.52	ECC	.29242	INC	.5720
RP	225.00	LAP	.43	LOP	62.94	VP	23.625	GAP	16.73	AZP	90.37	TAL	346.31	TAP	116.87	RCA	151.08	APO	275.95
RC	110.773	GL	4.23	GP	-10.00	ZAL	112.30	ZAP	156.97	ETS	206.37	ZAE	162.44	ETE	321.52	ZAC	73.58	ETC	283.11

V1	29.299	V2	24.443	LVI	-7.45														

PLANETOCENTRIC CONIC

C3	20.514	VHL	4.529	DLA	20.30	RAL	40.95	RAD	6643.1	VEL	11.854	PTH	6.87	VHP	4.933	DPA	5.80	RAP	43.09

ECC	1.3376																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 11 34	3551.86	-46.92	132.94	278.92	99.02	14 10 46	2551.9	-38.07	102.18
60.00	13 26 48	3511.27	-40.19	130.30	279.92	93.34	14 25 19	2511.3	-34.47	100.77
70.00	13 50 23	3441.83	-34.13	124.81	280.06	88.79	14 47 45	2441.8	-31.06	96.51
80.00	14 30 26	3316.28	-29.55	115.03	279.79	85.55	15 25 42	2316.3	-28.40	87.67
90.00	15 38 37	3096.14	-27.75	98.68	279.61	84.30	16 30 13	2096.1	-27.33	71.68
100.00	17 13 18	2790.75	-29.55	76.40	279.79	85.55	17 59 48	1790.8	-28.40	49.04
110.00	18 49 49	2488.65	-34.13	53.73	280.06	88.79	19 31 18	1488.6	-31.06	25.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4748	TRA	-1.3353	TC3	.7109	BAU	.2324	SGT	2004.9	SGR	715.4	SG3	538.7	ST	40.4	SR	19.0	SS	43.5
RDE	-.2795	RRA	.3413	RC3	-.4615	FAU	.12335	RRT	-.6178	RRF	.6888	RTF	-.8587	CRT	.4480	CRS	.5785	CST	.9869
FDE	1.3510	FRA	2.7465	FC3	-5.2059	BSP	3463	SGB	2128.7	R23	-.1464	R13	.8698	LSA	60.1	MSA	16.6	SSA	1.6
BDE	.5510	BRA	1.3783	BC3	.8476	FSP	817	SG1	2056.8	SG2	548.3	THA	166.60	EL1	41.5	EL2	16.5	ALF	14.20

LAUNCH DATE JUL 15 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 407.252 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.481	GAL	-3.02	AZL	89.37	HCA	131.63	SMA	212.47	ECC	.28680	INC	.6262	V1	29.299
RP	225.39	LAP	.47	LOP	64.01	VP	23.516	GAP	16.43	AZP	90.42	TAL	346.45	TAP	118.08	RCA	151.11	APO	273.83	V2	24.401
RC	113.259	GL	4.68	GP	-10.40	ZAL	112.06	ZAP	155.94	ETS	206.16	ZAE	162.48	ETE	319.51	ZAC	73.17	ETC	283.12	LVI	-7.03

PLANETOCENTRIC CONIC

C3	20.041	VHL	4.477	DLA	20.66	RAL	40.56	RAD	6642.9	VEL	11.834	PTH	6.85	VHP	4.807	DPA	5.46	RAP	43.33	ECC	1.3298

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 8 27	3553.88	-46.94	133.13	278.34	98.88	14 7 41	2553.9	-38.14	102.32
60.00	13 23 8	3514.77	-40.20	130.59	279.31	93.13	14 21 43	2514.8	-34.56	101.02
70.00	13 45 59	3447.49	-34.13	125.26	279.42	88.52	14 43 26	2447.5	-31.16	96.92
80.00	14 25 10	3324.64	-29.51	115.65	279.13	85.22	15 20 35	2324.6	-28.49	88.27
90.00	15 32 53	3106.01	-27.68	99.39	278.93	83.94	16 24 39	2106.0	-27.42	72.39
100.00	17 8 2	2799.11	-29.51	77.02	279.13	85.22	17 54 41	1799.1	-28.49	49.64
110.00	18 45 25	2494.31	-34.13	54.17	279.42	88.52	19 27 0	1494.3	-31.16	25.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4806	TRA	-1.3232	TC3	.7342	BAU	.2383	SGT	2021.4	SGR	737.4	SG3	568.4	ST	41.0	SR	18.2	SS	45.3
RDE	-.2610	RRA	.3506	RC3	-.5023	FAU	.12882	RRT	-.6427	RRF	.7190	RTF	-.8597	CRT	.4255	CRS	.5601	CST	.9865
FDE	1.4374	FRA	2.8384	FC3	-5.5650	BSP	3543	SGB	2151.7	R23	-.1594	R13	.8723	LSA	61.7	MSA	16.3	SSA	1.6
BDE	.5469	BRA	1.3688	BC3	.8895	FSP	867	SG1	2080.5	SG2	548.9	THA	165.80	EL1	41.9	EL2	16.1	ALF	12.58

LAUNCH DATE JUL 15 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 410.818 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.437	GAL	-2.97	AZL	89.32	HCA	132.70	SMA	211.49	ECC	.28537	INC	.6820	V1	29.299
RP	225.78	LAP	.50	LOP	65.07	VP	23.411	GAP	16.13	AZP	90.46	TAL	346.59	TAP	119.28	RCA	151.14	APO	271.84	V2	24.359
RC	115.782	GL	5.15	GP	-10.83	ZAL	111.81	ZAP	154.90	ETS	205.97	ZAE	162.52	ETE	317.32	ZAC	72.73	ETC	283.14	LVI	-6.60

PLANETOCENTRIC CONIC

C3	19.601	VHL	4.427	DLA	21.04	RAL	40.18	RAD	6642.7	VEL	11.816	PTH	6.84	VHP	4.685	DPA	5.09	RAP	43.55	ECC	1.3226

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 5 14	3556.60	-46.97	133.39	277.80	98.68	14 4 31	2556.6	-38.24	102.51
60.00	13 19 19	3519.07	-40.21	130.96	278.74	92.89	14 17 59	2519.1	-34.67	101.33
70.00	13 41 23	3454.13	-34.11	125.77	278.81	88.22	14 38 57	2454.1	-31.28	97.41
80.00	14 19 37	3334.23	-29.45	116.36	278.48	84.86	15 15 11	2334.2	-28.59	88.96
90.00	15 26 49	3117.28	-27.59	100.20	278.27	83.54	16 18 46	2117.3	-27.51	73.20
100.00	17 2 29	2808.70	-29.45	77.73	278.48	84.86	17 49 18	1808.7	-28.59	50.33
110.00	18 40 49	2500.95	-34.11	54.69	278.81	88.22	19 22 30	1501.0	-31.28	26.33

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4853	TRA	-1.3091	TC3	.7588	BAU	.2450	SGT	2034.9	SGR	762.6	SG3	599.5	ST	41.6	SR	17.4	SS	47.2
RDE	-.2417	RRA	.3605	RC3	-.5462	FAU	.13457	RRT	-.6674	RRF	.7479	RTF	-.8612	CRT	.3967	CRS	.5367	CST	.9859
FDE	1.5303	FRA	2.9319	FC3	-5.9438	BSP	3605	SGB	2173.1	R23	-.1713	R13	.8754	LSA	63.2	MSA	15.9	SSA	1.6
BDE	.5422	BRA	1.3578	BC3	.9350	FSP	920	SG1	2102.4	SG2	549.7	THA	164.90	EL1	42.2	EL2	15.7	ALF	10.93

LAUNCH DATE JUL 15 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 414.404 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.396	GAL	-2.91	AZL	89.26	HCA	133.76	SMA	210.57	ECC	.28212	INC	.7395	V1	29.299
RP	226.17	LAP	.53	LOP	66.13	VP	23.309	GAP	15.84	AZP	90.51	TAL	346.72	TAP	120.48	RCA	151.16	APO	269.97	V2	24.318
RC	118.341	GL	5.64	GP	-11.28	ZAL	111.57	ZAP	153.83	ETS	205.81	ZAE	162.56	ETE	314.94	ZAC	72.28	ETC	283.16	LVI	-6.15

PLANETOCENTRIC CONIC

C3	19.192	VHL	4.381	DLA	21.43	RAL	39.79	RAD	6642.5	VEL	11.799	PTH	6.82	VHP	4.568	DPA	4.69	RAP	43.76	ECC	1.3159

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 1 54	3560.05	-47.00	133.71	277.30	98.43	14 1 14	2560.0	-38.36	102.75
60.00	13 15 21	3524.21	-40.23	131.39	278.20	92.59	14 14 6	2524.2	-34.80	101.70
70.00	13 36 33	3461.79	-34.10	126.37	278.23	87.87	14 34 15	2461.8	-31.40	97.97
80.00	14 13 45	3345.12	-29.38	117.16	277.86	84.44	15 9 31	2345.1	-28.71	89.75
90.00	15 20 22	3130.05	-27.49	101.12	277.63	83.09	16 12 32	2130.1	-27.61	74.12
100.00	16 56 37	2819.59	-29.38	78.53	277.86	84.44	17 43 37	1819.6	-28.71	51.12
110.00	18 35 59	2508.61	-34.10	55.29	278.23	87.87	19 17 48	1508.6	-31.40	26.89

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4893	TRA	-1.2935	TC3	.7811	BAU	.2516	SGT	2044.7	SGR	791.1	SG3	631.7	ST	42.0	SR	16.5	SS	49.1
RDE	-.2217	RRA	.3710	RC3	-.5931	FAU	.14047	RRT	-.6908	RRF	.7752	RTF	-.8625	CRT	.3605	CRS	.5066	CST	.9853
FDE	1.6300	FRA	3.0269	FC3	-6.3363	BSP	3658	SGB	2192.4	R23	-.1830	R13	.8786	LSA	64.9	MSA	15.6	SSA	1.7
BDE	.5372	BRA	1.3456	BC3	.9808	FSP	976	SG1	2122.0	SG2	551.2	THA	163.92	EL1	42.5	EL2	15.2	ALF	9.24

LAUNCH DATE JUL 15 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 418.008 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.357	GAL	-2.86	AZL	89.20	HCA	134.82	SMA	209.70	ECC	.27903	INC	.7989	V1	29.299
RP	226.56	LAP	.57	LOP	67.19	VP	23.209	GAP	15.55	AZP	90.56	TAL	346.85	TAP	121.67	RCA	151.19	APO	268.22	V2	24.276
RC	120.933	GL	6.15	GP	-11.74	ZAL	111.33	ZAP	152.73	ETS	205.66	ZAE	162.58	ETE	312.38	ZAC	71.81	ETC	283.19	LVI	-5.69

PLANETOCENTRIC CONIC

C3	19.813	VHL	4.337	DLA	21.85	RAL	39.39	RAD	6642.3	VEL	11.783	PTH	6.81	VHP	4.455	DPA	4.26	RAP	43.96	ECC	1.3096

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 58 27	3564.24	-47.04	134.11	276.85	98.13	13 57 51	2564.2	-38.50	103.05
60.00	13 11 13	3530.21	-40.25	131.90	277.70	92.25	14 10 3	2530.2	-34.95	102.14
70.00	13 31 29	3470.53	-34.07	127.05	277.68	87.46	14 29 20	2470.5	-31.55	98.61
80.00	14 7 33	3357.43	-29.30	118.06	277.26	83.97	15 3 30	2357.4	-28.83	90.65
90.00	15 13 30	3144.48	-27.37	102.16	277.00	82.59	16 5 55	2144.5	-27.71	75.16
100.00	16 50 25	2831.90	-29.30	79.43	277.26	83.97	17 37 37	1831.9	-28.83	52.02
110.00	18 30 55	2517.35	-34.07	55.97	277.68	87.46	19 12 53	1517.3	-31.55	27.53

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4927	TRA	-1.2763	TC3	.8030	BAU	.2588	SGT	2051.5	SGR	823.5	SG3	665.3	ST	42.5	SR	15.6	SS	51.2
RDE	-.2008	RRA	.3823	RC3	-.6436	FAU	.14664	RRT	-.7131	RRF	.8009	RTF	-.8638	CRT	.3146	CRS	.4677	CST	.9847
FDE	1.7369	FRA	3.1233	FC3	-6.7483	BSP	3701	SGB	2210.6	R23	-.1941	R13	.8821	LSA	66.6	MSA	15.2	SSA	1.7
BDE	.5320	BRA	1.3324	BC3	1.0291	FSP	1033	SG1	2140.2	SG2	553.4	THA	162.84	EL1	42.8	EL2	14.7	ALF	7.48

LAUNCH DATE JUL 15 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 421.629 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.320	GAL	-2.81	AZL	89.14	HCA	135.87	SMA	208.89	ECC	.27612	INC	.8605
RP	226.95	LAP	.60	LOP	68.24	VP	23.113	GAP	15.26	AZP	90.62	TAL	346.98	TAP	122.85	RCA	151.21	APO	266.57
RC	123.556	GL	6.68	GP	-12.24	ZAL	111.09	ZAP	151.61	ETS	205.54	ZAE	162.59	ETE	309.63	ZAC	71.32	ETC	283.23

V1 29.299 V2 24.234 LVI -5.21

PLANETOCENTRIC CONIC

C3 18.462 VHL 4.297 DLA 22.29 RAL 39.00 RAD 6642.1 VEL 11.768 PTH 6.79 VHP 4.346 DPA 3.80 RAP 44.14 ECC 1.3038

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 54 52	3569.20	-47.09	134.58	276.44	97.77	13 54 21	2569.2	-38.67	103.40
60.00	13 6 55	3537.12	-40.27	132.49	277.24	91.85	14 5 52	2537.1	-35.13	102.65
70.00	13 26 10	3480.40	-34.04	127.82	277.16	87.01	14 24 10	2480.4	-31.71	99.33
80.00	14 0 58	3371.27	-29.19	119.08	276.68	83.45	14 57 9	2371.3	-28.96	91.66
90.00	15 6 10	3160.73	-27.22	103.33	276.40	82.02	15 58 51	2160.7	-27.82	76.34
100.00	16 43 50	2845.74	-29.19	80.45	276.68	83.45	17 31 15	1845.7	-28.96	53.03
110.00	18 25 36	2527.22	-34.04	56.74	277.16	87.01	19 7 43	1527.2	-31.71	28.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4961	TRA	-1.2565	TC3	.8230	BAU	.2663	SGT	2056.0	SGR	859.9	SG3	700.2	ST	42.8	SR	14.7	SS	53.3
RDE	-.1789	RRA	.3944	RC3	-.6976	FAU	.15304	RRT	-.7337	RRF	.8246	RTF	-.8651	CRT	.2567	CRS	.4172	CST	.9840
FDE	1.8521	FRA	3.2210	FC3	-7.1767	BSP	3743	SGB	2228.5	R23	-.2049	R13	.8857	LSA	68.4	MSA	14.8	SSA	1.7
BDE	.5274	BRA	1.3188	BC3	1.0789	FSP	1094	SG1	2157.9	SG2	556.7	THA	161.68	EL1	43.0	EL2	14.1	ALF	5.64

LAUNCH DATE JUL 15 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 425.265 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.285	GAL	-2.76	AZL	89.08	HCA	136.92	SMA	208.13	ECC	.27335	INC	.9239
RP	227.34	LAP	.63	LOP	69.29	VP	23.019	GAP	14.97	AZP	90.67	TAL	347.10	TAP	124.02	RCA	151.23	APO	265.02
RC	126.208	GL	7.23	GP	-12.76	ZAL	110.86	ZAP	150.45	ETS	205.43	ZAE	162.57	ETE	306.69	ZAC	70.82	ETC	283.27

V1 29.299 V2 24.193 LVI -4.71

PLANETOCENTRIC CONIC

C3 18.138 VHL 4.259 DLA 22.75 RAL 38.60 RAD 6642.0 VEL 11.754 PTH 6.78 VHP 4.241 DPA 3.31 RAP 44.30 ECC 1.2985

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 51 9	3574.97	-47.14	135.13	276.08	97.35	13 50 44	2575.0	-38.87	103.81
60.00	13 2 25	3544.97	-40.28	133.16	276.81	91.40	14 1 29	2545.0	-35.32	103.23
70.00	13 20 34	3491.49	-34.00	128.68	276.66	86.50	14 18 45	2491.5	-31.88	100.15
80.00	13 53 57	3386.78	-29.07	120.22	276.13	82.86	14 50 24	2386.8	-29.09	92.79
90.00	14 58 18	3178.99	-27.04	104.63	275.81	81.39	15 51 17	2179.0	-27.93	77.66
100.00	16 36 49	2861.25	-29.07	81.58	276.13	82.86	17 24 30	1861.2	-29.09	54.16
110.00	18 20 0	2538.31	-34.00	57.60	276.66	86.50	19 2 18	1538.3	-31.88	29.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4990	TRA	-1.2395	TC3	.8393	BAU	.2738	SGT	2057.1	SGR	900.5	SG3	736.3	ST	43.2	SR	13.8	SS	55.6
RDE	-.1559	RRA	.4072	RC3	-.7554	FAU	.15966	RRT	-.7523	RRF	.8465	RTF	-.8658	CRT	.1833	CRS	.3516	CST	.9832
FDE	1.9741	FRA	3.3190	FC3	-7.6206	BSP	3781	SGB	2245.5	R23	-.2157	R13	.8893	LSA	70.2	MSA	14.5	SSA	1.7
BDE	.5227	BRA	1.3047	BC3	1.1292	FSP	1156	SG1	2174.3	SG2	561.3	THA	160.41	EL1	43.2	EL2	13.5	ALF	3.72

LAUNCH DATE JUL 15 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 428.915 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.252	GAL	-2.71	AZL	89.01	HCA	137.97	SMA	207.41	ECC	.27074	INC	.9899
RP	227.73	LAP	.66	LOP	70.34	VP	22.927	GAP	14.69	AZP	90.74	TAL	347.22	TAP	125.18	RCA	151.26	APO	263.56
RC	128.687	GL	7.81	GP	-13.30	ZAL	110.63	ZAP	149.27	ETS	205.33	ZAE	162.51	ETE	303.58	ZAC	70.29	ETC	283.31

V1 29.299 V2 24.152 LVI -4.20

PLANETOCENTRIC CONIC

C3 17.840 VHL 4.224 DLA 23.23 RAL 38.20 RAD 6641.9 VEL 11.742 PTH 6.77 VHP 4.140 DPA 2.78 RAP 44.45 ECC 1.2936

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 47 17	3581.55	-47.20	135.76	275.77	96.87	13 46 59	2581.6	-39.09	104.28
60.00	12 57 42	3553.80	-40.29	133.91	276.42	90.89	13 56 56	2553.8	-35.53	103.88
70.00	13 14 39	3503.86	-33.94	129.65	276.20	85.94	14 13 3	2503.9	-32.06	101.07
80.00	13 46 27	3404.12	-28.92	121.48	275.58	82.21	14 43 11	2404.1	-29.23	94.06
90.00	14 49 48	3199.55	-26.82	106.10	275.23	80.69	15 43 8	2199.5	-28.03	79.16
100.00	16 29 19	2878.60	-28.92	82.85	275.58	82.21	17 17 18	1878.6	-29.23	55.43
110.00	18 14 6	2550.68	-33.94	58.56	276.20	85.94	18 56 36	1550.7	-32.06	29.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5015	TRA	-1.2193	TC3	.8530	BAU	.2817	SGT	2054.7	SGR	949.7	SG3	773.6	ST	43.4	SR	12.9	SS	57.9
RDE	-.1315	RRA	.4208	RC3	-.8172	FAU	.16648	RRT	-.7690	RRF	.8683	RTF	-.8764	CRT	.0901	CRS	.2663	CST	.9825
FDE	2.1054	FRA	3.4165	FC3	-8.0789	BSP	3809	SGB	2261.9	R23	-.2258	R13	.8930	LSA	72.2	MSA	14.1	SSA	1.7
BDE	.5185	BRA	1.2899	BC3	1.1813	FSP	1221	SG1	2189.6	SG2	567.3	THA	159.04	EL1	43.5	EL2	12.9	ALF	1.69

LAUNCH DATE JUL 15 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 432.579 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.221	GAL	-2.67	AZL	88.94	HCA	139.01	SMA	208.74	ECC	.26827	INC	1.0581
RP	228.12	LAP	.69	LOP	71.38	VP	22.838	GAP	14.41	AZP	90.80	TAL	347.33	TAP	126.34	RCA	151.28	APO	262.20
RC	131.592	GL	8.41	GP	-13.88	ZAL	110.41	ZAP	148.07	ETS	205.25	ZAE	162.40	ETE	300.31	ZAC	69.73	ETC	283.36

V1 29.299 V2 24.110 LVI -3.66

PLANETOCENTRIC CONIC

C3 17.567 VHL 4.191 DLA 23.74 RAL 37.79 RAD 6641.7 VEL 11.730 PTH 6.76 VHP 4.044 DPA 2.22 RAP 44.59 ECC 1.2891

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 43 16	3589.01	-47.25	136.47	275.50	96.33	13 43 5	2589.0	-39.34	104.82
60.00	12 52 47	3563.68	-40.30	134.75	276.06	90.32	13 52 10	2563.7	-35.76	104.62
70.00	13 8 25	3517.61	-33.87	130.71	275.75	85.31	14 7 2	2517.6	-32.26	102.09
80.00	13 38 24	3423.52	-28.73	122.89	275.06	81.49	14 35 28	2423.5	-29.37	95.49
90.00	14 40 35	3222.73	-26.56	107.74	274.66	79.91	15 34 18	2222.7	-28.13	80.84
100.00	16 21 16	2897.99	-28.73	84.26	275.06	81.49	17 9 34	1898.0	-29.37	56.85
110.00	18 7 51	2564.43	-33.87	59.63	275.75	85.31	18 50 35	1564.4	-32.26	31.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5039	TRA	-1.1990	TC3	.8624	BAU	.2899	SGT	2050.2	SGR	995.8	SG3	812.2	ST	43.7	SR	12.2	SS	60.4
RDE	-.1057	RRA	.4354	RC3	-.8831	FAU	.17349	RRT	-.7836	RRF	.8842	RTF	-.8664	CRT	-.0269	CRS	.1560	CST	.9817
FDE	2.2452	FRA	3.5161	FC3	-8.5499	BSP	3849	SGB	2279.3	R23	-.2356	R13	.8968	LSA	74.2	MSA	13.8	SSA	1.7
BDE	.5148	BRA	1.2756	BC3	1.2343	FSP	1289	SG1	2205.5	SG2	575.1	THA	157.55	EL1	43.7	EL2	12.2	ALF	179.53

LAUNCH DATE JUL 18 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 436.255 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.191	GAL	-2.63	AZL	88.87	HCA	148.08	SMA	206.18	ECC	.86592	INC	1.1292	V1	29.299
RP	228.51	LAP	.73	LOP	72.42	VP	22.752	GAP	14.13	AZP	90.87	TAL	347.44	TAP	127.49	RCA	151.29	APO	260.91	V2	24.069
RC	134.321	GL	8.03	GP	-14.49	ZAL	110.19	ZAP	146.82	ETS	205.17	ZAE	162.23	ETE	296.90	ZAC	69.16	ETC	283.42	LVI	-3.10

PLANETOCENTRIC CONIC

C3	17.318	VHL	4.161	DLA	24.28	RAL	37.38	RAD	6641.6	VEL	11.720	PTH	6.75	VHP	3.951	DPA	1.62	RAP	44.71	ECC	1.2850

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 39 5	3597.34	-47.31	137.26	275.29	95.72	13 39 2	2597.3	-39.62	105.43
60.00	12 47 36	3574.63	-40.30	135.68	275.74	89.68	13 47 11	2574.6	-36.01	105.44
70.00	13 1 47	3532.84	-33.78	131.89	275.34	84.62	14 0 40	2532.8	-32.47	103.23
80.00	13 29 43	3445.22	-28.50	124.46	274.54	80.70	14 27 8	2445.2	-29.50	97.08
90.00	14 30 29	3248.98	-26.23	109.59	274.09	79.04	15 24 38	2249.0	-28.21	82.76
100.00	16 12 35	2919.69	-28.50	85.83	274.54	80.70	17 1 14	1919.7	-29.50	58.45
110.00	18 1 13	2579.66	-33.78	60.81	275.34	84.62	18 44 13	1579.7	-32.47	32.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4986	TRA	-1.1697	TC3	.8854	BAU	.3015	SGT	2033.6	SGR	1051.3	SG3	851.8	ST	43.4	SR	11.6	SS	62.8
RDE	-.0788	RRA	.4500	RC3	-.9548	FAU	.18097	RRT	-.8007	RRF	.9001	RTF	-.8695	CRT	-.1694	CRS	.0214	CST	.9802
FDE	2.3896	FRA	3.6069	FC3	-9.0470	BSP	3791	SGB	2289.3	R23	-.2366	R13	.9032	LSA	76.0	MSA	13.5	SSA	1.7
BDE	.5048	BRA	1.2533	BC3	1.3022	FSP	1351	SG1	2215.1	SG2	578.2	THA	155.75	EL1	43.4	EL2	11.4	ALF	177.21

LAUNCH DATE JUL 15 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 439.941 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.163	GAL	-2.59	AZL	88.80	HCA	141.08	SMA	205.81	ECC	.26371	INC	1.2032	V1	29.299
RP	228.90	LAP	.76	LOP	73.46	VP	22.667	GAP	13.85	AZP	90.94	TAL	347.55	TAP	128.63	RCA	151.31	APO	259.70	V2	24.028
RC	137.073	GL	9.69	GP	-15.12	ZAL	109.98	ZAP	145.55	ETS	205.11	ZAE	161.99	ETE	293.38	ZAC	68.55	ETC	283.49	LVI	-2.52

PLANETOCENTRIC CONIC

C3	17.093	VHL	4.134	DLA	24.84	RAL	36.97	RAD	6641.5	VEL	11.710	PTH	6.74	VHP	3.863	DPA	.98	RAP	44.81	ECC	1.2813

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 34 43	3606.64	-47.37	138.16	275.12	95.03	13 34 50	2606.6	-39.92	106.12
60.00	12 42 10	3586.78	-40.29	136.71	275.47	88.98	13 41 57	2586.8	-36.28	106.35
70.00	12 54 44	3549.74	-33.66	133.20	274.95	83.85	13 53 54	2549.7	-32.69	104.50
80.00	13 20 16	3469.62	-28.22	126.22	274.04	79.81	14 18 6	2469.6	-29.63	98.89
90.00	14 19 17	3279.02	-25.83	111.70	273.51	78.06	15 13 56	2279.0	-28.26	84.95
100.00	16 3 8	2944.10	-28.22	87.59	274.04	79.81	16 52 12	1944.1	-29.63	60.26
110.00	17 54 11	2596.56	-33.66	62.12	274.95	83.85	18 37 27	1596.6	-32.69	33.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5056	TRA	-1.1531	TC3	.8721	BAU	.3081	SGT	2027.7	SGR	1111.5	SG3	892.1	ST	43.9	SR	11.3	SS	65.6
RDE	-.0491	RRA	.4667	RC3	-1.0282	FAU	.18808	RRT	-.8077	RRF	.9142	RTF	-.8659	CRT	-.3320	CRS	-.1448	CST	.9798
FDE	2.5524	FRA	3.7080	FC3	-9.5255	BSP	3893	SGB	2312.3	R23	-.2506	R13	.9054	LSA	78.6	MSA	13.1	SSA	1.7
BDE	.5080	BRA	1.2439	BC3	1.3482	FSP	1427	SG1	2234.6	SG2	594.6	THA	154.15	EL1	44.1	EL2	10.6	ALF	174.82

LAUNCH DATE JUL 15 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 443.637 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.136	GAL	-2.55	AZL	88.72	HCA	142.11	SMA	204.95	ECC	.26162	INC	1.2801	V1	29.299
RP	229.28	LAP	.79	LOP	74.49	VP	22.585	GAP	13.58	AZP	91.01	TAL	347.65	TAP	129.76	RCA	151.33	APO	258.57	V2	23.988
RC	139.847	GL	10.37	GP	-15.79	ZAL	109.77	ZAP	144.25	ETS	205.04	ZAE	161.67	ETE	289.78	ZAC	67.92	ETC	283.56	LVI	-1.92

PLANETOCENTRIC CONIC

C3	16.891	VHL	4.110	DLA	25.43	RAL	36.56	RAD	6641.4	VEL	11.702	PTH	6.73	VHP	3.779	DPA	.30	RAP	44.90	ECC	1.2780

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 30 9	3616.92	-47.43	139.14	275.01	94.27	13 30 26	2616.9	-40.25	106.88
60.00	12 36 27	3600.15	-40.27	137.85	275.22	88.21	13 36 27	2600.1	-36.57	107.37
70.00	12 47 13	3568.41	-33.52	134.64	274.58	83.01	13 46 41	2568.4	-32.91	105.91
80.00	13 9 55	3497.16	-27.87	128.19	273.53	78.83	14 8 12	2497.2	-29.74	100.93
90.00	14 6 42	3313.76	-25.31	114.11	272.91	76.95	15 1 55	2313.8	-28.28	87.49
100.00	15 52 47	2971.63	-27.87	89.56	273.53	78.83	16 42 18	1971.6	-29.74	62.29
110.00	17 46 39	2615.22	-33.52	63.55	274.58	83.01	18 30 14	1615.2	-32.91	34.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5075	TRA	-1.1304	TC3	.8688	BAU	.3178	SGT	2013.1	SGR	1177.8	SG3	933.5	ST	44.0	SR	11.4	SS	68.4
RDE	-.0176	RRA	.4839	RC3	-1.1075	FAU	.19557	RRT	-.8159	RRF	.9266	RTF	-.8642	CRT	-.5028	CRS	-.3237	CST	.9790
FDE	2.7229	FRA	3.8022	FC3	-10.0236	BSP	3938	SGB	2332.4	R23	-.2577	R13	.9095	LSA	81.1	MSA	12.8	SSA	1.7
BDE	.5078	BRA	1.2296	BC3	1.4063	FSP	1500	SG1	2251.5	SG2	608.9	THA	152.28	EL1	44.4	EL2	9.7	ALF	172.24

LAUNCH DATE JUL 15 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 447.343 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.111	GAL	-2.52	AZL	88.64	HCA	143.14	SMA	204.42	ECC	.25965	INC	1.3605	V1	29.299
RP	229.67	LAP	.82	LOP	75.52	VP	22.505	GAP	13.31	AZP	91.09	TAL	347.74	TAP	130.88	RCA	151.34	APO	257.50	V2	23.947
RC	142.841	GL	11.08	GP	-16.50	ZAL	109.57	ZAP	142.91	ETS	204.98	ZAE	161.26	ETE	286.15	ZAC	67.27	ETC	283.65	LVI	-1.28

PLANETOCENTRIC CONIC

C3	16.712	VHL	4.088	DLA	26.05	RAL	36.14	RAD	6641.3	VEL	11.694	PTH	6.73	VHP	3.699	DPA	-.42	RAP	44.98	ECC	1.2750

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 25 22	3628.24	-47.48	140.23	274.95	93.44	13 25 50	2628.2	-40.61	107.73
60.00	12 30 24	3614.84	-40.23	139.10	275.02	87.37	13 30 39	2614.8	-36.88	108.50
70.00	12 39 9	3589.06	-33.33	136.22	274.22	82.09	13 38 58	2589.1	-33.13	107.48
80.00	12 58 26	3528.50	-27.44	130.42	273.01	77.74	13 57 15	2528.5	-29.82	103.25
90.00	13 52 12	3354.80	-24.65	116.94	272.28	75.69	14 48 7	2354.8	-28.23	90.49
100.00	15 41 18	3002.97	-27.44	91.79	273.01	77.74	16 31 21	2003.0	-29.82	64.62
110.00	17 38 35	2635.88	-33.33	65.14	274.22	82.09	18 22 31	1635.9	-33.13	36.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5075	TRA	-1.1055	TC3	.8585	BAU	.3281	SGT	1993.2	SGR	1250.0	SG3	975.5	ST	44.0	SR	11.9	SS	71.3
RDE	.0160	RRA	.5018	RC3	-1.1916	FAU	.20317	RRT	-.8228	RRF	.9374	RTF	-.8623	CRT	-.6604	CRS	-.4964	CST	.9779
FDE	2.9023	FRA	3.8925	FC3	-10.5249	BSP	3973	SGB	2352.7	R23	-.2619	R13	.9142	LSA	83.7	MSA	12.6	SSA	1.7
BDE	.5077	BRA	1.2140	BC3	1.4686	FSP	1574	SG1	2268.4	SG2	624.3	THA	150.23	EL1	44.7	EL2	8.8	ALF	169.47

LAUNCH DATE JUL 15 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 451.057 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.088	GAL	-2.49	AZL	88.56	HCA	144.17	SMA	203.93	ECC	.28779	INC	1.4445	V1	29.299
RP	230.05	LAP	.85	LOP	76.55	VP	22.427	GAP	13.04	AZP	91.17	TAL	347.83	TAP	131.99	RCA	151.36	APO	256.50	V2	23.907
RC	145.456	GL	11.82	GP	-17.24	ZAL	109.37	ZAP	141.55	ETS	204.92	ZAE	160.76	ETE	282.51	ZAC	66.58	ETC	283.74	LVI	-.62

PLANETOCENTRIC CONIC

C3	16.555	VHL	4.069	DLA	26.70	RAL	35.72	RAD	6641.3	VEL	11.687	PTH	6.72	VHP	3.623	DPA	-1.18	RAP	45.04	ECC	1.2725

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 21	3640.65	-47.53	141.43	274.94	92.52	13 21 2	2640.7	-40.99	108.67
60.00	12 23 59	3630.97	-40.17	140.47	274.84	86.44	13 24 30	2631.0	-37.21	109.74
70.00	12 30 26	3611.94	-33.11	137.97	273.88	81.08	13 30 38	2611.9	-33.36	109.23
80.00	12 45 30	3564.64	-26.89	132.97	272.46	76.51	13 44 55	2564.6	-29.86	105.94
90.00	13 34 53	3405.06	-23.76	120.35	271.56	74.20	14 31 38	2405.1	-28.07	94.16
100.00	15 28 22	3039.11	-26.89	94.34	272.46	76.51	16 19 1	2039.1	-29.86	67.30
110.00	17 29 52	2658.76	-33.11	66.89	273.88	81.08	18 14 11	1658.8	-33.36	38.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.5062	TRA	-1.0792	TC3	.8460	BAU	.3397	SGT	1968.7	SGR	1328.5	SG3	1017.9	ST	43.8	SR	12.9	SS	74.3
RDE	.0522	RRA	.5205	RC3	-1.2808	FAU	.21088	RRT	-.8280	RRF	.9467	RTF	-.8600	CRT	-.7873	CRS	-.6439	CST	.9768
FDE	3.0916	FRA	3.9777	FC	-11.0280	BSP	4000	SGB	2375.1	R23	-.2637	R13	.9193	LSA	86.4	MSA	12.3	SSA	1.7
BDE	.5088	BRA	1.1982	BC3	1.5350	FSP	1648	SG1	2286.8	SG2	641.3	THA	147.99	EL1	45.0	EL2	7.8	ALF	166.51

LAUNCH DATE JUL 15 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 454.780 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.065	GAL	-2.46	AZL	88.47	HCA	145.19	SMA	203.46	ECC	.25603	INC	1.5326	V1	29.299
RP	230.44	LAP	.87	LOP	77.57	VP	22.351	GAP	12.77	AZP	91.26	TAL	347.91	TAP	133.10	RCA	151.37	APO	255.56	V2	23.867
RC	148.289	GL	12.59	GP	-18.02	ZAL	109.18	ZAP	140.14	ETS	204.86	ZAE	160.15	ETE	278.91	ZAC	65.86	ETC	283.64	LVI	.07

PLANETOCENTRIC CONIC

C3	16.420	VHL	4.052	DLA	27.39	RAL	35.28	RAD	6641.2	VEL	11.682	PTH	6.72	VHP	3.551	DPA	-1.99	RAP	45.09	ECC	1.2702

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 15 4	3654.23	-47.56	142.74	274.98	91.51	13 15 58	2654.2	-41.40	109.72
60.00	12 17 10	3648.63	-40.08	141.96	274.70	85.43	13 17 58	2648.6	-37.54	111.12
70.00	12 20 59	3637.37	-32.82	139.90	273.55	79.98	13 21 36	2637.4	-33.58	111.18
80.00	12 30 35	3607.18	-26.18	135.93	271.86	75.11	13 30 43	2607.2	-29.82	109.10
90.00	13 12 35	3471.41	-22.46	124.78	270.67	72.35	14 10 27	2471.4	-27.69	98.98
100.00	15 13 27	3081.65	-26.18	97.30	271.86	75.11	16 4 49	2081.7	-29.82	70.47
110.00	17 20 25	2684.19	-32.82	68.81	273.55	79.98	18 5 9	1684.2	-33.58	40.10

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.4998	TRA	-1.0478	TC3	.8373	BAU	.3535	SGT	1935.0	SGR	1413.5	SG3	1060.4	ST	43.3	SR	14.5	SS	77.4
RDE	.0909	RRA	.5397	RC3	-1.3757	FAU	.21871	RRT	-.8341	RRF	.9548	RTF	-.8590	CRT	-.8779	CRS	-.7561	CST	.9751
FDE	3.2883	FRA	4.0544	FC	-11.5313	BSP	3987	SGB	2396.3	R23	-.2593	R13	.9259	LSA	89.0	MSA	12.1	SSA	1.6
BDE	.5080	BRA	1.1786	BC3	1.6104	FSP	1719	SG1	2305.2	SG2	654.5	THA	145.47	EL1	45.2	EL2	6.7	ALF	163.25

LAUNCH DATE JUL 15 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 458.509 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.044	GAL	-2.43	AZL	88.37	HCA	146.21	SMA	203.03	ECC	.25437	INC	1.6249	V1	29.299
RP	230.82	LAP	.90	LOP	78.59	VP	22.277	GAP	12.50	AZP	91.35	TAL	347.99	TAP	134.19	RCA	151.38	APO	254.67	V2	23.827
RC	151.140	GL	13.40	GP	-18.84	ZAL	108.99	ZAP	138.70	ETS	204.80	ZAE	159.44	ETE	275.39	ZAC	65.11	ETC	283.96	LVI	.79

PLANETOCENTRIC CONIC

C3	16.308	VHL	4.038	DLA	28.11	RAL	34.85	RAD	6641.1	VEL	11.677	PTH	6.71	VHP	3.483	DPA	-2.85	RAP	45.12	ECC	1.2684

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 9 29	3669.09	-47.57	144.18	275.08	90.40	13 10 38	2669.1	-41.84	110.88
60.00	12 9 53	3668.01	-39.97	143.60	274.60	84.32	13 11 1	2668.0	-37.89	112.65
70.00	12 10 38	3665.79	-32.46	142.04	273.21	78.76	13 11 44	2665.8	-33.78	113.38
80.00	12 12 44	3659.18	-25.22	139.49	271.17	73.46	13 13 44	2659.2	-29.67	112.95
90.00	12 35 30	3585.51	-19.92	132.17	269.25	69.50	13 35 16	2585.5	-26.61	107.15
100.00	14 55 36	3133.65	-25.22	100.86	271.17	73.46	15 47 50	2133.7	-29.67	74.32
110.00	17 10 5	2712.61	-32.46	70.95	273.21	78.76	17 55 17	1712.6	-33.78	42.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.5034	TRA	-1.0261	TC3	.7971	BAU	.3650	SGT	1910.2	SGR	1504.9	SG3	1103.0	ST	43.5	SR	16.7	SS	80.8
RDE	.1344	RRA	.5611	RC3	-1.4721	FAU	.22600	RRT	-.8319	RRF	.9618	RTF	-.8621	CRT	-.9358	CRS	-.8364	CST	.9743
FDE	3.5099	FRA	4.1366	FC	-11.9974	BSP	4104	SGB	2431.8	R23	-.2619	R13	.9301	LSA	92.5	MSA	11.9	SSA	1.6
BDE	.5211	BRA	1.1695	BC3	1.6741	FSP	1803	SG1	2333.8	SG2	683.6	THA	143.07	EL1	46.2	EL2	5.5	ALF	159.98

LAUNCH DATE JUL 15 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 462.245 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.024	GAL	-2.40	AZL	88.28	HCA	147.22	SMA	202.62	ECC	.25281	INC	1.7221	V1	29.299
RP	231.20	LAP	.93	LOP	79.60	VP	22.205	GAP	12.24	AZP	91.45	TAL	348.06	TAP	135.28	RCA	151.39	APO	253.84	V2	23.787
RC	154.008	GL	14.25	GP	-19.71	ZAL	108.81	ZAP	137.23	ETS	204.73	ZAE	158.62	ETE	271.97	ZAC	64.32	ETC	284.08	LVI	1.54

PLANETOCENTRIC CONIC

C3	16.219	VHL	4.027	DLA	28.87	RAL	34.40	RAD	6641.1	VEL	11.673	PTH	6.71	VHP	3.420	DPA	-3.75	RAP	45.15	ECC	1.2669

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 3 34	3685.27	-47.57	145.74	275.23	89.19	13 5 0	2685.3	-42.30	112.16
60.00	12 2 5	3689.24	-39.81	145.38	274.51	83.12	13 3 34	2689.2	-38.25	114.34
70.00	11 59 12	3697.74	-32.02	144.42	272.86	77.42	13 0 50	2697.7	-33.96	115.85
80.00	11 49 43	3727.61	-23.81	144.09	270.28	71.44	12 51 50	2727.6	-29.28	118.00
83.91	11 16 17	3835.16	-18.14	149.72	267.98	67.14	12 20 12	2835.2	-25.99	125.30
100.00	14 32 34	3202.08	-23.81	105.46	270.28	71.44	15 25 57	2202.1	-29.28	79.37
110.00	16 58 38	2744.56	-32.02	73.34	272.86	77.42	17 44 23	1744.6	-33.96	44.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.4992	TRA	-.9966	TC3	.7658	BAU	.3798	SGT	1872.6	SGR	1603.5	SG3	1145.0	ST	43.0	SR	19.2	SS	84.2
RDE	.1806	RRA	.5823	RC3	-1.5755	FAU	.23352	RRT	-.8316	RRF	.9677	RTF	-.8470	CRT	-.9696	CRS	-.8925	CST	.9728
FDE	3.7338	FRA	4.2016	FC	-12.4645	BSP	4153	SGB	2465.3	R23	-.2562	R13	.9362	LSA	95.8	MSA	11.7	SSA	1.6
BDE	.5308	BRA	1.1542	BC3	1.7517	FSP	1879	SG1	2362.0	SG2	706.1	THA	140.30	EL1	46.9	EL2	4.3	ALF	156.35

LAUNCH DATE JUL 15 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 465.987 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	33.005	GAL	-2.38	AZL	88.18	HCA	148.23	SMA	202.24	ECC	.25135	INC	1.8243	V1	29.299
RP	231.58	LAP	.96	LOP	80.62	VP	22.135	GAP	11.97	AZP	91.55	TAL	348.12	TAP	136.35	RCA	151.40	APO	283.07	V2	23.748
RC	156.890	GL	15.14	GP	-20.61	ZAL	108.63	ZAP	135.72	ETS	204.65	ZAE	157.69	ETE	268.69	ZAC	63.50	ETC	284.22	LVI	2.33

PLANETOCENTRIC CONIC

C3	16.153	VHL	4.019	DLA	29.68	RAL	33.95	RAD	6641.1	VEL	11.670	PTH	6.71	VHP	3.361	DPA	-4.71	RAP	45.16	ECC	1.2658

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 57 17	3702.90	-47.54	147.45	275.43	87.88	12 59 0	2702.9	-42.78	113.57
60.00	11 53 40	3712.56	-39.60	147.33	274.45	81.82	12 55 33	2712.6	-38.61	116.21
70.00	11 46 23	3734.04	-31.45	147.09	272.48	75.93	12 48 37	2734.0	-34.09	118.68
80.00	11 11 17	3844.82	-21.07	151.71	268.75	68.34	12 15 22	2844.8	-28.12	126.51
80.61	10 48 19	3918.26	-18.64	156.08	267.68	66.48	11 53 37	2918.3	-26.71	131.63
100.00	13 54 9	3319.29	-21.07	113.07	268.75	68.34	14 49 28	2319.3	-28.12	87.88
110.00	16 45 50	2780.86	-31.45	76.01	272.48	75.93	17 32 11	1780.9	-34.09	47.60

DIFFERENTIAL CORRECTIONS

TDE	-.4939	TRA	-.9674	TC3	.7276	BAU	.3961
RDE	.2310	RRA	.6046	RC3	-1.6835	FAU	.24087
FDE	3.9690	FRA	4.2610	FC	-12.9091	BSP	4213
BDE	.5452	BRA	1.1408	BC3	1.8340	FSP	1952

MID-COURSE EXECUTION ACCURACY

SGT	1832.2	SGR	1709.9	SG3	1186.8		
RRT	-.8292	RRF	.9728	RTF	-.8406		
SGB	2506.2	R23	-.2481	R13	.9425		
SG1	2397.3	SG2	730.4	THA	137.38		

ORBIT DETERMINATION ACCURACY

ST	42.8	SR	22.3	SS	87.7		
CRT	-.9877	CRS	-.9283	CST	.9710		
LSA	99.3	MSA	11.6	SSA	1.8		
EL1	47.9	EL2	3.1	ALF	152.80		

LAUNCH DATE JUL 15 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 469.735 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.987	GAL	-2.36	AZL	88.07	HCA	149.24	SMA	201.88	ECC	.24997	INC	1.9321	V1	29.299
RP	231.95	LAP	.99	LOP	81.63	VP	22.066	GAP	11.71	AZP	91.66	TAL	348.18	TAP	137.42	RCA	151.41	APO	252.34	V2	23.708
RC	159.785	GL	16.07	GP	-21.57	ZAL	108.46	ZAP	134.18	ETS	204.56	ZAE	156.65	ETE	265.56	ZAC	62.64	ETC	284.37	LVI	3.16

PLANETOCENTRIC CONIC

C3	16.112	VHL	4.014	DLA	30.52	RAL	33.48	RAD	6641.1	VEL	11.669	PTH	6.70	VHP	3.306	DPA	-5.72	RAP	45.17	ECC	1.2652

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 50 35	3722.10	-47.48	149.30	275.69	86.46	12 52 37	2722.1	-43.28	115.14
60.00	11 44 33	3738.22	-39.33	149.46	274.40	80.40	12 46 51	2738.2	-38.97	118.30
70.00	11 31 46	3775.98	-30.71	150.14	272.03	74.27	12 34 42	2776.0	-34.15	121.95
78.02	10 26 59	3979.75	-19.15	160.90	267.41	65.77	11 33 19	2979.7	-27.46	136.41
78.02	10 26 59	3979.75	-19.15	160.90	267.41	65.77	11 33 19	2979.7	-27.46	136.41
78.02	10 26 59	3979.75	-19.15	160.90	267.41	65.77	11 33 19	2979.7	-27.46	136.41
110.00	16 31 12	2822.80	-30.71	79.06	272.03	74.27	17 18 15	1822.8	-34.15	50.87

DIFFERENTIAL CORRECTIONS

TDE	-.4870	TRA	-.9358	TC3	.6841	BAU	.4140
RDE	.2859	RRA	.6269	RC3	-1.7961	FAU	.24800
FDE	4.2149	FRA	4.3039	FC	-13.3258	BSP	4282
BDE	.5647	BRA	1.1263	BC3	1.9220	FSP	2024

MID-COURSE EXECUTION ACCURACY

SGT	1785.8	SGR	1823.4	SG3	1226.4		
RRT	-.8250	RRF	.9770	RTF	-.8330		
SGB	2552.2	R23	-.2368	R13	.9491		
SG1	2436.0	SG2	754.8	THA	134.28		

ORBIT DETERMINATION ACCURACY

ST	41.8	SR	25.8	SS	91.3		
CRT	-.9960	CRS	-.9519	CST	.9690		
LSA	103.0	MSA	11.5	SSA	1.8		
EL1	49.1	EL2	2.0	ALF	148.41		

LAUNCH DATE JUL 15 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 473.488 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.971	GAL	-2.34	AZL	87.95	HCA	150.25	SMA	201.54	ECC	.24867	INC	2.0460	V1	29.299
RP	232.33	LAP	1.02	LOP	82.63	VP	21.999	GAP	11.45	AZP	91.78	TAL	348.23	TAP	138.47	RCA	151.42	APO	251.66	V2	23.670
RC	162.693	GL	17.05	GP	-22.57	ZAL	108.28	ZAP	132.60	ETS	204.45	ZAE	155.50	ETE	262.59	ZAC	61.74	ETC	284.54	LVI	4.03

PLANETOCENTRIC CONIC

C3	16.096	VHL	4.012	DLA	31.41	RAL	33.00	RAD	6641.0	VEL	11.668	PTH	6.70	VHP	3.256	DPA	-6.79	RAP	45.17	ECC	1.2649

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 43 24	3743.02	-47.37	151.31	275.98	84.91	12 45 47	2743.0	-43.80	116.89
60.00	11 34 35	3766.55	-38.98	151.79	274.35	78.85	12 37 21	2766.6	-39.32	120.63
70.00	11 14 35	3825.69	-29.74	153.68	271.48	72.38	12 18 20	2825.7	-34.10	125.83
75.73	10 8 42	4031.21	-19.68	165.03	267.17	65.01	11 15 53	3031.2	-28.25	140.51
75.73	10 8 42	4031.21	-19.68	165.03	267.17	65.01	11 15 53	3031.2	-28.25	140.51
75.73	10 8 42	4031.21	-19.68	165.03	267.17	65.01	11 15 53	3031.2	-28.25	140.51
110.00	16 14 1	2872.51	-29.74	82.60	271.48	72.38	17 1 54	1872.5	-34.10	54.75

DIFFERENTIAL CORRECTIONS

TDE	-.4767	TRA	-.9028	TC3	.6343	BAU	.4337
RDE	.3454	RRA	.6496	RC3	-1.9130	FAU	.25481
FDE	4.4654	FRA	4.3335	FC	-13.7054	BSP	4347
BDE	.5886	BRA	1.1122	BC3	2.0154	FSP	2089

MID-COURSE EXECUTION ACCURACY

SGT	1733.4	SGR	1944.5	SG3	1264.5		
RRT	-.8186	RRF	.9807	RTF	-.8236		
SGB	2604.9	R23	-.2227	R13	.9557		
SG1	2485.8	SG2	778.8	THA	130.99		

ORBIT DETERMINATION ACCURACY

ST	40.9	SR	29.7	SS	94.9		
CRT	-.9983	CRS	-.9673	CST	.9863		
LSA	106.9	MSA	11.4	SSA	1.4		
EL1	50.5	EL2	1.4	ALF	144.07		

LAUNCH DATE JUL 15 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 477.245 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.955	GAL	-2.32	AZL	87.83	HCA	151.25	SMA	201.22	ECC	.24745	INC	2.1669	V1	29.299
RP	232.70	LAP	1.04	LOP	83.63	VP	21.934	GAP	11.19	AZP	91.90	TAL	348.27	TAP	139.52	RCA	151.43	APO	251.02	V2	23.631
RC	165.610	GL	18.07	GP	-23.62	ZAL	108.11	ZAP	130.99	ETS	204.33	ZAE	154.25	ETE	259.79	ZAC	60.79	ETC	284.72	LVI	4.94

PLANETOCENTRIC CONIC

C3	16.106	VHL	4.013	DLA	32.35	RAL	32.51	RAD	6641.1	VEL	11.668	PTH	6.70	VHP	3.211	DPA	-7.91	RAP	45.16	ECC	1.2651

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 35 40	3765.83	-47.21	153.49	276.32	83.24	12 38 26	2765.8	-44.34	118.82
60.00	11 23 37	3798.01	-38.54	154.34	274.28	77.17	12 26 55	2798.0	-39.65	123.24
70.00	10 53 23	3887.49	-28.39	157.99	270.72	70.16	11 58 10	2887.5	-33.85	130.64
73.61	9 52 20	4076.36	-20.22	168.74	266.96	64.20	11 0 16	3076.4	-29.07	144.18
73.61	9 52 20	4076.36	-20.22	168.74	266.96	64.20	11 0 16	3076.4	-29.07	144.18
73.61	9 52 20	4076.36	-20.22	168.74	266.96	64.20	11 0 16	3076.4	-29.07	144.18
110.00	15 52 49	2934.31	-28.39	86.90	270.72	70.16	16 41 43	1934.3	-33.85	59.56

DIFFERENTIAL CORRECTIONS

TDE	-.4638	TRA	-.8673	TC3	.5834	BAU	.4559
RDE	.4108	RRA	.6723	RC3	-2.0351	FAU	.26138
FDE	4.7271	FRA	4.3452	FC	-14.0500	BSP	4427
BDE	.6195	BRA	1.0974	BC3	2.1171	FSP	2152

MID-COURSE EXECUTION ACCURACY

SGT	1675.1	SGR	2074.3	SG3	1300.7		
RRT	-.8111	RRF	.9838	RTF	-.8134		
SGB	2666.2	R23	-.2053	R13	.9625		
SG1	2543.7	SG2	799.0	THA	127.56		

ORBIT DETERMINATION ACCURACY

ST	39.7	SR	34.0	SS	98.6		
CRT	-.9967	CRS	-.9776	CST	.9832		
LSA	111.0	MSA	11.4	SSA	1.3		
EL1	52.3	EL2	2.1	ALF	139.47		

LAUNCH DATE JUL 15 1973 FLIGHT TIME 200.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 481.007 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.940	GAL	-2.30	AZL	87.79	HCA	152.24	SMA	200.03	ECC	.24631	INC	2.2932
RP	233.07	LAP	1.07	LOP	84.63	VP	21.871	GAP	10.84	AZP	92.03	TAL	348.31	TAP	140.96	RCA	151.44	APO	250.42
RC	168.537	GL	19.15	GP	-24.72	ZAL	107.84	ZAP	129.34	ETS	204.19	ZAE	152.88	ETE	257.17	ZAC	59.81	ETC	284.92

PLANETOCENTRIC CONIC

C3	16.145	VHL	4.018	DLA	33.33	RAL	31.99	RAD	6641.1	VEL	11.670	PTH	6.71	VHP	3.171	DPA	-9.09	RAP	45.14

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 27 17	3790.74	-46.98	155.86	276.69	81.43	12 30 28	2790.7	-44.88	120.97
60.00	11 11 24	3833.17	-37.97	157.18	274.18	75.33	12 15 17	2833.2	-39.94	126.18
70.00	10 24 5	3973.51	-26.26	163.77	269.52	67.34	11 30 19	2973.5	-33.17	137.26
71.57	9 37 11	4117.42	-20.78	172.18	266.78	63.33	10 45 48	3117.4	-29.92	147.60
71.57	9 37 11	4117.42	-20.78	172.18	266.78	63.33	10 45 48	3117.4	-29.92	147.60
71.57	9 37 11	4117.42	-20.78	172.18	266.78	63.33	10 45 48	3117.4	-29.92	147.60
110.00	15 23 32	3020.33	-26.26	92.69	269.52	67.34	16 13 52	2020.3	-33.17	66.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4427	TRA	-.8257	TC3	.5366	BAU	.4811	SGT	1603.3	SGR	2211.4	SG3	1333.3	ST	38.0	SR	38.6	SS	102.0
RDE	.4802	RRA	.6929	RC3	-2.1635	FAU	.26781	RRT	-.8034	RRF	.9863	RTF	-.8029	CRT	-.9925	CRS	-.9844	CST	.9585
FDE	4.9806	FRA	4.3259	FC	-14.3607	BSP	4461	SGB	2731.4	R23	-.1842	R13	.9691	LSA	115.0	MSA	11.4	SSA	1.3
BDE	.6531	BRA	1.0779	BC3	2.2291	FSP	2195	SG1	2608.8	SG2	809.1	THA	123.92	EL1	54.1	EL2	3.3	ALF	134.51

LAUNCH DATE JUL 15 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 484.770 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.927	GAL	-2.29	AZL	87.57	HCA	153.24	SMA	200.65	ECC	.24525	INC	2.4319
RP	233.44	LAP	1.09	LOP	85.63	VP	21.809	GAP	10.68	AZP	92.17	TAL	348.34	TAP	141.58	RCA	151.44	APO	249.86
RC	171.472	GL	20.28	GP	-25.88	ZAL	107.77	ZAP	127.67	ETS	204.02	ZAE	151.42	ETE	254.72	ZAC	58.78	ETC	285.14

PLANETOCENTRIC CONIC

C3	16.216	VHL	4.027	DLA	34.38	RAL	31.46	RAD	6641.1	VEL	11.673	PTH	6.71	VHP	3.137	DPA	-10.32	RAP	45.13

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 10	3818.03	-46.67	158.42	277.08	79.48	12 21 48	2818.0	-45.42	123.38
60.00	10 57 37	3872.95	-37.24	160.28	274.02	73.33	12 2 10	2873.0	-40.16	129.54
69.59	9 22 56	4155.48	-21.34	175.45	266.64	62.39	10 32 11	3155.5	-30.82	150.86
69.59	9 22 56	4155.48	-21.34	175.45	266.64	62.39	10 32 11	3155.5	-30.82	150.86
69.59	9 22 56	4155.48	-21.34	175.45	266.64	62.39	10 32 11	3155.5	-30.82	150.86
69.59	9 22 56	4155.48	-21.34	175.45	266.64	62.39	10 32 11	3155.5	-30.82	150.86
69.59	9 22 56	4155.48	-21.34	175.45	266.64	62.39	10 32 11	3155.5	-30.82	150.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4387	TRA	-.8031	TC3	.4360	BAU	.5030	SGT	1558.8	SGR	2356.8	SG3	1363.1	ST	37.5	SR	44.3	SS	106.5
RDE	.5637	RRA	.7204	RC3	-2.2791	FAU	.27170	RRT	-.7797	RRF	.9865	RTF	-.7784	CRT	-.9873	CRS	-.9894	CST	.9557
FDE	5.2861	FRA	4.3350	FC	-14.5057	BSP	4714	SGB	2825.7	R23	-.1708	R13	.9737	LSA	120.7	MSA	11.4	SSA	1.2
BDE	.7143	BRA	1.0789	BC3	2.3204	FSP	2276	SG1	2693.5	SG2	854.0	THA	120.70	EL1	57.9	EL2	4.6	ALF	130.18

LAUNCH DATE JUL 15 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 488.538 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.914	GAL	-2.28	AZL	87.42	HCA	154.23	SMA	200.39	ECC	.24426	INC	2.5778
RP	233.80	LAP	1.12	LOP	86.62	VP	21.748	GAP	10.43	AZP	92.32	TAL	348.37	TAP	142.60	RCA	151.45	APO	249.34
RC	174.413	GL	21.48	GP	-27.09	ZAL	107.60	ZAP	125.96	ETS	203.83	ZAE	149.86	ETE	252.43	ZAC	57.71	ETC	285.37

PLANETOCENTRIC CONIC

C3	16.320	VHL	4.040	DLA	35.48	RAL	30.89	RAD	6641.2	VEL	11.677	PTH	6.71	VHP	3.108	DPA	-11.62	RAP	45.12

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 8 9	3847.99	-46.26	161.20	277.47	77.37	12 12 17	2848.0	-45.95	126.07
60.00	10 41 45	3918.58	-36.29	163.78	273.73	71.12	11 47 4	2918.6	-40.29	133.42
67.62	9 9 22	4191.12	-21.92	178.60	266.53	61.38	10 19 13	3191.1	-31.75	153.99
67.62	9 9 22	4191.12	-21.92	178.60	266.53	61.38	10 19 13	3191.1	-31.75	153.99
67.62	9 9 22	4191.12	-21.92	178.60	266.53	61.38	10 19 13	3191.1	-31.75	153.99
67.62	9 9 22	4191.12	-21.92	178.60	266.53	61.38	10 19 13	3191.1	-31.75	153.99
67.62	9 9 22	4191.12	-21.92	178.60	266.53	61.38	10 19 13	3191.1	-31.75	153.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4193	TRA	-.7674	TC3	.3595	BAU	.5307	SGT	1491.4	SGR	2511.0	SG3	1388.5	ST	35.9	SR	50.2	SS	110.3
RDE	.6510	RRA	.7431	RC3	-2.4056	FAU	.27604	RRT	-.7593	RRF	.9904	RTF	-.7563	CRT	-.9800	CRS	-.9926	CST	.9499
FDE	5.5678	FRA	4.2934	FC	-14.6434	BSP	4862	SGB	2920.5	R23	-.1509	R13	.9788	LSA	125.9	MSA	11.5	SSA	1.1
BDE	.7744	BRA	1.0682	BC3	2.4324	FSP	2322	SG1	2786.5	SG2	874.6	THA	117.17	EL1	61.4	EL2	5.8	ALF	125.38

LAUNCH DATE JUL 15 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 492.309 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.902	GAL	-2.26	AZL	87.27	HCA	155.22	SMA	200.15	ECC	.24333	INC	2.7342
RP	234.17	LAP	1.15	LOP	87.61	VP	21.689	GAP	10.18	AZP	92.48	TAL	348.39	TAP	143.61	RCA	151.45	APO	248.85
RC	177.360	GL	22.74	GP	-28.36	ZAL	107.42	ZAP	124.23	ETS	203.61	ZAE	148.21	ETE	258.30	ZAC	56.59	ETC	285.64

PLANETOCENTRIC CONIC

C3	16.462	VHL	4.057	DLA	36.64	RAL	30.30	RAD	6641.2	VEL	11.683	PTH	6.72	VHP	3.089	DPA	-12.97	RAP	45.11

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 57 4	3881.03	-45.73	164.21	277.84	75.11	12 1 45	2881.0	-46.45	129.10
60.00	10 22 59	3972.28	-35.03	167.78	273.25	68.65	11 29 12	2972.3	-40.26	137.99
65.66	8 56 16	4225.04	-22.51	181.67	266.45	60.29	10 6 41	3225.0	-32.72	157.05
65.66	8 56 16	4225.04	-22.51	181.67	266.45	60.29	10 6 41	3225.0	-32.72	157.05
65.66	8 56 16	4225.04	-22.51	181.67	266.45	60.29	10 6 41	3225.0	-32.72	157.05
65.66	8 56 16	4225.04	-22.51	181.67	266.45	60.29	10 6 41	3225.0	-32.72	157.05
65.66	8 56 16	4225.04	-22.51	181.67	266.45	60.29	10 6 41	3225.0	-32.72	157.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3967	TRA	-.7312	TC3	.2768	BAU	.5604	SGT	1421.4	SGR	2673.6	SG3	1408.8	ST	34.0	SR	56.6	SS	114.2
RDE	.7479	RRA	.7652	RC3	-2.5312	FAU	.27934	RRT	-.7332	RRF	.9919	RTF	-.7287	CRT	-.9708	CRS	-.9948	CST	.9424
FDE	5.8539	FRA	4.2302	FC	-14.6910	BSP	5044	SGB	3027.9	R23	-.1310	R13	.9832	LSA	131.4	MSA	11.6	SSA	1.1
BDE	.8466	BRA	1.0584	BC3	2.5463	FSP	2364	SG1	2893.2	SG2	893.3	THA	113.69	EL1	65.7	EL2	7.0	ALF	120.64

LAUNCH DATE JUL 15 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 496.082 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.890	GAL	-2.26	AZL	87.10	HCA	156.20	SMA	199.93	ECC	.84246	INC	2.9021	V1	29.299
RP	234.53	LAP	1.17	LOP	88.60	VP	21.632	GAP	9.93	AZP	92.66	TAL	348.40	TAP	144.61	RCA	151.45	APO	248.40	V2	23.442
RC	180.313	GL	24.07	GP	-29.68	ZAL	107.24	ZAP	122.47	ETS	203.35	ZAE	146.47	ETE	248.31	ZAC	55.42	ETC	285.92	LVI	10.18

PLANETOCENTRIC CONIC

C3	16.645	VHL	4.080	DLA	37.88	RAL	29.67	RAD	6641.3	VEL	11.691	PTH	6.73	VHP	3.068	DPA	-14.39	RAP	45.11	ECC	1.2739

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 44 41	3917.69	-45.04	167.47	278.15	72.68	11 49 59	2917.7	-46.90	132.53
60.00	9 59 40	4038.41	-33.29	172.52	272.43	65.83	11 6 58	3038.4	-39.95	143.58
63.68	8 43 33	4257.48	-23.11	184.68	266.42	59.11	9 54 31	3257.5	-33.73	160.08
63.68	8 43 33	4257.48	-23.11	184.68	266.42	59.11	9 54 31	3257.5	-33.73	160.08
63.68	8 43 33	4257.48	-23.11	184.68	266.42	59.11	9 54 31	3257.5	-33.73	160.08
63.68	8 43 33	4257.48	-23.11	184.68	266.42	59.11	9 54 31	3257.5	-33.73	160.08
63.68	8 43 33	4257.48	-23.11	184.68	266.42	59.11	9 54 31	3257.5	-33.73	160.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3699	TRA	-.6952	TC3	.1878	BAU	.5922	SGT	1350.2	SGR	2844.4	SG3	1423.4	ST	31.9	SR	63.7	SS	118.0
RDE	.8545	RRA	.7865	RC3	-2.6548	FAU	.28154	RRT	-.6994	RRF	.9932	RTF	-.6936	CRT	-.9591	CRS	-.9963	CST	.9322
FDE	6.1367	FRA	4.1449	FC	-14.6430	BSP	5239	SGB	3148.6	R23	-.1118	R13	.9869	LSA	137.3	MSA	11.7	SSA	1.0
BDE	.9312	BRA	1.0497	BC3	2.6614	FSP	2394	SG1	3014.0	SG2	910.8	THA	110.30	EL1	70.7	EL2	8.1	ALF	116.06

LAUNCH DATE JUL 15 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 499.858 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.880	GAL	-2.25	AZL	86.92	HCA	157.18	SMA	199.72	ECC	.24166	INC	3.0831	V1	29.299
RP	234.89	LAP	1.20	LOP	89.58	VP	21.576	GAP	9.68	AZP	92.64	TAL	348.41	TAP	145.59	RCA	151.46	APO	247.98	V2	23.405
RC	183.270	GL	25.48	GP	-31.07	ZAL	107.05	ZAP	120.68	ETS	203.06	ZAE	144.64	ETE	246.45	ZAC	54.21	ETC	286.23	LVI	11.39

PLANETOCENTRIC CONIC

C3	16.877	VHL	4.108	DLA	39.18	RAL	28.99	RAD	6641.4	VEL	11.701	PTH	6.73	VHP	3.058	DPA	-15.88	RAP	45.11	ECC	1.2777

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 30 40	3958.69	-44.14	171.01	278.35	70.07	11 36 39	2958.7	-47.27	136.42
60.00	9 27 20	4129.06	-30.59	178.69	270.86	62.37	10 36 9	3129.1	-39.04	151.12
61.67	8 31 4	4288.89	-23.70	187.68	266.42	57.84	9 42 32	3288.9	-34.77	163.12
61.67	8 31 4	4288.89	-23.70	187.68	266.42	57.84	9 42 32	3288.9	-34.77	163.12
61.67	8 31 4	4288.89	-23.70	187.68	266.42	57.84	9 42 32	3288.9	-34.77	163.12
61.67	8 31 4	4288.89	-23.70	187.68	266.42	57.84	9 42 32	3288.9	-34.77	163.12
61.67	8 31 4	4288.89	-23.70	187.68	266.42	57.84	9 42 32	3288.9	-34.77	163.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3360	TRA	-.6550	TC3	.1025	BAU	.6276	SGT	1271.0	SGR	3023.2	SG3	1431.3	ST	29.4	SR	71.2	SS	121.6
RDE	.9713	RRA	.8032	RC3	-2.7797	FAU	.28303	RRT	-.6585	RRF	.9943	RTF	-.6512	CRT	-.9430	CRS	-.9974	CST	.9173
FDE	6.4078	FRA	4.0176	FC	-14.5187	BSP	5428	SGB	3279.5	R23	-.0928	R13	.9900	LSA	143.4	MSA	11.8	SSA	.9
BDE	1.0278	BRA	1.0364	BC3	2.7816	FSP	2403	SG1	3148.3	SG2	918.5	THA	106.96	EL1	76.5	EL2	9.1	ALF	111.56

LAUNCH DATE JUL 15 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 503.635 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.870	GAL	-2.24	AZL	86.72	HCA	158.16	SMA	199.52	ECC	.24091	INC	3.2787	V1	29.299
RP	235.24	LAP	1.22	LOP	90.57	VP	21.521	GAP	9.43	AZP	93.04	TAL	348.41	TAP	146.57	RCA	151.46	APO	247.59	V2	23.369
RC	186.232	GL	26.98	GP	-32.51	ZAL	106.85	ZAP	118.88	ETS	202.73	ZAE	142.73	ETE	244.71	ZAC	52.94	ETC	286.58	LVI	12.65

PLANETOCENTRIC CONIC

C3	17.163	VHL	4.143	DLA	40.56	RAL	28.27	RAD	6641.5	VEL	11.713	PTH	6.75	VHP	3.055	DPA	-17.42	RAP	45.14	ECC	1.2825

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 14 32	4005.13	-42.99	174.68	278.37	67.27	11 21 17	3005.1	-47.52	140.88
59.62	8 18 45	4319.40	-24.29	190.68	266.46	56.46	9 30 44	3319.4	-35.85	166.17
59.62	8 18 45	4319.40	-24.29	190.68	266.46	56.46	9 30 44	3319.4	-35.85	166.17
59.62	8 18 45	4319.40	-24.29	190.68	266.46	56.46	9 30 44	3319.4	-35.85	166.17
59.62	8 18 45	4319.40	-24.29	190.68	266.46	56.46	9 30 44	3319.4	-35.85	166.17
59.62	8 18 45	4319.40	-24.29	190.68	266.46	56.46	9 30 44	3319.4	-35.85	166.17
59.62	8 18 45	4319.40	-24.29	190.68	266.46	56.46	9 30 44	3319.4	-35.85	166.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3020	TRA	-.6211	TC3	.0003	BAU	.6638	SGT	1205.3	SGR	3211.1	SG3	1432.4	ST	26.9	SR	79.6	SS	125.2
RDE	1.1037	RRA	.8213	RC3	-2.8931	FAU	.28254	RRT	-.6016	RRF	.9953	RTF	-.5933	CRT	-.9216	CRS	-.9982	CST	.8969
FDE	6.6842	FRA	3.8828	FC	-14.2519	BSP	5707	SGB	3429.9	R23	-.0764	R13	.9923	LSA	150.4	MSA	12.0	SSA	.8
BDE	1.1442	BRA	1.0297	BC3	2.8931	FSP	2418	SG1	3299.4	SG2	937.0	THA	103.87	EL1	83.5	EL2	10.0	ALF	107.55

LAUNCH DATE JUL 15 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 507.414 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.861	GAL	-2.24	AZL	86.51	HCA	159.14	SMA	199.34	ECC	.24022	INC	3.4912	V1	29.299
RP	235.59	LAP	1.24	LOP	91.54	VP	21.468	GAP	9.19	AZP	93.26	TAL	348.40	TAP	147.54	RCA	151.46	APO	247.23	V2	23.332
RC	189.197	GL	28.54	GP	-34.02	ZAL	106.63	ZAP	117.07	ETS	202.35	ZAE	140.75	ETE	243.08	ZAC	51.63	ETC	286.95	LVI	13.96

PLANETOCENTRIC CONIC

C3	17.513	VHL	4.185	DLA	42.02	RAL	27.48	RAD	6641.7	VEL	11.728	PTH	6.76	VHP	3.060	DPA	-19.03	RAP	45.18	ECC	1.2882

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 55 31	4038.66	-41.50	179.15	278.09	64.25	11 3 10	3058.7	-47.56	146.06
57.52	8 6 28	4349.36	-24.88	193.70	266.53	54.97	9 18 57	3349.4	-36.96	169.29
57.52	8 6 28	4349.36	-24.88	193.70	266.53	54.97	9 18 57	3349.4	-36.96	169.29
57.52	8 6 28	4349.36	-24.88	193.70	266.53	54.97	9 18 57	3349.4	-36.96	169.29
57.52	8 6 28	4349.36	-24.88	193.70	266.53	54.97	9 18 57	3349.4	-36.96	169.29
57.52	8 6 28	4349.36	-24.88	193.70	266.53	54.97	9 18 57	3349.4	-36.96	169.29
57.52	8 6 28	4349.36	-24.88	193.70	266.53	54.97	9 18 57	3349.4	-36.96	169.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2596	TRA	-.5843	TC3	-.1002	BAU	.7026	SGT	1137.1	SGR	3404.8	SG3	1424.6	ST	24.0	SR	88.7	SS	128.6
RDE	1.2496	RRA	.8345	RC3	-2.9990	FAU	.28061	RRT	-.5304	RRF	.9960	RTF	-.5209	CRT	-.8886	CRS	-.9987	CST	.8645
FDE	6.9419	FRA	3.7100	FC	-13.8717	BSP	5975	SGB	3589.7	R23	-.0610	R13	.9942	LSA	157.6	MSA	12.2	SSA	.7
BDE	1.2763	BRA	1.0187	BC3	3.0007	FSP	2410	SG1	3462.3	SG2	947.9	THA	100.87	EL1	91.2	EL2	10.7	ALF	103.72

LAUNCH DATE JUL 13 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 511.195 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.852	GAL	-2.24	AZL	86.28	HCA	160.11	SMA	199.18	ECC	.23958	INC	3.7227	V1	29.299
RP	239.94	LAP	1.27	LOP	92.52	VP	21.416	GAP	8.94	AZP	93.50	TAL	348.39	TAP	148.50	RCA	151.46	APO	246.90	V2	23.297
RC	192.165	GL	30.22	GP	-35.59	ZAL	106.40	ZAP	115.24	ETS	201.92	ZAE	138.69	ETE	241.53	ZAC	50.26	ETC	287.37	LVI	15.34

PLANETOCENTRIC CONIC

C3	17.937	VHL	4.235	DLA	43.57	RAL	26.61	RAD	6641.9	VEL	11.746	PTH	6.77	VHP	3.074	DPA	-20.69	RAP	45.24	ECC	1.2952

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 32 18	4122.27	-39.50	183.94	277.33	60.96	10 41 0	3122.3	-47.29	152.18
55.36	7 54 9	4378.86	-25.44	196.77	266.63	53.35	9 7 8	3378.9	-38.11	172.50
55.36	7 54 9	4378.86	-25.44	196.77	266.63	53.35	9 7 8	3378.9	-38.11	172.50
55.36	7 54 9	4378.86	-25.44	196.77	266.63	53.35	9 7 8	3378.9	-38.11	172.50
55.36	7 54 9	4378.86	-25.44	196.77	266.63	53.35	9 7 8	3378.9	-38.11	172.50
55.36	7 54 9	4378.86	-25.44	196.77	266.63	53.35	9 7 8	3378.9	-38.11	172.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2009	TRA	-.5383	TC3	-.1781	BAU	.7477	SGT	1052.1	SGR	3605.2	SG3	1407.7	ST	20.3	SR	97.9	SS	131.1		
RDE	1.4045	RRA	.8356	RC3-3.1128		FAU	.27878	RRT	-.4447	RRF	.9967	RTF	-.4333	CRT	-.8265	CRS	-.9991	CST	.8019		
FDE	7.1470	FRA	3.4731	FC-13.4556		BSP	6159	SGB	3755.5	R23	-.0468	R13	.9956	LSA	164.4	MSA	12.3	SSA	.7		
BDE	1.4188	BRA	.9940	BC3	3.1179	FSP	2354	SG1	3637.6	SG2	933.9	THA	97.92	EL1	99.4	EL2	11.3	ALF	99.85		

LAUNCH DATE JUL 15 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 514.974 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.844	GAL	-2.23	AZL	86.02	HCA	161.08	SMA	199.02	ECC	.23900	INC	3.9762	V1	29.299
RP	236.29	LAP	1.29	LOP	93.49	VP	21.386	GAP	8.70	AZP	93.76	TAL	348.37	TAP	149.45	RCA	151.46	APO	246.59	V2	23.261
RC	195.134	GL	31.99	GP	-37.21	ZAL	106.16	ZAP	113.41	ETS	201.44	ZAE	136.58	ETE	240.07	ZAC	48.85	ETC	287.83	LVI	16.77

PLANETOCENTRIC CONIC

C3	18.451	VHL	4.295	DLA	45.22	RAL	25.66	RAD	6642.1	VEL	11.767	PTH	6.79	VHP	3.098	DPA	-22.42	RAP	45.34	ECC	1.3037

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 1 58	4202.72	-36.69	189.57	275.70	57.28	10 12 1	3202.7	-46.44	159.77
53.12	7 41 44	4408.15	-25.98	199.89	266.76	51.59	8 55 12	3408.2	-39.27	175.82
53.12	7 41 44	4408.15	-25.98	199.89	266.76	51.59	8 55 12	3408.2	-39.27	175.82
53.12	7 41 44	4408.15	-25.98	199.89	266.76	51.59	8 55 12	3408.2	-39.27	175.82
53.12	7 41 44	4408.15	-25.98	199.89	266.76	51.59	8 55 12	3408.2	-39.27	175.82
53.12	7 41 44	4408.15	-25.98	199.89	266.76	51.59	8 55 12	3408.2	-39.27	175.82
53.12	7 41 44	4408.15	-25.98	199.89	266.76	51.59	8 55 12	3408.2	-39.27	175.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1522	TRA	-.5123	TC3	-.2993	BAU	.7884	SGT	1023.9	SGR	3815.0	SG3	1382.7	ST	17.7	SR	109.0	SS	134.3		
RDE	1.5922	RRA	.8466	RC3-3.1822		FAU	.27239	RRT	-.3285	RRF	.9972	RTF	-.3167	CRT	-.7375	CRS	-.9993	CST	.7129		
FDE	7.3888	FRA	3.2733	FC-12.7808		BSP	6574	SGB	3950.0	R23	-.0351	R13	.9967	LSA	173.4	MSA	12.6	SSA	.6		
BDE	1.5995	BRA	.9895	BC3	3.1962	FSP	2345	SG1	3830.8	SG2	963.1	THA	95.38	EL1	109.8	EL2	11.9	ALF	96.93		

LAUNCH DATE JUL 15 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 518.756 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.837	GAL	-2.24	AZL	85.74	HCA	162.04	SMA	198.88	ECC	.23847	INC	4.2553	V1	29.299
RP	236.63	LAP	1.31	LOP	94.46	VP	21.316	GAP	8.45	AZP	94.05	TAL	348.35	TAP	150.39	RCA	151.46	APO	246.31	V2	23.226
RC	198.104	GL	33.88	GP	-38.90	ZAL	105.89	ZAP	111.58	ETS	200.90	ZAE	134.40	ETE	238.68	ZAC	47.38	ETC	288.33	LVI	18.27

PLANETOCENTRIC CONIC

C3	19.071	VHL	4.367	DLA	46.96	RAL	24.60	RAD	6642.4	VEL	11.794	PTH	6.82	VHP	3.133	DPA	-24.21	RAP	45.47	ECC	1.3139

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 13 30	4326.20	-31.85	197.38	271.87	52.58	9 25 36	3326.2	-44.14	170.75
50.81	7 29 2	4437.60	-26.46	203.10	266.91	49.68	8 43 0	3437.6	-40.44	179.30
50.81	7 29 2	4437.60	-26.46	203.10	266.91	49.68	8 43 0	3437.6	-40.44	179.30
50.81	7 29 2	4437.60	-26.46	203.10	266.91	49.68	8 43 0	3437.6	-40.44	179.30
50.81	7 29 2	4437.60	-26.46	203.10	266.91	49.68	8 43 0	3437.6	-40.44	179.30
50.81	7 29 2	4437.60	-26.46	203.10	266.91	49.68	8 43 0	3437.6	-40.44	179.30
50.81	7 29 2	4437.60	-26.46	203.10	266.91	49.68	8 43 0	3437.6	-40.44	179.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0851	TRA	-.4778	TC3	-.3978	BAU	.8344	SGT	988.3	SGR	4027.6	SG3	1346.5	ST	14.9	SR	120.3	SS	136.5		
RDE	1.7949	RRA	.8431	RC3-3.2484		FAU	.26544	RRT	-.1923	RRF	.9977	RTF	-.1.96	CRT	-.5531	CRS	-.9995	CST	.5277		
FDE	7.5697	FRA	3.0105	FC-12.0499		BSP	6915	SGB	4147.1	R23	-.0245	R13	.9975	LSA	182.1	MSA	12.8	SSA	.5		
BDE	1.7969	BRA	.9691	BC3	3.2727	FSP	2290	SG1	4032.4	SG2	968.7	THA	92.87	EL1	120.6	EL2	12.4	ALF	93.95		

LAUNCH DATE JUL 15 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 522.537 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.830	GAL	-2.24	AZL	85.44	HCA	163.01	SMA	198.78	ECC	.23798	INC	4.5639	V1	29.299
RP	236.98	LAP	1.33	LOP	95.43	VP	21.268	GAP	8.21	AZP	94.37	TAL	348.32	TAP	151.33	RCA	151.45	APO	246.05	V2	23.191
RC	201.073	GL	35.90	GP	-40.65	ZAL	105.59	ZAP	109.76	ETS	200.31	ZAE	132.18	ETE	237.34	ZAC	45.87	ETC	288.89	LVI	19.82

PLANETOCENTRIC CONIC

C3	19.821	VHL	4.452	DLA	48.81	RAL	23.40	RAD	6642.8	VEL	11.825	PTH	6.84	VHP	3.181	DPA	-26.05	RAP	45.65	ECC	1.3262

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.41	7 16 1	4467.00	-26.89	206.39	267.06	47.60	8 30 28	3467.0	-41.61	182.97
48.41	7 16 1	4467.00	-26.89	206.39	267.06	47.60	8 30 28	3467.0	-41.61	182.97
48.41	7 16 1	4467.00	-26.89	206.39	267.06	47.60	8 30 28	3467.0	-41.61	182.97
48.41	7 16 1	4467.00	-26.89	206.39	267.06	47.60	8 30 28	3467.0	-41.61	182.97
48.41	7 16 1	4467.00	-26.89	206.39	267.06	47.60	8 30 28	3467.0	-41.61	182.97
48.41	7 16 1	4467.00	-26.89	206.39	267.06	47.60	8 30 28	3467.0	-41.61	182.97
48.41	7 16 1	4467.00	-26.89	206.39	267.06	47.60	8 30 28	3467.0	-41.61	182.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0078	TRA	-.4456	TC3	-.4921	BAU	.8838	SGT	974.8	SGR	4246.0	SG3	1300.3	ST	13.1	SR	132.4	SS	138.1		
RDE	2.0214	RRA	.8306	RC3-3.2987		FAU	.25698	RRT	-.0369	RRF	.9981	RTF	-.0236	CRT	-.2196	CRS	-.9997	CST	.1946		
FDE	7.7082	FRA	2.7180	FC-11.2244		BSP	7259	SGB	4356.5	R23	-.0153	R13	.9981	LSA	191.3	MSA	13.0	SSA	.5		
BDE	2.0214	BRA	.9426	BC3	3.3352	FSP	2212	SG1	4246.2	SG2	974.1	THA	90.51	EL1	132.4	EL2	12.8	ALF	91.26		

LAUNCH DATE JUL 15 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 526.319 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.824 GAL -2.24 AZL 85.09 HCA 163.97 SMA 198.63 ECC .23753 INC 4.9074 V1 29.299
RP 237.31 LAP 1.35 LOP 96.39 VP 21.221 GAP 7.97 AZP 94.72 TAL 348.29 TAP 152.25 RCA 151.45 APO 245.81 V2 23.157
RC 204.040 GL 38.04 GP -42.46 ZAL 105.25 ZAP 107.95 ETS 199.65 ZAE 129.92 ETE 236.05 ZAC 44.31 ETC 289.51 LVI 21.44

PLANETOCENTRIC CONIC

C3 20.732 VHL 4.553 DLA 50.76 RAL 22.03 RAD 6643.2 VEL 11.863 PTH 6.88 VHP 3.243 DPA -27.94 RAP 45.87 ECC 1.3412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.91	7 2 27	4496.98	-27.24	209.79	267.19	45.35	8 17 24	3497.0	-42.76	186.88
45.91	7 2 27	4496.98	-27.24	209.79	267.19	45.35	8 17 24	3497.0	-42.76	186.88
45.91	7 2 27	4496.98	-27.24	209.79	267.19	45.35	8 17 24	3497.0	-42.76	186.88
45.91	7 2 27	4496.98	-27.24	209.79	267.19	45.35	8 17 24	3497.0	-42.76	186.88
45.91	7 2 27	4496.98	-27.24	209.79	267.19	45.35	8 17 24	3497.0	-42.76	186.88
45.91	7 2 27	4496.98	-27.24	209.79	267.19	45.35	8 17 24	3497.0	-42.76	186.88
45.91	7 2 27	4496.98	-27.24	209.79	267.19	45.35	8 17 24	3497.0	-42.76	186.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0812 TRA -.4159 TC3 -.5817 BAU .9350 SGT 987.8 SGR 4467.1 SG3 1243.3 ST 13.4 SR 145.4 SS 139.1
RDE 2.2781 RRA .8077 RC3-3.3227 FAU .24641 RRT .1283 RRF .9984 RTF .1418 CRT .2233 CRS -.9998 CST -.2443
FDE 7.8050 FRA 2.4006 FC-10.2899 BSP 7622 SGB 4575.0 R23 -.0073 R13 .9985 LSA 201.2 MSA 13.3 SSA .4
BDE 2.2795 BRA .9085 BC3 3.3732 FSP 2117 SG1 4489.0 SG2 979.3 THA 88.29 EL1 145.4 EL2 13.1 ALF 88.81

LAUNCH DATE JUL 15 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 530.100 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.819 GAL -2.25 AZL 84.71 HCA 164.92 SMA 198.52 ECC .23713 INC 5.2923 V1 29.299
RP 237.65 LAP 1.38 LOP 97.35 VP 21.176 GAP 7.73 AZP 95.11 TAL 348.25 TAP 153.17 RCA 151.45 APO 245.60 V2 23.123
RC 207.005 GL 40.33 GP -44.32 ZAL 104.88 ZAP 106.17 ETS 198.92 ZAE 127.62 ETE 234.78 ZAC 42.72 ETC 290.20 LVI 23.11

PLANETOCENTRIC CONIC

C3 21.844 VHL 4.674 DLA 52.84 RAL 20.45 RAD 6643.6 VEL 11.910 PTH 6.92 VHP 3.321 DPA -29.88 RAP 46.16 ECC 1.3595

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.31	6 48 11	4527.69	-27.47	213.31	267.26	42.91	8 3 39	3527.7	-43.84	191.05
43.31	6 48 11	4527.69	-27.47	213.31	267.26	42.91	8 3 39	3527.7	-43.84	191.05
43.31	6 48 11	4527.69	-27.47	213.31	267.26	42.91	8 3 39	3527.7	-43.84	191.05
43.31	6 48 11	4527.69	-27.47	213.31	267.26	42.91	8 3 39	3527.7	-43.84	191.05
43.31	6 48 11	4527.69	-27.47	213.31	267.26	42.91	8 3 39	3527.7	-43.84	191.05
43.31	6 48 11	4527.69	-27.47	213.31	267.26	42.91	8 3 39	3527.7	-43.84	191.05
43.31	6 48 11	4527.69	-27.47	213.31	267.26	42.91	8 3 39	3527.7	-43.84	191.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1858 TRA -.3894 TC3 -.6629 BAU .9884 SGT 1029.7 SGR 4688.4 SG3 1175.3 ST 16.5 SR 159.1 SS 139.1
RDE 2.5667 RRA .7721 RC3-3.3190 FAU .23393 RRT .2902 RRF .9987 RTF .3035 CRT .5791 CRS -.9998 CST -.5939
FDE 7.8411 FRA 2.0629 FC3-9.2712 BSP 8008 SGB 4800.1 R23 -.0004 R13 .9988 LSA 211.6 MSA 13.5 SSA .3
BDE 2.5734 BRA .8647 BC3 3.3846 FSP 2007 SG1 4698.3 SG2 983.3 THA 88.19 EL1 159.4 EL2 13.4 ALF 88.55

LAUNCH DATE JUL 15 1973 FLIGHT TIME 228.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 533.880 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.814 GAL -2.25 AZL 84.27 HCA 165.87 SMA 198.42 ECC .23677 INC 5.7267 V1 29.299
RP 237.98 LAP 1.40 LOP 98.31 VP 21.131 GAP 7.49 AZP 95.55 TAL 348.20 TAP 154.07 RCA 151.44 APO 245.41 V2 23.090
RC 209.965 GL 42.77 GP -46.23 ZAL 104.46 ZAP 104.43 ETS 198.13 ZAE 125.30 ETE 233.55 ZAC 41.08 ETC 290.97 LVI 24.84

PLANETOCENTRIC CONIC

C3 23.213 VHL 4.818 DLA 55.03 RAL 18.60 RAD 6644.2 VEL 11.967 PTH 6.97 VHP 3.419 DPA -31.86 RAP 46.51 ECC 1.3820

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.61	6 32 58	4559.43	-27.55	216.95	267.21	40.28	7 48 58	3559.4	-44.83	195.54
40.61	6 32 58	4559.43	-27.55	216.95	267.21	40.28	7 48 58	3559.4	-44.83	195.54
40.61	6 32 58	4559.43	-27.55	216.95	267.21	40.28	7 48 58	3559.4	-44.83	195.54
40.61	6 32 58	4559.43	-27.55	216.95	267.21	40.28	7 48 58	3559.4	-44.83	195.54
40.61	6 32 58	4559.43	-27.55	216.95	267.21	40.28	7 48 58	3559.4	-44.83	195.54
40.61	6 32 58	4559.43	-27.55	216.95	267.21	40.28	7 48 58	3559.4	-44.83	195.54
40.61	6 32 58	4559.43	-27.55	216.95	267.21	40.28	7 48 58	3559.4	-44.83	195.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .3066 TRA -.3669 TC3 -.7329 BAU 1.0444 SGT 1100.5 SGR 4911.3 SG3 1097.4 ST 21.5 SR 173.8 SS 138.3
RDE 2.8966 RRA .7207 RC3-3.2848 FAU .21964 RRT .4354 RRF .9989 RTF .4402 CRT .7720 CRS -.9999 CST -.7817
FDE 7.8176 FRA 1.7094 FC3-8.1917 BSP 8408 SGB 5033.1 R23 .0055 R13 .9990 LSA 222.7 MSA 13.7 SSA .3
BDE 2.9128 BRA .8087 BC3 3.3656 FSP 1879 SG1 4935.6 SG2 985.9 THA 84.20 EL1 174.6 EL2 13.6 ALF 84.50

LAUNCH DATE JUL 15 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 537.660 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.809 GAL -2.26 AZL 83.78 HCA 166.82 SMA 198.34 ECC .23645 INC 6.2210 V1 29.299
RP 238.30 LAP 1.42 LOP 99.27 VP 21.088 GAP 7.26 AZP 96.06 TAL 348.15 TAP 154.97 RCA 151.44 APO 245.23 V2 23.056
RC 212.919 GL 45.38 GP -48.20 ZAL 104.00 ZAP 102.73 ETS 197.26 ZAE 122.97 ETE 232.33 ZAC 39.41 ETC 291.82 LVI 26.61

PLANETOCENTRIC CONIC

C3 24.912 VHL 4.991 DLA 57.34 RAL 16.39 RAD 6645.0 VEL 12.037 PTH 7.02 VHP 3.541 DPA -33.88 RAP 46.93 ECC 1.4100

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.80	6 16 29	4592.53	-27.43	220.70	266.97	37.45	7 33 2	3592.5	-45.67	200.37
37.80	6 16 29	4592.53	-27.43	220.70	266.97	37.45	7 33 2	3592.5	-45.67	200.37
37.80	6 16 29	4592.53	-27.43	220.70	266.97	37.45	7 33 2	3592.5	-45.67	200.37
37.80	6 16 29	4592.53	-27.43	220.70	266.97	37.45	7 33 2	3592.5	-45.67	200.37
37.80	6 16 29	4592.53	-27.43	220.70	266.97	37.45	7 33 2	3592.5	-45.67	200.37
37.80	6 16 29	4592.53	-27.43	220.70	266.97	37.45	7 33 2	3592.5	-45.67	200.37
37.80	6 16 29	4592.53	-27.43	220.70	266.97	37.45	7 33 2	3592.5	-45.67	200.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4464 TRA -.3512 TC3 -.7910 BAU 1.1032 SGT 1201.7 SGR 5132.3 SG3 1009.8 ST 28.0 SR 189.1 SS 136.2
RDE 3.2728 RRA .6511 RC3-3.2164 FAU .20360 RRT .5555 RRF .9991 RTF .5677 CRT .8667 CRS -.9999 CST -.8732
FDE 7.7172 FRA 1.3492 FC3-7.0753 BSP 8819 SGB 5271.2 R23 .0106 R13 .9992 LSA 234.3 MSA 13.9 SSA .2
BDE 3.3031 BRA .7398 BC3 3.3122 FSP 1736 SG1 5177.2 SG2 990.6 THA 82.31 EL1 190.6 EL2 13.9 ALF 82.65

LAUNCH DATE JUL 15 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 541.438 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.805	GAL	-2.27	AZL	83.21	HCA	167.77	SMA	198.26	ECC	.23617	INC	6.7869	V1	29.299
RP	238.63	LAP	1.44	LOP	100.22	VP	21.045	GAP	7.02	AZP	96.64	TAL	348.09	TAP	155.86	RCA	151.43	APO	245.08	V2	23.024
RC	215.868	GL	48.16	GP	-50.20	ZAL	103.47	ZAP	101.09	ETS	196.32	ZAE	120.63	ETE	231.11	ZAC	37.71	ETC	292.77	LVI	28.43

PLANETOCENTRIC CONIC

C3	27.049	VHL	5.201	DLA	59.78	RAL	13.72	RAD	6645.8	VEL	12.125	PTH	7.10	VHP	3.692	DPA	-35.91	RAP	47.44	ECC	1.4452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.88	5 58 17	4627.42	-27.07	224.55	266.40	34.45	7 15 24	3627.4	-46.29	205.56
34.88	5 58 17	4627.42	-27.07	224.55	266.40	34.45	7 15 24	3627.4	-46.29	205.56
34.88	5 58 17	4627.42	-27.07	224.55	266.40	34.45	7 15 24	3627.4	-46.29	205.56
34.88	5 58 17	4627.42	-27.07	224.55	266.40	34.45	7 15 24	3627.4	-46.29	205.56
34.88	5 58 17	4627.42	-27.07	224.55	266.40	34.45	7 15 24	3627.4	-46.29	205.56
34.88	5 58 17	4627.42	-27.07	224.55	266.40	34.45	7 15 24	3627.4	-46.29	205.56
34.88	5 58 17	4627.42	-27.07	224.55	266.40	34.45	7 15 24	3627.4	-46.29	205.56

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.6093	TRA	-.3415	TC3	-.8328	BAU	1.1652			SGT	1326.2	SGR	5347.9	SG3	913.4	ST	35.4	SR	204.8	SS	132.7
RDE	3.7030	RRA	.5553	RC3	-3.1127	FAU	.18605			RRT	.6535	RRF	.9993	RTF	.6651	CRT	.9166	CRS	-.9999	CST	-.9211
FDE	7.5273	FRA	.9830	FC3	-5.9548	BSP	9227			SGB	5509.9	R23	.0147	R13	.9993	LSA	246.2	MSA	14.0	SSA	.2
BDE	3.7528	BRA	.6519	BC3	3.2222	FSP	1576			SG1	5420.2	SG2	990.5	THA	80.47	EL1	207.4	EL2	14.0	ALF	80.96

LAUNCH DATE JUL 15 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 545.213 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.801	GAL	-2.28	AZL	82.55	HCA	168.71	SMA	198.18	ECC	.23592	INC	7.4483	V1	29.299
RP	238.95	LAP	1.45	LOP	101.17	VP	21.004	GAP	6.78	AZP	97.31	TAL	348.04	TAP	156.75	RCA	151.43	APO	244.94	V2	22.991
RC	218.810	GL	51.14	GP	-52.23	ZAL	102.89	ZAP	99.51	ETS	195.32	ZAE	118.32	ETE	229.89	ZAC	36.01	ETC	293.84	LVI	30.29

PLANETOCENTRIC CONIC

C3	29.771	VHL	5.456	DLA	62.28	RAL	10.43	RAD	6646.9	VEL	12.236	PTH	7.18	VHP	3.877	DPA	-37.96	RAP	48.04	ECC	1.4900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.88	5 37 42	4664.64	-26.41	228.47	265.31	31.29	6 55 27	3664.6	-46.60	211.09
31.88	5 37 42	4664.64	-26.41	228.47	265.31	31.29	6 55 27	3664.6	-46.60	211.09
31.88	5 37 42	4664.64	-26.41	228.47	265.31	31.29	6 55 27	3664.6	-46.60	211.09
31.88	5 37 42	4664.64	-26.41	228.47	265.31	31.29	6 55 27	3664.6	-46.60	211.09
31.88	5 37 42	4664.64	-26.41	228.47	265.31	31.29	6 55 27	3664.6	-46.60	211.09
31.88	5 37 42	4664.64	-26.41	228.47	265.31	31.29	6 55 27	3664.6	-46.60	211.09
31.88	5 37 42	4664.64	-26.41	228.47	265.31	31.29	6 55 27	3664.6	-46.60	211.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.7955	TRA	-.3421	TC3	-.8573	BAU	1.2322			SGT	1473.0	SGR	5558.0	SG3	809.9	ST	43.4	SR	220.8	SS	127.4
RDE	4.1961	RRA	.4290	RC3	-2.9748	FAU	.16733			RRT	.7292	RRF	.9994	RTF	.7404	CRT	.9439	CRS	-.9999	CST	-.9472
FDE	7.2335	FRA	.6246	FC3	-4.8658	BSP	9629			SGB	5749.9	R23	.0178	R13	.9994	LSA	258.3	MSA	14.1	SSA	.2
BDE	4.2709	BRA	.5487	BC3	3.0959	FSP	1403			SG1	5664.2	SG2	989.2	THA	78.71	EL1	224.6	EL2	14.1	ALF	79.46

LAUNCH DATE JUL 15 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 548.986 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.798	GAL	-2.29	AZL	81.78	HCA	169.65	SMA	198.12	ECC	.23571	INC	8.2236	V1	29.299
RP	239.26	LAP	1.47	LOP	102.12	VP	20.964	GAP	6.55	AZP	98.09	TAL	347.97	TAP	157.62	RCA	151.42	APO	244.82	V2	22.960
RC	221.744	GL	54.32	GP	-54.28	ZAL	102.23	ZAP	98.01	ETS	194.24	ZAE	116.03	ETE	228.66	ZAC	34.30	ETC	295.02	LVI	32.16

PLANETOCENTRIC CONIC

C3	33.302	VHL	5.771	DLA	64.89	RAL	6.26	RAD	6648.3	VEL	12.378	PTH	7.30	VHP	4.106	DPA	-40.01	RAP	48.75	ECC	1.5481

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.81	5 13 51	4704.67	-25.37	232.39	263.43	28.02	6 32 16	3704.7	-46.51	216.88
28.81	5 13 51	4704.67	-25.37	232.39	263.43	28.02	6 32 16	3704.7	-46.51	216.88
28.81	5 13 51	4704.67	-25.37	232.39	263.43	28.02	6 32 16	3704.7	-46.51	216.88
28.81	5 13 51	4704.67	-25.37	232.39	263.43	28.02	6 32 16	3704.7	-46.51	216.88
28.81	5 13 51	4704.67	-25.37	232.39	263.43	28.02	6 32 16	3704.7	-46.51	216.88
28.81	5 13 51	4704.67	-25.37	232.39	263.43	28.02	6 32 16	3704.7	-46.51	216.88
28.81	5 13 51	4704.67	-25.37	232.39	263.43	28.02	6 32 16	3704.7	-46.51	216.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0055	TRA	-.3549	TC3	-.8642	BAU	1.3034			SGT	1637.3	SGR	5757.4	SG3	701.0	ST	51.5	SR	236.6	SS	120.2
RDE	4.7611	RRA	.2634	RC3	-2.7971	FAU	.14735			RRT	.7879	RRF	.9995	RTF	.7992	CRT	.9600	CRS	-1.0000	CST	-.9627
FDE	6.8191	FRA	.2844	FC3	-3.8306	BSP	10045			SGB	5985.7	R23	.0195	R13	.9995	LSA	269.9	MSA	14.1	SSA	.1
BDE	4.8662	BRA	.4420	BC3	2.9275	FSP	1222			SG1	5904.4	SG2	983.1	THA	77.00	EL1	241.7	EL2	14.1	ALF	78.16

LAUNCH DATE JUL 15 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 552.758 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.795	GAL	-2.30	AZL	80.85	HCA	170.58	SMA	198.06	ECC	.23553	INC	9.1484	V1	29.299
RP	239.57	LAP	1.49	LOP	103.07	VP	20.925	GAP	6.31	AZP	99.03	TAL	347.91	TAP	158.49	RCA	151.42	APO	244.71	V2	22.928
RC	224.672	GL	57.72	GP	-56.32	ZAL	101.50	ZAP	96.60	ETS	193.10	ZAE	113.80	ETE	227.42	ZAC	32.61	ETC	296.33	LVI	34.04

PLANETOCENTRIC CONIC

C3	37.975	VHL	6.162	DLA	67.32	RAL	.86	RAD	6650.0	VEL	12.564	PTH	7.43	VHP	4.392	DPA	-42.03	RAP	49.55	ECC	1.6250

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.73	4 45 21	4748.17	-23.88	236.25	260.32	24.72	6 4 29	3748.2	-45.89	222.79
25.73	4 45 21	4748.17	-23.88	236.25	260.32	24.72	6 4 29	3748.2	-45.89	222.79
25.73	4 45 21	4748.17	-23.88	236.25	260.32	24.72	6 4 29	3748.2	-45.89	222.79
25.73	4 45 21	4748.17	-23.88	236.25	260.32	24.72	6 4 29	3748.2	-45.89	222.79
25.73	4 45 21	4748.17	-23.88	236.25	260.32	24.72	6 4 29	3748.2	-45.89	222.79
25.73	4 45 21	4748.17	-23.88	236.25	260.32	24.72	6 4 29	3748.2	-45.89	222.79
25.73	4 45 21	4748.17	-23.88	236.25	260.32	24.72	6 4 29	3748.2	-45.89	222.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2314	TRA	-.3841	TC3	-.8507	BAU	1.3849			SGT	1811.8	SGR	5946.2	SG3	589.3	ST	59.0	SR	250.8	SS	110.3
RDE	5.3929	RRA	.0437	RC3	-2.5918	FAU	.12698			RRT	.8345	RRF	.9995	RTF	.8465	CRT	.9698	CRS	-1.0000	CST	-.9722
FDE	6.2524	FRA	-.0285	FC3	-2.8948	BSP	10378			SGB	6216.1	R23	.0186	R13	.9995	LSA	279.9	MSA	14.0	SSA	.1
BDE	5.5317	BRA	.3866	BC3	2.7278	FSP	1027			SG1	6140.4	SG2	966.6	THA	75.36	EL1	257.2	EL2	14.0	ALF	77.12

LAUNCH DATE JUL 13 1973 FLIGHT TIME 282.00 ARRIVAL DATE APR 23 1974

HELIOCENTRIC CONIC DISTANCE 636.334 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.806	GAL	-3.01	AZL	99.27	HCA	191.11	SMA	198.27	ECC	.23858	INC	9.2671	V1	29.299
RP	245.32	LAP	1.78	LOP	123.34	VP	20.312	GAP	1.44	AZP	80.90	TAL	344.29	TAP	175.40	RCA	150.96	APO	245.57	V2	22.354
RC	285.791	GL	-56.84	GP	52.22	ZAL	105.04	ZAP	79.52	ETS	196.28	ZAE	99.03	ETE	171.11	ZAC	139.30	ETC	292.04	LVI	-73.55

PLANETOCENTRIC CONIC

C3	39.711	VHL	6.302	DLA	-36.85	RAL	64.34	RAD	6650.6	VEL	12.633	PTH	7.48	VHP	3.835	DPA	50.87	RAP	344.42	ECC	1.6535

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 56 11	2505.96	-7.70	66.67	294.67	137.10	19 37 57	1506.0	10.69	50.90
60.00	20 51 1	2199.86	2.08	48.48	303.98	130.26	21 27 41	1199.9	17.81	29.93
65.32	23 8 12	1802.29	14.79	25.46	313.70	124.14	23 38 14	802.3	27.44	3.51
65.32	23 8 12	1802.29	14.79	25.46	313.70	124.14	23 38 14	802.3	27.44	3.51
65.32	23 8 12	1802.29	14.79	25.46	313.70	124.14	23 38 14	802.3	27.44	3.51
65.32	23 8 12	1802.29	14.79	25.46	313.70	124.14	23 38 14	802.3	27.44	3.51
65.32	23 8 12	1802.29	14.79	25.46	313.70	124.14	23 38 14	802.3	27.44	3.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.7082	TRA 3.8862	TC3-2.7507	BAU 1.8876	SGT 6130.3	SGR 5549.7	SG3 780.6	ST 139.9	SR 98.4	SS 48.9
RDE 1.5553	RRA-4.0079	RC3 2.2528	FAU .18240	RRT -.9827	RRF -.9983	RTF .9801	CRT -.9626	CRS .9980	CST -.9438
FDE-2.1857	FRA 6.3806	FC3-3.9766	BSP 14296	SGB 8269.2	R23 .1074	R13 -.9925	LSA 176.2	MSA 24.8	SSA .3
BDE 3.1231	BRA 5.5826	BC3 3.5555	FSP 1423	SG1 8233.8	SG2 764.5	THA 137.90	EL1 169.6	EL2 22.0	ALF 145.23

LAUNCH DATE JUL 15 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 25 1974

HELIOCENTRIC CONIC DISTANCE 640.084 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.808	GAL	-3.04	AZL	98.62	HCA	192.00	SMA	198.32	ECC	.23893	INC	8.6208	V1	29.299
RP	245.53	LAP	1.79	LOP	124.24	VP	20.294	GAP	1.22	AZP	81.56	TAL	344.11	TAP	176.11	RCA	150.94	APO	245.71	V2	22.334
RC	288.361	GL	-54.45	GP	50.30	ZAL	105.93	ZAP	78.21	ETS	196.91	ZAE	98.33	ETE	172.60	ZAC	137.58	ETC	291.27	LVI	-71.92

PLANETOCENTRIC CONIC

C3	36.428	VHL	6.036	DLA	-34.60	RAL	63.33	RAD	6649.4	VEL	12.503	PTH	7.39	VHP	3.649	DPA	49.19	RAP	345.96	ECC	1.5995

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 35 38	2543.53	-9.57	66.28	291.28	136.83	19 18 2	1543.5	8.82	52.52
60.00	20 16 28	2275.05	-1.23	52.07	299.23	130.29	20 54 23	1275.0	14.70	33.65
69.17	23 25 34	1716.49	14.78	18.62	310.84	121.65	23 54 10	716.5	26.46	356.18
69.17	23 25 34	1716.49	14.78	18.62	310.84	121.65	23 54 10	716.5	26.46	356.18
69.17	23 25 34	1716.49	14.78	18.62	310.84	121.65	23 54 10	716.5	26.46	356.18
69.17	23 25 34	1716.49	14.78	18.62	310.84	121.65	23 54 10	716.5	26.46	356.18
69.17	23 25 34	1716.49	14.78	18.62	310.84	121.65	23 54 10	716.5	26.46	356.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.6067	TRA 3.8917	TC3-3.0505	BAU 1.8721	SGT 6311.0	SGR 5368.7	SG3 882.1	ST 141.0	SR 94.3	SS 51.7
RDE 1.4297	RRA-3.7802	RC3 2.3392	FAU .20218	RRT -.9836	RRF -.9982	RTF .9808	CRT -.9642	CRS .9975	CST -.9434
FDE-2.3132	FRA 7.0315	FC3-4.8048	BSP 14262	SGB 8285.7	R23 .1110	R13 -.9921	LSA 175.6	MSA 24.4	SSA .3
BDE 2.9730	BRA 5.4254	BC3 3.8441	FSP 1594	SG1 8252.4	SG2 741.5	THA 139.69	EL1 168.3	EL2 20.9	ALF 146.58

LAUNCH DATE JUL 15 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 27 1974

HELIOCENTRIC CONIC DISTANCE 643.834 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.811	GAL	-3.08	AZL	98.06	HCA	192.89	SMA	198.38	ECC	.23929	INC	8.0634	V1	29.299
RP	245.73	LAP	1.79	LOP	125.14	VP	20.277	GAP	1.00	AZP	82.14	TAL	343.92	TAP	176.81	RCA	150.91	APO	245.85	V2	22.314
RC	290.907	GL	-52.22	GP	48.42	ZAL	106.79	ZAP	76.89	ETS	197.47	ZAE	97.56	ETE	173.99	ZAC	135.89	ETC	290.58	LVI	-70.28

PLANETOCENTRIC CONIC

C3	33.807	VHL	5.814	DLA	-32.49	RAL	62.49	RAD	6648.5	VEL	12.398	PTH	7.31	VHP	3.495	DPA	47.54	RAP	347.37	ECC	1.5564

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 18 18	2577.67	-11.26	69.76	288.56	136.54	19 1 15	1577.7	7.12	53.98
60.00	19 50 2	2333.52	-3.80	54.87	295.64	130.15	20 28 55	1333.5	12.23	36.82
70.00	22 6 39	1931.10	6.18	29.78	303.12	123.66	22 38 50	931.1	19.30	9.15
73.30	23 47 50	1618.96	14.59	10.95	308.35	119.35	24 14 49	619.0	25.39	348.14
73.30	23 47 50	1618.96	14.59	10.95	308.35	119.35	24 14 49	619.0	25.39	348.14
73.30	23 47 50	1618.96	14.59	10.95	308.35	119.35	24 14 49	619.0	25.39	348.14
110.00	3 10 1	6265.95	6.18	296.60	303.12	123.66	4 54 27	5266.0	19.30	275.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.5103	TRA 3.9083	TC3-3.3477	BAU 1.8613	SGT 6490.0	SGR 5185.6	SG3 978.2	ST 141.5	SR 90.0	SS 53.9
RDE 1.3074	RRA-3.5760	RC3 2.3983	FAU .22032	RRT -.9841	RRF -.9981	RTF .9812	CRT -.9649	CRS .9969	CST -.9413
FDE-2.3883	FRA 7.6371	FC3-5.6419	BSP 14291	SGB 8307.2	R23 .1149	R13 -.9915	LSA 174.4	MSA 24.3	SSA .3
BDE 2.8303	BRA 5.2974	BC3 4.1181	FSP 1765	SG1 8275.7	SG2 723.3	THA 141.47	EL1 166.5	EL2 20.1	ALF 147.95

LAUNCH DATE JUL 15 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 29 1974

HELIOCENTRIC CONIC DISTANCE 647.584 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.814	GAL	-3.12	AZL	97.58	HCA	193.78	SMA	198.44	ECC	.23966	INC	7.5777	V1	29.299
RP	245.93	LAP	1.80	LOP	126.03	VP	20.261	GAP	.78	AZP	82.64	TAL	343.73	TAP	177.51	RCA	150.88	APO	246.00	V2	22.295
RC	293.430	GL	-50.14	GP	46.60	ZAL	107.61	ZAP	75.58	ETS	197.96	ZAE	96.72	ETE	175.29	ZAC	134.24	ETC	289.97	LVI	-68.65

PLANETOCENTRIC CONIC

C3	31.686	VHL	5.629	DLA	-30.49	RAL	61.79	RAD	6647.7	VEL	12.313	PTH	7.25	VHP	3.367	DPA	45.93	RAP	348.65	ECC	1.5215

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 3 24	2609.29	-12.81	71.15	286.34	136.22	18 46 54	1609.3	5.54	55.32
60.00	19 28 31	2382.82	-5.96	57.24	292.83	129.93	20 8 14	1382.8	10.12	39.28
70.00	21 25 35	2038.41	2.11	35.41	298.90	124.10	21 59 33	1038.4	15.67	15.35
78.10	0 22 15	1498.00	14.27	1.63	306.17	117.23	0 47 13	498.0	24.26	338.54
78.10	0 22 15	1498.00	14.27	1.63	306.17	117.23	0 47 13	498.0	24.26	338.54
78.10	0 22 15	1498.00	14.27	1.63	306.17	117.23	0 47 13	498.0	24.26	338.54
110.00	2 28 57	1085.23	2.11	324.33	298.90	124.10	2 47 2	85.2	15.67	304.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.4207	TRA 3.9318	TC3-3.6425	BAU 1.8568	SGT 6667.5	SGR 5002.8	SG3 1068.1	ST 141.7	SR 85.6	SS 55.4
RDE 1.1952	RRA-3.3876	RC3 2.4383	FAU .23726	RRT -.9845	RRF -.9980	RTF .9815	CRT -.9654	CRS .9960	CST -.9385
FDE-2.4177	FRA 8.1868	FC3-6.4827	BSP 14304	SGB 8335.7	R23 .1184	R13 -.9910	LSA 172.8	MSA 24.2	SSA .4
BDE 2.6997	BRA 5.1899	BC3 4.3832	FSP 1920	SG1 8305.8	SG2 704.8	THA 143.24	EL1 164.4	EL2 19.2	ALF 149.29

LAUNCH DATE JUL 15 1973 FLIGHT TIME 290.00 ARRIVAL DATE MAY 1 1974

HELIOCENTRIC CONIC DISTANCE 651.334 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.818	GAL	-3.17	AZL	97.15	HCA	194.67	SMA	198.80	ECC	.24006	INC	7.1506
RP	246.12	LAP	1.81	LOP	126.93	VP	20.246	GAP	.57	AZP	83.08	TAL	343.53	TAP	178.20	RCA	150.85	APO	246.15
RC	295.928	GL	-48.19	GP	44.84	ZAL	108.40	ZAP	74.26	ETS	198.38	ZAE	95.82	ETE	176.50	ZAC	132.63	ETC	289.42

V1	29.299																		
V2	22.276																		
LVI	-67.04																		

PLANETOCENTRIC CONIC

C3	29.947	VHL	5.472	DLA	-28.61	RAL	61.20	RAD	6647.0	VEL	12.243	PTH	7.19	VHP	3.261	DPA	44.36	RAP	349.82

ECC	1.4929																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 50 27	2638.95	-14.27	72.46	284.53	135.89	18 34 26	1639.0	4.05	56.56
60.00	19 10 25	2426.21	-7.85	59.35	290.58	129.66	19 50 51	1426.2	8.25	41.41
70.00	20 56 26	2114.40	-.80	39.37	295.88	124.15	21 31 41	1114.4	12.98	19.59
80.00	23 17 47	1671.74	6.99	10.59	300.68	119.10	23 45 39	671.7	18.32	348.95
85.49	1 17 56	1297.70	13.87	346.60	304.27	115.27	1 39 34	297.7	23.10	323.31
100.00	2 4 35	1146.21	6.99	331.96	300.68	119.10	2 23 41	146.2	18.32	310.32
110.00	1 59 49	1161.21	-.80	328.29	295.88	124.15	2 19 10	161.2	12.98	308.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.3316	TRA	3.9674	TC3	-3.9261	BAU	1.8538	SGT	6841.9	SGR	4820.3	SG3	1151.0	ST	141.3	SR	81.1	SS	56.4
RDE	1.0892	RRA	-3.2168	RC3	2.4546	FAU	.25233	RRT	-.9848	RRF	-.9978	RTF	.9818	CRT	-.9656	CRS	.9949	CST	-.9347
FDE	-2.4037	FRA	8.6902	FC3	-7.2944	BSP	14404	SGB	8369.4	R23	.1216	R13	-.9904	LSA	170.7	MSA	24.2	SSA	.4
BDE	2.5734	BRA	5.1077	BC3	4.6303	FSP	2074	SG1	8341.2	SG2	686.0	THA	144.97	EL1	161.9	EL2	18.4	ALF	150.59

LAUNCH DATE JUL 15 1973 FLIGHT TIME 292.00 ARRIVAL DATE MAY 3 1974

HELIOCENTRIC CONIC DISTANCE 655.084 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.821	GAL	-3.21	AZL	96.77	HCA	195.56	SMA	198.57	ECC	.24046	INC	6.7719
RP	246.30	LAP	1.81	LOP	127.83	VP	20.231	GAP	.35	AZP	83.47	TAL	343.33	TAP	178.89	RCA	150.82	APO	246.32
RC	298.401	GL	-46.36	GP	43.15	ZAL	109.15	ZAP	72.96	ETS	198.74	ZAE	94.87	ETE	177.61	ZAC	131.08	ETC	288.93

V1	29.299																		
V2	22.258																		
LVI	-65.48																		

PLANETOCENTRIC CONIC

C3	28.509	VHL	5.339	DLA	-26.83	RAL	60.71	RAD	6646.4	VEL	12.184	PTH	7.14	VHP	3.172	DPA	42.84	RAP	350.89

ECC	1.4692																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 39 3	2667.01	-15.64	73.73	283.06	135.53	18 23 30	1667.0	2.65	57.74
60.00	18 54 51	2465.39	-9.55	61.26	288.75	129.34	19 35 56	1465.4	6.54	43.31
70.00	20 33 19	2175.82	-3.14	42.58	293.55	124.03	21 9 35	1175.8	10.75	22.95
80.00	22 35 44	1792.76	2.95	17.28	297.33	119.73	23 5 37	792.8	14.82	356.22
90.00	0 34 11	1423.32	6.20	351.90	299.12	117.65	0 57 55	423.3	17.03	330.10
100.00	1 22 32	1267.13	2.95	338.65	297.33	119.73	1 43 39	267.1	14.82	317.59
110.00	1 36 42	1222.64	-3.14	331.50	293.55	124.03	1 57 4	222.6	10.75	311.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.2493	TRA	4.0054	TC3	-4.2064	BAU	1.8565	SGT	7014.4	SGR	4639.8	SG3	1226.6	ST	140.8	SR	76.8	SS	57.1
RDE	.9939	RRA	-3.0567	RC3	2.4561	FAU	.26608	RRT	-.9851	RRF	-.9976	RTF	.9819	CRT	-.9658	CRS	.9935	CST	-.9302
FDE	-2.3601	FRA	9.1353	FC3	-8.0799	BSP	14474	SGB	8410.1	R23	.1245	R13	-.9898	LSA	168.5	MSA	24.3	SSA	.4
BDE	2.4591	BRA	5.0385	BC3	4.8709	FSP	2210	SG1	8383.5	SG2	667.9	THA	146.67	EL1	159.4	EL2	17.6	ALF	151.85

LAUNCH DATE JUL 15 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 5 1974

HELIOCENTRIC CONIC DISTANCE 658.833 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.824	GAL	-3.25	AZL	96.43	HCA	196.45	SMA	198.63	ECC	.24088	INC	6.4335
RP	246.48	LAP	1.82	LOP	128.72	VP	20.218	GAP	.14	AZP	83.83	TAL	343.12	TAP	179.57	RCA	150.79	APO	246.48
RC	300.850	GL	-44.64	GP	41.53	ZAL	109.88	ZAP	71.67	ETS	199.04	ZAE	93.88	ETE	178.65	ZAC	129.58	ETC	288.50

V1	29.299																		
V2	22.241																		
LVI	-63.96																		

PLANETOCENTRIC CONIC

C3	27.310	VHL	5.226	DLA	-25.15	RAL	60.30	RAD	6645.9	VEL	12.135	PTH	7.10	VHP	3.098	DPA	41.38	RAP	351.89

ECC	1.4495																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 28 56	2693.69	-16.93	74.95	281.85	135.16	18 13 50	1693.7	1.31	58.86
60.00	18 41 14	2501.38	-11.09	63.04	287.27	129.00	19 22 56	1501.4	4.97	45.05
70.00	20 14 4	2228.47	-5.14	45.34	291.70	123.81	20 51 12	1228.5	8.80	25.78
80.00	22 6 32	1876.46	.11	21.88	294.97	119.86	22 37 49	876.5	12.25	1.11
90.00	23 51 29	1537.98	2.54	358.34	296.32	118.17	24 17 7	538.0	13.86	337.03
100.00	0 53 20	1350.93	.11	343.25	294.97	119.86	1 15 51	350.9	12.25	322.48
110.00	1 17 26	1275.28	-5.14	334.26	291.70	123.81	1 38 41	275.3	8.80	314.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.1723	TRA	4.0476	TC3	-4.4809	BAU	1.8637	SGT	7186.0	SGR	4463.6	SG3	1295.0	ST	140.1	SR	72.7	SS	57.4
RDE	.9097	RRA	-2.9072	RC3	2.4451	FAU	.27857	RRT	-.9853	RRF	-.9973	RTF	.5022	CRT	-.9662	CRS	.9918	CST	-.9255
FDE	-2.2957	FRA	9.5263	FC3	-8.8308	BSP	14534	SGB	8459.5	R23	.1267	R13	-.9893	LSA	166.2	MSA	24.4	SSA	.4
BDE	2.3551	BRA	4.9835	BC3	5.1046	FSP	2328	SG1	8434.6	SG2	648.7	THA	148.32	EL1	157.0	EL2	16.7	ALF	153.03

LAUNCH DATE JUL 15 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 7 1974

HELIOCENTRIC CONIC DISTANCE 662.580 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.828	GAL	-3.30	AZL	96.13	HCA	197.33	SMA	198.70	ECC	.24132	INC	6.1294
RP	246.65	LAP	1.82	LOP	129.61	VP	20.205	GAP	-.08	AZP	84.15	TAL	342.91	TAP	180.24	RCA	150.75	APO	246.65
RC	303.274	GL	-43.03	GP	39.98	ZAL	110.59	ZAP	70.40	ETS	199.30	ZAE	92.86	ETE	179.60	ZAC	128.14	ETC	288.11

V1	29.299																		
V2	22.224																		
LVI	-62.50																		

PLANETOCENTRIC CONIC

C3	26.303	VHL	5.129	DLA	-23.55	RAL	59.96	RAD	6645.5	VEL	12.094	PTH	7.07	VHP	3.036	DPA	39.99	RAP	352.80

ECC	1.4329																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 19 54	2719.18	-18.15	76.13	280.88	134.77	18 5 13	1719.2	.02	59.92
60.00	18 29 13	2534.83	-12.52	64.72	286.07	128.63	19 11 28	1534.8	3.50	46.65
70.00	19 57 33	2275.11	-6.90	47.81	290.22	123.53	20 35 29	1275.1	7.06	28.27
80.00	21 43 27	1943.69	-2.17	25.57	293.15	119.79	22 15 51	943.7	10.11	4.95
90.00	23 23 41	1620.41	-.11	2.94	294.29	118.28	23 50 41	620.4	11.45	341.87
100.00	0 30 15	1418.17	-2.17	346.94	293.15	119.79	0 53 53	418.2	10.11	326.32
110.00	1 0 56	1321.93	-6.90	336.72	290.22	123.53	1 22 58	321.9	7.06	317.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0972	TRA	4.0962	TC3	-4.7443	BAU	1.8727	SGT	7354.7	SGR	4290.8	SG3	1355.7	ST	139.2	SR	68.9	SS	57.4
RDE	.8329	RRA	-2.7690	RC3	2.4191	FAU	.28936	RRT	-.9856	RRF	-.9970	RTF	.9823	CRT	-.9668	CRS	.9896	CST	-.9201
FDE	-2.2055	FRA	9.8709	FC3	-9.5239	BSP	14647	SGB	8514.8	R23	.1283	R13	-.9887	LSA	163.8	MSA	24.5	SSA	.5
BDE	2.2566	BRA	4.9443	BC3	5.3255	FSP	2440	SG1	8491.5	SG2	629.5	THA	149.92	EL1	154.5	EL2	15.9	ALF	154.15

LAUNCH DATE JUL 15 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 9 1974

HELIOCENTRIC CONIC DISTANCE 666.327 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.832	GAL	-3.34	AZL	95.85	HCA	198.22	SMA	198.77	ECC	.24177	INC	5.8545	V1	29.299
RP	246.82	LAP	1.83	LOP	130.50	VP	20.192	GAP	-.29	AZP	84.44	TAL	342.69	TAP	180.91	RCA	150.72	APO	246.83	V2	22.207
RC	305.673	GL	-41.50	GP	38.50	ZAL	111.27	ZAP	69.16	ETS	199.51	ZAE	91.80	ETE	180.48	ZAC	126.76	ETC	287.77	LVI	-61.09

PLANETOCENTRIC CONIC

C3	25.453	VHL	5.045	DLA	-22.04	RAL	59.68	RAD	6645.2	VEL	12.039	PTH	7.04	VHP	2.984	DPA	38.65	RAP	353.66	ECC	1.4189

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 11 47	2743.59	-19.32	77.27	280.09	134.37	17 57 30	1743.6	-1.20	60.94
60.00	18 18 29	2566.19	-13.85	66.30	285.10	128.23	19 1 15	1566.2	2.12	48.16
70.00	19 43 8	2317.33	-8.48	50.05	289.03	123.21	20 21 46	1317.3	5.46	30.50
80.00	21 24 12	2001.06	-4.10	28.73	291.72	119.60	21 57 33	1001.1	8.24	8.19
90.00	23 1 25	1687.44	-2.27	6.68	292.73	118.20	23 29 33	687.4	9.42	345.75
100.00	0 10 59	1475.53	-4.10	350.10	291.72	119.60	0 35 35	475.5	8.24	329.56
110.00	0 46 31	1364.15	-8.48	338.97	289.03	123.21	1 9 15	364.2	5.46	319.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.0245	TRA	4.1496	TC3	-4.9974	BAU	1.8837	SGT	7520.8	SGR	4122.6	SG3	1409.2	ST	138.2	SR	65.2	SS	57.3
RDE	.7635	RRA	-2.6410	RC3	2.3812	FAU	.29859	RRT	-.9857	RRF	-.9967	RTF	.9824	CRT	-.9675	CRS	.9868	CST	-.9140
FDE	2.0948	FRA	10.1728	FC	-10.1558	BSP	14780	SGB	8576.6	R23	.1295	R13	-.9882	LSA	161.3	MSA	24.7	SSA	.5
BDE	2.1637	BRA	4.9188	BC3	5.5357	FSP	2540	SG1	8554.8	SG2	611.1	THA	151.46	EL1	152.0	EL2	15.0	ALF	155.21

LAUNCH DATE JUL 15 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 11 1974

HELIOCENTRIC CONIC DISTANCE 670.073 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.835	GAL	-3.39	AZL	95.60	HCA	199.11	SMA	198.85	ECC	.24223	INC	5.6045	V1	29.299
RP	246.98	LAP	1.83	LOP	131.39	VP	20.181	GAP	-.50	AZP	84.70	TAL	342.47	TAP	181.58	RCA	150.68	APO	247.01	V2	22.191
RC	308.047	GL	-40.07	GP	37.08	ZAL	111.93	ZAP	67.93	ETS	199.69	ZAE	90.73	ETE	181.28	ZAC	125.43	ETC	287.46	LVI	-59.73

PLANETOCENTRIC CONIC

C3	24.733	VHL	4.973	DLA	-20.61	RAL	59.46	RAD	6644.9	VEL	12.029	PTH	7.02	VHP	2.941	DPA	37.38	RAP	354.46	ECC	1.4070

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 4 27	2767.04	-20.43	78.39	279.47	133.95	17 50 34	1767.0	-2.38	61.92
60.00	18 8 51	2595.78	-15.09	67.82	284.32	127.82	18 52 6	1595.8	.82	49.57
70.00	19 30 22	2356.12	-9.92	52.13	288.07	122.85	20 9 38	1356.1	3.99	32.54
80.00	21 7 38	2051.70	-5.80	31.53	290.58	119.34	21 41 50	1051.7	6.57	11.02
90.00	22 42 43	1745.02	-4.12	9.90	291.51	118.00	23 11 48	745.0	7.63	349.04
100.00	23 50 30	1526.17	-5.80	352.90	290.58	119.34	24 15 56	526.2	6.57	332.39
110.00	0 33 44	1402.94	-9.92	341.05	288.07	122.85	0 57 7	402.9	3.99	321.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.9560	TRA	4.2050	TC3	-5.2425	BAU	1.8977	SGT	7684.9	SGR	3958.9	SG3	1455.4	ST	137.1	SR	61.8	SS	57.0
RDE	.7029	RRA	-2.5200	RC3	2.3355	FAU	.30656	RRT	-.9858	RRF	-.9963	RTF	.9826	CRT	-.9687	CRS	.9834	CST	-.9078
FDE	1.9757	FRA	10.4250	FC	-10.7305	BSP	14897	SGB	8644.7	R23	.1299	R13	-.9878	LSA	158.8	MSA	24.8	SSA	.5
BDE	2.0784	BRA	4.9023	BC3	5.7392	FSP	2621	SG1	8624.4	SG2	592.3	THA	152.94	EL1	149.7	EL2	14.0	ALF	156.19

LAUNCH DATE JUL 15 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 13 1974

HELIOCENTRIC CONIC DISTANCE 673.818 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.839	GAL	-3.44	AZL	95.38	HCA	199.99	SMA	198.92	ECC	.24270	INC	5.3763	V1	29.299
RP	247.14	LAP	1.84	LOP	132.28	VP	20.170	GAP	-.72	AZP	84.95	TAL	342.25	TAP	182.24	RCA	150.64	APO	247.20	V2	22.176
RC	310.395	GL	-38.71	GP	35.73	ZAL	112.57	ZAP	66.74	ETS	199.83	ZAE	89.64	ETE	182.02	ZAC	124.16	ETC	287.18	LVI	-58.43

PLANETOCENTRIC CONIC

C3	24.121	VHL	4.911	DLA	-19.25	RAL	59.29	RAD	6644.6	VEL	12.004	PTH	7.00	VHP	2.906	DPA	36.16	RAP	355.21	ECC	1.3970

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 57 47	2789.61	-21.50	79.49	278.99	133.53	17 44 17	1789.6	-3.51	62.86
60.00	18 0 8	2623.84	-16.26	69.27	283.71	127.40	18 43 51	1623.8	-.42	50.91
70.00	19 18 57	2392.13	-11.25	54.08	287.31	122.46	19 58 49	1392.1	2.62	34.42
80.00	20 53 7	2097.40	-7.32	34.07	289.68	119.03	21 28 4	1097.4	5.05	13.55
90.00	22 26 32	1796.05	-5.74	12.77	290.53	117.74	22 56 28	796.0	6.03	351.93
100.00	23 35 59	1571.68	-7.32	355.44	289.68	119.03	24 2 11	571.9	5.05	334.92
110.00	0 22 19	1438.95	-11.25	343.00	287.31	122.46	0 46 18	439.0	2.62	323.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8890	TRA	4.2643	TC3	-5.4780	BAU	1.9137	SGT	7847.0	SGR	3801.2	SG3	1495.1	ST	135.8	SR	58.6	SS	56.9
RDE	.6479	RRA	-2.4078	RC3	2.2822	FAU	.31320	RRT	-.9858	RRF	-.9958	RTF	.9827	CRT	-.9700	CRS	.9792	CST	-.9009
FDE	1.8417	FRA	10.6411	FC	-11.2412	BSP	15047	SGB	8719.2	R23	.1298	R13	-.9873	LSA	156.4	MSA	25.0	SSA	.6
BDE	1.9970	BRA	4.8971	BC3	5.9344	FSP	2696	SG1	8700.3	SG2	574.7	THA	154.35	EL1	147.4	EL2	13.1	ALF	157.11

LAUNCH DATE JUL 15 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC DISTANCE 677.562 EARTH TO MARS

RL	152.06	LAL	-.00	LOL	292.37	VL	32.843	GAL	-3.49	AZL	95.17	HCA	200.88	SMA	199.00	ECC	.24319	INC	5.1668	V1	29.299
RP	247.29	LAP	1.84	LOP	133.17	VP	20.160	GAP	-.93	AZP	85.17	TAL	342.02	TAP	182.89	RCA	150.61	APO	247.39	V2	22.161
RC	312.717	GL	-37.42	GP	34.44	ZAL	113.20	ZAP	65.57	ETS	199.94	ZAE	88.54	ETE	182.70	ZAC	122.94	ETC	286.93	LVI	-57.18

PLANETOCENTRIC CONIC

C3	23.599	VHL	4.858	DLA	-17.95	RAL	59.15	RAD	6644.4	VEL	11.983	PTH	6.98	VHP	2.877	DPA	35.01	RAP	355.92	ECC	1.3884

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 51 44	2811.38	-22.51	80.56	278.63	133.09	17 38 35	1811.4	-4.60	63.78
60.00	17 52 12	2650.57	-17.36	70.68	283.24	126.96	18 36 23	1650.6	-1.59	52.19
70.00	19 8 38	2425.85	-12.47	55.93	286.71	122.06	19 49 4	1425.9	1.33	36.18
80.00	20 40 12	2139.28	-8.69	36.42	288.96	118.68	21 15 51	1139.3	3.64	15.87
90.00	22 12 17	1842.25	-7.20	15.38	289.76	117.42	22 42 59	842.3	4.56	354.53
100.00	23 23 4	1613.76	-8.69	357.79	288.96	118.68	23 49 58	613.8	3.64	337.23
110.00	0 12 1	1472.67	-12.47	344.84	286.71	122.06	0 36 33	472.7	1.33	325.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8259	TRA	4.3249	TC3	-5.7061	BAU	1.9322	SGT	8007.7	SGR	3649.1	SG3	1528.4	ST	134.7	SR	55.6	SS	56.0
RDE	.5999	RRA	-2.3020	RC3	2.2242	FAU	.31875	RRT	-.9858	RRF	-.9952	RTF	.9828	CRT	-.9718	CRS	.9742	CST	-.8938
FDE	1.7041	FRA	10.8163	FC	-11.6934	BSP	15186	SGB	8800.0	R23	.1291	R13	-.9869	LSA	154.1	MSA	25.2	SSA	.6
BDE	1.9219	BRA	4.8994	BC3	6.1243	FSP	2756	SG1	8782.3	SG2	557.8	THA	155.70	EL1	145.2	EL2	12.2	ALF	157.96

LAUNCH DATE JUL 15 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 17 1974

HELIOCENTRIC CONIC DISTANCE 681.305 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.847 GAL -3.54 AZL 94.97 HCA 201.76 SMA 199.08 ECC .24369 INC 4.9738 V1 29.299
RP 247.44 LAP 1.84 LOP 134.06 VP 20.131 GAP -1.14 AZP 85.38 TAL 341.78 TAP 183.54 RCA 150.57 APO 247.59 V2 22.147
RC 315.013 GL -36.21 GP 33.22 ZAL 113.81 ZAP 64.43 ETS 200.02 ZAE 87.44 ETE 183.32 ZAC 121.77 ETC 286.71 LVI -55.99

PLANETOCENTRIC CONIC

C3 23.156 VHL 4.812 DLA -16.72 RAL 59.06 RAD 6644.2 VEL 11.964 PTH 6.96 VHP 2.853 DPA 33.92 RAP 356.60 ECC 1.3811

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 46 12	2832.39	-23.49	81.61	278.38	132.65	17 33 24	1832.4	-5.66	64.66
60.00	17 44 58	2676.11	-18.40	72.03	282.89	126.51	18 29 34	1676.1	-2.72	53.41
70.00	18 59 17	2457.63	-13.61	57.68	286.25	121.63	19 40 14	1457.6	.12	37.84
80.00	20 28 35	2178.09	-9.95	38.61	288.40	118.30	21 4 54	1178.1	2.33	18.00
90.00	21 59 33	1884.66	-8.52	17.80	289.16	117.07	22 30 58	884.7	3.20	356.91
100.00	23 11 27	1652.56	-9.95	359.98	288.40	118.30	23 39 0	652.6	2.33	339.37
110.00	0 2 39	1504.45	-13.61	346.60	286.25	121.63	0 27 43	504.4	.12	326.76

DIFFERENTIAL CORRECTIONS

TDE-1.7633 TRA 4.3902 TC3-5.9221 BAU 1.9514
RDE .5570 RRA-2.2037 RC3 2.1601 FAU .32296
FDE-1.5596 FRA10.9621 FC-12.0747 BSP 15360
BDE 1.8492 BRA 4.9122 BC3 6.3038 FSP 2809

MID-COURSE EXECUTION ACCURACY

SGT 8165.9 SGR 3502.4 SG3 1555.7
RRT -.9858 RRF -.9946 RTF .9828
SGB 8885.3 R23 .1277 R13 -.9865
SG1 8868.8 SG2 542.0 THA 156.99

ORBIT DETERMINATION ACCURACY

ST 133.4 SR 52.9 SS 55.5
CRT -.9739 CRS .9682 CST -.8865
LSA 151.8 MSA 25.4 SSA .6
EL1 143.1 EL2 11.2 ALF 158.75

LAUNCH DATE JUL 15 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC DISTANCE 685.046 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.851 GAL -3.59 AZL 94.80 HCA 202.64 SMA 199.16 ECC .24420 INC 4.7954 V1 29.299
RP 247.58 LAP 1.84 LOP 134.94 VP 20.143 GAP -1.35 AZP 85.57 TAL 341.55 TAP 184.19 RCA 150.52 APO 247.79 V2 22.133
RC 317.282 GL -35.05 GP 32.05 ZAL 114.41 ZAP 63.32 ETS 200.07 ZAE 86.33 ETE 183.89 ZAC 120.65 ETC 286.51 LVI -54.85

PLANETOCENTRIC CONIC

C3 22.778 VHL 4.773 DLA -15.54 RAL 59.00 RAD 6644.1 VEL 11.948 PTH 6.95 VHP 2.835 DPA 32.89 RAP 357.25 ECC 1.3749

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 7	2852.72	-24.42	82.64	278.23	132.19	17 28 40	1852.7	-6.67	65.52
60.00	17 38 19	2700.59	-19.38	73.35	282.64	126.05	18 23 20	1700.6	-3.79	54.58
70.00	18 50 44	2487.73	-14.68	59.36	285.91	121.19	19 32 11	1487.7	-1.03	39.41
80.00	20 18 4	2214.37	-11.12	40.68	287.98	117.89	20 54 58	1214.4	1.10	19.99
90.00	21 48 4	1924.01	-9.73	20.05	288.71	116.68	22 20 8	924.0	1.94	359.11
100.00	23 0 56	1688.84	-11.12	2.05	287.98	117.89	23 29 5	688.8	1.10	341.36
110.00	23 50 10	1534.55	-14.68	348.27	285.91	121.19	24 15 45	534.5	-1.03	328.33

DIFFERENTIAL CORRECTIONS

TDE-1.7039 TRA 4.4557 TC3-6.1308 BAU 1.9728
RDE .5198 RRA-2.1102 RC3 2.0936 FAU .32625
FDE-1.4151 FRA11.0702 FC-12.4000 BSP 15518
BDE 1.7814 BRA 4.9301 BC3 6.4785 FSP 2848

MID-COURSE EXECUTION ACCURACY

SGT 8322.0 SGR 3361.0 SG3 1577.3
RRT -.9857 RRF -.9939 RTF .9829
SGB 8975.1 R23 .1255 R13 -.9861
SG1 8959.6 SG2 526.8 THA 158.21

ORBIT DETERMINATION ACCURACY

ST 132.2 SR 50.4 SS 55.0
CRT -.9764 CRS .9611 CST -.8792
LSA 149.6 MSA 25.6 SSA .7
EL1 141.1 EL2 10.2 ALF 159.48

LAUNCH DATE JUL 15 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC DISTANCE 688.786 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.855 GAL -3.64 AZL 94.63 HCA 203.52 SMA 199.24 ECC .24472 INC 4.6300 V1 29.299
RP 247.71 LAP 1.85 LOP 135.83 VP 20.135 GAP -1.56 AZP 85.75 TAL 341.31 TAP 184.83 RCA 150.48 APO 248.00 V2 22.120
RC 319.522 GL -33.95 GP 30.94 ZAL 114.99 ZAP 62.24 ETS 200.11 ZAE 85.22 ETE 184.41 ZAC 119.59 ETC 286.33 LVI -53.76

PLANETOCENTRIC CONIC

C3 22.458 VHL 4.739 DLA -14.41 RAL 58.96 RAD 6643.9 VEL 11.935 PTH 6.94 VHP 2.821 DPA 31.91 RAP 357.87 ECC 1.3696

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 27	2872.40	-25.31	83.66	278.16	131.73	17 24 20	1872.4	-7.66	66.36
60.00	17 32 13	2724.12	-20.32	74.63	282.49	125.58	18 17 37	1724.1	-4.82	55.71
70.00	18 42 53	2516.37	-15.68	60.97	285.67	120.74	19 24 49	1516.4	-2.12	40.91
80.00	20 8 28	2248.50	-12.20	42.64	287.67	117.47	20 45 56	1248.5	-.05	21.87
90.00	21 37 38	1960.84	-10.85	22.18	288.37	116.28	22 10 18	960.8	.75	1.16
100.00	22 51 19	1722.97	-12.20	4.00	287.67	117.47	23 20 2	723.0	-.05	343.23
110.00	23 42 19	1563.19	-15.68	349.89	285.67	120.74	24 8 22	563.2	-2.12	329.82

DIFFERENTIAL CORRECTIONS

TDE-1.6452 TRA 4.9255 TC3-6.3286 BAU 1.9950
RDE .4866 RRA-2.0233 RC3 2.0245 FAU .32856
FDE-1.2677 FRA11.1558 FC-12.6655 BSP 15698
BDE 1.7157 BRA 4.9572 BC3 6.6445 FSP 2878

MID-COURSE EXECUTION ACCURACY

SGT 8476.4 SGR 3226.0 SG3 1594.0
RRT -.9855 RRF -.9931 RTF .9830
SGB 9069.5 R23 .1227 R13 -.9858
SG1 9055.0 SG2 512.7 THA 159.37

ORBIT DETERMINATION ACCURACY

ST 131.0 SR 48.1 SS 54.4
CRT -.9791 CRS .9528 CST -.8717
LSA 147.5 MSA 25.8 SSA .7
EL1 139.2 EL2 9.2 ALF 160.15

LAUNCH DATE JUL 15 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 23 1974

HELIOCENTRIC CONIC DISTANCE 692.525 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.860 GAL -3.70 AZL 94.48 HCA 204.40 SMA 199.32 ECC .24526 INC 4.4759 V1 29.299
RP 247.84 LAP 1.85 LOP 136.71 VP 20.128 GAP -1.77 AZP 85.92 TAL 341.06 TAP 185.47 RCA 150.44 APO 248.21 V2 22.107
RC 321.734 GL -32.91 GP 29.89 ZAL 115.57 ZAP 61.19 ETS 200.13 ZAE 84.11 ETE 184.88 ZAC 118.56 ETC 286.16 LVI -52.72

PLANETOCENTRIC CONIC

C3 22.188 VHL 4.710 DLA -13.33 RAL 58.96 RAD 6643.8 VEL 11.924 PTH 6.93 VHP 2.810 DPA 30.99 RAP 358.47 ECC 1.3652

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 32 10	2891.48	-26.18	84.66	278.16	131.26	17 20 21	1891.5	-8.61	67.17
60.00	17 26 35	2746.77	-21.21	75.89	282.42	125.11	18 12 21	1746.8	-5.82	56.80
70.00	18 35 39	2543.72	-16.63	62.53	285.53	120.27	19 18 2	1543.7	-3.17	42.34
80.00	19 59 39	2280.80	-13.20	44.50	287.47	117.03	20 37 39	1280.8	-1.15	23.64
90.00	21 28 4	1995.53	-11.89	24.20	288.14	115.85	22 1 20	995.5	-.37	3.10
100.00	22 42 30	1755.27	-13.20	5.87	287.47	117.03	23 11 46	755.3	-1.15	345.01
110.00	23 35 5	1590.54	-16.63	351.44	285.53	120.27	24 1 36	590.5	-3.17	331.25

DIFFERENTIAL CORRECTIONS

TDE-1.5898 TRA 4.5951 TC3-6.5200 BAU 2.0191
RDE .4581 RRA-1.9413 RC3 1.9541 FAU .33002
FDE-1.1238 FRA11.2133 FC-12.8765 BSP 15869
BDE 1.6544 BRA 4.9883 BC3 6.8066 FSP 2901

MID-COURSE EXECUTION ACCURACY

SGT 8629.2 SGR 3096.5 SG3 1606.0
RRT -.9852 RRF -.9922 RTF .9830
SGB 9168.0 R23 .1195 R13 -.9855
SG1 9154.3 SG2 500.6 THA 160.47

ORBIT DETERMINATION ACCURACY

ST 129.8 SR 45.9 SS 53.9
CRT -.9821 CRS .9431 CST -.8642
LSA 145.6 MSA 26.0 SSA .7
EL1 137.5 EL2 8.2 ALF 160.77

LAUNCH DATE JUL 15 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 25 1974

HELIOCENTRIC CONIC DISTANCE 696.263 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.864 GAL -3.75 AZL 94.33 HCA 205.28 SMA 199.41 ECC .24581 INC 4.3321 V1 29.299
RP 247.97 LAP 1.85 LOP 137.59 VP 20.122 GAP -1.98 AZP 86.08 TAL 340.82 TAP 186.10 RCA 150.39 APO 248.43 V2 22.095
RC 323.917 GL -31.91 GP 28.89 ZAL 116.13 ZAP 60.17 ETS 200.13 ZAE 83.01 ETE 185.32 ZAC 117.58 ETC 286.01 LVI -51.73

PLANETOCENTRIC CONIC

C3 21.962 VHL 4.686 DL -12.30 RAL 58.98 RAD 6643.7 VEL 11.915 PTH 6.92 VHP 2.803 DPA 30.12 RAP 359.06 ECC 1.3614

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 28 12	2910.01	-27.00	85.65	278.24	130.79	17 16 42	1910.0	-9.53	67.97
60.00	17 21 22	2768.64	-22.06	77.11	282.43	124.62	18 7 30	1768.6	-6.77	57.86
70.00	18 28 57	2569.92	-17.52	64.03	285.47	119.80	19 11 47	1569.9	-4.16	43.71
80.00	19 51 31	2311.51	-14.14	46.30	287.35	116.57	20 30 2	1311.5	-2.19	25.32
90.00	21 19 16	2028.39	-12.86	26.13	288.00	115.41	21 53 4	1028.4	-1.43	4.93
100.00	22 34 22	1785.98	-14.14	7.67	287.35	116.57	23 4 8	786.0	-2.19	346.69
110.00	23 28 24	1616.74	-17.52	352.95	285.47	119.80	23 55 20	616.7	-4.16	332.63

DIFFERENTIAL CORRECTIONS

TDE-1.5341 TRA 4.6685 TC3-6.6997 BAU 2.0433
RDE .4331 RRA-1.8641 RC3 1.8822 FAU .33058
FDE -.9808 FRA11.2488 FC-13.0313 BSP 16080
BDE 1.5940 BRA 5.0270 BC3 6.9591 FSP 2914

MID-COURSE EXECUTION ACCURACY

SGT 8779.4 SGR 2972.2 SG3 1613.5
RRT -.9848 RRF -.9912 RTF .9831
SGB 9268.8 R23 .1154 R13 -.9853
SG1 9255.9 SG2 489.1 THA 161.51

ORBIT DETERMINATION ACCURACY

ST 128.7 SR 44.0 SS 53.3
CRT -.9853 CRS .9320 CST -.8572
LSA 143.7 MSA 26.2 SSA .8
EL1 135.6 EL2 7.1 ALF 161.35

LAUNCH DATE JUL 15 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 27 1974

HELIOCENTRIC CONIC DISTANCE 699.999 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.868 GAL -3.81 AZL 94.20 HCA 206.16 SMA 199.50 ECC .24637 INC 4.1975 V1 29.299
RP 248.09 LAP 1.85 LOP 138.47 VP 20.116 GAP -2.19 AZP 86.23 TAL 340.57 TAP 186.73 RCA 150.35 APO 248.64 V2 22.084
RC 326.069 GL -30.96 GP 27.93 ZAL 116.69 ZAP 59.17 ETS 200.11 ZAE 81.91 ETE 185.72 ZAC 116.65 ETC 285.88 LVI -50.78

PLANETOCENTRIC CONIC

C3 21.775 VHL 4.666 DLA -11.31 RAL 59.03 RAD 6643.6 VEL 11.907 PTH 6.91 VHP 2.799 DPA 29.30 RAP 359.62 ECC 1.3584

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 24 33	2928.02	-27.80	86.62	278.37	130.30	17 13 21	1928.0	-10.42	68.75
60.00	17 16 31	2789.78	-22.88	78.30	282.50	124.13	18 3 1	1789.8	-7.69	58.89
70.00	18 22 45	2595.09	-18.37	65.49	285.48	119.31	19 6 0	1595.1	-5.12	45.03
80.00	19 43 58	2340.82	-15.03	48.02	287.31	116.11	20 22 59	1340.8	-3.18	26.94
90.00	21 11 8	2059.65	-13.76	27.97	287.93	114.95	21 45 27	1059.6	-2.43	6.68
100.00	22 26 50	1815.29	-15.03	9.39	287.31	116.11	22 57 6	815.3	-3.18	348.30
110.00	23 22 11	1641.91	-18.37	354.41	285.48	119.31	23 49 33	641.9	-5.12	333.95

DIFFERENTIAL CORRECTIONS

TDE-1.4799 TRA 4.7441 TC3-6.8708 BAU 2.0684
RDE .4112 RRA-1.7919 RC3 1.8099 FAU .33038
FDE -.8388 FRA11.2664 FC-13.1353 BSP 16263
BDE 1.5360 BRA 5.0712 BC3 7.1052 FSP 2922

MID-COURSE EXECUTION ACCURACY

SGT 8927.9 SGR 2853.5 SG3 1617.2
RRT -.9844 RRF -.9901 RTF .9831
SGB 9372.9 R23 .1110 R13 -.9850
SG1 9360.6 SG2 479.5 THA 162.49

ORBIT DETERMINATION ACCURACY

ST 127.6 SR 42.1 SS 52.9
CRT -.9885 CRS .9193 CST -.8501
LSA 142.0 MSA 26.4 SSA .8
EL1 134.3 EL2 6.1 ALF 161.88

LAUNCH DATE JUL 15 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 29 1974

HELIOCENTRIC CONIC DISTANCE 703.734 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.873 GAL -3.86 AZL 94.07 HCA 207.04 SMA 199.58 ECC .24694 INC 4.0712 V1 29.299
RP 248.20 LAP 1.85 LOP 139.35 VP 20.111 GAP -2.40 AZP 86.37 TAL 340.31 TAP 187.36 RCA 150.30 APO 248.87 V2 22.073
RC 328.191 GL -30.05 GP 27.02 ZAL 117.24 ZAP 58.21 ETS 200.09 ZAE 80.82 ETE 186.08 ZAC 115.75 ETC 285.75 LVI -49.87

PLANETOCENTRIC CONIC

C3 21.622 VHL 4.650 DLA -10.36 RAL 59.10 RAD 6643.6 VEL 11.900 PTH 6.91 VHP 2.798 DPA 28.53 RAP .18 ECC 1.3558

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 21 9	2945.55	-28.57	87.59	278.55	129.81	17 10 15	1945.5	-11.29	69.51
60.00	17 12 2	2810.26	-23.65	79.48	282.64	123.63	17 58 52	1810.3	-8.58	59.89
70.00	18 16 58	2619.34	-19.17	66.92	285.55	118.82	19 0 37	1619.3	-6.04	46.31
80.00	19 36 58	2368.89	-15.86	49.69	287.34	115.63	20 16 27	1368.9	-4.12	28.48
90.00	21 3 34	2089.51	-14.61	29.75	287.94	114.48	21 38 24	1089.5	-3.39	8.35
100.00	22 19 50	1843.37	-15.86	11.06	287.34	115.63	22 50 33	843.4	-4.12	349.85
110.00	23 16 24	1666.15	-19.17	355.83	285.55	118.82	23 44 10	666.2	-6.04	335.23

DIFFERENTIAL CORRECTIONS

TDE-1.4276 TRA 4.6204 TC3-7.0349 BAU 2.0947
RDE .3924 RRA-1.7235 RC3 1.7379 FAU .32953
FDE -.7015 FRA11.2644 FC-13.1942 BSP 16462
BDE 1.4805 BRA 5.1192 BC3 7.2464 FSP 2926

MID-COURSE EXECUTION ACCURACY

SGT 9074.9 SGR 2739.9 SG3 1617.3
RRT -.9838 RRF -.9888 RTF .9830
SGB 9479.5 R23 .1063 R13 -.9847
SG1 9467.8 SG2 471.5 THA 163.42

ORBIT DETERMINATION ACCURACY

ST 126.6 SR 40.5 SS 52.4
CRT -.9915 CRS .9050 CST -.8433
LSA 140.4 MSA 26.6 SSA .8
EL1 132.8 EL2 5.0 ALF 162.38

LAUNCH DATE JUL 15 1973 FLIGHT TIME 320.00 ARRIVAL DATE MAY 31 1974

HELIOCENTRIC CONIC DISTANCE 707.467 EARTH TO MARS

RL 152.06 LAL -.00 LOL 292.37 VL 32.877 GAL -3.92 AZL 93.95 HCA 207.92 SMA 199.67 ECC .24752 INC 3.9523 V1 29.299
RP 248.30 LAP 1.85 LOP 140.23 VP 20.107 GAP -2.61 AZP 86.51 TAL 340.06 TAP 187.98 RCA 150.25 APO 249.09 V2 22.062
RC 330.203 GL -29.18 GP 26.16 ZAL 117.78 ZAP 57.27 ETS 200.05 ZAE 79.75 ETE 186.42 ZAC 114.89 ETC 285.64 LVI -49.00

PLANETOCENTRIC CONIC

C3 21.500 VHL 4.637 DLA -9.44 RAL 59.18 RAD 6643.5 VEL 11.895 PTH 6.91 VHP 2.799 DPA 27.80 RAP .72 ECC 1.3538

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 18 1	2962.62	-29.31	88.54	278.79	129.32	17 7 24	1962.6	-12.13	70.25
60.00	17 7 50	2830.11	-24.40	80.63	282.82	123.13	17 55 1	1830.1	-9.44	60.86
70.00	18 11 34	2642.73	-19.93	68.30	285.69	118.33	18 55 37	1642.7	-6.92	47.55
80.00	19 30 26	2395.86	-16.65	51.30	287.43	115.15	20 10 22	1395.9	-5.03	29.97
90.00	20 56 31	2118.12	-15.41	31.47	288.02	114.01	21 31 49	1118.1	-4.31	9.95
100.00	22 13 18	1870.33	-16.65	12.67	287.43	115.15	22 44 28	870.3	-5.03	351.34
110.00	23 11 1	1689.55	-19.93	357.22	285.69	118.33	23 39 10	689.6	-6.92	336.46

DIFFERENTIAL CORRECTIONS

TDE-1.3764 TRA 4.8988 TC3-7.1902 BAU 2.1215
RDE .3768 RRA-1.6590 RC3 1.6671 FAU .32818
FDE -.5709 FRA11.2460 FC-13.2146 BSP 16665
BDE 1.4271 BRA 5.1721 BC3 7.3810 FSP 2921

MID-COURSE EXECUTION ACCURACY

SGT 9220.1 SGR 2631.6 SG3 1614.4
RRT -.9831 RRF -.9873 RTF .9831
SGB 9588.3 R23 .1008 R13 -.9845
SG1 9577.1 SG2 464.4 THA 164.29

ORBIT DETERMINATION ACCURACY

ST 125.7 SR 39.0 SS 52.0
CRT -.9944 CRS .8891 CST -.8373
LSA 139.0 MSA 26.8 SSA .9
EL1 131.6 EL2 3.9 ALF 162.85

LAUNCH DATE JUL 16 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 343.289 EARTH TO MARS

RL	152.09	LAL	-.00	LOL	293.32	VL	35.027	GAL	-4.53	AZL	90.23	HCA	109.16	SMA	255.81	ECC	.41200	INC	.2336
RP	217.98	LAP	-.22	LOP	42.49	VP	26.436	GAP	22.88	AZP	89.92	TAL	344.41	TAP	93.57	RCA	150.42	APO	361.21
RC	74.281	GL	-1.31	GP	-5.19	ZAL	115.46	ZAP	172.50	ETS	225.47	ZAE	168.15	ETE	335.79	ZAC	79.28	ETC	283.35

V1	29.301																		
V2	25.208																		
LVI	-13.43																		

PLANETOCENTRIC CONIC

C3	38.717	VHL	6.222	DLA	16.15	RAL	46.71	RAD	6650.2	VEL	12.593	PTH	7.45	VHP	8.268	DPA	8.65	RAP	36.73
ECC	1.6372																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 48 13	3622.90	-47.46	139.72	296.17	93.83	14 48 36	2622.9	-40.44	107.33
60.00	14 9 22	3566.59	-40.30	135.00	296.51	90.15	15 8 49	2566.6	-35.83	104.83
70.00	14 40 27	3475.09	-34.06	127.41	296.33	87.25	15 38 23	2475.1	-31.62	98.94
80.00	15 28 41	3323.95	-29.51	115.60	295.98	85.25	16 24 5	2324.0	-28.48	88.22
90.00	16 41 4	3090.34	-27.78	98.26	295.81	84.50	17 32 34	2090.3	-27.28	71.26
100.00	18 11 33	2798.42	-29.51	76.97	295.98	85.25	18 58 11	1798.4	-28.48	49.59
110.00	19 39 54	2521.91	-34.06	56.33	296.33	87.25	20 21 56	1521.9	-31.62	27.86

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4354	TRA	-1.4839	TC3	.1444	BAU	.0844	SGT	1488.8	SGR	603.5	SG3	182.4			ST	29.3	SR	27.3	SS	21.0
RDE	-.5875	RRA	.2613	RC3	-.0756	FAU	.05669	RRT	-.1740	RRF	.1968	RTF	-.7495			CRT	.5778	CRS	.6275	CST	.9953
FDE	.4661	FRA	1.3937	FC3	-1.2677	BSP	2382	SGB	1606.5	R23	-.0425	R13	.7514			LSA	40.9	MSA	19.4	SSA	1.2
BDE	.7312	BRA	1.5067	BC3	.1630	FSP	235	SG1	1493.2	SG2	592.5	THA	175.21			EL1	35.6	EL2	18.3	ALF	41.56

LAUNCH DATE JUL 16 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 345.769 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	34.905	GAL	-4.43	AZL	90.20	HCA	110.30	SMA	251.68	ECC	.40214	INC	.1962
RP	218.35	LAP	-.18	LOP	43.63	VP	26.236	GAP	22.52	AZP	89.93	TAL	344.51	TAP	94.81	RCA	150.47	APO	352.89
RC	75.647	GL	-1.13	GP	-5.35	ZAL	115.29	ZAP	171.85	ETS	222.70	ZAE	167.37	ETE	336.09	ZAC	79.04	ETC	283.32

V1	29.301																		
V2	25.168																		
LVI	-13.17																		

PLANETOCENTRIC CONIC

C3	37.023	VHL	6.085	DLA	16.29	RAL	46.49	RAD	6649.6	VEL	12.526	PTH	7.41	VHP	8.033	DPA	8.64	RAP	37.17
ECC	1.6093																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 46 47	3614.40	-47.42	138.90	294.95	94.46	14 47 2	2614.4	-40.17	106.69
60.00	14 7 46	3558.56	-40.30	134.31	295.39	90.61	15 7 4	2558.6	-35.64	104.23
70.00	14 38 37	3467.71	-34.08	126.83	295.27	87.59	15 36 25	2467.7	-31.50	98.40
80.00	15 26 38	3317.29	-29.55	115.11	294.95	85.51	16 21 55	2317.3	-28.41	87.74
90.00	16 38 53	3084.03	-27.82	97.80	294.78	84.73	17 30 17	2084.0	-27.22	70.81
100.00	18 9 29	2791.76	-29.55	76.48	294.95	85.51	18 56 1	1791.8	-28.41	49.11
110.00	19 38 4	2514.53	-34.08	55.75	295.27	87.59	20 19 58	1514.5	-31.50	27.32

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4361	TRA	-1.4790	TC3	.1674	BAU	.0928	SGT	1521.6	SGR	604.4	SG3	193.7			ST	29.9	SR	27.1	SS	21.8
RDE	-.5707	RRA	.2617	RC3	-.0845	FAU	.05888	RRT	-.1879	RRF	.2127	RTF	-.7581			CRT	.5760	CRS	.6293	CST	.9951
FDE	.4898	FRA	1.4443	FC3	-1.3769	BSP	2447	SGB	1637.3	R23	-.0456	R13	.7601			LSA	41.6	MSA	19.4	SSA	1.3
BDE	.7182	BRA	1.5020	BC3	.1875	FSP	253	SG1	1526.6	SG2	591.7	THA	174.97			EL1	35.9	EL2	18.5	ALF	40.20

LAUNCH DATE JUL 16 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 348.367 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	34.789	GAL	-4.32	AZL	90.16	HCA	111.44	SMA	247.89	ECC	.39281	INC	.1583
RP	218.71	LAP	-.15	LOP	44.76	VP	26.043	GAP	22.17	AZP	89.94	TAL	344.62	TAP	96.06	RCA	150.52	APO	345.26
RC	77.098	GL	-.93	GP	-5.52	ZAL	115.12	ZAP	171.17	ETS	220.35	ZAE	166.65	ETE	336.24	ZAC	78.80	ETC	283.29

V1	29.301																		
V2	25.127																		
LVI	-12.90																		

PLANETOCENTRIC CONIC

C3	35.445	VHL	5.954	DLA	16.43	RAL	46.25	RAD	6649.1	VEL	12.464	PTH	7.36	VHP	7.805	DPA	8.61	RAP	37.60
ECC	1.5833																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 45 16	3606.32	-47.37	138.12	293.76	95.06	14 45 22	2606.3	-39.91	106.09
60.00	14 6 3	3550.99	-40.29	133.67	294.28	91.05	15 5 14	2551.0	-35.46	103.67
70.00	14 36 41	3460.83	-34.10	126.30	294.21	87.91	15 34 22	2460.8	-31.39	97.90
80.00	15 24 26	3311.16	-29.58	114.65	293.92	85.74	16 19 37	2311.2	-28.34	87.30
90.00	16 36 35	3078.28	-27.86	97.38	293.76	84.93	17 27 53	2078.3	-27.16	70.40
100.00	18 7 18	2785.63	-29.58	76.02	293.92	85.74	18 53 44	1785.6	-28.34	48.67
110.00	19 36 7	2507.65	-34.10	55.21	294.21	87.91	20 17 55	1507.6	-31.39	26.82

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4370	TRA	-1.4744	TC3	.1914	BAU	.1011	SGT	1554.7	SGR	605.4	SG3	205.7			ST	30.6	SR	27.0	SS	22.7
RDE	-.5542	RRA	.2626	RC3	-.0944	FAU	.06120	RRT	-.2030	RRF	.2297	RTF	-.7661			CRT	.5739	CRS	.6312	CST	.9949
FDE	.5155	FRA	1.4967	FC3	-1.4947	BSP	2522	SGB	1668.4	R23	-.0489	R13	.7683			LSA	42.4	MSA	19.5	SSA	1.3
BDE	.7057	BRA	1.4976	BC3	.2134	FSP	271	SG1	1560.4	SG2	590.6	THA	174.72			EL1	36.3	EL2	18.6	ALF	38.80

LAUNCH DATE JUL 16 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 351.071 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	34.679	GAL	-4.22	AZL	90.12	HCA	112.57	SMA	244.41	ECC	.38396	INC	.1195
RP	219.08	LAP	-.11	LOP	45.89	VP	25.857	GAP	21.82	AZP	89.95	TAL	344.74	TAP	97.31	RCA	150.56	APO	338.25
RC	78.631	GL	-.72	GP	-5.70	ZAL	114.93	ZAP	170.47	ETS	218.35	ZAE	165.99	ETE	336.25	ZAC	78.54	ETC	283.26

V1	29.301																		
V2	25.087																		
LVI	-12.63																		

PLANETOCENTRIC CONIC

C3	33.970	VHL	5.828	DLA	16.58	RAL	46.00	RAD	6648.5	VEL	12.405	PTH	7.32	VHP	7.585	DPA	8.57	RAP	38.02
ECC	1.5591																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 43 39	3598.67	-47.32	137.39	292.59	95.62	14 43 38	2598.7	-39.66	105.53
60.00	14 4 14	3543.87	-40.28	133.06	293.19	91.46	15 3 18	2543.9	-35.29	103.15
70.00	14 34 37	3454.42	-34.11	125.80	293.17	88.21	15 32 11	2454.4	-31.28	97.43
80.00	15 22 7	3305.55	-29.61	114.24	292.90	85.96	16 17 13	2305.6	-28.27	86.90
90.00	16 34 9	3073.08	-27.89	97.00	292.75	85.12	17 25 22	2073.1	-27.11	70.02
100.00	18 4 59	2780.03	-29.61	75.61	292.90	85.96	18 51 19	1780.0	-28.27	48.26
110.00	19 34 3	2501.24	-34.11	54.72	293.17	88.21	20 15 45	1501.2	-31.28	26.35

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4276	TRA	-1.4579	TC3	.2299	BAU	.1147	SGT	1576.2	SGR	606.2	SG3	218.3			ST	30.7	SR	26.7	SS	23.7
RDE	-.5375	RRA	.2640	RC3	-.1048	FAU	.06344	RRT	-.2256	RRF	.2468	RTF	-.7823			CRT	.5648	CRS	.6349	CST	.9938
FDE	.5470	FRA	1.5549	FC3	-1.6168	BSP	2453	SGB	1688.8	R23	-.0428	R13	.7845			LSA	42.8	MSA	19.5	SSA	1.3
BDE	.6868	BRA	1.4816	BC3	.2526	FSP	296	SG1	1583.1	SG2	588.0	THA	174.25			EL1	36.2	EL2	18.7	ALF	38.03

LAUNCH DATE JUL 16 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 21 1973

DISTANCE 353.872

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	34.575	GAL	-4.12	AZL	90.08	HCA	113.70	SMA	241.20	ECC	.37559	INC	.0810	V1	29.301
RP	219.45	LAP	-.08	LOP	47.02	VP	25.677	GAP	21.47	AZP	89.97	TAL	344.86	TAP	98.56	RCA	150.61	APO	331.80	V2	25.046
RC	80.245	GL	-.50	GP	-5.89	ZAL	114.73	ZAP	169.75	ETS	216.64	ZAE	165.38	ETE	336.14	ZAC	78.29	ETC	283.24	LVI	-12.35

PLANETOCENTRIC CONIC

C3	32.597	VHL	5.709	DLA	16.73	RAL	45.74	RAD	6648.0	VEL	12.350	PTH	7.27	VHP	7.372	DPA	8.53	RAP	38.44	ECC	1.5365

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 41 57	3591.51	-47.27	136.71	291.45	96.14	14 41 48	2591.5	-39.43	105.01
60.00	14 2 19	3537.27	-40.27	132.50	292.13	91.84	15 1 17	2537.3	-35.13	102.66
70.00	14 32 27	3448.60	-34.12	125.34	292.15	88.47	15 29 55	2448.6	-31.18	97.01
80.00	15 19 41	3300.58	-29.63	113.87	291.90	86.15	16 14 41	2300.6	-28.21	86.54
90.00	16 31 34	3068.53	-27.92	96.67	291.75	85.28	17 22 43	2068.5	-27.07	69.70
100.00	18 2 32	2775.05	-29.63	75.24	291.90	86.15	18 48 48	1775.0	-28.21	47.91
110.00	19 31 53	2495.42	-34.12	54.26	292.15	88.47	20 13 28	1495.4	-31.18	25.92

DIFFERENTIAL CORRECTIONS

TDE	-.4329	TRA	-1.4565	TC3	.2521	BAU	.1211
RDE	-.5214	RRA	.2654	RC3	-.1167	FAU	.06608
FDE	.5740	FRA	1.6091	FC3	-1.7551	BSP	2568
BDE	.6777	BRA	1.4805	BC3	.2778	FSP	315

MID-COURSE EXECUTION ACCURACY

SGT	1612.9	SGR	607.4	SG3	231.7
RRT	-.2404	RRF	.2667	RTF	-.7863
SGB	1723.4	R23	-.0503	R13	.7888
SG1	1620.5	SG2	586.8	THA	174.04

ORBIT DETERMINATION ACCURACY

ST	31.6	SR	26.5	SS	24.5
CRT	.5653	CRS	.6356	CST	.9938
LSA	43.8	MSA	19.5	SSA	1.3
EL1	36.7	EL2	18.8	ALF	36.36

LAUNCH DATE JUL 16 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 23 1973

DISTANCE 356.759

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	34.477	GAL	-4.02	AZL	90.04	HCA	114.82	SMA	238.25	ECC	.36765	INC	.0402	V1	29.301
RP	219.82	LAP	-.04	LOP	48.14	VP	25.504	GAP	21.13	AZP	89.98	TAL	344.99	TAP	99.81	RCA	150.66	APO	325.84	V2	25.005
RC	81.936	GL	-.26	GP	-6.09	ZAL	114.52	ZAP	169.01	ETS	215.16	ZAE	164.83	ETE	335.92	ZAC	78.02	ETC	283.21	LVI	-12.06

PLANETOCENTRIC CONIC

C3	31.315	VHL	5.596	DLA	16.90	RAL	45.46	RAD	6647.5	VEL	12.298	PTH	7.23	VHP	7.167	DPA	8.46	RAP	38.85	ECC	1.5154

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 40 10	3584.83	-47.22	136.07	290.33	96.63	14 39 54	2584.8	-39.20	104.52
60.00	14 0 18	3531.19	-40.25	131.99	291.08	92.19	14 59 10	2531.2	-34.98	102.21
70.00	14 30 9	3443.32	-34.13	124.93	291.14	88.72	15 27 33	2443.3	-31.09	96.62
80.00	15 17 6	3296.20	-29.65	113.55	290.91	86.32	16 12 2	2296.2	-28.16	86.22
90.00	16 28 51	3064.61	-27.94	96.39	290.77	85.42	17 19 55	2064.6	-27.03	69.42
100.00	17 59 58	2770.68	-29.65	74.92	290.91	86.32	18 46 8	1770.7	-28.16	47.59
110.00	19 29 36	2490.14	-34.13	53.85	291.14	88.72	20 11 6	1490.1	-31.09	25.54

DIFFERENTIAL CORRECTIONS

TDE	-.4368	TRA	-1.4523	TC3	.2772	BAU	.1281
RDE	-.5055	RRA	.2671	RC3	-.1296	FAU	.06682
FDE	.6036	FRA	1.6654	FC3	-1.9027	BSP	2668
BDE	.6681	BRA	1.4766	BC3	.3060	FSP	336

MID-COURSE EXECUTION ACCURACY

SGT	1646.6	SGR	608.8	SG3	245.8
RRT	-.2571	RRF	.2878	RTF	-.7913
SGB	1755.6	R23	-.0567	R13	.7941
SG1	1655.1	SG2	585.3	THA	173.79

ORBIT DETERMINATION ACCURACY

ST	32.3	SR	26.2	SS	25.4
CRT	.5648	CRS	.6365	CST	.9937
LSA	44.7	MSA	19.5	SSA	1.3
EL1	37.1	EL2	18.9	ALF	34.82

LAUNCH DATE JUL 16 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 25 1973

DISTANCE 359.724

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	34.383	GAL	-3.92	AZL	90.00	HCA	115.94	SMA	235.52	ECC	.36013	INC	.0000	V1	29.301
RP	220.19	LAP	-.00	LOP	49.26	VP	25.337	GAP	20.79	AZP	90.00	TAL	345.13	TAP	101.06	RCA	150.70	APO	320.34	V2	24.964
RC	83.701	GL	-.02	GP	-6.30	ZAL	114.30	ZAP	168.25	ETS	213.88	ZAE	164.34	ETE	335.60	ZAC	77.75	ETC	283.19	LVI	-11.77

PLANETOCENTRIC CONIC

C3	30.118	VHL	5.488	DLA	17.07	RAL	45.17	RAD	6647.1	VEL	12.250	PTH	7.20	VHP	6.967	DPA	8.39	RAP	39.25	ECC	1.4957

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 38 17	3578.64	-47.17	135.48	289.25	97.09	14 37 55	2578.6	-38.99	104.07
60.00	13 58 12	3525.62	-40.24	131.51	290.05	92.51	14 56 57	2525.6	-34.84	101.81
70.00	14 27 45	3438.62	-34.14	124.56	290.15	88.93	15 25 3	2438.6	-31.01	96.28
80.00	15 14 23	3292.46	-29.67	113.27	289.94	86.46	16 9 15	2292.5	-28.11	85.96
90.00	16 25 59	3061.36	-27.96	96.15	289.80	85.54	17 17 0	2061.4	-26.99	69.19
100.00	17 57 15	2766.94	-29.67	74.64	289.94	86.46	18 43 22	1766.9	-28.11	47.32
110.00	19 27 11	2485.44	-34.14	53.48	290.15	88.93	20 8 37	1485.4	-31.01	25.20

DIFFERENTIAL CORRECTIONS

TDE	-.4398	TRA	-1.4475	TC3	.3048	BAU	.1356
RDE	-.4896	RRA	.2693	RC3	-.1436	FAU	.07170
FDE	.6363	FRA	1.7245	FC3	-2.0609	BSP	2754
BDE	.6581	BRA	1.4724	BC3	.3368	FSP	359

MID-COURSE EXECUTION ACCURACY

SGT	1679.9	SGR	610.5	SG3	260.7
RRT	-.2760	RRF	.3100	RTF	-.8168
SGB	1787.4	R23	-.0623	R13	.7999
SG1	1689.4	SG2	583.4	THA	173.49

ORBIT DETERMINATION ACCURACY

ST	33.0	SR	25.9	SS	26.3
CRT	.5630	CRS	.6377	CST	.9934
LSA	45.6	MSA	19.4	SSA	1.4
EL1	37.5	EL2	18.9	ALF	33.31

LAUNCH DATE JUL 16 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 27 1973

DISTANCE 362.760

HELIOCENTRIC CONIC — EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	34.294	GAL	-3.83	AZL	89.96	HCA	117.05	SMA	232.99	ECC	.35300	INC	.0321	V1	29.301
RP	220.57	LAP	.03	LOP	50.38	VP	25.175	GAP	20.45	AZP	90.02	TAL	345.26	TAP	102.32	RCA	150.75	APO	315.24	V2	24.923
RC	85.536	GL	.24	GP	-6.51	ZAL	114.08	ZAP	167.48	ETS	212.76	ZAE	163.91	ETE	335.17	ZAC	77.48	ETC	283.16	LVI	-11.47

PLANETOCENTRIC CONIC

C3	29.000	VHL	5.385	DLA	17.26	RAL	44.87	RAD	6646.6	VEL	12.204	PTH	7.16	VHP	6.775	DPA	8.30	RAP	39.64	ECC	1.4773

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 36 19	3572.95	-47.12	134.94	288.19	97.50	14 35 52	2573.0	-38.80	103.67
60.00	13 55 59	3520.60	-40.22	131.09	289.05	92.80	14 54 39	2520.6	-34.71	101.44
70.00	14 25 13	3434.51	-34.14	124.24	289.18	89.12	15 22 28	2434.5	-30.93	95.98
80.00	15 11 32	3289.39	-29.66	113.04	288.98	86.58	16 6 21	2289.4	-28.08	85.73
90.00	16 22 58	3058.81	-27.97	95.97	288.85	85.63	17 13 56	2058.8	-26.97	69.01
100.00	17 54 23	2763.86	-29.68	74.41	288.98	86.58	18 40 27	1763.9	-28.08	47.10
110.00	19 24 40	2481.33	-34.14	53.16	289.18	89.12	20 6 1	1481.3	-30.93	24.90

DIFFERENTIAL CORRECTIONS

TDE	-.4428	TRA	-1.4407	TC3	.3339	BAU	.1434
RDE	-.4739	RRA	.2718	RC3	-.1589	FAU	.07473
FDE	.6711	FRA	1.7846	FC3	-2.2309	BSP	2832
BDE	.6485	BRA	1.4661	BC3	.3698	FSP	384

MID-COURSE EXECUTION ACCURACY

SGT	1711.0	SGR	612.5	SG3	276.4
RRT	-.2959	RRF	.3334	RTF	-.8023
SGB	1817.4	R23	-.0680	R13	.8057
SG1	1721.8	SG2	581.4	THA	173.17

ORBIT DETERMINATION ACCURACY

ST	33.7	SR	25.6	SS	27.3
CRT	.5612	CRS	.6389	CST	.9931
LSA	46.5	MSA	19.3	SSA	1.4
EL1	37.9	EL2	18.8	ALF	31.85

LAUNCH DATE JUL 16 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 365.860 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	34.209	GAL	-3.74	AZL	89.92	HCA	118.17	SMA	230.65	ECC	.36624	INC	.0769	V1	29.301
RP	220.95	LAP	.07	LOP	51.49	VP	25.019	GAP	20.12	AZP	90.04	TAL	345.40	TAP	103.57	RCA	150.79	APO	310.51	V2	24.882
RC	87.440	GL	.91	GP	-6.74	ZAL	113.84	ZAP	166.69	ETS	211.79	ZAE	163.53	ETE	334.65	ZAC	77.19	ETC	283.14	LVI	-11.17

PLANETOCENTRIC CONIC

C3	27.955	VHL	5.287	DLA	17.45	RAL	44.55	RAD	6646.2	VEL	12.162	PTH	7.13	VHP	6.588	DPA	8.19	RAP	40.02	ECC	1.4601

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 34 16	3567.79	-47.08	134.45	287.16	97.87	14 33 43	2567.8	-38.62	103.30
60.00	13 53 39	3516.14	-40.20	130.71	288.07	93.06	14 52 16	2516.1	-34.60	101.12
70.00	14 22 34	3431.02	-34.15	123.97	288.23	89.28	15 19 45	2431.0	-30.87	98.73
80.00	15 8 32	3286.99	-29.69	112.87	288.04	86.68	16 3 19	2287.0	-28.05	85.56
90.00	16 19 47	3056.97	-27.98	95.83	287.91	85.70	17 10 44	2057.0	-26.95	68.87
100.00	17 51 23	2761.46	-29.69	74.24	288.04	86.68	18 37 25	1761.5	-28.05	46.93
110.00	19 22 1	2477.84	-34.15	52.69	288.23	89.28	20 3 18	1477.8	-30.87	24.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4451	TRA	-1.4335	TC3	.3645	BAU	.1512	SGT	1741.5	SGR	615.1	SG3	293.0	ST	34.3	SR	25.3	SS	28.3
RDE	-.4582	RRA	.2748	RC3	-.1755	FAU	.07788	RRT	-.3177	RRF	.3583	RTF	-.8080	CRT	.5582	CRS	.6395	CST	.9927
FDE	.7086	FRA	1.8481	FC3	-2.4119	BSP	2903	SGB	1846.9	R23	-.0733	R13	.8117	LSA	47.4	MSA	19.2	SSA	1.4
BDE	.6367	BRA	1.4596	BC3	.4046	FSP	411	SG1	1753.8	SG2	579.2	THA	172.81	EL1	38.2	EL2	18.8	ALF	30.42

LAUNCH DATE JUL 16 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 369.018 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	34.129	GAL	-3.65	AZL	89.88	HCA	119.27	SMA	228.47	ECC	.33983	INC	.1195	V1	29.301
RP	221.33	LAP	.10	LOP	52.60	VP	24.867	GAP	19.79	AZP	90.06	TAL	345.55	TAP	104.82	RCA	150.83	APO	306.11	V2	24.840
RC	89.407	GL	.79	GP	-6.97	ZAL	113.60	ZAP	165.88	ETS	210.93	ZAE	163.21	ETE	334.02	ZAC	76.90	ETC	283.12	LVI	-10.85

PLANETOCENTRIC CONIC

C3	26.979	VHL	5.194	DLA	17.65	RAL	44.23	RAD	6645.8	VEL	12.122	PTH	7.09	VHP	6.407	DPA	8.07	RAP	40.39	ECC	1.4440

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 32 7	3563.16	-47.03	134.01	286.17	98.21	14 31 30	2563.2	-38.47	102.97
60.00	13 51 14	3512.26	-40.19	130.38	287.12	93.28	14 49 46	2512.3	-34.50	100.84
70.00	14 19 48	3428.18	-34.15	123.75	287.30	89.42	15 16 56	2428.2	-30.82	95.52
80.00	15 5 23	3285.31	-29.70	112.74	287.12	86.74	16 0 8	2285.3	-28.02	85.44
90.00	16 16 27	3055.90	-27.98	95.76	286.99	85.74	17 7 23	2055.9	-26.94	68.80
100.00	17 48 15	2759.79	-29.70	74.11	287.12	86.74	18 34 14	1759.8	-28.02	46.81
110.00	19 19 14	2474.99	-34.15	52.67	287.30	89.42	20 0 29	1475.0	-30.82	24.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4476	TRA	-1.4251	TC3	.3962	BAU	.1591	SGT	1770.5	SGR	618.3	SG3	310.5	ST	35.0	SR	24.9	SS	29.4
RDE	-.4424	RRA	.2781	RC3	-.1935	FAU	.08120	RRT	-.3406	RRF	.3842	RTF	-.8134	CRT	.5551	CRS	.6401	CST	.9923
FDE	.7491	FRA	1.9129	FC3	-2.6056	BSP	2969	SGB	1875.3	R23	-.0789	R13	.8176	LSA	48.4	MSA	19.1	SSA	1.4
BDE	.6294	BRA	1.4520	BC3	.4410	FSP	439	SG1	1784.5	SG2	576.7	THA	172.42	EL1	38.6	EL2	18.7	ALF	29.00

LAUNCH DATE JUL 16 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 372.229 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	34.053	GAL	-3.57	AZL	89.84	HCA	120.38	SMA	226.45	ECC	.33374	INC	.1619	V1	29.301
RP	221.71	LAP	.14	LOP	53.70	VP	24.721	GAP	19.46	AZP	90.08	TAL	345.69	TAP	106.07	RCA	150.87	APO	302.02	V2	24.799
RC	91.436	GL	1.08	GP	-7.22	ZAL	113.36	ZAP	165.05	ETS	210.18	ZAE	162.93	ETE	333.30	ZAC	76.60	ETC	283.11	LVI	-10.53

PLANETOCENTRIC CONIC

C3	26.067	VHL	5.106	DLA	17.86	RAL	43.90	RAD	6645.4	VEL	12.084	PTH	7.06	VHP	6.232	DPA	7.93	RAP	40.75	ECC	1.4290

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 29 53	3559.07	-46.99	133.62	285.21	98.50	14 29 12	2559.1	-38.32	102.68
60.00	13 48 42	3508.97	-40.18	130.10	286.19	93.47	14 47 11	2509.0	-34.41	100.60
70.00	14 16 54	3425.99	-34.15	123.58	286.39	89.52	15 14 0	2426.0	-30.78	95.37
80.00	15 2 5	3284.38	-29.70	112.67	286.22	86.78	15 56 49	2284.4	-28.01	85.38
90.00	16 12 57	3055.61	-27.98	95.74	286.09	85.75	17 3 52	2055.6	-26.93	68.78
100.00	17 44 56	2758.85	-29.70	74.04	286.22	86.78	18 30 55	1758.9	-28.01	46.74
110.00	19 16 20	2472.60	-34.15	52.50	286.39	89.52	19 57 33	1472.8	-30.78	24.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4500	TRA	-1.4168	TC3	.4293	BAU	.1670	SGT	1799.3	SGR	622.3	SG3	329.0	ST	35.6	SR	24.5	SS	30.6
RDE	-.4268	RRA	.2819	RC3	-.2131	FAU	.08472	RRT	-.3651	RRF	.4118	RTF	-.8187	CRT	.5509	CRS	.6399	CST	.9918
FDE	.7922	FRA	1.9805	FC3	-2.8136	BSP	3032	SGB	1903.9	R23	-.0847	R13	.8233	LSA	49.4	MSA	18.9	SSA	1.4
BDE	.6202	BRA	1.4445	BC3	.4793	FSP	468	SG1	1815.2	SG2	574.2	THA	172.00	EL1	38.9	EL2	18.7	ALF	27.58

LAUNCH DATE JUL 16 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 375.490 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.980	GAL	-3.48	AZL	89.79	HCA	121.48	SMA	224.56	ECC	.32798	INC	.2055	V1	29.301
RP	222.09	LAP	.18	LOP	54.80	VP	24.579	GAP	19.14	AZP	90.11	TAL	345.84	TAP	107.32	RCA	150.91	APO	298.21	V2	24.757
RC	93.523	GL	1.39	GP	-7.48	ZAL	113.11	ZAP	164.20	ETS	209.52	ZAE	162.71	ETE	332.47	ZAC	76.29	ETC	283.09	LVI	-10.21

PLANETOCENTRIC CONIC

C3	25.215	VHL	5.021	DLA	18.09	RAL	43.55	RAD	6645.1	VEL	12.049	PTH	7.03	VHP	6.063	DPA	7.78	RAP	41.10	ECC	1.4150

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 27 34	3555.55	-46.96	133.29	284.28	98.76	14 26 50	2555.5	-38.20	102.43
60.00	13 46 4	3506.29	-40.17	129.87	285.29	93.62	14 44 31	2506.3	-34.34	100.41
70.00	14 13 52	3424.48	-34.15	123.46	285.51	89.59	15 10 56	2424.5	-30.75	95.26
80.00	14 58 37	3284.21	-29.70	112.66	285.34	86.78	15 53 21	2284.2	-28.01	85.36
90.00	16 9 16	3056.14	-27.98	95.77	285.21	85.73	17 0 12	2056.1	-26.94	68.82
100.00	17 41 29	2758.68	-29.70	74.03	285.34	86.78	18 27 27	1758.7	-28.01	46.73
110.00	19 13 18	2471.29	-34.15	52.38	285.51	89.59	19 54 29	1471.3	-30.75	24.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4522	TRA	-1.4070	TC3	.4633	BAU	.1750	SGT	1826.2	SGR	627.1	SG3	348.4	ST	36.2	SR	24.0	SS	31.7
RDE	-.4111	RRA	.2860	RC3	-.2344	FAU	.08841	RRT	-.3906	RRF	.4403	RTF	-.8238	CRT	.5462	CRS	.6394	CST	.9913
FDE	.8384	FRA	2.0492	FC3	-3.0356	BSP	3091	SGB	1930.9	R23	-.0907	R13	.8288	LSA	50.4	MSA	18.7	SSA	1.5
BDE	.6111	BRA	1.4358	BC3	.5192	FSP	500	SG1	1844.3	SG2	571.6	THA	171.54	EL1	39.3	EL2	18.5	ALF	26.19

LAUNCH DATE JUL 16 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC — DISTANCE 378.794 — EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 33.912 GAL -3.40 AZL 89.75 HCA 122.58 SMA 222.80 ECC .32251 INC .2497 V1 29.301
RP 222.48 LAP .21 LOP 55.90 VP 24.442 GAP 18.81 AZP 90.13 TAL 345.99 TAP 108.57 RCA 150.95 APO 294.66 V2 24.715
RC 95.665 GL 1.72 GP -7.76 ZAL 112.85 ZAP 163.34 ETS 208.93 ZAE 162.54 ETE 331.53 ZAC 75.97 ETC 283.08 LVI -9.87

PLANETOCENTRIC CONIC

C3 24.418 VHL 4.941 DLA 18.33 RAL 43.20 RAD 6644.7 VEL 12.016 PTH 7.01 VHP 5.899 DPA 7.61 RAP 41.43 ECC 1.4019

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 25 10	3552.60	-46.92	133.01	283.39	98.97	14 24 23	2552.6	-38.10	102.23
60.00	13 43 20	3504.23	-40.16	129.70	284.42	93.74	14 41 44	2504.2	-34.29	100.26
70.00	14 10 42	3423.67	-34.15	123.40	284.65	89.62	15 7 46	2423.7	-30.74	95.20
80.00	14 54 59	3284.85	-29.70	112.71	284.48	86.76	15 49 44	2284.9	-28.02	85.41
90.00	16 5 25	3057.53	-27.97	95.88	284.35	85.68	16 56 22	2057.5	-26.95	68.91
100.00	17 37 51	2759.32	-29.70	74.08	284.48	86.76	18 23 50	1759.3	-28.02	46.78
110.00	19 10 8	2470.49	-34.15	52.31	284.65	89.62	19 51 19	1470.5	-30.74	24.12

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4550 TRA-1.3973 TC3 .4966 BAU .1826 — SGT 1852.6 SGR 633.0 SG3 388.8 — ST 36.8 SR 23.5 SS 33.0
RDE -.3952 RRA .2906 RC3 -.2573 FAU .09225 — RRT -.4169 RRF .4698 RTF -.8284 — CRT .5408 CRS .6382 CST .9908
FDE .8885 FRA 2.1209 FC3-3.2707 BSP 3155 — SGB 1957.8 R23 -.0972 R13 .8340 — LSA 51.5 MSA 18.5 SSA 1.5
BDE .6027 BRA 1.4272 BC3 .5593 FSP 534 — SG1 1873.3 SG2 569.0 THA 171.06 — EL1 39.6 EL2 18.4 ALF 24.76

LAUNCH DATE JUL 16 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC — DISTANCE 382.139 — EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 33.847 GAL -3.33 AZL 89.70 HCA 123.67 SMA 221.16 ECC .31732 INC .2953 V1 29.301
RP 222.86 LAP .25 LOP 56.99 VP 24.309 GAP 18.30 AZP 90.16 TAL 346.14 TAP 109.81 RCA 150.98 APO 291.34 V2 24.673
RC 97.860 GL 2.05 GP -8.04 ZAL 112.60 ZAP 162.46 ETS 208.42 ZAE 162.41 ETE 330.48 ZAC 75.64 ETC 283.07 LVI -9.53

PLANETOCENTRIC CONIC

C3 23.674 VHL 4.866 DLA 18.58 RAL 42.84 RAD 6644.4 VEL 11.986 PTH 6.98 VHP 5.741 DPA 7.42 RAP 41.76 ECC 1.3896

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 22 41	3550.23	-46.90	132.79	282.53	99.14	14 21 51	2550.2	-38.01	102.06
60.00	13 40 29	3502.82	-40.15	129.58	283.58	93.82	14 38 52	2502.8	-34.25	100.16
70.00	14 7 24	3423.59	-34.15	123.39	283.81	89.63	15 4 27	2423.6	-30.73	95.19
80.00	14 51 11	3286.32	-29.69	112.82	283.64	86.70	15 45 58	2286.3	-28.04	85.51
90.00	16 1 21	3059.82	-27.96	96.04	283.51	85.60	16 52 21	2059.8	-26.98	69.08
100.00	17 34 3	2760.79	-29.69	74.19	283.64	86.70	18 20 4	1760.8	-28.04	46.88
110.00	19 6 50	2470.41	-34.15	52.31	283.81	89.63	19 48 1	1470.4	-30.73	24.11

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4578 TRA-1.3866 TC3 .5312 BAU .1904 — SGT 1877.5 SGR 640.2 SG3 390.3 — ST 37.3 SR 23.0 SS 34.3
RDE -.3793 RRA .2957 RC3 -.2821 FAU .09631 — RRT -.4442 RRF .5004 RTF -.8330 — CRT .5345 CRS .6360 CST .9903
FDE .9418 FRA 2.1945 FC3-3.5220 BSP 3212 — SGB 1983.7 R23 -.1039 R13 .8392 — LSA 52.6 MSA 18.3 SSA 1.5
BDE .5945 BRA 1.4178 BC3 .6015 FSP 570 — SG1 1901.1 SG2 566.4 THA 170.54 — EL1 39.9 EL2 18.2 ALF 23.35

LAUNCH DATE JUL 16 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC — DISTANCE 385.522 — EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 33.785 GAL -3.25 AZL 89.66 HCA 124.76 SMA 219.63 ECC .31240 INC .3414 V1 29.301
RP 223.25 LAP .28 LOP 58.08 VP 24.180 GAP 18.18 AZP 90.19 TAL 346.29 TAP 111.05 RCA 151.02 APO 288.25 V2 24.631
RC 100.104 GL 2.41 GP -8.35 ZAL 112.34 ZAP 161.56 ETS 207.96 ZAE 162.32 ETE 329.31 ZAC 75.30 ETC 283.06 LVI -9.18

PLANETOCENTRIC CONIC

C3 22.979 VHL 4.794 DLA 18.84 RAL 42.48 RAD 6644.1 VEL 11.957 PTH 6.96 VHP 5.588 DPA 7.21 RAP 42.07 ECC 1.3782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 20 6	3548.46	-46.88	132.62	281.71	99.27	14 19 15	2548.5	-37.95	101.94
60.00	13 37 32	3502.06	-40.15	129.51	282.78	93.86	14 35 54	2502.1	-34.23	100.10
70.00	14 3 57	3424.26	-34.15	123.44	283.00	89.60	15 1 1	2424.3	-30.75	95.24
80.00	14 47 13	3288.66	-29.68	112.99	282.83	86.61	15 42 1	2288.7	-28.07	85.68
90.00	15 57 6	3063.04	-27.95	96.28	282.69	85.48	16 48 9	2063.0	-27.01	69.31
100.00	17 30 5	2763.13	-29.68	74.36	282.83	86.61	18 16 8	1763.1	-28.07	47.05
110.00	19 3 23	2471.07	-34.15	52.36	283.00	89.60	19 44 34	1471.1	-30.75	24.16

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4604 TRA-1.3754 TC3 .5653 BAU .1979 — SGT 1901.0 SGR 648.8 SG3 412.9 — ST 37.9 SR 22.5 SS 35.6
RDE -.3632 RRA .3012 RC3 -.3090 FAU .10058 — RRT -.4722 RRF .5317 RTF -.8371 — CRT .5268 CRS .6326 CST .9897
FDE .9985 FRA 2.2702 FC3-3.7895 BSP 3268 — SGB 2008.7 R23 -.1114 R13 .8440 — LSA 53.7 MSA 18.0 SSA 1.5
BDE .5865 BRA 1.4080 BC3 .6442 FSP 607 — SG1 1927.9 SG2 564.0 THA 169.98 — EL1 40.2 EL2 18.0 ALF 21.94

LAUNCH DATE JUL 16 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC — DISTANCE 388.939 — EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 33.726 GAL -3.18 AZL 89.61 HCA 125.84 SMA 218.20 ECC .30774 INC .3889 V1 29.301
RP 223.64 LAP .32 LOP 59.17 VP 24.055 GAP 17.87 AZP 90.23 TAL 346.44 TAP 112.29 RCA 151.05 APO 285.35 V2 24.590
RC 102.397 GL 2.77 GP -8.66 ZAL 112.08 ZAP 160.64 ETS 207.56 ZAE 162.26 ETE 328.02 ZAC 74.95 ETC 283.06 LVI -8.82

PLANETOCENTRIC CONIC

C3 22.329 VHL 4.725 DLA 19.12 RAL 42.11 RAD 6643.9 VEL 11.930 PTH 6.93 VHP 5.439 DPA 6.97 RAP 42.37 ECC 1.3678

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 17 26	3547.30	-46.87	132.51	280.92	99.35	14 16 33	2547.3	-37.91	101.86
60.00	13 34 27	3501.97	-40.15	129.51	282.00	93.87	14 32 49	2502.0	-34.23	100.10
70.00	14 0 21	3425.70	-34.15	123.56	282.22	89.53	14 57 27	2425.7	-30.77	95.38
80.00	14 43 3	3291.90	-29.67	113.23	282.04	86.49	15 37 54	2291.9	-28.11	85.91
90.00	15 52 38	3067.24	-27.92	96.58	281.89	85.33	16 43 45	2067.2	-27.05	69.61
100.00	17 25 54	2766.37	-29.67	74.60	282.04	86.49	18 12 1	1766.4	-28.11	47.28
110.00	18 59 48	2472.51	-34.15	52.47	282.22	89.53	19 41 0	1472.5	-30.77	24.26

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4633 TRA-1.3632 TC3 .6002 BAU .2056 — SGT 1923.0 SGR 659.1 SG3 436.7 — ST 38.4 SR 21.9 SS 37.0
RDE -.3469 RRA .3072 RC3 -.3381 FAU .10506 — RRT -.5007 RRF .5634 RTF -.8412 — CRT .5179 CRS .6283 CST .9891
FDE 1.0600 FRA 2.3479 FC3-4.0733 BSP 3317 — SGB 2032.8 R23 -.1187 R13 .8489 — LSA 54.9 MSA 17.8 SSA 1.6
BDE .5788 BRA 1.3974 BC3 .6888 FSP 646 — SG1 1953.7 SG2 561.6 THA 169.37 — EL1 40.5 EL2 17.7 ALF 20.51

LAUNCH DATE JUL 16 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 392.387 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.670	GAL	-3.11	AZL	89.56	HCA	126.92	SMA	216.86	ECC	.30331	INC	.4374	V1	29.301
RP	224.03	LAP	.35	LOP	60.25	VP	23.934	GAP	17.56	AZP	90.26	TAL	346.59	TAP	113.52	RCA	151.09	APO	282.64	V2	24.548
RC	104.735	GL	3.16	GP	-8.99	ZAL	111.82	ZAP	159.70	ETS	207.20	ZAE	162.24	ETE	326.59	ZAC	74.59	ETC	283.06	LVI	-8.45

PLANETOCENTRIC CONIC

C3	21.723	VHL	4.661	DLA	19.41	RAL	41.73	RAD	6643.6	VEL	11.905	PTH	6.91	VHP	5.296	DPA	6.72	RAP	42.66	ECC	1.3575

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 14 40	3546.76	-46.86	132.46	280.18	99.39	14 13 47	2546.8	-37.89	101.82
60.00	13 31 16	3502.58	-40.15	129.56	281.25	93.83	14 29 38	2502.6	-34.25	100.14
70.00	13 56 37	3427.94	-34.15	123.73	281.47	89.43	14 53 45	2427.9	-30.81	95.51
80.00	14 38 40	3296.08	-29.65	113.54	281.27	86.32	15 33 37	2296.1	-28.16	86.21
90.00	15 47 57	3072.47	-27.89	96.96	281.12	85.14	16 39 9	2072.5	-27.11	69.98
100.00	17 21 32	2770.55	-29.65	74.91	281.27	86.32	18 7 43	1770.6	-28.16	47.58
110.00	18 56 3	2474.75	-34.15	52.65	281.47	89.43	19 37 18	1474.8	-30.81	24.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4661	TRA	-1.3510	TC3	.6334	BAU	.2129	SGT	1943.7	SGR	671.3	SG3	461.7	ST	39.0	SR	21.2	SS	38.5
RDE	-.3303	RRA	.3138	RC3	-.3694	FAU	.10974	RRT	-.5294	RRF	.5954	RTF	-.8447	CRT	.5069	CRS	.6221	CST	.9885
FDE	1.1258	FRA	2.4281	FC3	-4.3734	BSP	3370	SGB	2056.4	R23	-.1269	R13	.8532	LSA	56.1	MSA	17.5	SSA	1.6
BDE	.5713	BRA	1.3870	BC3	.7333	FSP	688	SG1	1978.8	SG2	559.4	THA	168.73	EL1	40.8	EL2	17.5	ALF	19.05

LAUNCH DATE JUL 16 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 395.864 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.618	GAL	-3.04	AZL	89.51	HCA	128.00	SMA	215.61	ECC	.29912	INC	.4870	V1	29.301
RP	224.42	LAP	.38	LOP	61.33	VP	23.817	GAP	17.25	AZP	90.30	TAL	346.74	TAP	114.74	RCA	151.12	APO	280.10	V2	24.506
RC	107.119	GL	3.56	GP	-9.34	ZAL	111.56	ZAP	158.74	ETS	206.88	ZAE	162.24	ETE	325.03	ZAC	74.22	ETC	283.06	LVI	-8.06

PLANETOCENTRIC CONIC

C3	21.157	VHL	4.600	DLA	19.71	RAL	41.35	RAD	6643.3	VEL	11.881	PTH	6.89	VHP	5.157	DPA	6.45	RAP	42.94	ECC	1.3482

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 11 49	3546.86	-46.86	132.47	279.47	99.38	14 10 56	2546.9	-37.90	101.83
60.00	13 27 57	3503.89	-40.15	129.67	280.54	93.76	14 26 21	2503.9	-34.28	100.23
70.00	13 52 42	3431.00	-34.15	123.97	280.74	89.29	14 49 53	2431.0	-30.87	95.73
80.00	14 34 6	3301.25	-29.63	113.92	280.52	86.13	15 29 7	2301.2	-28.22	86.59
90.00	15 43 1	3078.78	-27.86	97.42	280.37	84.92	16 34 19	2078.8	-27.17	70.43
100.00	17 16 58	2775.72	-29.63	75.29	280.52	86.13	18 3 13	1775.7	-28.22	47.95
110.00	18 52 9	2477.82	-34.15	52.89	280.74	89.29	19 33 26	1477.8	-30.87	24.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4692	TRA	-1.3376	TC3	.6668	BAU	.2204	SGT	1962.3	SGR	685.6	SG3	487.8	ST	39.5	SR	20.5	SS	40.0
RDE	-.3134	RRA	.3208	RC3	-.4031	FAU	.11464	RRT	-.5579	RRF	.6273	RTF	-.8481	CRT	.4942	CRS	.6142	CST	.9879
FDE	1.1962	FRA	2.5096	FC3	-4.6911	BSP	3421	SGB	2078.6	R23	-.1354	R13	.8576	LSA	57.3	MSA	17.2	SSA	1.6
BDE	.5643	BRA	1.3755	BC3	.7792	FSP	732	SG1	2002.5	SG2	557.6	THA	168.03	EL1	41.1	EL2	17.2	ALF	17.58

LAUNCH DATE JUL 16 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 399.368 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.567	GAL	-2.98	AZL	89.46	HCA	129.08	SMA	214.43	ECC	.29513	INC	.5360	V1	29.301
RP	224.81	LAP	.42	LOP	62.40	VP	23.702	GAP	16.95	AZP	90.34	TAL	346.89	TAP	115.97	RCA	151.15	APO	277.72	V2	24.464
RC	109.544	GL	3.98	GP	-9.71	ZAL	111.29	ZAP	157.76	ETS	206.60	ZAE	162.27	ETE	323.30	ZAC	73.83	ETC	283.07	LVI	-7.67

PLANETOCENTRIC CONIC

C3	20.628	VHL	4.542	DLA	20.04	RAL	40.96	RAD	6643.1	VEL	11.859	PTH	6.87	VHP	5.023	DPA	6.15	RAP	43.19	ECC	1.3395

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 8 52	3547.58	-46.87	132.54	278.80	99.33	14 7 59	2547.6	-37.92	101.88
60.00	13 24 30	3505.91	-40.16	129.84	279.85	93.64	14 22 56	2505.9	-34.33	100.38
70.00	13 48 37	3434.90	-34.14	124.27	280.04	89.11	14 45 52	2434.9	-30.94	96.01
80.00	14 29 17	3307.42	-29.60	114.38	279.80	85.89	15 24 25	2307.4	-28.29	87.03
90.00	15 37 49	3086.21	-27.81	97.96	279.63	84.65	16 29 15	2086.2	-27.24	70.96
100.00	17 12 9	2781.90	-29.60	75.75	279.80	85.89	17 58 31	1781.9	-28.29	48.40
110.00	18 48 4	2481.72	-34.14	53.19	280.04	89.11	19 29 25	1481.7	-30.94	24.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4617	TRA	-1.3132	TC3	.7193	BAU	.2325	SGT	1968.7	SGR	702.4	SG3	513.1	ST	39.4	SR	19.8	SS	41.6
RDE	-.2961	RRA	.3283	RC3	-.4397	FAU	.11981	RRT	-.5935	RRF	.6589	RTF	-.8467	CRT	.4723	CRS	.6038	CST	.9862
FDE	1.2710	FRA	2.5922	FC3	-5.0282	BSP	3332	SGB	2090.3	R23	-.1328	R13	.8668	LSA	58.2	MSA	16.9	SSA	1.6
BDE	.5485	BRA	1.3536	BC3	.8430	FSP	776	SG1	2016.0	SG2	552.1	THA	167.06	EL1	40.7	EL2	16.9	ALF	16.26

LAUNCH DATE JUL 16 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 402.897 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.520	GAL	-2.91	AZL	89.41	HCA	130.15	SMA	213.33	ECC	.29137	INC	.5903	V1	29.301
RP	225.20	LAP	.45	LOP	63.47	VP	23.592	GAP	16.65	AZP	90.38	TAL	347.03	TAP	117.18	RCA	151.18	APO	275.49	V2	24.422
RC	112.011	GL	4.41	GP	-10.09	ZAL	111.04	ZAP	156.76	ETS	206.35	ZAE	162.31	ETE	321.42	ZAC	73.43	ETC	283.08	LVI	-7.27

PLANETOCENTRIC CONIC

C3	20.136	VHL	4.487	DLA	20.38	RAL	40.57	RAD	6642.9	VEL	11.838	PTH	6.86	VHP	4.894	DPA	5.83	RAP	43.44	ECC	1.3314

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 5 49	3549.00	-46.89	132.67	278.18	99.23	14 4 58	2549.0	-37.97	101.98
60.00	13 20 56	3508.73	-40.18	130.08	279.21	93.48	14 19 25	2508.7	-34.41	100.58
70.00	13 44 22	3439.73	-34.14	124.65	279.37	88.88	14 41 42	2439.7	-31.03	96.36
80.00	14 24 14	3314.74	-29.56	114.92	279.11	85.60	15 19 29	2314.7	-28.38	87.56
90.00	15 32 20	3094.90	-27.75	98.59	278.93	84.34	16 23 55	2094.9	-27.32	71.59
100.00	17 7 6	2789.21	-29.56	76.29	279.11	85.60	17 53 35	1789.2	-28.38	48.92
110.00	18 43 48	2486.55	-34.14	53.57	279.37	88.88	19 25 15	1486.5	-31.03	25.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4701	TRA	-1.3037	TC3	.7398	BAU	.2372	SGT	1988.6	SGR	721.6	SG3	543.7	ST	40.1	SR	19.1	SS	43.3
RDE	-.2782	RRA	.3365	RC3	-.4785	FAU	.12510	RRT	-.6173	RRF	.6897	RTF	-.8568	CRT	.4567	CRS	.5903	CST	.9861
FDE	1.3527	FRA	2.6787	FC3	-5.3784	BSP	3444	SGB	2115.4	R23	-.1477	R13	.8683	LSA	59.8	MSA	16.6	SSA	1.6
BDE	.5463	BRA	1.3464	BC3	.8811	FSP	826	SG1	2041.9	SG2	552.9	THA	166.35	EL1	41.3	EL2	16.5	ALF	14.62

LAUNCH DATE JUL 16 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 406.447 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.475	GAL	-2.86	AZL	89.36	HCA	131.21	SMA	212.30	ECC	.28779	INC	.6442
RP	225.59	LAP	.48	LOP	64.54	VP	23.484	GAP	16.35	AZP	90.42	TAL	347.18	TAP	118.39	RCA	151.20	APO	273.40
RC	114.516	GL	4.86	GP	-10.50	ZAL	110.78	ZAP	155.73	ETS	206.14	ZAE	162.37	ETE	319.37	ZAC	73.01	ETC	283.09

V1	29.301	V2	24.380	LVI	-6.85														

PLANETOCENTRIC CONIC

C3	19.678	VHL	4.436	DLA	20.73	RAL	40.18	RAD	6642.7	VEL	11.819	PTH	6.84	VHP	4.769	DPA	5.48	RAP	43.67
ECC	1.3239																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 2 40	3551.11	-46.91	132.87	277.60	99.08	14 1 51	2551.1	-38.05	102.12
60.00	13 17 14	3512.31	-40.19	130.38	278.60	93.28	14 15 46	2512.3	-34.50	100.84
70.00	13 39 56	3445.48	-34.13	125.10	278.73	88.62	14 37 21	2445.5	-31.13	96.78
80.00	14 18 56	3323.20	-29.52	115.54	278.44	85.28	15 14 19	2323.2	-28.48	88.17
90.00	15 26 33	3104.89	-27.68	99.31	278.24	83.98	16 18 18	2104.9	-27.41	72.30
100.00	17 1 48	2797.67	-29.52	76.91	278.44	85.28	17 48 25	1797.7	-28.48	49.54
110.00	18 39 22	2492.30	-34.13	54.02	278.73	88.62	19 20 54	1492.3	-31.13	25.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4759	TRA	-1.2914	TC3	.7644	BAU	.2433	SGT	2004.6	SGR	743.9	SG3	573.7	ST	40.8	SR	18.3	SS	45.1
RDE	-.2598	RRA	.3453	RC3	-.5205	FAU	.13070	RRT	-.6421	RRF	.7196	RTF	-.8578	CRT	.4349	CRS	.5728	CST	.9856
FDE	1.4399	FRA	2.7668	FC3	-5.7501	BSP	3523	SGB	2138.2	R23	-.1605	R13	.8710	LSA	61.4	NSA	16.2	SSA	1.6
BDE	.5422	BRA	1.3368	BC3	.9248	FSP	877	SG1	2065.3	SG2	553.5	THA	165.54	EL1	41.7	EL2	16.1	ALF	12.99

LAUNCH DATE JUL 16 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 410.019 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.432	GAL	-2.80	AZL	89.30	HCA	132.28	SMA	211.33	ECC	.28441	INC	.6996
RP	225.98	LAP	.52	LOP	65.60	VP	23.380	GAP	16.05	AZP	90.47	TAL	347.32	TAP	119.59	RCA	151.23	APO	271.44
RC	117.057	GL	5.33	GP	-10.92	ZAL	110.53	ZAP	154.68	ETS	205.95	ZAE	162.42	ETE	317.14	ZAC	72.58	ETC	283.11

V1	29.301	V2	24.338	LVI	-6.42														

PLANETOCENTRIC CONIC

C3	19.253	VHL	4.388	DLA	21.11	RAL	39.78	RAD	6642.5	VEL	11.801	PTH	6.82	VHP	4.648	DPA	5.10	RAP	43.89
ECC	1.3169																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 59 25	3553.90	-46.94	133.13	277.06	98.68	13 58 39	2553.9	-38.14	102.32
60.00	13 13 23	3516.68	-40.21	130.75	278.02	93.03	14 12 0	2516.7	-34.61	101.16
70.00	13 35 17	3452.20	-34.12	125.62	278.11	88.31	14 32 49	2452.2	-31.24	97.27
80.00	14 13 20	3332.88	-29.46	116.26	277.79	84.91	15 8 53	2332.9	-28.58	88.67
90.00	15 20 26	3116.26	-27.60	100.13	277.58	83.58	16 12 22	2116.3	-27.50	73.12
100.00	16 56 12	2807.35	-29.46	77.63	277.79	84.91	17 42 59	1807.3	-28.58	50.24
110.00	18 34 43	2499.02	-34.12	54.54	278.11	88.31	19 16 22	1499.0	-31.24	26.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4809	TRA	-1.2773	TC3	.7876	BAU	.2495	SGT	2017.1	SGR	769.2	SG3	604.9	ST	41.3	SR	17.4	SS	47.0
RDE	-.2407	RRA	.3548	RC3	-.5654	FAU	.13648	RRT	-.6662	RRF	.7482	RTF	-.8590	CRT	.4072	CRS	.5503	CST	.9851
FDE	1.5339	FRA	2.8569	FC3	-6.1371	BSP	3582	SGB	2158.8	R23	-.1727	R13	.8739	LSA	63.0	NSA	15.9	SSA	1.7
BDE	.5377	BRA	1.3257	BC3	.9695	FSP	930	SG1	2086.3	SG2	554.6	THA	164.63	EL1	42.0	EL2	15.6	ALF	11.33

LAUNCH DATE JUL 16 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 413.609 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.391	GAL	-2.74	AZL	89.24	HCA	133.33	SMA	210.43	ECC	.28120	INC	.7566
RP	226.37	LAP	.55	LOP	66.66	VP	23.278	GAP	15.76	AZP	90.52	TAL	347.45	TAP	120.79	RCA	151.25	APO	269.60
RC	119.633	GL	5.82	GP	-11.37	ZAL	110.28	ZAP	153.60	ETS	205.78	ZAE	162.48	ETE	314.72	ZAC	72.13	ETC	283.14

V1	29.301	V2	24.297	LVI	-5.97														

PLANETOCENTRIC CONIC

C3	18.857	VHL	4.342	DLA	21.51	RAL	39.39	RAD	6642.3	VEL	11.785	PTH	6.81	VHP	4.532	DPA	4.70	RAP	44.09
ECC	1.3103																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 56 3	3557.42	-46.97	133.47	276.56	98.62	13 55 20	2557.4	-38.27	102.57
60.00	13 9 23	3521.89	-40.22	131.20	277.48	92.73	14 8 5	2521.9	-34.75	101.54
70.00	13 30 25	3459.93	-34.10	126.23	277.53	87.95	14 28 5	2459.9	-31.37	97.83
80.00	14 7 26	3343.86	-29.39	117.07	277.16	84.49	15 3 10	2343.9	-28.70	89.66
90.00	15 13 57	3129.14	-27.50	101.06	276.93	83.13	16 6 6	2129.1	-27.60	74.05
100.00	16 50 18	2816.33	-29.39	78.43	277.16	84.49	17 37 16	1816.3	-28.70	51.03
110.00	18 29 51	2506.75	-34.10	55.14	277.53	87.95	19 11 38	1506.8	-31.37	26.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4847	TRA	-1.2614	TC3	.8115	BAU	.2565	SGT	2026.3	SGR	798.1	SG3	637.4	ST	41.8	SR	16.5	SS	46.9
RDE	-.2208	RRA	.3649	RC3	-.6139	FAU	.14257	RRT	-.6896	RRF	.7754	RTF	-.8604	CRT	.3720	CRS	.5213	CST	.9845
FDE	1.6336	FRA	2.9474	FC3	-6.5453	BSP	3632	SGB	2177.8	R23	-.1842	R13	.8773	LSA	64.6	NSA	15.5	SSA	1.7
BDE	.5326	BRA	1.3131	BC3	1.0176	FSP	986	SG1	2105.6	SG2	556.2	THA	163.63	EL1	42.3	EL2	15.2	ALF	9.62

LAUNCH DATE JUL 16 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 417.218 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.353	GAL	-2.69	AZL	89.18	HCA	134.39	SMA	209.57	ECC	.27816	INC	.8158
RP	226.76	LAP	.58	LOP	67.72	VP	23.179	GAP	15.47	AZP	90.57	TAL	347.59	TAP	121.98	RCA	151.28	APO	267.87
RC	122.241	GL	6.33	GP	-11.84	ZAL	110.03	ZAP	152.50	ETS	205.63	ZAE	162.52	ETE	312.12	ZAC	71.66	ETC	283.16

V1	29.301	V2	24.255	LVI	-5.51														

PLANETOCENTRIC CONIC

C3	18.491	VHL	4.300	DLA	21.92	RAL	38.98	RAD	6642.2	VEL	11.769	PTH	6.80	VHP	4.420	DPA	4.27	RAP	44.28
ECC	1.3043																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 52 34	3561.67	-47.02	133.87	276.11	98.32	13 51 55	2561.7	-38.41	102.87
60.00	13 5 13	3527.95	-40.24	131.71	276.98	92.38	14 4 1	2528.0	-34.90	101.98
70.00	13 25 19	3468.73	-34.08	126.91	276.98	87.55	14 23 8	2468.7	-31.52	98.48
80.00	14 1 12	3356.25	-29.31	117.98	276.56	84.02	14 57 8	2356.3	-28.82	90.56
90.00	15 7 2	3143.67	-27.38	102.10	276.31	82.62	15 59 26	2143.7	-27.71	75.10
100.00	16 44 3	2830.72	-29.31	79.35	276.56	84.02	17 31 14	1830.7	-28.82	51.93
110.00	18 24 46	2515.55	-34.08	55.83	276.98	87.55	19 6 41	1515.6	-31.52	27.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4891	TRA	-1.2444	TC3	.8333	BAU	.2636	SGT	2033.0	SGR	830.5	SG3	671.3	ST	42.2	SR	15.6	SS	51.0
RDE	-.1998	RRA	.3757	RC3	-.6656	FAU	.14882	RRT	-.7114	RRF	.8008	RTF	-.8618	CRT	.3278	CRS	.4837	CST	.9839
FDE	1.7438	FRA	3.0400	FC3	-6.9678	BSP	3675	SGB	2196.1	R23	-.1952	R13	.8809	LSA	66.3	NSA	15.1	SSA	1.7
BDE	.5284	BRA	1.2999	BC3	1.0665	FSP	1045	SG1	2123.8	SG2	558.7	THA	162.55	EL1	42.6	EL2	14.6	ALF	7.84

LAUNCH DATE JUL 16 1973 FLIGHT TIME 168.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 420.843 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.316	GAL	-2.64	AZL	89.12	HCA	135.44	SMA	208.77	ECC	.27529	INC	.6766	V1	29.301
RP	227.15	LAP	.62	LOP	68.77	VP	23.083	GAP	15.18	AZP	90.62	TAL	347.71	TAP	123.16	RCA	151.30	APO	266.24	V2	24.214
RC	124.878	GL	8.86	GP	-12.33	ZAL	109.79	ZAP	151.37	ETS	205.50	ZAE	162.54	ETE	309.32	ZAC	71.17	ETC	283.20	LVI	-5.03

PLANETOCENTRIC CONIC

C3	18.152	VHL	4.260	DLA	22.36	RAL	38.58	RAD	6642.0	VEL	11.755	PTH	6.78	VHP	4.312	DPA	3.81	RAP	44.45	ECC	1.2987

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 48 57	3566.69	-47.07	134.34	275.70	97.95	13 48 24	2566.7	-38.59	103.22
60.00	13 0 53	3534.91	-40.26	132.30	276.51	91.98	13 59 48	2534.9	-35.07	102.49
70.00	13 19 59	3478.66	-34.04	127.69	276.45	87.09	14 17 57	2478.7	-31.68	99.21
80.00	13 54 35	3370.16	-29.20	119.00	275.98	83.49	14 50 45	2370.2	-28.95	91.58
90.00	14 59 40	3160.00	-27.23	103.27	275.70	82.05	15 52 20	2160.0	-27.82	76.28
100.00	16 37 26	2844.63	-29.20	80.37	275.98	83.49	17 24 51	1844.6	-28.95	52.94
110.00	18 19 25	2525.48	-34.04	56.60	276.45	87.09	19 1 30	1525.5	-31.68	28.12

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4912	TRA	-1.2262	TC3	.8537	BAU	.2712	SGT	2035.8	SGR	867.2	SG3	706.4			ST	42.5	SR	14.7	SS	53.1
RDE	-.1783	RRA	.3871	RC3	-.7212	FAU	.15537	RRT	-.7320	RRF	.8245	RTF	-.8629			CRT	.2708	CRS	.4348	CST	.9831
FDE	1.8567	FRA	3.1323	FC3	-7.4105	BSP	3706	SGB	2212.8	R23	-.2057	R13	.8845			LSA	68.0	MSA	14.8	SSA	1.7
BDE	.5225	BRA	1.2859	BC3	1.1175	FSP	1104	SG1	2140.3	SG2	562.0	THA	161.35			EL1	42.7	EL2	14.1	ALF	6.00

LAUNCH DATE JUL 16 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 424.482 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.282	GAL	-2.60	AZL	89.06	HCA	136.49	SMA	208.02	ECC	.27256	INC	.9396	V1	29.301
RP	227.54	LAP	.65	LOP	69.82	VP	22.990	GAP	14.89	AZP	90.68	TAL	347.84	TAP	124.33	RCA	151.32	APO	264.72	V2	24.172
RC	127.544	GL	7.42	GP	-12.85	ZAL	109.55	ZAP	150.22	ETS	205.38	ZAE	162.52	ETE	306.34	ZAC	70.67	ETC	283.24	LVI	-4.54

PLANETOCENTRIC CONIC

C3	17.839	VHL	4.224	DLA	22.81	RAL	38.17	RAD	6641.9	VEL	11.742	PTH	6.77	VHP	4.208	DPA	3.31	RAP	44.61	ECC	1.2936

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 45 13	3572.49	-47.12	134.89	275.33	97.53	13 44 45	2572.5	-38.79	103.63
60.00	12 56 22	3542.79	-40.28	132.97	276.08	91.52	13 55 24	2542.8	-35.26	103.07
70.00	13 14 21	3489.78	-34.00	128.55	275.95	86.58	14 12 31	2489.8	-31.85	100.03
80.00	13 47 32	3385.72	-29.08	120.14	275.42	82.90	14 43 58	2385.7	-29.08	92.71
90.00	14 51 46	3178.35	-27.05	104.59	275.10	81.41	15 44 44	2178.3	-27.93	77.61
100.00	16 30 24	2860.19	-29.08	81.51	275.42	82.90	17 18 4	1860.2	-29.08	54.08
110.00	18 13 48	2536.60	-34.00	57.47	275.95	86.58	18 56 4	1536.6	-31.85	28.94

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4941	TRA	-1.2071	TC3	.8694	BAU	.2786	SGT	2035.8	SGR	907.8	SG3	742.7			ST	42.8	SR	13.8	SS	55.4
RDE	-.1554	RRA	.3993	RC3	-.7803	FAU	.16207	RRT	-.7503	RRF	.8461	RTF	-.8636			CRT	.1987	CRS	.3707	CST	.9823
FDE	1.9801	FRA	3.2257	FC3	-7.8652	BSP	3747	SGB	2229.1	R23	-.2163	R13	.8882			LSA	69.9	MSA	14.4	SSA	1.7
BDE	.5180	BRA	1.2714	BC3	1.1682	FSP	1168	SG1	2155.8	SG2	566.8	THA	160.06			EL1	42.9	EL2	13.5	ALF	4.06

LAUNCH DATE JUL 16 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 428.136 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.249	GAL	-2.55	AZL	89.00	HCA	137.53	SMA	207.31	ECC	.26998	INC	1.0049	V1	29.301
RP	227.93	LAP	.68	LOP	70.86	VP	22.899	GAP	14.61	AZP	90.74	TAL	347.96	TAP	125.49	RCA	151.34	APO	263.28	V2	24.131
RC	130.237	GL	7.99	GP	-13.40	ZAL	109.32	ZAP	149.03	ETS	205.28	ZAE	162.47	ETE	303.18	ZAC	70.14	ETC	283.29	LVI	-4.03

PLANETOCENTRIC CONIC

C3	17.552	VHL	4.189	DLA	23.30	RAL	37.76	RAD	6641.7	VEL	11.730	PTH	6.76	VHP	4.108	DPA	2.78	RAP	44.75	ECC	1.2889

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 41 20	3579.11	-47.18	135.52	275.02	97.05	13 40 59	2579.1	-39.01	104.11
60.00	12 51 38	3551.65	-40.29	133.73	275.69	91.01	13 50 50	2551.7	-35.48	103.72
70.00	13 8 26	3502.17	-33.95	129.52	275.48	86.01	14 6 48	2502.2	-32.04	100.94
80.00	13 40 1	3403.11	-28.92	121.41	274.88	82.25	14 36 44	2403.1	-29.22	93.99
90.00	14 43 14	3198.97	-26.83	106.06	274.52	80.71	15 36 33	2199.0	-28.03	79.11
100.00	16 22 53	2877.58	-28.92	82.78	274.88	82.25	17 10 50	1877.6	-29.22	55.35
110.00	18 7 52	2548.99	-33.95	58.43	275.48	86.01	18 50 21	1549.0	-32.04	29.86

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4965	TRA	-1.1880	TC3	.8626	BAU	.2865	SGT	2033.9	SGR	953.3	SG3	780.4			ST	43.1	SR	12.9	SS	57.7
RDE	-.1312	RRA	.4124	RC3	-.8435	FAU	.16901	RRT	-.7669	RRF	.8658	RTF	-.8640			CRT	.1063	CRS	.2865	CST	.9815
FDE	2.1112	FRA	3.3211	FC3	-8.3364	BSP	3776	SGB	2246.3	R23	-.2265	R13	.8919			LSA	71.8	MSA	14.1	SSA	1.7
BDE	.5136	BRA	1.2575	BC3	1.2209	FSP	1233	SG1	2172.0	SG2	573.0	THA	158.67			EL1	43.1	EL2	12.8	ALF	2.00

LAUNCH DATE JUL 16 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 431.802 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.218	GAL	-2.51	AZL	88.93	HCA	138.57	SMA	206.65	ECC	.26755	INC	1.0725	V1	29.301
RP	228.32	LAP	.71	LOP	71.90	VP	22.810	GAP	14.33	AZP	90.80	TAL	348.08	TAP	126.65	RCA	151.36	APO	261.93	V2	24.090
RC	132.954	GL	8.59	GP	-13.97	ZAL	109.10	ZAP	147.82	ETS	205.18	ZAE	162.36	ETE	299.87	ZAC	69.59	ETC	283.34	LVI	-3.49

PLANETOCENTRIC CONIC

C3	17.289	VHL	4.158	DLA	23.80	RAL	37.35	RAD	6641.6	VEL	11.718	PTH	6.75	VHP	4.013	DPA	2.22	RAP	44.88	ECC	1.2845

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 37 18	3586.58	-47.24	136.24	274.75	96.51	13 37 5	2586.6	-39.26	104.65
60.00	12 46 42	3561.54	-40.30	134.57	275.33	90.44	13 46 4	2561.5	-35.71	104.46
70.00	13 2 11	3515.94	-33.88	130.58	275.04	85.38	14 0 47	2515.9	-32.24	101.97
80.00	13 31 57	3422.53	-28.74	122.82	274.35	81.53	14 29 0	2422.5	-29.36	95.41
90.00	14 33 59	3222.21	-26.56	107.71	273.95	79.93	15 27 42	2222.2	-28.13	80.81
100.00	16 14 49	2897.00	-28.74	84.19	274.35	81.53	17 3 6	1897.0	-29.36	56.78
110.00	18 1 37	2562.75	-33.88	59.50	275.04	85.38	18 44 20	1562.8	-32.24	30.89

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4989	TRA	-1.1673	TC3	.8906	BAU	.2944	SGT	2027.7	SGR	1003.2	SG3	819.0			ST	43.3	SR	12.1	SS	60.2
RDE	-.1055	RRA	.4260	RC3	-.9108	FAU	.17612	RRT	-.7811	RRF	.8835	RTF	-.8639			CRT	-.0097	CRS	.1777	CST	.9807
FDE	2.2524	FRA	3.4137	FC3	-8.8189	BSP	3810	SGB	2262.3	R23	-.2363	R13	.8957			LSA	73.9	MSA	13.8	SSA	1.7
BDE	.5099	BRA	1.2426	BC3	1.2739	FSP	1300	SG1	2186.5	SG2	581.0	THA	157.17			EL1	43.3	EL2	12.1	ALF	179.83

LAUNCH DATE JUL 16 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 435.480 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.189	GAL	-2.47	AZL	88.86	HCA	139.61	SMA	206.02	ECC	.26524	INC	1.1427	V1	29.301
RP	228.70	LAP	.74	LOP	72.94	VP	22.724	GAP	14.05	AZP	90.87	TAL	348.19	TAP	127.80	RCA	151.38	APO	260.66	V2	24.049
RC	135.694	GL	9.22	GP	-14.58	ZAL	108.87	ZAP	146.57	ETS	205.10	ZAE	162.19	ETE	296.41	ZAC	69.01	ETC	283.40	LVI	-2.94

PLANETOCENTRIC CONIC

C3	17.049	VHL	4.129	DLA	24.33	RAL	36.94	RAD	6641.5	VEL	11.708	PTH	6.74	VHP	3.921	DPA	1.62	RAP	44.99	ECC	1.2806

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 33 6	3594.92	-47.30	137.03	274.53	95.89	13 33 1	2594.9	-39.54	105.25
60.00	12 41 31	3572.49	-40.30	135.50	275.01	89.81	13 41 4	2572.5	-35.96	105.28
70.00	12 55 33	3531.15	-33.79	131.76	274.62	84.69	13 54 24	2531.2	-32.45	103.11
80.00	13 23 16	3444.22	-28.51	124.39	273.83	80.73	14 20 40	2444.2	-29.50	97.01
90.00	14 23 52	3248.50	-26.24	109.56	273.38	79.05	15 18 0	2248.5	-28.21	82.72
100.00	16 6 7	2918.70	-28.51	85.76	273.83	80.73	16 54 46	1918.7	-29.50	58.38
110.00	17 54 59	2577.97	-33.79	60.68	274.62	84.69	18 37 57	1578.0	-32.45	32.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4941	TRA	-1.1393	TC3	.9110	BAU	.3056	SGT	2011.5	SGR	1058.8	SG3	858.9	ST	43.1	SR	11.5	SS	82.6
RDE	-.0788	RRA	.4400	RC3	-.9838	FAU	.18368	RRT	-.7976	RRF	.8994	RTF	-.8665	CRT	-.1522	CRS	.0431	CST	.9793
FDE	2.3969	FRA	3.5013	FC3	-9.3269	BSP	3762	SGB	2273.2	R23	-.2378	R13	.9020	LSA	75.7	MSA	13.5	SSA	1.7
BDE	.5004	BRA	1.2213	BC3	1.3409	FSP	1364	SG1	2196.7	SG2	584.8	THA	155.36	EL1	43.1	EL2	11.4	ALF	177.80

LAUNCH DATE JUL 16 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 439.169 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.161	GAL	-2.43	AZL	88.78	HCA	140.65	SMA	205.43	ECC	.26306	INC	1.2157	V1	29.301
RP	229.09	LAP	.77	LOP	73.98	VP	22.641	GAP	13.77	AZP	90.94	TAL	348.29	TAP	128.94	RCA	151.39	APO	259.47	V2	24.008
RC	138.457	GL	9.87	GP	-15.21	ZAL	108.66	ZAP	145.30	ETS	205.02	ZAE	161.95	ETE	292.86	ZAC	68.41	ETC	283.47	LVI	-2.36

PLANETOCENTRIC CONIC

C3	16.833	VHL	4.103	DLA	24.89	RAL	36.52	RAD	6641.4	VEL	11.699	PTH	6.73	VHP	3.834	DPA	.98	RAP	45.09	ECC	1.2770

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 28 44	3604.21	-47.36	137.92	274.37	95.21	13 28 49	2604.2	-39.84	105.94
60.00	12 36 6	3584.61	-40.29	136.53	274.74	89.11	13 35 50	2584.6	-36.24	106.19
70.00	12 48 31	3548.01	-33.67	133.07	274.23	83.93	13 47 39	2548.0	-32.66	104.37
80.00	13 13 49	3468.60	-28.23	126.15	273.33	79.85	14 11 38	2468.6	-29.62	98.81
90.00	14 12 40	3278.56	-25.83	111.67	272.80	78.07	15 7 18	2278.6	-28.26	84.92
100.00	15 56 41	2943.08	-28.23	87.52	273.33	79.85	16 45 44	1943.1	-29.62	60.18
110.00	17 47 57	2594.82	-33.67	61.98	274.23	83.93	18 31 12	1594.8	-32.66	33.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5011	TRA	-1.1223	TC3	.8985	BAU	.3125	SGT	2004.7	SGR	1119.1	SG3	899.6	ST	43.6	SR	11.1	SS	65.4
RDE	-.0492	RRA	.4558	RC3	-1.0590	FAU	.19096	RRT	-.8046	RRF	.9135	RTF	-.8630	CRT	-.3171	CRS	-.1250	CST	.9789
FDE	2.5616	FRA	3.5973	FC3	-9.8213	BSP	3858	SGB	2295.9	R23	-.2511	R13	.9044	LSA	78.3	MSA	13.1	SSA	1.7
BDE	.5035	BRA	1.2114	BC3	1.3888	FSP	1440	SG1	2215.8	SG2	601.2	THA	153.73	EL1	43.7	EL2	10.5	ALF	175.07

LAUNCH DATE JUL 16 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 442.867 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.135	GAL	-2.40	AZL	88.71	HCA	141.68	SMA	204.88	ECC	.26100	INC	1.2918	V1	29.301
RP	229.48	LAP	.80	LOP	75.01	VP	22.559	GAP	13.50	AZP	91.01	TAL	348.39	TAP	130.07	RCA	151.41	APO	258.36	V2	23.967
RC	141.241	GL	10.54	GP	-15.88	ZAL	108.45	ZAP	143.99	ETS	204.95	ZAE	161.63	ETE	289.23	ZAC	67.79	ETC	283.54	LVI	-1.76

PLANETOCENTRIC CONIC

C3	16.639	VHL	4.079	DLA	25.48	RAL	36.10	RAD	6641.3	VEL	11.691	PTH	6.73	VHP	3.750	DPA	.30	RAP	45.17	ECC	1.2738

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 24 11	3614.46	-47.42	138.91	274.25	94.46	13 24 25	2614.5	-40.17	106.70
60.00	12 30 23	3597.93	-40.27	137.66	274.49	88.34	13 30 21	2597.9	-36.53	107.20
70.00	12 41 0	3566.61	-33.53	134.50	273.86	83.09	13 40 27	2566.6	-32.89	105.78
80.00	13 3 29	3496.08	-27.89	128.12	272.82	78.87	14 1 45	2496.1	-29.73	100.85
90.00	14 0 4	3313.31	-25.32	114.08	272.20	76.97	14 55 17	2313.3	-28.28	87.46
100.00	15 46 20	2970.55	-27.89	89.49	272.82	78.87	16 35 51	1970.6	-29.73	62.21
110.00	17 40 27	2613.43	-33.53	63.42	273.86	83.09	18 24 0	1613.4	-32.89	34.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5030	TRA	-1.1004	TC3	.8896	BAU	.3215	SGT	1989.2	SGR	1184.9	SG3	941.0	ST	43.7	SR	11.2	SS	66.3
RDE	-.0179	RRA	.4722	RC3	-1.1392	FAU	.19844	RRT	-.8122	RRF	.9258	RTF	-.8608	CRT	-.4918	CRS	-.3077	CST	.9781
FDE	2.7332	FRA	3.6881	FC3	-10.3249	BSP	3909	SGB	2315.4	R23	-.2585	R13	.9084	LSA	80.8	MSA	12.8	SSA	1.7
BDE	.5033	BRA	1.1974	BC3	1.4454	FSP	1516	SG1	2231.9	SG2	616.0	THA	151.85	EL1	44.0	EL2	9.7	ALF	172.46

LAUNCH DATE JUL 16 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 446.575 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.110	GAL	-2.36	AZL	88.63	HCA	142.70	SMA	204.36	ECC	.25906	INC	1.3711	V1	29.301
RP	229.86	LAP	.83	LOP	76.03	VP	22.480	GAP	13.23	AZP	91.09	TAL	348.49	TAP	131.19	RCA	151.42	APO	257.31	V2	23.927
RC	144.046	GL	11.25	GP	-16.58	ZAL	108.25	ZAP	142.65	ETS	204.88	ZAE	161.22	ETE	285.56	ZAC	67.14	ETC	283.63	LVI	-1.14

PLANETOCENTRIC CONIC

C3	16.467	VHL	4.058	DLA	26.09	RAL	35.68	RAD	6641.2	VEL	11.684	PTH	6.72	VHP	3.671	DPA	-.42	RAP	45.23	ECC	1.2710

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 19 24	3625.73	-47.47	139.99	274.18	93.62	13 19 50	2625.7	-40.53	107.54
60.00	12 24 21	3612.55	-40.24	138.90	274.26	87.50	13 24 33	2612.6	-36.83	108.32
70.00	12 32 58	3587.16	-33.35	136.07	273.51	82.18	13 32 45	2587.2	-33.11	107.34
80.00	12 52 1	3527.32	-27.45	130.34	272.30	77.78	13 50 49	2527.3	-29.62	103.16
90.00	13 45 34	3354.33	-24.66	116.90	271.57	75.70	14 41 29	2354.3	-28.23	90.46
100.00	15 34 53	3001.80	-27.45	91.71	272.30	77.78	16 24 55	2001.8	-29.82	64.53
110.00	17 32 24	2633.98	-33.35	64.99	273.51	82.18	18 16 18	1634.0	-33.11	36.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5027	TRA	-1.0757	TC3	.8807	BAU	.3322	SGT	1968.4	SGR	1256.9	SG3	983.2	ST	43.6	SR	11.7	SS	71.2
RDE	.0154	RRA	.4890	RC3	-1.2250	FAU	.20620	RRT	-.8189	RRF	.9366	RTF	-.8588	CRT	-.6531	CRS	-.4845	CST	.9770
FDE	2.9122	FRA	3.7725	FC3	-10.8405	BSP	3938	SGB	2335.5	R23	-.2624	R13	.9132	LSA	83.3	MSA	12.6	SSA	1.7
BDE	.5029	BRA	1.1816	BC3	1.5087	FSP	1589	SG1	2248.5	SG2	631.5	THA	149.76	EL1	44.3	EL2	8.7	ALF	169.68

LAUNCH DATE JUL 16 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 450.291 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 33.086 GAL -2.33 AZL 88.55 HCA 143.73 SMA 203.88 ECC .25723 INC 1.4541 V1 29.301
RP 230.25 LAP .86 LOP 77.06 VP 22.402 GAP 12.96 AZP 91.17 TAL 348.57 TAP 132.30 RCA 151.43 APO 256.32 V2 23.887
RC 146.870 GL 11.99 GP -17.32 ZAL 108.05 ZAP 141.28 ETS 204.81 ZAE 160.71 ETE 281.90 ZAC 66.45 ETC 283.72 LVI -.48

PLANETOCENTRIC CONIC

C3 16.317 VHL 4.039 DLA 26.74 RAL 35.25 RAD 6641.2 VEL 11.677 PTH 6.71 VHP 3.596 DPA -1.18 RAP 45.28 ECC 1.2685

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 24	3638.07	-47.52	141.18	274.17	92.71	13 15 2	2638.1	-40.91	108.47
60.00	12 17 58	3628.57	-40.18	140.26	274.11	86.58	13 18 26	2628.6	-37.16	109.56
70.00	12 24 18	3609.90	-33.13	137.81	273.17	81.17	13 24 28	2609.9	-33.34	109.07
80.00	12 39 8	3563.31	-26.91	132.87	271.75	76.55	13 38 31	2563.3	-29.86	105.84
90.00	13 28 15	3404.59	-23.77	120.32	270.85	74.21	14 25 0	2404.6	-28.07	94.13
100.00	15 22 0	3037.78	-26.91	94.24	271.75	76.55	16 12 38	2037.8	-29.86	67.21
110.00	17 23 44	2656.71	-33.13	66.73	273.17	81.17	18 8 1	1656.7	-33.34	37.99

DIFFERENTIAL CORRECTIONS

TDE -.5013 TRA-1.0497 TC3 .8683 BAU .3439
RDE .0516 RRA .5066 RC3-1.3160 FAU .21406
FDE 3.1042 FRA 3.8529 FC-11.3575 BSP 3964
BDE .5040 BRA 1.1655 BC3 1.5766 FSP 1663

MID-COURSE EXECUTION ACCURACY

SGT 1943.5 SGR 1335.3 SG3 1026.0
RRT -.8243 RRF .9460 RTF -.8566
SGB 2358.0 R23 -.2634 R13 .9186
SG1 2267.2 SG2 648.0 THA 147.49

ORBIT DETERMINATION ACCURACY

ST 43.5 SR 12.7 SS 74.2
CRT -.7844 CRS -.6371 CST .9758
LSA 86.1 MSA 12.3 SSA 1.7
EL1 44.6 EL2 7.7 ALF 166.68

LAUNCH DATE JUL 16 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 454.016 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 33.064 GAL -2.30 AZL 88.46 HCA 144.75 SMA 203.42 ECC .25549 INC 1.5408 V1 29.301
RP 230.63 LAP .89 LOP 78.08 VP 22.327 GAP 12.69 AZP 91.26 TAL 348.66 TAP 133.40 RCA 151.45 APO 255.39 V2 23.847
RC 149.713 GL 12.76 GP -18.09 ZAL 107.86 ZAP 139.87 ETS 204.74 ZAE 160.10 ETE 278.28 ZAC 65.74 ETC 283.83 LVI .20

PLANETOCENTRIC CONIC

C3 16.188 VHL 4.023 DLA 27.42 RAL 34.82 RAD 6641.1 VEL 11.672 PTH 6.71 VHP 3.524 DPA -1.99 RAP 45.32 ECC 1.2664

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 9 8	3651.55	-47.55	142.48	274.21	91.71	13 10 0	2651.5	-41.32	109.51
60.00	12 11 11	3646.09	-40.10	141.75	273.96	85.57	13 11 57	2646.1	-37.50	110.92
70.00	12 14 54	3635.12	-32.85	139.73	272.83	80.07	13 15 29	2635.1	-33.56	111.01
80.00	12 24 17	3605.63	-26.21	135.82	271.16	75.16	13 24 23	2605.6	-29.83	108.98
90.00	13 5 56	3471.02	-22.47	124.75	269.96	72.36	14 3 47	2471.0	-27.69	98.95
100.00	15 7 9	3080.10	-26.21	97.19	271.16	75.16	15 58 29	2080.1	-29.83	70.35
110.00	17 14 20	2681.94	-32.85	68.64	272.83	80.07	17 59 2	1681.9	-33.56	39.93

DIFFERENTIAL CORRECTIONS

TDE -.4942 TRA-1.0182 TC3 .8584 BAU .3577
RDE .0897 RRA .5244 RC3-1.4124 FAU .22203
FDE 3.2992 FRA 3.9225 FC-11.8738 BSP 3946
BDE .5023 BRA 1.1453 BC3 1.6528 FSP 1733

MID-COURSE EXECUTION ACCURACY

SGT 1908.0 SGR 1419.7 SG3 1068.6
RRT -.8302 RRF .9541 RTF -.8554
SGB 2378.3 R23 -.2586 R13 .9254
SG1 2284.6 SG2 661.0 THA 144.93

ORBIT DETERMINATION ACCURACY

ST 42.9 SR 14.2 SS 77.2
CRT -.8767 CRS -.7518 CST .9740
LSA 88.6 MSA 12.1 SSA 1.7
EL1 44.7 EL2 6.6 ALF 163.40

LAUNCH DATE JUL 16 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 457.746 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 33.043 GAL -2.27 AZL 88.37 HCA 145.76 SMA 202.99 ECC .25387 INC 1.6317 V1 29.301
RP 231.01 LAP .92 LOP 79.10 VP 22.253 GAP 12.42 AZP 91.35 TAL 348.73 TAP 134.49 RCA 151.46 APO 254.52 V2 23.807
RC 152.572 GL 13.56 GP -18.91 ZAL 107.67 ZAP 138.43 ETS 204.66 ZAE 159.39 ETE 274.74 ZAC 65.00 ETC 283.94 LVI .91

PLANETOCENTRIC CONIC

C3 16.082 VHL 4.010 DLA 28.13 RAL 34.38 RAD 6641.0 VEL 11.667 PTH 6.70 VHP 3.457 DPA -2.84 RAP 45.35 ECC 1.2647

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 3 36	3666.26	-47.57	143.91	274.31	90.61	13 4 42	2666.3	-41.75	110.65
60.00	12 3 58	3665.29	-39.98	143.37	273.86	84.48	13 5 3	2665.3	-37.85	112.43
70.00	12 4 39	3663.28	-32.50	141.85	272.50	78.86	13 5 42	2663.3	-33.76	113.18
80.00	12 6 33	3657.28	-25.26	139.36	270.47	73.52	13 7 30	2657.3	-29.68	112.81
90.00	12 28 23	3586.64	-19.89	132.25	268.52	69.48	13 28 9	2586.6	-26.60	107.23
100.00	14 49 25	3131.76	-25.26	100.73	270.47	73.52	15 41 37	2131.8	-29.68	74.18
110.00	17 4 5	2710.10	-32.50	70.77	272.50	78.86	17 49 15	1710.1	-33.76	42.10

DIFFERENTIAL CORRECTIONS

TDE -.4974 TRA -.9977 TC3 .8157 BAU .3690
RDE .1329 RRA .5449 RC3-1.5101 FAU .22939
FDE 3.5211 FRA 4.0030 FC-12.3488 BSP 4064
BDE .5148 BRA 1.1368 BC3 1.7163 FSP 1819

MID-COURSE EXECUTION ACCURACY

SGT 1883.0 SGR 1510.7 SG3 1111.4
RRT -.8276 RRF .9611 RTF -.8479
SGB 2414.1 R23 -.2612 R13 .9296
SG1 2313.3 SG2 690.3 THA 142.51

ORBIT DETERMINATION ACCURACY

ST 43.0 SR 16.4 SS 80.7
CRT -.9358 CRS -.8362 CST .9732
LSA 92.1 MSA 11.9 SSA 1.6
EL1 45.7 EL2 5.4 ALF 160.08

LAUNCH DATE JUL 16 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 461.484 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 33.024 GAL -2.25 AZL 88.27 HCA 146.77 SMA 202.59 ECC .25233 INC 1.7271 V1 29.301
RP 231.39 LAP .95 LOP 80.11 VP 22.182 GAP 12.16 AZP 91.44 TAL 348.80 TAP 135.58 RCA 151.47 APO 253.71 V2 23.767
RC 155.447 GL 14.40 GP -19.76 ZAL 107.49 ZAP 136.96 ETS 204.58 ZAE 158.57 ETE 271.32 ZAC 64.22 ETC 284.07 LVI 1.65

PLANETOCENTRIC CONIC

C3 15.998 VHL 4.000 DLA 28.88 RAL 33.93 RAD 6641.0 VEL 11.664 PTH 6.70 VHP 3.395 DPA -3.74 RAP 45.36 ECC 1.2633

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 57 44	3682.28	-47.57	145.45	274.45	89.42	12 59 6	2682.3	-42.21	111.92
60.00	11 56 14	3686.30	-39.83	145.13	273.77	83.29	12 57 40	2686.3	-38.20	114.10
70.00	11 53 19	3694.88	-32.06	144.21	272.15	77.53	12 54 54	2694.9	-33.94	115.63
80.00	11 43 42	3725.13	-23.87	143.92	269.58	71.51	12 45 47	2725.1	-29.29	117.82
83.88	11 10 14	3832.86	-18.22	149.59	267.31	67.20	12 14 6	2832.9	-26.04	125.15
100.00	14 26 34	3199.60	-23.87	105.29	269.58	71.51	15 19 54	2199.6	-29.29	79.19
110.00	16 52 45	2741.70	-32.06	73.12	272.15	77.53	17 38 27	1741.7	-33.94	44.55

DIFFERENTIAL CORRECTIONS

TDE -.4940 TRA -.9691 TC3 .7808 BAU .3836
RDE .1789 RRA .5646 RC3-1.6145 FAU .23698
FDE 3.7475 FRA 4.0630 FC-12.8242 BSP 4120
BDE .5254 BRA 1.1216 BC3 1.7934 FSP 1895

MID-COURSE EXECUTION ACCURACY

SGT 1845.1 SGR 1608.4 SG3 1153.5
RRT -.8264 RRF .9670 RTF -.8421
SGB 2447.7 R23 -.2556 R13 .9358
SG1 2341.4 SG2 713.7 THA 139.73

ORBIT DETERMINATION ACCURACY

ST 42.6 SR 19.0 SS 84.1
CRT -.9700 CRS -.8917 CST .9718
LSA 95.5 MSA 11.7 SSA 1.6
EL1 46.5 EL2 4.2 ALF 156.45

LAUNCH DATE JUL 16 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 465.227 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	33.005	GAL	-2.23	AZL	88.17	HCA	147.78	SMA	202.21	ECC	.25089	INC	1.8275	V1	29.301
RP	231.77	LAP	.97	LOP	81.12	VP	22.112	GAP	11.90	AZP	91.55	TAL	348.87	TAP	136.65	RCA	151.48	APO	252.94	V2	23.728
RC	158.336	GL	15.28	GP	-20.66	ZAL	107.32	ZAP	135.45	ETS	204.49	ZAE	157.63	ETE	268.03	ZAC	63.41	ETC	284.21	LVI	2.43

PLANETOCENTRIC CONIC

C3	15.936	VHL	3.992	DLA	29.67	RAL	33.48	RAD	6641.0	VEL	11.661	PTH	6.70	VHP	3.336	DPA	-4.89	RAP	45.37	ECC	1.2623

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 31	3699.70	-47.55	147.14	274.65	88.12	12 53 10	2699.7	-42.69	113.32
60.00	11 47 54	3709.33	-39.63	147.06	273.70	82.00	12 49 43	2709.3	-38.57	115.95
70.00	11 40 39	3730.72	-31.50	146.85	271.77	76.06	12 42 50	2730.7	-34.08	118.42
80.00	11 5 51	3840.53	-21.17	151.43	268.09	68.44	12 9 52	2840.5	-28.17	126.21
80.63	10 42 39	3914.72	-18.72	155.86	267.01	66.55	11 47 54	2914.7	-26.75	131.38
100.00	13 48 43	3315.01	-21.17	112.80	268.09	68.44	14 43 58	2315.0	-28.17	87.57
110.00	16 40 6	2777.54	-31.50	75.77	271.77	76.06	17 26 23	1777.5	-34.08	47.34

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4878	TRA	-.9400	TC3	.7408	BAU	.3997	SGT	1803.0	SGR	1713.4	SG3	1194.8	ST	42.1	SR	22.0	SS	87.5
RDE	2284	RRA	.5851	RC3	-1.7238	FAU	.24443	RRT	-.8236	RRF	.9721	RTF	-.8352	CRT	-.9880	CRS	-.9277	CST	.9699
FDE	3.9803	FRA	4.1155	FC	-13.2786	BSP	4178	SGB	2487.3	R23	-.2470	R13	.9422	LSA	98.9	MSA	11.6	SSA	1.6
BDE	.5387	BRA	1.1072	BC3	1.8762	FSP	1989	SG1	2375.4	SG2	737.7	THA	136.77	EL1	47.4	EL2	3.0	ALF	152.57

LAUNCH DATE JUL 16 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 468.975 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.988	GAL	-2.21	AZL	88.07	HCA	148.79	SMA	201.85	ECC	.24953	INC	1.9333	V1	29.301
RP	232.14	LAP	1.00	LOP	82.13	VP	22.044	GAP	11.63	AZP	91.65	TAL	348.92	TAP	137.72	RCA	151.49	APO	252.22	V2	23.689
RC	161.238	GL	16.20	GP	-21.61	ZAL	107.15	ZAP	133.91	ETS	204.38	ZAE	156.59	ETE	264.89	ZAC	62.56	ETC	284.36	LVI	3.25

PLANETOCENTRIC CONIC

C3	15.898	VHL	3.987	DLA	30.50	RAL	33.01	RAD	6641.0	VEL	11.659	PTH	6.70	VHP	3.282	DPA	-5.69	RAP	45.36	ECC	1.2616

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 44 53	3718.65	-47.49	148.97	274.90	86.71	12 46 51	2718.6	-43.19	114.86
60.00	11 38 54	3734.63	-39.37	149.16	273.65	80.59	12 41 8	2734.6	-38.93	118.01
70.00	11 26 14	3772.01	-30.78	149.85	271.33	74.42	12 29 6	2772.0	-34.15	121.64
78.07	10 21 32	3975.58	-19.23	160.63	266.73	65.85	11 27 47	2975.6	-27.50	136.11
78.07	10 21 32	3975.58	-19.23	160.63	266.73	65.85	11 27 47	2975.6	-27.50	136.11
78.07	10 21 32	3975.58	-19.23	160.63	266.73	65.85	11 27 47	2975.6	-27.50	136.11
110.00	16 25 40	2818.83	-30.78	78.77	271.33	74.42	17 12 39	1818.8	-34.15	50.56

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4802	TRA	-.9094	TC3	.6962	BAU	.4178	SGT	1756.4	SGR	1826.4	SG3	1235.3	ST	41.3	SR	25.4	SS	91.1
RDE	.2627	RRA	.6061	RC3	-1.8382	FAU	.25173	RRT	-.8191	RRF	.9765	RTF	-.8272	CRT	-.9961	CRS	-.9515	CST	.9677
FDE	4.2257	FRA	4.1565	FC	-13.7084	BSP	4241	SGB	2533.9	R23	-.2351	R13	.9489	LSA	102.6	MSA	11.5	SSA	1.5
BDE	.5573	BRA	1.0929	BC3	1.9656	FSP	2040	SG1	2416.7	SG2	761.5	THA	133.63	EL1	48.5	EL2	1.9	ALF	148.44

LAUNCH DATE JUL 16 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 472.729 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.971	GAL	-2.19	AZL	87.95	HCA	149.79	SMA	201.52	ECC	.24826	INC	2.0449	V1	29.301
RP	232.51	LAP	1.03	LOP	83.13	VP	21.977	GAP	11.38	AZP	91.77	TAL	348.98	TAP	138.77	RCA	151.49	APO	251.55	V2	23.650
RC	164.150	GL	17.16	GP	-22.60	ZAL	106.98	ZAP	132.33	ETS	204.26	ZAE	155.44	ETE	261.92	ZAC	61.67	ETC	284.52	LVI	4.10

PLANETOCENTRIC CONIC

C3	15.884	VHL	3.985	DLA	31.38	RAL	32.53	RAD	6640.9	VEL	11.659	PTH	6.70	VHP	3.233	DPA	-6.75	RAP	45.35	ECC	1.2614

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 37 47	3739.26	-47.39	150.95	275.19	85.19	12 40 7	2739.3	-43.71	116.57
60.00	11 29 5	3762.52	-39.04	151.46	273.60	79.07	12 31 47	2762.5	-39.28	120.30
70.00	11 9 22	3820.80	-29.84	153.34	270.79	72.56	12 13 2	2820.8	-34.11	125.45
75.81	10 3 27	4026.47	-19.75	164.71	266.49	65.11	11 10 34	3026.5	-28.27	140.16
75.81	10 3 27	4026.47	-19.75	164.71	266.49	65.11	11 10 34	3026.5	-28.27	140.16
75.81	10 3 27	4026.47	-19.75	164.71	266.49	65.11	11 10 34	3026.5	-28.27	140.16
110.00	16 8 48	2867.61	-29.84	82.26	270.79	72.56	16 56 36	1867.6	-34.11	54.37

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4712	TRA	-.8784	TC3	.6420	BAU	.4371	SGT	1705.4	SGR	1946.5	SG3	1273.9	ST	40.5	SR	29.3	SS	94.8
RDE	.3420	RRA	.6275	RC3	-1.9558	FAU	.25859	RRT	-.8115	RRF	.9801	RTF	-.8467	CRT	-.9981	CRS	-.9672	CST	.9692
FDE	4.4811	FRA	4.1850	FC	-14.0944	BSP	4322	SGB	2567.9	R23	-.2213	R13	.9555	LSA	106.6	MSA	11.4	SSA	1.4
BDE	.5823	BRA	1.0795	BC3	2.0585	FSP	2109	SG1	2465.4	SG2	786.8	THA	130.36	EL1	50.0	EL2	1.5	ALF	144.09

LAUNCH DATE JUL 16 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 476.487 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.956	GAL	-2.17	AZL	87.84	HCA	150.79	SMA	201.21	ECC	.24707	INC	2.1633	V1	29.301
RP	232.89	LAP	1.06	LOP	84.13	VP	21.913	GAP	11.12	AZP	91.89	TAL	349.02	TAP	139.81	RCA	151.50	APO	250.92	V2	23.612
RC	167.073	GL	18.17	GP	-23.63	ZAL	106.82	ZAP	130.72	ETS	204.12	ZAE	154.18	ETE	259.13	ZAC	60.74	ETC	284.70	LVI	4.99

PLANETOCENTRIC CONIC

C3	15.896	VHL	3.987	DLA	32.30	RAL	32.04	RAD	6641.0	VEL	11.659	PTH	6.70	VHP	3.188	DPA	-7.86	RAP	45.33	ECC	1.2616

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 30 10	3761.69	-47.24	153.10	275.52	83.54	12 32 52	2761.7	-44.24	118.47
60.00	11 18 17	3793.41	-38.61	153.97	273.54	77.41	12 21 31	2793.4	-39.60	122.86
70.00	10 48 40	3881.08	-28.53	157.54	270.06	70.38	11 53 21	2881.1	-33.89	130.14
73.71	9 47 11	4071.36	-20.28	168.38	266.28	64.31	10 55 3	3071.4	-29.08	143.80
73.71	9 47 11	4071.36	-20.28	168.38	266.28	64.31	10 55 3	3071.4	-29.08	143.80
73.71	9 47 11	4071.36	-20.28	168.38	266.28	64.31	10 55 3	3071.4	-29.08	143.80
110.00	15 48 6	2927.90	-28.53	86.46	270.06	70.38	16 36 54	1927.9	-33.89	59.06

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4565	TRA	-.8433	TC3	.5908	BAU	.4595	SGT	1645.6	SGR	2074.9	SG3	1310.3	ST	39.2	SR	33.6	SS	98.4
RDE	.4058	RRA	.6483	RC3	-2.0798	FAU	.26538	RRT	-.8037	RRF	.9833	RTF	-.8061	CRT	-.9964	CRS	-.9775	CST	.9618
FDE	4.7375	FRA	4.1930	FC	-14.4537	BSP	4385	SGB	2648.2	R23	-.2032	R13	.9624	LSA	110.5	MSA	11.4	SSA	1.4
BDE	.6108	BRA	1.0637	BC3	2.1621	FSP	2168	SG1	2522.8	SG2	805.3	THA	126.89	EL1	51.6	EL2	2.2	ALF	139.43

LAUNCH DATE JUL 16 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 480.250 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.941 GAL -2.15 AZL 87.71 HCA 151.79 SMA 200.92 ECC .24594 INC 2.2888 V1 29.301
RP 233.25 LAP 1.08 LOP 85.13 VP 21.850 GAP 10.86 AZP 92.02 TAL 349.06 TAP 140.85 RCA 151.51 APO 250.34 V2 23.573
RC 170.003 GL 19.23 GP -24.72 ZAL 106.65 ZAP 129.08 ETS 203.97 ZAE 152.82 ETE 256.90 ZAC 59.78 ETC 284.90 LVI 5.93

PLANETOCENTRIC CONIC

C3 15.935 VHL 3.992 DLA 33.27 RAL 31.53 RAD 6641.0 VEL 11.661 PTH 6.70 VHP 3.149 DPA -9.02 RAP 45.30 ECC 1.2622

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 21 56	3786.14	-47.03	155.42	275.88	81.76	12 25 2	2786.1	-44.78	120.57
60.00	11 6 19	3827.86	-38.06	156.73	273.45	75.61	12 10 6	2827.9	-39.90	125.74
70.00	10 20 30	3963.74	-26.52	163.12	268.92	67.64	11 26 34	2963.7	-33.26	136.51
71.70	9 32 12	4111.97	-20.83	171.79	266.10	63.46	10 40 44	3112.0	-29.92	147.18
71.70	9 32 12	4111.97	-20.83	171.79	266.10	63.46	10 40 44	3112.0	-29.92	147.18
71.70	9 32 12	4111.97	-20.83	171.79	266.10	63.46	10 40 44	3112.0	-29.92	147.18
110.00	15 19 56	3010.56	-26.52	92.04	268.92	67.64	16 10 7	2010.6	-33.26	65.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4358 TRA -.8037 TC3 .5409 BAU .4845 SGT 1575.3 SGR 2211.0 SG3 1343.7 ST 37.5 SR 38.2 SS 101.9
RDE .4745 RRA .6679 RC3-2.2089 FAU .27187 RRT -.7952 RRF .9859 RTF -.7947 CRT -.9918 CRS -.9844 CST .9570
FDE 4.9934 FRA 4.1768 FC-14.7711 BSP .4427 SGB 2714.8 R23 -.1821 R13 .9691 LSA 114.5 NSA 11.4 SSA 1.3
BDE .6443 BRA 1.0450 BC3 2.2742 FSP .2214 SG1 2589.3 SG2 815.7 THA 123.26 EL1 53.5 EL2 3.4 ALF 134.44

LAUNCH DATE JUL 16 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 484.013 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.928 GAL -2.14 AZL 87.58 HCA 152.78 SMA 200.65 ECC .24490 INC 2.4222 V1 29.301
RP 233.62 LAP 1.11 LOP 86.13 VP 21.788 GAP 10.61 AZP 92.15 TAL 349.09 TAP 141.87 RCA 151.51 APO 249.79 V2 23.536
RC 172.941 GL 20.34 GP -25.86 ZAL 106.49 ZAP 127.41 ETS 203.79 ZAE 151.37 ETE 254.06 ZAC 58.77 ETC 285.12 LVI 6.91

PLANETOCENTRIC CONIC

C3 16.004 VHL 4.001 DLA 34.29 RAL 31.00 RAD 6641.0 VEL 11.664 PTH 6.70 VHP 3.114 DPA -10.24 RAP 45.28 ECC 1.2634

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 12 59	3812.89	-46.74	157.94	276.27	79.84	12 16 32	2812.9	-45.32	122.92
60.00	10 52 51	3866.73	-37.36	159.80	273.30	73.64	11 57 17	2866.7	-40.13	129.02
69.74	9 18 7	4149.64	-21.39	175.02	265.96	62.54	10 27 17	3149.6	-30.80	150.39
69.74	9 18 7	4149.64	-21.39	175.02	265.96	62.54	10 27 17	3149.6	-30.80	150.39
69.74	9 18 7	4149.64	-21.39	175.02	265.96	62.54	10 27 17	3149.6	-30.80	150.39
69.74	9 18 7	4149.64	-21.39	175.02	265.96	62.54	10 27 17	3149.6	-30.80	150.39
69.74	9 18 7	4149.64	-21.39	175.02	265.96	62.54	10 27 17	3149.6	-30.80	150.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4306 TRA -.7811 TC3 .4381 BAU .5063 SGT 1528.6 SGR 2353.6 SG3 1373.4 ST 36.9 SR 43.8 SS 106.3
RDE .5563 RRA .6928 RC3-2.3255 FAU .27591 RRT -.7699 RRF .9881 RTF -.7687 CRT -.9864 CRS -.9693 CST .9539
FDE 5.2965 FRA 4.1807 FC-14.9248 BSP .4677 SGB 2806.5 R23 -.1681 R13 .9738 LSA 120.2 NSA 11.5 SSA 1.2
BDE .7035 BRA 1.0441 BC3 2.3665 FSP .2296 SG1 2671.6 SG2 859.4 THA 119.98 EL1 57.1 EL2 4.7 ALF 130.06

LAUNCH DATE JUL 16 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 487.782 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.915 GAL -2.13 AZL 87.44 HCA 153.77 SMA 200.40 ECC .24392 INC 2.5646 V1 29.301
RP 233.99 LAP 1.13 LOP 87.12 VP 21.728 GAP 10.36 AZP 92.30 TAL 349.12 TAP 142.89 RCA 151.51 APO 249.28 V2 23.498
RC 175.886 GL 21.52 GP -27.05 ZAL 106.33 ZAP 125.71 ETS 203.58 ZAE 149.81 ETE 251.77 ZAC 57.71 ETC 285.35 LVI 7.93

PLANETOCENTRIC CONIC

C3 16.106 VHL 4.013 DLA 35.37 RAL 30.44 RAD 6641.1 VEL 11.668 PTH 6.70 VHP 3.085 DPA -11.52 RAP 45.25 ECC 1.2651

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 3 12	3842.19	-46.35	160.66	276.66	77.78	12 7 14	2842.2	-45.85	125.55
60.00	10 37 25	3911.12	-36.45	163.22	273.04	71.47	11 42 36	2911.1	-40.28	132.79
67.81	9 4 41	4184.99	-21.96	178.13	265.85	61.55	10 14 26	3185.0	-31.72	153.49
67.81	9 4 41	4184.99	-21.96	178.13	265.85	61.55	10 14 26	3185.0	-31.72	153.49
67.81	9 4 41	4184.99	-21.96	178.13	265.85	61.55	10 14 26	3185.0	-31.72	153.49
67.81	9 4 41	4184.99	-21.96	178.13	265.85	61.55	10 14 26	3185.0	-31.72	153.49
67.81	9 4 41	4184.99	-21.96	178.13	265.85	61.55	10 14 26	3185.0	-31.72	153.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4115 TRA -.7468 TC3 .3588 BAU .5337 SGT 1462.2 SGR 2506.1 SG3 1399.5 ST 35.3 SR 49.6 SS 110.2
RDE .6427 RRA .7140 RC3-2.4527 FAU .28033 RRT -.7480 RRF .9900 RTF -.7451 CRT -.9788 CRS -.9925 CST .9481
FDE 5.5819 FRA 4.1419 FC-15.0685 BSP .4831 SGB 2901.4 R23 -.1480 R13 .9789 LSA 125.4 NSA 11.5 SSA 1.2
BDE .7631 BRA 1.0333 BC3 2.4788 FSP .2346 SG1 2764.9 SG2 879.7 THA 118.46 EL1 60.6 EL2 5.9 ALF 128.24

LAUNCH DATE JUL 16 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 491.583 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.903 GAL -2.12 AZL 87.28 HCA 154.76 SMA 200.16 ECC .24301 INC 2.7168 V1 29.301
RP 234.35 LAP 1.16 LOP 88.11 VP 21.670 GAP 10.10 AZP 92.46 TAL 349.13 TAP 143.89 RCA 151.52 APO 248.80 V2 23.461
RC 178.836 GL 22.75 GP -28.29 ZAL 106.17 ZAP 123.99 ETS 203.34 ZAE 148.17 ETE 249.64 ZAC 56.62 ETC 285.61 LVI 9.01

PLANETOCENTRIC CONIC

C3 16.243 VHL 4.030 DLA 36.51 RAL 29.86 RAD 6641.1 VEL 11.674 PTH 6.71 VHP 3.061 DPA -12.86 RAP 45.23 ECC 1.2673

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 52 23	3874.42	-45.84	163.61	277.03	75.56	11 56 58	2874.4	-46.36	128.49
60.00	10 19 16	3963.07	-35.26	167.11	272.59	69.06	11 25 20	2963.1	-40.28	137.20
65.87	8 51 44	4218.55	-22.54	181.16	265.77	60.48	10 2 3	3218.5	-32.67	156.51
65.87	8 51 44	4218.55	-22.54	181.16	265.77	60.48	10 2 3	3218.5	-32.67	156.51
65.87	8 51 44	4218.55	-22.54	181.16	265.77	60.48	10 2 3	3218.5	-32.67	156.51
65.87	8 51 44	4218.55	-22.54	181.16	265.77	60.48	10 2 3	3218.5	-32.67	156.51
65.87	8 51 44	4218.55	-22.54	181.16	265.77	60.48	10 2 3	3218.5	-32.67	156.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3889 TRA -.7131 TC3 .2729 BAU .5633 SGT 1394.7 SGR 2667.0 SG3 1420.9 ST 33.5 SR 56.0 SS 114.1
RDE .7376 RRA .7348 RC3-2.5797 FAU .28384 RRT -.7196 RRF .9916 RTF -.7153 CRT -.9693 CRS -.9947 CST .9402
FDE 5.8678 FRA 4.0839 FC-15.1283 BSP .5012 SGB 3009.7 R23 -.1283 R13 .9833 LSA 130.9 NSA 11.6 SSA 1.1
BDE .8338 BRA 1.0240 BC3 2.5941 FSP .2389 SG1 2872.2 SG2 899.3 THA 113.01 EL1 64.9 EL2 7.1 ALF 120.50

LAUNCH DATE JUL 16 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 495.526 EARTH TO MARS

RL	132.05	LAL	-.00	LOL	293.32	VL	32.892	GAL	-2.11	AZL	87.12	HCA	155.74	SMA	199.94	ECC	.24216	INC	2.8799	V1	29.301
RP	234.71	LAP	1.18	LOP	89.09	VP	21.613	GAP	9.85	AZP	92.63	TAL	349.15	TAP	144.89	RCA	151.52	APO	248.36	V2	23.424
RC	181.791	GL	24.05	GP	-29.59	ZAL	106.00	ZAP	122.23	ETS	203.07	ZAE	146.43	ETE	247.65	ZAC	55.48	ETC	285.89	LVI	10.13

PLANETOCENTRIC CONIC

C3	16.421	VHL	4.052	DLA	37.72	RAL	29.24	RAD	6641.2	VEL	11.682	PTH	6.72	VHP	3.044	DPA	-14.26	RAP	45.21	ECC	1.2702

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 40 21	3910.09	-45.19	166.80	277.35	73.16	11 45 31	2910.1	-46.82	131.81
60.00	9 56 59	4026.37	-33.62	171.68	271.84	66.33	11 4 5	3026.4	-40.02	142.57
63.93	8 39 10	4250.70	-23.13	184.14	265.73	59.34	9 50 1	3250.7	-33.66	159.50
63.93	8 39 10	4250.70	-23.13	184.14	265.73	59.34	9 50 1	3250.7	-33.66	159.50
63.93	8 39 10	4250.70	-23.13	184.14	265.73	59.34	9 50 1	3250.7	-33.66	159.50
63.93	8 39 10	4250.70	-23.13	184.14	265.73	59.34	9 50 1	3250.7	-33.66	159.50
63.93	8 39 10	4250.70	-23.13	184.14	265.73	59.34	9 50 1	3250.7	-33.66	159.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3605	TRA	-.6770	TC3	.1832	BAU	.5953	SGT	1321.4	SGR	2834.1	SG3	1435.7	ST	31.3	SR	62.9	SS	117.8
RDE	.8409	RRA	.7529	RC3	-2.7053	FAU	.28632	RRT	-.6836	RRF	.9929	RTF	-.6778	CRT	-.9569	CRS	-.9963	CST	.9292
FDE	6.1448	FRA	3.9937	FC	-15.0957	BSP	5192	SGB	3127.0	R23	-.1087	R13	.9870	LSA	136.6	MSA	11.7	SSA	1.0
BDE	.9150	BRA	1.0125	BC3	2.7115	FSP	2414	SG1	2990.5	SG2	914.0	THA	109.58	EL1	69.7	EL2	8.2	ALF	115.85

LAUNCH DATE JUL 16 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 499.102 EARTH TO MARS

RL	132.05	LAL	-.00	LOL	293.32	VL	32.882	GAL	-2.10	AZL	86.94	HCA	156.72	SMA	199.73	ECC	.24137	INC	3.0554	V1	29.301
RP	235.06	LAP	1.21	LOP	90.08	VP	21.557	GAP	9.61	AZP	92.81	TAL	349.15	TAP	145.87	RCA	151.52	APO	247.94	V2	23.387
RC	184.750	GL	25.43	GP	-30.95	ZAL	105.83	ZAP	120.46	ETS	202.76	ZAE	144.62	ETE	245.79	ZAC	54.29	ETC	286.20	LVI	11.31

PLANETOCENTRIC CONIC

C3	16.643	VHL	4.080	DLA	38.99	RAL	28.58	RAD	6641.3	VEL	11.691	PTH	6.73	VHP	3.033	DPA	-15.72	RAP	45.20	ECC	1.2739

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 26 47	3949.85	-44.35	170.26	277.57	70.62	11 32 37	2949.9	-47.20	135.58
60.00	9 26 54	4110.85	-31.16	177.48	270.45	63.03	10 35 24	3110.9	-39.27	149.62
61.96	8 26 50	4281.74	-23.71	187.09	265.73	58.10	9 38 12	3281.7	-34.68	162.48
61.96	8 26 50	4281.74	-23.71	187.09	265.73	58.10	9 38 12	3281.7	-34.68	162.48
61.96	8 26 50	4281.74	-23.71	187.09	265.73	58.10	9 38 12	3281.7	-34.68	162.48
61.96	8 26 50	4281.74	-23.71	187.09	265.73	58.10	9 38 12	3281.7	-34.68	162.48
61.96	8 26 50	4281.74	-23.71	187.09	265.73	58.10	9 38 12	3281.7	-34.68	162.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3268	TRA	-.6395	TC3	.0939	BAU	.6303	SGT	1245.7	SGR	3010.6	SG3	1444.9	ST	28.8	SR	70.3	SS	121.4
RDE	.9550	RRA	.7686	RC3	-2.8311	FAU	.28798	RRT	-.6393	RRF	.9941	RTF	-.6320	CRT	-.9399	CRS	-.9974	CST	.9134
FDE	6.4172	FRA	3.8756	FC	-14.9800	BSP	5386	SGB	3258.2	R23	-.0900	R13	.9900	LSA	142.7	MSA	11.9	SSA	.9
BDE	1.0094	BRA	.9999	BC3	2.8326	FSP	2426	SG1	3124.7	SG2	922.9	THA	106.28	EL1	75.4	EL2	9.2	ALF	111.36

LAUNCH DATE JUL 16 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 502.879 EARTH TO MARS

RL	132.05	LAL	-.00	LOL	293.32	VL	32.872	GAL	-2.10	AZL	86.75	HCA	157.70	SMA	199.54	ECC	.24065	INC	3.2449	V1	29.301
RP	235.42	LAP	1.23	LOP	91.06	VP	21.503	GAP	9.36	AZP	93.00	TAL	349.15	TAP	146.85	RCA	151.52	APO	247.56	V2	23.351
RC	187.714	GL	26.88	GP	-32.36	ZAL	105.65	ZAP	118.67	ETS	202.42	ZAE	142.73	ETE	244.05	ZAC	53.05	ETC	286.53	LVI	12.54

PLANETOCENTRIC CONIC

C3	16.917	VHL	4.113	DLA	40.34	RAL	27.87	RAD	6641.4	VEL	11.703	PTH	6.74	VHP	3.030	DPA	-17.23	RAP	45.21	ECC	1.2784

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 11 15	3994.69	-43.27	174.02	277.63	67.88	11 17 50	2994.7	-47.48	139.88
59.95	8 14 40	4311.98	-24.30	190.05	265.76	56.76	9 26 32	3312.0	-35.74	165.49
59.95	8 14 40	4311.98	-24.30	190.05	265.76	56.76	9 26 32	3312.0	-35.74	165.49
59.95	8 14 40	4311.98	-24.30	190.05	265.76	56.76	9 26 32	3312.0	-35.74	165.49
59.95	8 14 40	4311.98	-24.30	190.05	265.76	56.76	9 26 32	3312.0	-35.74	165.49
59.95	8 14 40	4311.98	-24.30	190.05	265.76	56.76	9 26 32	3312.0	-35.74	165.49
59.95	8 14 40	4311.98	-24.30	190.05	265.76	56.76	9 26 32	3312.0	-35.74	165.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2919	TRA	-.6069	TC3	-.0121	BAU	.6658	SGT	1181.3	SGR	3193.9	SG3	1446.8	ST	26.3	SR	78.6	SS	125.0
RDE	1.0834	RRA	.7851	RC3	-2.9439	FAU	.28751	RRT	-.5780	RRF	.9950	RTF	-.5597	CRT	-.9170	CRS	-.9981	CST	.8915
FDE	6.6923	FRA	3.7481	FC	-14.7133	BSP	5659	SGB	3405.4	R23	-.0735	R13	.9923	LSA	149.5	MSA	12.0	SSA	.8
BDE	1.1221	BRA	.9923	BC3	2.9440	FSP	2443	SG1	3272.9	SG2	940.7	THA	103.18	EL1	82.2	EL2	10.0	ALF	107.31

LAUNCH DATE JUL 16 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 506.658 EARTH TO MARS

RL	132.05	LAL	-.00	LOL	293.32	VL	32.863	GAL	-2.09	AZL	86.55	HCA	158.67	SMA	199.37	ECC	.23997	INC	3.4502	V1	29.301
RP	235.77	LAP	1.25	LOP	92.03	VP	21.450	GAP	9.11	AZP	93.21	TAL	349.14	TAP	147.82	RCA	151.52	APO	247.21	V2	23.318
RC	190.680	GL	28.42	GP	-33.84	ZAL	105.46	ZAP	116.87	ETS	202.02	ZAE	140.76	ETE	242.42	ZAC	51.77	ETC	286.90	LVI	13.82

PLANETOCENTRIC CONIC

C3	17.251	VHL	4.153	DLA	41.76	RAL	27.10	RAD	6641.6	VEL	11.717	PTH	6.75	VHP	3.034	DPA	-18.81	RAP	45.23	ECC	1.2839

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 53 5	4046.05	-41.87	178.16	277.43	64.94	11 0 31	3046.0	-47.58	144.84
57.89	8 2 36	4341.51	-24.88	193.02	265.83	55.31	9 14 57	3341.5	-36.83	168.54
57.89	8 2 36	4341.51	-24.88	193.02	265.83	55.31	9 14 57	3341.5	-36.83	168.54
57.89	8 2 36	4341.51	-24.88	193.02	265.83	55.31	9 14 57	3341.5	-36.83	168.54
57.89	8 2 36	4341.51	-24.88	193.02	265.83	55.31	9 14 57	3341.5	-36.83	168.54
57.89	8 2 36	4341.51	-24.88	193.02	265.83	55.31	9 14 57	3341.5	-36.83	168.54
57.89	8 2 36	4341.51	-24.88	193.02	265.83	55.31	9 14 57	3341.5	-36.83	168.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2493	TRA	-.5718	TC3	-.1139	BAU	.7047	SGT	1115.9	SGR	3385.0	SG3	1440.5	ST	23.4	SR	87.4	SS	128.4
RDE	1.2249	RRA	.7963	RC3	-3.0536	FAU	.28605	RRT	-.5025	RRF	.9958	RTF	-.4930	CRT	-.8815	CRS	-.9987	CST	.8565
FDE	6.9501	FRA	3.5815	FC	-14.3553	BSP	5921	SGB	3564.1	R23	-.0581	R13	.9942	LSA	156.6	MSA	12.2	SSA	.8
BDE	1.2500	BRA	.9803	BC3	3.0558	FSP	2436	SG1	3435.0	SG2	950.7	THA	100.20	EL1	89.8	EL2	10.7	ALF	103.47

LAUNCH DATE JUL 16 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 510.439 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.855 GAL -2.09 AZL 86.33 HCA 159.64 SMA 199.20 ECC .23935 INC 3.6734 V1 29.301
RP 236.12 LAP 1.28 LOP 93.01 VP 21.399 GAP 8.87 AZP 93.44 TAL 349.13 TAP 148.78 RCA 151.52 APO 246.88 V2 23.279
RC 193.649 GL 30.04 GP -35.37 ZAL 105.26 ZAP 115.05 ETS 201.58 ZAE 138.73 ETE 240.87 ZAC 50.44 ETC 287.31 LVI 15.16

PLANETOCENTRIC CONIC

C3 17.654 VHL 4.202 DLA 43.27 RAL 26.26 RAD 6641.8 VEL 11.734 PTH 6.76 VHP 3.046 DPA -20.44 RAP 45.28 ECC 1.2905

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 31 9	4106.47	-40.02	182.78	276.80	61.75	10 39 35	3106.5	-47.39	150.67
55.78	7 50 29	4370.62	-25.44	196.03	265.92	53.74	9 3 20	3370.6	-37.95	171.68
55.78	7 50 29	4370.62	-25.44	196.03	265.92	53.74	9 3 20	3370.6	-37.95	171.68
55.78	7 50 29	4370.62	-25.44	196.03	265.92	53.74	9 3 20	3370.6	-37.95	171.68
55.78	7 50 29	4370.62	-25.44	196.03	265.92	53.74	9 3 20	3370.6	-37.95	171.68
55.78	7 50 29	4370.62	-25.44	196.03	265.92	53.74	9 3 20	3370.6	-37.95	171.68
55.78	7 50 29	4370.62	-25.44	196.03	265.92	53.74	9 3 20	3370.6	-37.95	171.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1916 TRA -.5289 TC3 -.1985 BAU .7486 SGT 1037.9 SGR 3580.9 SG3 1425.0 ST 19.8 SR 96.5 SS 130.9
RDE 1.3753 RRA .7972 RC3-3.1657 FAU .28415 RRT -.4103 RRF .9965 RTF -.3989 CRT -.8154 CRS -.9990 CST .7898
FDE 7.1604 FRA 3.3592 FC-13.9347 BSP 6106 SGB 3728.3 R23 -.0441 R13 .9956 LSA 163.4 MSA 12.3 SSA .7
BDE 1.3886 BRA .9567 BC3 3.1719 FSP 2383 SG1 3608.0 SG2 939.4 THA 97.28 EL1 97.8 EL2 11.3 ALF 99.62

LAUNCH DATE JUL 16 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 514.219 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.847 GAL -2.09 AZL 86.08 HCA 160.61 SMA 199.05 ECC .23878 INC 3.9174 V1 29.301
RP 236.46 LAP 1.30 LOP 93.98 VP 21.349 GAP 8.62 AZP 93.70 TAL 349.11 TAP 149.72 RCA 151.52 APO 246.58 V2 23.244
RC 196.619 GL 31.77 GP -36.95 ZAL 105.05 ZAP 113.24 ETS 201.09 ZAE 136.64 ETE 239.41 ZAC 49.06 ETC 287.75 LVI 16.55

PLANETOCENTRIC CONIC

C3 18.140 VHL 4.259 DLA 44.86 RAL 25.33 RAD 6642.0 VEL 11.754 PTH 6.78 VHP 3.068 DPA -22.13 RAP 45.36 ECC 1.2985

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 3 7	4181.32	-37.47	188.12	275.43	58.21	10 12 49	3181.3	-46.72	157.77
53.60	7 38 16	4399.55	-25.97	199.09	266.05	52.04	8 51 36	3399.5	-39.09	174.92
53.60	7 38 16	4399.55	-25.97	199.09	266.05	52.04	8 51 36	3399.5	-39.09	174.92
53.60	7 38 16	4399.55	-25.97	199.09	266.05	52.04	8 51 36	3399.5	-39.09	174.92
53.60	7 38 16	4399.55	-25.97	199.09	266.05	52.04	8 51 36	3399.5	-39.09	174.92
53.60	7 38 16	4399.55	-25.97	199.09	266.05	52.04	8 51 36	3399.5	-39.09	174.92
53.60	7 38 16	4399.55	-25.97	199.09	266.05	52.04	8 51 36	3399.5	-39.09	174.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1411 TRA -.5026 TC3 -.3187 BAU .7895 SGT 1009.7 SGR 3785.6 SG3 1401.6 ST 17.2 SR 107.2 SS 134.2
RDE 1.5555 RRA .8054 RC3-3.2397 FAU .27827 RRT -.2893 RRF .9971 RTF -.2776 CRT -.7166 CRS -.9993 CST .6909
FDE 7.4008 FRA 3.1642 FC-13.2802 BSP 6509 SGB 3918.0 R23 -.0323 R13 .9966 LSA 172.1 MSA 12.6 SSA .6
BDE 1.5618 BRA .9493 BC3 3.2553 FSP 2376 SG1 3797.6 SG2 963.5 THA 94.72 EL1 107.9 EL2 11.9 ALF 96.63

LAUNCH DATE JUL 16 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 518.000 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.840 GAL -2.09 AZL 85.81 HCA 161.58 SMA 198.91 ECC .23825 INC 4.1849 V1 29.301
RP 236.81 LAP 1.32 LOP 94.95 VP 21.300 GAP 8.38 AZP 93.97 TAL 349.09 TAP 150.66 RCA 151.52 APO 246.30 V2 23.209
RC 199.589 GL 33.61 GP -38.60 ZAL 104.81 ZAP 111.43 ETS 200.55 ZAE 134.50 ETE 238.01 ZAC 47.64 ETC 288.24 LVI 18.01

PLANETOCENTRIC CONIC

C3 18.725 VHL 4.327 DLA 46.55 RAL 24.31 RAD 6642.3 VEL 11.779 PTH 6.80 VHP 3.100 DPA -23.88 RAP 45.47 ECC 1.3082

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 21 50	4287.49	-33.43	195.04	272.44	53.93	9 33 18	3287.5	-44.98	167.41
51.34	7 25 52	4428.36	-26.47	202.23	266.19	50.19	8 39 41	3428.4	-40.25	178.31
51.34	7 25 52	4428.36	-26.47	202.23	266.19	50.19	8 39 41	3428.4	-40.25	178.31
51.34	7 25 52	4428.36	-26.47	202.23	266.19	50.19	8 39 41	3428.4	-40.25	178.31
51.34	7 25 52	4428.36	-26.47	202.23	266.19	50.19	8 39 41	3428.4	-40.25	178.31
51.34	7 25 52	4428.36	-26.47	202.23	266.19	50.19	8 39 41	3428.4	-40.25	178.31
51.34	7 25 52	4428.36	-26.47	202.23	266.19	50.19	8 39 41	3428.4	-40.25	178.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0749 TRA -.4708 TC3 -.4210 BAU .8395 SGT 982.1 SGR 3994.4 SG3 1367.8 ST 14.5 SR 118.2 SS 136.4
RDE 1.7494 RRA .8012 RC3-3.3209 FAU .27183 RRT -.1489 RRF .9976 RTF -.[illegible] CRT -.5180 CRS -.9995 CST .4914
FDE 7.5830 FRA 2.9147 FC-12.5678 BSP 6841 SGB 4113.4 R23 -.0217 R13 .9974 LSA 180.6 MSA 12.8 SSA .8
BDE 1.7510 BRA .9293 BC3 3.3375 FSP 2323 SG1 3997.3 SG2 970.4 THA 92.23 EL1 118.4 EL2 12.4 ALF 93.67

LAUNCH DATE JUL 16 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 521.782 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.834 GAL -2.10 AZL 85.52 HCA 162.54 SMA 198.79 ECC .23778 INC 4.4802 V1 29.301
RP 237.14 LAP 1.34 LOP 95.91 VP 21.252 GAP 8.14 AZP 94.27 TAL 349.06 TAP 151.59 RCA 151.52 APO 246.05 V2 23.174
RC 202.557 GL 35.56 GP -40.30 ZAL 104.55 ZAP 109.63 ETS 199.94 ZAE 132.31 ETE 236.67 ZAC 46.17 ETC 288.78 LVI 19.52

PLANETOCENTRIC CONIC

C3 19.429 VHL 4.408 DLA 48.34 RAL 23.16 RAD 6642.6 VEL 11.809 PTH 6.83 VHP 3.144 DPA -25.68 RAP 45.62 ECC 1.3198

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.00	7 13 7	4457.37	-26.90	205.45	266.34	48.19	8 27 25	3457.4	-41.40	181.87
49.00	7 13 7	4457.37	-26.90	205.45	266.34	48.19	8 27 25	3457.4	-41.40	181.87
49.00	7 13 7	4457.37	-26.90	205.45	266.34	48.19	8 27 25	3457.4	-41.40	181.87
49.00	7 13 7	4457.37	-26.90	205.45	266.34	48.19	8 27 25	3457.4	-41.40	181.87
49.00	7 13 7	4457.37	-26.90	205.45	266.34	48.19	8 27 25	3457.4	-41.40	181.87
49.00	7 13 7	4457.37	-26.90	205.45	266.34	48.19	8 27 25	3457.4	-41.40	181.87
49.00	7 13 7	4457.37	-26.90	205.45	266.34	48.19	8 27 25	3457.4	-41.40	181.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0018 TRA -.4406 TC3 -.5208 BAU .8827 SGT 976.4 SGR 4206.5 SG3 1323.5 ST 12.9 SR 130.0 SS 136.2
RDE 1.9677 RRA .7903 RC3-3.3581 FAU .26317 RRT .0081 RRF .9980 RTF .0211 CRT -.1675 CRS -.9996 CST .1418
FDE 7.7333 FRA 2.6429 FC-11.7266 BSP 7195 SGB 4318.3 R23 -.0125 R13 .9980 LSA 189.8 MSA 13.0 SSA .5
BDE 1.9677 BRA .9048 BC3 3.3983 FSP 2254 SG1 4206.5 SG2 976.3 THA 89.89 EL1 130.1 EL2 12.8 ALF 90.96

LAUNCH DATE JUL 16 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 525.563 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.828 GAL -2.10 AZL 85.19 HCA 163.49 SMA 198.67 ECC .23734 INC 4.8077 V1 29.301
RP 237.48 LAP 1.36 LOP 96.87 VP 21.206 GAP 7.90 AZP 94.61 TAL 349.02 TAP 152.51 RCA 151.52 APO 245.82 V2 23.140
RC 205.523 GL 37.63 GP -42.06 ZAL 104.26 ZAP 107.85 ETS 199.28 ZAE 130.08 ETE 235.38 ZAC 44.66 ETC 289.37 LVI 21.08

PLANETOCENTRIC CONIC

C3 20.280 VHL 4.503 DLA 50.24 RAL 21.85 RAD 6643.0 VEL 11.844 PTH 6.86 VHP 3.201 DPA -27.53 RAP 45.81 ECC 1.3338

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.58	6 59 55	4486.76	-27.26	208.77	266.47	46.02	8 14 42	3486.8	-42.54	185.65
46.58	6 59 55	4486.76	-27.26	208.77	266.47	46.02	8 14 42	3486.8	-42.54	185.65
46.58	6 59 55	4486.76	-27.26	208.77	266.47	46.02	8 14 42	3486.8	-42.54	185.65
46.58	6 59 55	4486.76	-27.26	208.77	266.47	46.02	8 14 42	3486.8	-42.54	185.65
46.58	6 59 55	4486.76	-27.26	208.77	266.47	46.02	8 14 42	3486.8	-42.54	185.65
46.58	6 59 55	4486.76	-27.26	208.77	266.47	46.02	8 14 42	3486.8	-42.54	185.65
46.58	6 59 55	4486.76	-27.26	208.77	266.47	46.02	8 14 42	3486.8	-42.54	185.65

DIFFERENTIAL CORRECTIONS

TDE .0906 TRA -.4128 TC3 -.6118 BAU .9334
RDE 2.2118 RRA .7694 RC3-3.3880 FAU .25310
FDE 7.8364 FRA 2.3459 FC-10.8049 BSP 7562
BDE 2.2137 BRA .8732 BC3 3.4428 FSP 2166

MID-COURSE EXECUTION ACCURACY

SGT 995.6 SGR 4424.1 SG3 1269.5
RRT .1701 RRF .9983 RTF .1832
SGB 4534.8 R23 -.0047 R13 .9984
SG1 4427.5 SG2 980.4 THA 87.69

ORBIT DETERMINATION ACCURACY

ST 13.6 SR 142.6 SS 139.3
CRT .2739 CRS -.9997 CST -.2950
LSA 199.4 MSA 13.2 SSA .4
EL1 142.7 EL2 13.1 ALF 88.49

LAUNCH DATE JUL 16 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC DISTANCE 529.345 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.822 GAL -2.11 AZL 84.83 HCA 164.45 SMA 198.56 ECC .23695 INC 5.1732 V1 29.301
RP 237.81 LAP 1.39 LOP 97.83 VP 21.160 GAP 7.66 AZP 94.98 TAL 348.98 TAP 153.43 RCA 151.51 APO 245.61 V2 23.106
RC 208.485 GL 39.84 GP -43.87 ZAL 103.94 ZAP 106.09 ETS 198.55 ZAE 127.82 ETE 234.12 ZAC 43.10 ETC 290.03 LVI 22.71

PLANETOCENTRIC CONIC

C3 21.313 VHL 4.617 DLA 52.24 RAL 20.35 RAD 6643.4 VEL 11.887 PTH 6.90 VHP 3.274 DPA -29.42 RAP 46.07 ECC 1.3508

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.05	6 46 4	4516.77	-27.52	212.20	266.56	43.67	8 1 21	3516.8	-43.62	189.68
44.05	6 46 4	4516.77	-27.52	212.20	266.56	43.67	8 1 21	3516.8	-43.62	189.68
44.05	6 46 4	4516.77	-27.52	212.20	266.56	43.67	8 1 21	3516.8	-43.62	189.68
44.05	6 46 4	4516.77	-27.52	212.20	266.56	43.67	8 1 21	3516.8	-43.62	189.68
44.05	6 46 4	4516.77	-27.52	212.20	266.56	43.67	8 1 21	3516.8	-43.62	189.68
44.05	6 46 4	4516.77	-27.52	212.20	266.56	43.67	8 1 21	3516.8	-43.62	189.68
44.05	6 46 4	4516.77	-27.52	212.20	266.56	43.67	8 1 21	3516.8	-43.62	189.68

DIFFERENTIAL CORRECTIONS

TDE .1926 TRA -.3885 TC3 -.6975 BAU .9861
RDE 2.4863 RRA .7355 RC3-3.3899 FAU .24104
FDE 7.8855 FRA 2.0241 FC3-9.7913 BSP 7935
BDE 2.4937 BRA .8318 BC3 3.4609 FSP 2058

MID-COURSE EXECUTION ACCURACY

SGT 1044.9 SGR 4641.2 SG3 1204.5
RRT .3257 RRF .9986 RTF .3386
SGB 4757.3 R23 .0022 R13 .9987
SG1 4654.2 SG2 985.1 THA 85.61

ORBIT DETERMINATION ACCURACY

ST 16.6 SR 156.0 SS 139.6
CRT .6036 CRS -.9998 CST -.6184
LSA 209.5 MSA 13.5 SSA .4
EL1 156.3 EL2 13.4 ALF 86.25

LAUNCH DATE JUL 16 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC DISTANCE 533.125 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.817 GAL -2.11 AZL 84.42 HCA 165.40 SMA 198.47 ECC .23660 INC 5.5841 V1 29.301
RP 238.14 LAP 1.41 LOP 98.79 VP 21.116 GAP 7.42 AZP 95.41 TAL 348.93 TAP 154.33 RCA 151.51 APO 245.42 V2 23.073
RC 211.443 GL 42.19 GP -45.74 ZAL 103.58 ZAP 104.36 ETS 197.76 ZAE 125.53 ETE 232.89 ZAC 41.51 ETC 290.76 LVI 24.38

PLANETOCENTRIC CONIC

C3 22.576 VHL 4.751 DLA 54.36 RAL 18.60 RAD 6644.0 VEL 11.940 PTH 6.94 VHP 3.365 DPA -31.36 RAP 46.38 ECC 1.3715

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.43	6 31 24	4547.66	-27.65	215.74	266.55	41.14	7 47 11	3547.7	-44.63	194.00
41.43	6 31 24	4547.66	-27.65	215.74	266.55	41.14	7 47 11	3547.7	-44.63	194.00
41.43	6 31 24	4547.66	-27.65	215.74	266.55	41.14	7 47 11	3547.7	-44.63	194.00
41.43	6 31 24	4547.66	-27.65	215.74	266.55	41.14	7 47 11	3547.7	-44.63	194.00
41.43	6 31 24	4547.66	-27.65	215.74	266.55	41.14	7 47 11	3547.7	-44.63	194.00
41.43	6 31 24	4547.66	-27.65	215.74	266.55	41.14	7 47 11	3547.7	-44.63	194.00
41.43	6 31 24	4547.66	-27.65	215.74	266.55	41.14	7 47 11	3547.7	-44.63	194.00

DIFFERENTIAL CORRECTIONS

TDE .3109 TRA -.3683 TC3 -.7715 BAU 1.0419
RDE 2.7958 RRA .6875 RC3-3.3647 FAU .22734
FDE 7.8710 FRA 1.6874 FC3-8.7181 BSP 8313
BDE 2.8130 BRA .7799 BC3 3.4520 FSP 1931

MID-COURSE EXECUTION ACCURACY

SGT 1122.1 SGR 4859.3 SG3 1129.5
RRT .4629 RRF .9989 RTF .4182
SGB 4987.2 R23 .0060 R13 .9989
SG1 4888.2 SG2 988.8 THA 83.64

ORBIT DETERMINATION ACCURACY

ST 22.0 SR 170.0 SS 138.8
CRT .7817 CRS -.9999 CST -.7915
LSA 220.2 MSA 13.7 SSA .3
EL1 170.9 EL2 13.6 ALF 84.19

LAUNCH DATE JUL 16 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC DISTANCE 536.905 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.813 GAL -2.12 AZL 83.95 HCA 166.35 SMA 198.38 ECC .23629 INC 6.0496 V1 29.301
RP 238.47 LAP 1.43 LOP 99.75 VP 21.073 GAP 7.18 AZP 95.88 TAL 348.88 TAP 155.23 RCA 151.50 APO 245.26 V2 23.040
RC 214.394 GL 44.71 GP -47.65 ZAL 103.17 ZAP 102.68 ETS 196.90 ZAE 123.24 ETE 231.67 ZAC 39.89 ETC 291.58 LVI 26.11

PLANETOCENTRIC CONIC

C3 24.134 VHL 4.913 DLA 56.58 RAL 16.53 RAD 6644.6 VEL 12.005 PTH 7.00 VHP 3.477 DPA -33.33 RAP 46.77 ECC 1.3972

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.71	6 15 35	4579.77	-27.60	219.40	266.37	38.42	7 31 54	3579.8	-45.50	198.65
38.71	6 15 35	4579.77	-27.60	219.40	266.37	38.42	7 31 54	3579.8	-45.50	198.65
38.71	6 15 35	4579.77	-27.60	219.40	266.37	38.42	7 31 54	3579.8	-45.50	198.65
38.71	6 15 35	4579.77	-27.60	219.40	266.37	38.42	7 31 54	3579.8	-45.50	198.65
38.71	6 15 35	4579.77	-27.60	219.40	266.37	38.42	7 31 54	3579.8	-45.50	198.65
38.71	6 15 35	4579.77	-27.60	219.40	266.37	38.42	7 31 54	3579.8	-45.50	198.65
38.71	6 15 35	4579.77	-27.60	219.40	266.37	38.42	7 31 54	3579.8	-45.50	198.65

DIFFERENTIAL CORRECTIONS

TDE .4481 TRA -.3526 TC3 -.8318 BAU 1.0993
RDE 3.1492 RRA .6225 RC3-3.3039 FAU .21170
FDE 7.7902 FRA 1.3426 FC3-7.5942 BSP 8717
BDE 3.1609 BRA .7154 BC3 3.4070 FSP 1793

MID-COURSE EXECUTION ACCURACY

SGT 1224.2 SGR 5076.0 SG3 1045.1
RRT .5774 RRF .9991 RTF .5891
SGB 5221.6 R23 .0129 R13 .9991
SG1 5126.9 SG2 989.6 THA 81.76

ORBIT DETERMINATION ACCURACY

ST 28.5 SR 184.0 SS 137.1
CRT .8717 CRS -.9999 CST -.8782
LSA 231.4 MSA 13.8 SSA .3
EL1 186.4 EL2 13.8 ALF 82.31

LAUNCH DATE JUL 16 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC DISTANCE 540.683 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.809	GAL	-2.13	AZL	83.42	HCA	167.29	SMA	198.30	ECC	.23602	INC	6.5815	V1	29.301
RP	238.79	LAP	1.44	LOP	100.70	VP	21.032	GAP	6.95	AZP	96.42	TAL	348.82	TAP	156.11	RCA	151.50	APO	245.10	V2	23.008
RC	217.340	GL	47.38	GP	-49.60	ZAL	102.72	ZAP	101.06	ETS	195.97	ZAE	120.95	ETE	230.46	ZAC	38.23	ETC	292.48	LVI	27.88

PLANETOCENTRIC CONIC

C3	26.076	VHL	5.107	DLA	58.92	RAL	14.05	RAD	6645.4	VEL	12.085	PTH	7.06	VHP	3.615	DPA	-35.32	RAP	47.24	ECC	1.4292

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.88	5 58 13	4613.53	-27.33	223.16	265.92	35.52	7 15 7	3613.5	-46.19	203.64
35.88	5 58 13	4613.53	-27.33	223.16	265.92	35.52	7 15 7	3613.5	-46.19	203.64
35.88	5 58 13	4613.53	-27.33	223.16	265.92	35.52	7 15 7	3613.5	-46.19	203.64
35.88	5 58 13	4613.53	-27.33	223.16	265.92	35.52	7 15 7	3613.5	-46.19	203.64
35.88	5 58 13	4613.53	-27.33	223.16	265.92	35.52	7 15 7	3613.5	-46.19	203.64
35.88	5 58 13	4613.53	-27.33	223.16	265.92	35.52	7 15 7	3613.5	-46.19	203.64
35.88	5 58 13	4613.53	-27.33	223.16	265.92	35.52	7 15 7	3613.5	-46.19	203.64

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.6054	TRA	-.3450	TC3	-.8789	BAU	1.1601	SGT	1352.6	SGR	5287.3	SG3	951.6	ST	35.8	SR	199.9	SS	134.0
RDE	3.5493	RRA	.5350	RC3	-3.2095	FAU	.19457	RRT	.6677	RRF	.9992	RTF	.6788	CRT	.9182	CRS	-.9999	CST	-.9228
FDE	7.6213	FRA	.9930	FC3	-6.4597	BSP	9123	SGB	5457.6	R23	.0172	R13	.9992	LSA	242.9	MSA	14.0	SSA	.2
BDE	3.6005	BRA	.6366	BC3	3.3277	FSP	1639	SG1	5366.7	SG2	992.0	THA	79.96	EL1	202.6	EL2	14.0	ALF	80.62

LAUNCH DATE JUL 16 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 544.459 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.805	GAL	-2.14	AZL	82.80	HCA	168.23	SMA	198.23	ECC	.23578	INC	7.1955	V1	29.301
RP	239.10	LAP	1.46	LOP	101.65	VP	20.991	GAP	6.71	AZP	97.05	TAL	348.76	TAP	156.99	RCA	151.49	APO	244.97	V2	22.975
RC	220.278	GL	50.24	GP	-51.58	ZAL	102.21	ZAP	99.50	ETS	194.97	ZAE	118.67	ETE	229.26	ZAC	36.56	ETC	293.48	LVI	29.68

PLANETOCENTRIC CONIC

C3	28.530	VHL	5.341	DLA	61.36	RAL	11.02	RAD	6646.4	VEL	12.185	PTH	7.14	VHP	3.785	DPA	-37.33	RAP	47.80	ECC	1.4695

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.97	5 38 47	4649.36	-26.78	226.99	265.03	32.47	6 56 17	3649.4	-46.61	208.96
32.97	5 38 47	4649.36	-26.78	226.99	265.03	32.47	6 56 17	3649.4	-46.61	208.96
32.97	5 38 47	4649.36	-26.78	226.99	265.03	32.47	6 56 17	3649.4	-46.61	208.96
32.97	5 38 47	4649.36	-26.78	226.99	265.03	32.47	6 56 17	3649.4	-46.61	208.96
32.97	5 38 47	4649.36	-26.78	226.99	265.03	32.47	6 56 17	3649.4	-46.61	208.96
32.97	5 38 47	4649.36	-26.78	226.99	265.03	32.47	6 56 17	3649.4	-46.61	208.96
32.97	5 38 47	4649.36	-26.78	226.99	265.03	32.47	6 56 17	3649.4	-46.61	208.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.7852	TRA	-.3458	TC3	-.9081	BAU	1.2247	SGT	1499.8	SGR	5494.0	SG3	851.0	ST	43.7	SR	215.4	SS	129.3
RDE	4.0073	RRA	.4195	RC3	-3.0798	FAU	.17612	RRT	.7385	RRF	.9993	RTF	.7491	CRT	.9446	CRS	-.9999	CST	-.9479
FDE	7.3592	FRA	.6470	FC3	-5.3441	BSP	9520	SGB	5695.0	R23	.0203	R13	.9993	LSA	254.6	MSA	14.1	SSA	.2
BDE	4.0835	BRA	.5436	BC3	3.2109	FSP	1471	SG1	5608.2	SG2	990.6	THA	78.23	EL1	219.4	EL2	14.1	ALF	79.11

LAUNCH DATE JUL 16 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC DISTANCE 548.232 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.802	GAL	-2.15	AZL	82.09	HCA	169.17	SMA	198.17	ECC	.23557	INC	7.9124	V1	29.301
RP	239.42	LAP	1.48	LOP	102.59	VP	20.951	GAP	6.48	AZP	97.77	TAL	348.69	TAP	157.86	RCA	151.49	APO	244.86	V2	22.944
RC	223.209	GL	53.30	GP	-53.58	ZAL	101.64	ZAP	98.01	ETS	193.92	ZAE	116.42	ETE	228.05	ZAC	34.89	ETC	294.60	LVI	31.52

PLANETOCENTRIC CONIC

C3	31.679	VHL	5.628	DLA	63.88	RAL	7.24	RAD	6647.7	VEL	12.313	PTH	7.25	VHP	3.994	DPA	-39.33	RAP	48.46	ECC	1.5213

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.99	5 16 32	4687.72	-25.89	230.86	263.48	29.30	6 34 40	3687.7	-46.66	214.57
29.99	5 16 32	4687.72	-25.89	230.86	263.48	29.30	6 34 40	3687.7	-46.66	214.57
29.99	5 16 32	4687.72	-25.89	230.86	263.48	29.30	6 34 40	3687.7	-46.66	214.57
29.99	5 16 32	4687.72	-25.89	230.86	263.48	29.30	6 34 40	3687.7	-46.66	214.57
29.99	5 16 32	4687.72	-25.89	230.86	263.48	29.30	6 34 40	3687.7	-46.66	214.57
29.99	5 16 32	4687.72	-25.89	230.86	263.48	29.30	6 34 40	3687.7	-46.66	214.57
29.99	5 16 32	4687.72	-25.89	230.86	263.48	29.30	6 34 40	3687.7	-46.66	214.57

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.9883	TRA	-.3582	TC3	-.9185	BAU	1.2938	SGT	1663.5	SGR	5692.3	SG3	744.6	ST	51.8	SR	230.8	SS	122.7
RDE	4.5288	RRA	.2706	RC3	-2.9135	FAU	.15651	RRT	.7932	RRF	.9994	RTF	.8037	CRT	.9603	CRS	-1.0000	CST	-.9629
FDE	6.9839	FRA	.3180	FC3	-4.2771	BSP	9920	SGB	5930.4	R23	.0223	R13	.9993	LSA	266.1	MSA	14.1	SSA	.1
BDE	4.6354	BRA	.4489	BC3	3.0549	FSP	1293	SG1	5847.8	SG2	986.1	THA	76.56	EL1	236.1	EL2	14.1	ALF	77.78

LAUNCH DATE JUL 16 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC DISTANCE 552.002 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.799	GAL	-2.16	AZL	81.24	HCA	170.10	SMA	198.12	ECC	.23540	INC	8.7607	V1	29.301
RP	239.73	LAP	1.50	LOP	103.54	VP	20.913	GAP	6.24	AZP	98.63	TAL	348.63	TAP	158.73	RCA	151.48	APO	244.76	V2	22.912
RC	226.132	GL	56.56	GP	-55.59	ZAL	101.01	ZAP	96.62	ETS	192.80	ZAE	114.21	ETE	226.83	ZAC	33.22	ETC	295.84	LVI	33.36

PLANETOCENTRIC CONIC

C3	35.794	VHL	5.983	DLA	66.45	RAL	2.40	RAD	6649.2	VEL	12.478	PTH	7.37	VHP	4.252	DPA	-41.32	RAP	49.22	ECC	1.5891

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.98	4 50 20	4729.21	-24.60	234.68	260.90	26.06	6 9 9	3729.2	-46.26	220.35
26.98	4 50 20	4729.21	-24.60	234.68	260.90	26.06	6 9 9	3729.2	-46.26	220.35
26.98	4 50 20	4729.21	-24.60	234.68	260.90	26.06	6 9 9	3729.2	-46.26	220.35
26.98	4 50 20	4729.21	-24.60	234.68	260.90	26.06	6 9 9	3729.2	-46.26	220.35
26.98	4 50 20	4729.21	-24.60	234.68	260.90	26.06	6 9 9	3729.2	-46.26	220.35
26.98	4 50 20	4729.21	-24.60	234.68	260.90	26.06	6 9 9	3729.2	-46.26	220.35
26.98	4 50 20	4729.21	-24.60	234.68	260.90	26.06	6 9 9	3729.2	-46.26	220.35

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	1.2094	TRA	-.3849	TC3	-.9087	BAU	1.3700	SGT	1837.1	SGR	5881.0	SG3	634.7	ST	59.6	SR	245.0	SS	113.9
RDE	5.1155	RRA	.0755	RC3	-2.7149	FAU	.13618	RRT	.8366	RRF	.9995	RTF	.8475	CRT	.9700	CRS	-1.0000	CST	-.9723
FDE	6.4734	FRA	.0123	FC3	-3.2936	BSP	10305	SGB	6161.3	R23	.0222	R13	.9994	LSA	276.3	MSA	14.1	SSA	.1
BDE	5.2565	BRA	.3922	BC3	2.8630	FSP	1107	SG1	6084.0	SG2	972.8	THA	74.96	EL1	251.8	EL2	14.1	ALF	76.69

LAUNCH DATE JUL 16 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 26 1974

HELIOCENTRIC CONIC DISTANCE 639.327 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.814	GAL	-2.91	AZL	99.01	HCA	191.50	SMA	198.41	ECC	.23882	INC	9.0098	V1	29.301
RP	245.63	LAP	1.79	LOP	124.69	VP	20.291	GAP	1.16	AZP	81.17	TAL	344.79	TAP	176.50	RCA	151.02	APO	245.79	V2	22.324
RC	289.637	GL	-56.11	GP	51.50	ZAL	104.75	ZAP	78.51	ETS	197.24	ZAE	98.02	ETE	172.61	ZAC	138.63	ETC	291.74	LVI	-72.92

PLANETOCENTRIC CONIC

C3	38.225	VHL	6.183	DLA	-36.19	RAL	63.93	RAD	6650.0	VEL	12.574	PTH	7.44	VHP	3.770	DPA	50.30	RAP	345.11	ECC	1.6291

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 45 31	2514.30	-8.11	67.03	293.37	137.04	19 27 25	1514.3	10.27	51.26
60.00	20 35 30	2221.22	1.14	49.50	302.19	130.29	21 12 31	1221.2	16.93	31.06
66.42	23 8 29	1775.30	14.92	23.38	312.55	123.36	23 38 4	775.3	27.25	1.24
66.42	23 8 29	1775.30	14.92	23.38	312.55	123.36	23 38 4	775.3	27.25	1.24
66.42	23 8 29	1775.30	14.92	23.38	312.55	123.36	23 38 4	775.3	27.25	1.24
66.42	23 8 29	1775.30	14.92	23.38	312.55	123.36	23 38 4	775.3	27.25	1.24
66.42	23 8 29	1775.30	14.92	23.38	312.55	123.36	23 38 4	775.3	27.25	1.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.7906	TRA	3.8959	TC3	-2.9478	BAU	1.9130	SGT	6323.3	SGR	5448.3	SG3	807.9	ST	145.8	SR	98.7	SS	50.6
RDE	1.5807	RRA	-3.8360	RC3	2.3072	FAU	.18908	RRT	-.9837	RRF	-.9982	RTF	.9808	CRT	-.9676	CRS	.9980	C3T	-.9497
FDE	-2.3382	FRA	6.4410	FC3	-4.2825	BSP	14327	SGB	8346.8	R23	.1103	R13	-.9922	LSA	181.6	MSA	23.8	SSA	.3
BDE	3.2072	BRA	5.4674	BC3	3.7434	FSP	1453	SG1	8313.4	SG2	745.4	THA	139.32	EL1	174.8	EL2	20.8	ALF	146.22

LAUNCH DATE JUL 16 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 28 1974

HELIOCENTRIC CONIC DISTANCE 643.075 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.817	GAL	-2.95	AZL	98.40	HCA	192.39	SMA	198.47	ECC	.23918	INC	8.4011	V1	29.301
RP	245.83	LAP	1.80	LOP	125.59	VP	20.274	GAP	.94	AZP	81.79	TAL	344.61	TAP	177.00	RCA	151.00	APO	245.94	V2	22.305
RC	292.172	GL	-53.79	GP	49.60	ZAL	105.61	ZAP	77.19	ETS	197.82	ZAE	97.26	ETE	174.02	ZAC	136.92	ETC	291.00	LVI	-71.28

PLANETOCENTRIC CONIC

C3	35.223	VHL	5.935	DLA	-33.99	RAL	63.00	RAD	6649.0	VEL	12.455	PTH	7.35	VHP	3.598	DPA	48.65	RAP	346.61	ECC	1.5797

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 26 11	2550.63	-9.92	68.59	290.24	136.78	19 8 42	1550.6	8.47	52.83
60.00	20 4 6	2289.98	-1.89	52.78	297.89	130.26	20 42 16	1290.0	14.07	34.62
70.00	23 0 2	1769.92	12.16	21.12	308.16	122.17	23 29 32	769.9	24.26	359.27
70.30	23 27 3	1687.48	14.84	16.39	309.85	120.94	23 55 10	687.5	26.24	353.80
70.30	23 27 3	1687.48	14.84	16.39	309.85	120.94	23 55 10	687.5	26.24	353.80
70.30	23 27 3	1687.48	14.84	16.39	309.85	120.94	23 55 10	687.5	26.24	353.80
110.00	4 3 24	6104.78	12.16	287.95	308.16	122.17	5 45 9	5104.8	24.26	266.10

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.6879	TRA	3.9003	TC3	-3.2559	BAU	1.8995	SGT	6503.4	SGR	5266.8	SG3	905.6	ST	146.7	SR	94.3	SS	53.1
RDE	1.4468	RRA	-3.6232	RC3	2.3613	FAU	.20788	RRT	-.9841	RRF	-.9982	RTF	.9811	CRT	-.9683	CRS	.9975	C3T	-.9481
FDE	-2.4443	FRA	7.0561	FC3	-5.1094	BSP	14328	SGB	8368.5	R23	.1144	R13	-.9916	LSA	180.8	MSA	23.6	SSA	.3
BDE	3.0525	BRA	5.3235	BC3	4.0338	FSP	1623	SG1	8336.7	SG2	729.4	THA	141.09	EL1	173.2	EL2	20.0	ALF	147.60

LAUNCH DATE JUL 16 1973 FLIGHT TIME 288.00 ARRIVAL DATE APR 30 1974

HELIOCENTRIC CONIC DISTANCE 646.824 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.820	GAL	-2.99	AZL	97.87	HCA	193.28	SMA	198.83	ECC	.23955	INC	7.8736	V1	29.301
RP	246.02	LAP	1.80	LOP	126.48	VP	20.258	GAP	.73	AZP	82.33	TAL	344.41	TAP	177.69	RCA	150.97	APO	246.08	V2	22.286
RC	294.682	GL	-51.62	GP	47.75	ZAL	106.43	ZAP	75.87	ETS	198.33	ZAE	96.44	ETE	175.34	ZAC	135.25	ETC	290.34	LVI	-69.65

PLANETOCENTRIC CONIC

C3	32.809	VHL	5.728	DLA	-31.92	RAL	62.22	RAD	6648.1	VEL	12.358	PTH	7.28	VHP	3.455	DPA	47.02	RAP	347.98	ECC	1.5400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 9 46	2583.89	-11.56	70.03	287.70	136.48	18 52 50	1583.9	6.81	54.24
60.00	19 39 29	2345.16	-4.31	55.43	294.59	130.11	20 18 34	1345.2	11.74	37.40
70.00	21 49 7	1963.49	4.96	31.48	301.55	123.84	22 21 50	963.5	18.22	11.05
74.54	23 51 3	1585.80	14.60	8.43	307.48	118.70	24 17 29	585.8	25.15	345.51
74.54	23 51 3	1585.80	14.60	8.43	307.48	118.70	24 17 29	585.8	25.15	345.51
74.54	23 51 3	1585.80	14.60	8.43	307.48	118.70	24 17 29	585.8	25.15	345.51
110.00	2 52 29	1010.31	4.96	320.40	301.55	123.84	3 9 19	10.3	18.22	299.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.5681	TRA	3.9179	TC3	-3.5574	BAU	1.8899	SGT	6680.5	SGR	5083.3	SG3	997.4	ST	146.9	SR	89.8	SS	55.0
RDE	1.3205	RRA	-3.4300	RC3	2.4309	FAU	.22515	RRT	-.9845	RRF	-.9981	RTF	.9814	CRT	-.9686	CRS	.9968	C3T	-.9456
FDE	-2.5004	FRA	7.6222	FC3	-5.9411	BSP	14363	SGB	8394.6	R23	.1181	R13	-.9911	LSA	179.2	MSA	23.5	SSA	.3
BDE	2.9055	BRA	5.2072	BC3	4.3086	FSP	1787	SG1	8364.3	SG2	712.0	THA	142.85	EL1	171.1	EL2	19.2	ALF	148.98

LAUNCH DATE JUL 16 1973 FLIGHT TIME 290.00 ARRIVAL DATE MAY 2 1974

HELIOCENTRIC CONIC DISTANCE 650.573 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.824	GAL	-3.04	AZL	97.41	HCA	194.17	SMA	198.59	ECC	.23994	INC	7.4119	V1	29.301
RP	246.21	LAP	1.81	LOP	127.38	VP	20.243	GAP	.51	AZP	82.81	TAL	344.21	TAP	178.38	RCA	150.94	APO	246.24	V2	22.267
RC	297.167	GL	-49.58	GP	45.96	ZAL	107.22	ZAP	74.55	ETS	198.77	ZAE	95.56	ETE	176.57	ZAC	133.62	ETC	289.75	LVI	-68.03

PLANETOCENTRIC CONIC

C3	30.844	VHL	5.554	DLA	-29.97	RAL	61.58	RAD	6647.3	VEL	12.279	PTH	7.22	VHP	3.336	DPA	45.43	RAP	349.23	ECC	1.5076

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 55 36	2614.84	-13.09	71.39	285.64	136.16	18 39 11	1614.8	5.26	55.55
60.00	19 19 12	2392.43	-6.38	57.71	291.98	129.88	19 59 4	1392.4	9.71	38.75
70.00	21 12 44	2058.43	1.34	36.45	297.80	124.13	21 47 2	1058.4	14.97	16.48
79.65	0 29 4	1454.38	14.25	358.36	305.41	116.64	0 53 18	454.4	24.00	335.19
79.65	0 29 4	1454.38	14.25	358.36	305.41	116.64	0 53 18	454.4	24.00	335.19
79.65	0 29 4	1454.38	14.25	358.36	305.41	116.64	0 53 18	454.4	24.00	335.19
110.00	2 16 6	1105.25	1.34	325.37	297.80	124.13	2 34 31	105.3	14.97	305.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.4930	TRA	3.9441	TC3	-3.8534	BAU	1.8853	SGT	6855.3	SGR	4901.2	SG3	1083.0	ST	146.8	SR	85.1	SS	56.2
RDE	1.2036	RRA	-3.2532	RC3	2.4608	FAU	.24105	RRT	-.9848	RRF	-.9979	RTF	.9816	CRT	-.9687	CRS	.9959	C3T	-.9423
FDE	-2.5123	FRA	8.1386	FC3	-6.7660	BSP	14463	SGB	8427.1	R23	.1215	R13	-.9905	LSA	177.2	MSA	23.6	SSA	.4
BDE	2.7683	BRA	5.1126	BC3	4.5721	FSP	1943	SG1	8398.5	SG2	694.6	THA	144.57	EL1	168.7	EL2	18.4	ALF	150.28

LAUNCH DATE JUL 16 1973 FLIGHT TIME 292.00 ARRIVAL DATE MAY 4 1974

HELIOCENTRIC CONIC DISTANCE 654.321 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.827 GAL -3.08 AZL 97.00 HCA 195.08 SMA 198.66 ECC .24034 INC 7.0042 V1 29.301
RP 246.39 LAP 1.82 LOP 128.27 VP 20.229 GAP .30 AZP 83.23 TAL 344.01 TAP 179.07 RCA 150.91 APO 246.40 V2 22.249
RC 299.628 GL -47.68 GP 44.24 ZAL 107.99 ZAP 73.23 ETS 199.14 ZAE 94.62 ETE 177.71 ZAC 132.04 ETC 289.23 LVI -66.45

PLANETOCENTRIC CONIC

C3 29.226 VHL 5.406 DLA -28.12 RAL 61.03 RAD 6646.7 VEL 12.213 PTH 7.17 VHP 3.237 DPA 43.90 RAP 350.37 ECC 1.4810

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 43 13	2643.98	-14.51	72.69	283.95	135.83	18 27 17	1644.0	3.80	56.78
60.00	19 1 59	2434.44	-8.21	59.75	289.89	129.60	19 42 34	1434.4	7.89	41.81
70.00	20 45 44	2129.33	-1.37	40.15	295.02	124.13	21 21 14	1129.3	12.44	20.41
80.00	23 0 17	1708.04	5.79	12.61	299.45	119.34	23 28 45	708.0	17.30	351.16
90.00	1 24 41	1255.00	11.39	342.26	302.42	116.06	1 45 36	255.0	21.16	319.49
100.00	1 47 5	1182.52	5.79	333.98	299.45	119.34	2 6 48	182.5	17.30	312.53
110.00	1 49 7	1176.15	-1.37	329.07	295.02	124.13	2 8 43	176.1	12.44	309.33

DIFFERENTIAL CORRECTIONS

TDE-2.4046 TRA 3.9753 TC3-4.1455 BAU 1.8862
RDE 1.0980 RRA-3.0895 RC3 2.4737 FAU .25560
FDE-2.4906 FRA 8.6026 FC3-7.5714 BSP 14534
BDE 2.6434 BRA 5.0347 BC3 4.8274 FSP 2085

MID-COURSE EXECUTION ACCURACY

SGT 7028.9 SGR 4721.4 SG3 1161.9
RRT -.9850 RRF -.9977 RTF .9818
SGB 8467.4 R23 .1247 R13 -.9899
SG1 8440.2 SG2 677.7 THA 146.26

ORBIT DETERMINATION ACCURACY

ST 146.3 SR 80.6 SS 57.1
CRT -.9687 CRS .9947 CST -.9383
LSA 175.0 MSA 23.7 SSA .4
EL1 166.2 EL2 17.6 ALF 151.56

LAUNCH DATE JUL 16 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 6 1974

HELIOCENTRIC CONIC DISTANCE 658.070 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.830 GAL -3.12 AZL 96.64 HCA 195.94 SMA 198.72 ECC .24076 INC 6.6416 V1 29.301
RP 246.57 LAP 1.82 LOP 129.17 VP 20.215 GAP .08 AZP 83.61 TAL 343.80 TAP 179.74 RCA 150.88 APO 246.57 V2 22.232
RC 302.065 GL -45.89 GP 42.58 ZAL 108.72 ZAP 71.94 ETS 199.46 ZAE 93.65 ETE 178.76 ZAC 130.51 ETC 288.77 LVI -64.90

PLANETOCENTRIC CONIC

C3 27.882 VHL 5.280 DLA -26.37 RAL 60.58 RAD 6646.2 VEL 12.159 PTH 7.12 VHP 3.155 DPA 42.41 RAP 351.43 ECC 1.4589

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 32 17	2671.61	-15.86	73.94	282.58	135.47	18 16 49	1671.6	2.41	57.93
60.00	18 47 6	2472.60	-9.86	61.62	288.19	129.28	19 28 19	1472.6	6.23	43.66
70.00	20 23 57	2187.86	-3.60	43.21	292.87	123.99	21 0 24	1187.9	10.30	23.60
80.00	22 23 13	1814.51	2.21	18.48	296.48	119.78	22 53 28	814.5	14.16	357.51
90.00	0 18 13	1456.35	5.16	353.76	298.10	117.84	0 42 29	456.4	16.14	332.12
100.00	1 10 1	1288.98	2.21	339.85	296.48	119.78	1 31 30	289.0	14.16	318.88
110.00	1 27 19	1234.68	-3.60	332.13	292.87	123.99	1 47 53	234.7	10.30	312.52

DIFFERENTIAL CORRECTIONS

TDE-2.3180 TRA 4.0152 TC3-4.4255 BAU 1.8889
RDE 1.0020 RRA-2.9380 RC3 2.4684 FAU .26846
FDE-2.4368 FRA 9.0164 FC3-8.3356 BSP 14653
BDE 2.5253 BRA 4.9753 BC3 5.0673 FSP 2217

MID-COURSE EXECUTION ACCURACY

SGT 7198.4 SGR 4543.1 SG3 1233.2
RRT -.9853 RRF -.9975 RTF .9820
SGB 8512.2 R23 .1271 R13 -.9893
SG1 8486.7 SG2 658.5 THA 147.91

ORBIT DETERMINATION ACCURACY

ST 145.6 SR 76.3 SS 57.5
CRT -.9688 CRS .9933 CST -.9338
LSA 172.5 MSA 23.8 SSA .4
EL1 163.5 EL2 16.8 ALF 152.77

LAUNCH DATE JUL 16 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 661.816 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.834 GAL -3.17 AZL 96.32 HCA 196.83 SMA 198.79 ECC .24119 INC 6.3165 V1 29.301
RP 246.74 LAP 1.83 LOP 130.06 VP 20.203 GAP -.13 AZP 83.95 TAL 343.59 TAP 180.42 RCA 150.85 APO 246.74 V2 22.215
RC 304.476 GL -44.21 GP 40.99 ZAL 109.43 ZAP 70.66 ETS 199.73 ZAE 92.64 ETE 179.72 ZAC 129.03 ETC 288.35 LVI -63.41

PLANETOCENTRIC CONIC

C3 26.757 VHL 5.173 DLA -24.72 RAL 60.21 RAD 6645.7 VEL 12.113 PTH 7.09 VHP 3.085 DPA 40.99 RAP 352.41 ECC 1.4403

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 22 34	2697.93	-17.13	75.14	281.45	135.09	18 7 31	1697.9	1.09	59.03
60.00	18 34 2	2507.82	-11.37	63.37	286.80	128.93	19 15 50	1507.8	4.68	45.36
70.00	20 5 36	2236.63	-5.53	45.88	291.15	123.76	20 42 55	1238.6	8.42	26.33
80.00	21 56 7	1892.72	-.44	22.77	294.30	119.85	22 27 40	892.7	11.74	2.04
90.00	23 39 35	1559.05	1.87	359.51	295.58	118.22	24 5 34	559.1	13.25	338.28
100.00	0 42 55	1367.19	-.44	344.14	294.30	119.85	1 5 42	367.2	11.74	323.41
110.00	1 8 58	1285.44	-5.53	334.80	291.15	123.76	1 30 24	285.4	8.42	315.24

DIFFERENTIAL CORRECTIONS

TDE-2.2390 TRA 4.0557 TC3-4.7028 BAU 1.8973
RDE .9171 RRA-2.7955 RC3 2.4526 FAU .28020
FDE-2.3626 FRA 9.3756 FC3-9.0661 BSP 14730
BDE 2.4195 BRA 4.9258 BC3 5.3039 FSP 2330

MID-COURSE EXECUTION ACCURACY

SGT 7367.5 SGR 4369.2 SG3 1297.5
RRT -.9855 RRF -.9972 RTF .9821
SGB 8565.6 R23 .1291 R13 -.9888
SG1 8541.7 SG2 640.0 THA 149.51

ORBIT DETERMINATION ACCURACY

ST 144.7 SR 72.2 SS 57.6
CRT -.9691 CRS .9915 CST -.9288
LSA 170.0 MSA 23.9 SSA .5
EL1 160.9 EL2 16.0 ALF 153.92

LAUNCH DATE JUL 16 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 665.583 EARTH TO MARS

RL 152.05 LAL -.00 LOL 293.32 VL 32.838 GAL -3.21 AZL 96.02 HCA 197.72 SMA 198.87 ECC .24163 INC 6.0235 V1 29.301
RP 246.90 LAP 1.83 LOP 130.95 VP 20.191 GAP -.35 AZP 84.26 TAL 343.37 TAP 181.09 RCA 150.81 APO 246.92 V2 22.199
RC 306.863 GL -42.63 GP 39.47 ZAL 110.12 ZAP 69.40 ETS 199.95 ZAE 91.59 ETE 180.62 ZAC 127.61 ETC 287.98 LVI -61.97

PLANETOCENTRIC CONIC

C3 25.809 VHL 5.080 DLA -23.16 RAL 59.90 RAD 6645.3 VEL 12.074 PTH 7.05 VHP 3.028 DPA 39.63 RAP 353.31 ECC 1.4248

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 13 51	2723.11	-18.34	76.31	280.55	134.71	17 59 14	1723.1	-.17	60.08
60.00	18 22 27	2540.65	-12.77	65.01	285.68	128.56	19 4 48	1540.7	3.24	46.93
70.00	19 49 47	2283.94	-7.23	48.27	289.76	123.47	20 27 51	1283.9	6.72	28.74
80.00	21 34 18	1956.85	-2.61	26.30	292.62	119.75	22 6 54	956.8	9.68	5.70
90.00	23 13 38	1636.44	-.63	3.83	293.72	118.27	23 40 54	636.4	10.97	342.81
100.00	0 21 5	1431.32	-2.61	347.66	292.62	119.75	0 44 57	431.3	9.68	327.07
110.00	0 53 9	1330.76	-7.23	337.19	289.76	123.47	1 15 20	330.8	6.72	317.65

DIFFERENTIAL CORRECTIONS

TDE-2.1610 TRA 4.1041 TC3-4.9668 BAU 1.9066
RDE .8398 RRA-2.6645 RC3 2.4217 FAU .29018
FDE-2.2640 FRA 9.6941 FC3-9.7336 BSP 14856
BDE 2.3185 BRA 4.8931 BC3 5.5257 FSP 2434

MID-COURSE EXECUTION ACCURACY

SGT 7533.3 SGR 4199.2 SG3 1354.4
RRT -.9856 RRF -.9968 RTF .9823
SGB 8624.6 R23 .1305 R13 -.9883
SG1 8602.1 SG2 621.4 THA 151.05

ORBIT DETERMINATION ACCURACY

ST 143.6 SR 68.3 SS 57.5
CRT -.9695 CRS .9892 CST -.9232
LSA 167.3 MSA 24.0 SSA .5
EL1 158.2 EL2 15.2 ALF 155.00

LAUNCH DATE JUL 16 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 669.308 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.841	GAL	-3.26	AZL	95.76	HCA	198.60	SMA	198.94	ECC	.24209	INC	5.7579	V1	29.301
RP	247.06	LAP	1.83	LOP	131.84	VP	20.180	GAP	-.56	AZP	84.54	TAL	343.15	TAP	181.75	RCA	150.78	APO	247.10	V2	22.183
RC	309.224	GL	-41.13	GP	38.01	ZAL	110.79	ZAP	68.17	ETS	200.13	ZAE	90.53	ETE	181.43	ZAC	126.25	ETC	287.65	LVI	-60.58

PLANETOCENTRIC CONIC

C3	25.007	VHL	5.001	DLA	-21.67	RAL	59.65	RAD	6645.0	VEL	12.041	PTH	7.03	VHP	2.979	DPA	38.32	RAP	354.16	ECC	1.4116

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 6 0	2747.27	-19.50	77.45	279.82	134.30	17 51 48	1747.3	-1.39	61.09
60.00	18 12 6	2571.52	-14.07	66.58	284.78	128.16	18 54 57	1571.5	1.89	48.41
70.00	19 35 54	2325.17	-8.78	50.47	288.65	123.14	20 14 39	1325.2	5.17	30.91
80.00	21 15 54	2012.20	-4.48	29.35	291.29	119.55	21 49 26	1012.2	7.88	8.81
90.00	22 52 30	1700.57	-2.69	7.41	292.27	118.16	23 20 51	700.6	9.01	346.50
100.00	0 2 41	1486.67	-4.48	350.71	291.29	119.55	0 27 28	486.7	7.88	330.18
110.00	0 39 16	1371.98	-8.78	339.39	288.65	123.14	1 2 8	372.0	5.17	319.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0879	TRA	4.1540	TC3	-5.2242	BAU	1.9195	SGT	7697.5	SGR	4033.8	SG3	1404.1	ST	142.4	SR	64.6	SS	57.2
RDE	.7714	RRA	-2.5413	RC3	2.3817	FAU	.29886	RRT	-.9857	RRF	-.9964	RTF	.9823	CRT	-.9702	CRS	.9863	CST	-.9172
FDE	-2.1513	FRA	9.9656	FC	-10.3462	BSP	14976	SGB	8690.4	R23	.1314	R13	-.9877	LSA	164.7	MSA	24.2	SSA	.5
BDE	2.2258	BRA	4.8698	BC3	5.7415	FSP	2525	SG1	8669.4	SG2	603.6	THA	152.54	ELI	155.7	EL2	14.3	ALF	156.02

LAUNCH DATE JUL 16 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 673.053 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.845	GAL	-3.31	AZL	95.52	HCA	199.48	SMA	199.02	ECC	.24256	INC	5.5159	V1	29.301
RP	247.22	LAP	1.84	LOP	132.73	VP	20.170	GAP	-.77	AZP	84.80	TAL	342.92	TAP	182.41	RCA	150.74	APO	247.29	V2	22.168
RC	311.559	GL	-39.72	GP	36.62	ZAL	111.43	ZAP	66.96	ETS	200.27	ZAE	89.45	ETE	182.18	ZAC	124.94	ETC	287.36	LVI	-59.24

PLANETOCENTRIC CONIC

C3	24.326	VHL	4.932	DLA	-20.26	RAL	59.45	RAD	6644.7	VEL	12.013	PTH	7.00	VHP	2.939	DPA	37.08	RAP	354.96	ECC	1.4003

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 58 55	2770.50	-20.60	78.56	279.25	133.89	17 45 5	1770.5	-2.55	62.06
60.00	18 2 46	2600.70	-15.29	68.07	284.06	127.75	18 46 6	1600.7	.60	49.80
70.00	19 23 33	2363.18	-10.18	52.51	287.76	122.78	20 2 57	1363.2	3.72	32.91
80.00	20 59 58	2061.42	-6.12	32.07	290.23	119.28	21 34 20	1061.4	6.25	11.56
90.00	22 34 35	1756.24	-4.48	10.53	291.13	117.95	23 3 51	756.2	7.28	349.68
100.00	23 42 50	1535.90	-6.12	353.44	290.23	119.28	24 8 26	535.9	6.25	332.93
110.00	0 26 56	1410.00	-10.18	341.43	287.76	122.78	0 50 26	410.0	3.72	321.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0182	TRA	4.2067	TC3	-5.4729	BAU	1.9351	SGT	7859.7	SGR	3874.0	SG3	1447.2	ST	141.1	SR	61.2	SS	56.8
RDE	.7108	RRA	-2.4259	RC3	2.3345	FAU	.30637	RRT	-.9858	RRF	-.9960	RTF	.9824	CRT	-.9712	CRS	.9828	CST	-.9107
FDE	-2.0280	FRA	10.1942	FC	-10.9031	BSP	15094	SGB	8762.6	R23	.1316	R13	-.9873	LSA	162.1	MSA	24.4	SSA	.6
BDE	2.1398	BRA	4.8561	BC3	5.9500	FSP	2599	SG1	8743.0	SG2	585.7	THA	153.96	EL1	153.2	EL2	13.4	ALF	156.97

LAUNCH DATE JUL 16 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC DISTANCE 676.797 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.849	GAL	-3.36	AZL	95.29	HCA	200.37	SMA	199.09	ECC	.24304	INC	5.2944	V1	29.301
RP	247.37	LAP	1.84	LOP	133.61	VP	20.160	GAP	-.98	AZP	85.03	TAL	342.69	TAP	183.06	RCA	150.70	APO	247.48	V2	22.154
RC	313.869	GL	-38.39	GP	35.30	ZAL	112.07	ZAP	65.78	ETS	200.38	ZAE	88.36	ETE	182.87	ZAC	123.69	ETC	287.09	LVI	-57.97

PLANETOCENTRIC CONIC

C3	23.746	VHL	4.873	DLA	-18.91	RAL	59.30	RAD	6644.5	VEL	11.989	PTH	6.98	VHP	2.906	DPA	35.91	RAP	355.71	ECC	1.3908

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 52 28	2792.88	-21.65	79.65	278.81	133.46	17 39 1	1792.9	-3.68	63.00
60.00	17 54 18	2628.42	-16.45	69.51	283.49	127.33	18 38 7	1628.4	-.62	51.13
70.00	19 12 29	2398.59	-11.48	54.43	287.05	122.39	19 52 28	1398.6	2.37	34.76
80.00	20 45 57	2106.08	-7.60	34.56	289.39	118.96	21 21 3	1106.1	4.76	14.03
90.00	22 19 0	1805.92	-6.06	13.33	290.23	117.68	22 49 6	805.9	5.72	352.49
100.00	23 28 49	1580.55	-7.60	355.93	289.39	118.96	23 55 9	580.5	4.76	335.40
110.00	0 15 51	1445.41	-11.48	343.35	287.05	122.39	0 39 57	445.4	2.37	323.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.9501	TRA	4.2643	TC3	-5.7104	BAU	1.9520	SGT	8019.9	SGR	3719.9	SG3	1483.9	ST	139.8	SR	56.0	SS	56.3
RDE	.6566	RRA	-2.3185	RC3	2.2801	FAU	.31287	RRT	-.9858	RRF	-.9955	RTF	.9826	CRT	-.9725	CRS	.9786	CST	-.9039
FDE	-1.8940	FRA	10.3876	FC	-11.3957	BSP	15241	SGB	8840.6	R23	.1310	R13	-.9869	LSA	159.6	MSA	24.5	SSA	.6
BDE	2.0576	BRA	4.8538	BC3	6.1488	FSP	2665	SG1	8822.4	SG2	587.9	THA	155.32	EL1	150.8	EL2	12.5	ALF	157.84

LAUNCH DATE JUL 16 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 680.539 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.853	GAL	-3.41	AZL	95.09	HCA	201.28	SMA	199.17	ECC	.24354	INC	5.0908	V1	29.301
RP	247.51	LAP	1.84	LOP	134.50	VP	20.151	GAP	-1.19	AZP	85.25	TAL	342.46	TAP	183.71	RCA	150.67	APO	247.68	V2	22.140
RC	316.151	GL	-37.12	GP	34.04	ZAL	112.69	ZAP	64.63	ETS	200.46	ZAE	87.26	ETE	183.50	ZAC	122.49	ETC	286.85	LVI	-58.74

PLANETOCENTRIC CONIC

C3	23.252	VHL	4.822	DLA	-17.63	RAL	59.19	RAD	6644.3	VEL	11.968	PTH	6.97	VHP	2.880	DPA	34.79	RAP	356.43	ECC	1.3827

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 46 35	2814.47	-22.66	80.71	278.50	133.03	17 33 30	1814.5	-4.76	63.91
60.00	17 46 36	2654.87	-17.53	70.90	283.06	126.89	18 30 51	1654.9	-1.78	52.39
70.00	19 2 29	2431.82	-12.69	56.25	286.50	121.98	19 43 0	1431.8	1.11	36.50
80.00	20 33 26	2147.15	-8.95	36.86	288.72	118.60	21 9 13	1147.1	3.38	16.30
90.00	22 5 12	1851.10	-7.48	15.89	289.52	117.35	22 36 3	851.1	4.26	355.03
100.00	23 16 18	1621.62	-8.95	358.23	288.72	118.60	23 43 19	621.6	3.38	337.67
110.00	0 5 51	1478.64	-12.69	345.17	286.50	121.98	0 30 29	478.6	1.11	325.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.8842	TRA	4.3248	TC3	-5.9375	BAU	1.9704	SGT	8177.7	SGR	3570.8	SG3	1514.3	ST	138.4	SR	55.1	SS	55.7
RDE	.6081	RRA	-2.2183	RC3	2.2189	FAU	.31741	RRT	-.9857	RRF	-.9949	RTF	.9826	CRT	-.9741	CRS	.9733	CST	-.8965
FDE	-1.7510	FRA	10.5486	FC	-11.8182	BSP	15405	SGB	8923.3	R23	.1301	R13	-.9864	LSA	157.1	MSA	24.7	SSA	.6
BDE	1.9799	BRA	4.8605	BC3	6.3586	FSP	2723	SG1	8906.2	SG2	552.0	THA	156.62	EL1	148.5	EL2	11.6	ALF	158.66

LAUNCH DATE JUL 16 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC DISTANCE 684.281 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.857	GAL	-3.46	AZL	94.90	HCA	202.13	SMA	199.25	ECC	.24404	INC	4.9029	V1	29.301
RP	247.65	LAP	1.85	LOP	135.38	VP	20.143	GAP	-1.40	AZP	85.46	TAL	342.22	TAP	184.36	RCA	150.63	APO	247.88	V2	22.126
RC	318.406	GL	-35.92	GP	32.84	ZAL	113.29	ZAP	63.51	ETS	200.52	ZAE	86.15	ETE	184.08	ZAC	121.34	ETC	286.63	LVI	-55.57

PLANETOCENTRIC CONIC

C3	22.831	VHL	4.778	DLA	-16.41	RAL	59.11	RAD	6644.1	VEL	11.951	PTH	6.95	VHP	2.858	DPA	33.73	RAP	357.11	ECC	1.3787

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 12	2835.35	-23.62	81.76	278.28	132.58	17 28 28	1835.3	-5.80	64.79
60.00	17 39 34	2680.17	-18.56	72.25	282.75	126.44	18 24 14	1680.2	-2.90	53.60
70.00	18 53 22	2463.19	-13.81	57.99	286.08	121.55	19 34 25	1463.2	-.09	38.13
80.00	20 22 9	2185.32	-10.19	39.02	288.21	118.22	20 58 34	1185.3	2.09	18.40
90.00	21 52 51	1892.73	-8.77	18.26	288.96	116.99	22 24 23	892.7	2.94	357.36
100.00	23 5 1	1659.79	-10.19	.39	288.21	118.22	23 32 40	659.8	2.09	339.77
110.00	23 52 48	1510.01	-13.81	346.91	286.08	121.55	24 17 58	510.0	-.09	327.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.8209	TRA 4.3871	TC3-6.1558	BAU 1.9907	SGT 8333.5	SGR 3427.6	SG3 1539.2	ST	137.0	SR	52.4	SS	55.0
RDE .5659	RRA-2.1235	RC3 2.1551	FAU .32139	RRT -.9857	RRF -.9942	RTF .9827	CRT	-.9761	CRS	.9671	CST	-.8892
FDE-1.6073	FRA10.6733	FC-12.1869	BSP 15566	SGB 9010.9	R23 .1282	R13 -.9861	LSA	154.6	MSA	24.9	SSA	.7
BDE 1.9068	BRA 4.8741	BC3 6.5221	FSP 2767	SG1 8994.9	SG2 535.8	THA 157.85	EL1	146.3	EL2	10.7	ALF	159.41

LAUNCH DATE JUL 16 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 688.020 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.862	GAL	-3.51	AZL	94.73	HCA	203.01	SMA	199.34	ECC	.24456	INC	4.7289	V1	29.301
RP	247.78	LAP	1.85	LOP	136.27	VP	20.136	GAP	-1.61	AZP	85.65	TAL	341.98	TAP	185.00	RCA	150.59	APO	248.08	V2	22.113
RC	320.632	GL	-34.78	GP	31.70	ZAL	113.88	ZAP	62.42	ETS	200.55	ZAE	85.05	ETE	184.61	ZAC	120.24	ETC	286.44	LVI	-54.45

PLANETOCENTRIC CONIC

C3	22.472	VHL	4.740	DLA	-15.24	RAL	59.07	RAD	6643.9	VEL	11.936	PTH	6.94	VHP	2.841	DPA	32.72	RAP	357.76	ECC	1.3698

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 16	2855.55	-24.55	82.79	278.16	132.13	17 23 52	1855.5	-6.81	65.64
60.00	17 33 6	2704.45	-19.54	73.56	282.54	125.98	18 18 10	1704.5	-3.96	54.77
70.00	18 45 2	2492.96	-14.87	59.65	285.78	121.11	19 26 35	1493.0	-1.23	39.68
80.00	20 11 54	2221.08	-11.33	41.06	287.83	117.81	20 48 55	1221.1	.68	20.36
90.00	21 41 40	1931.47	-9.96	20.48	288.55	116.60	22 13 52	931.5	1.70	359.52
100.00	22 54 46	1695.56	-11.33	2.43	287.83	117.81	23 23 1	695.6	.68	341.73
110.00	23 44 28	1539.78	-14.87	348.57	285.78	121.11	24 10 8	539.8	-1.23	328.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7593	TRA 4.4523	TC3-6.3641	BAU 2.0122	SGT 8487.4	SGR 3290.0	SG3 1558.7	ST	135.6	SR	49.9	SS	54.4
RDE .5282	RRA-2.0353	RC3 2.0872	FAU .32419	RRT -.9855	RRF -.9935	RTF .9827	CRT	-.9784	CRS	.9597	CST	-.8814
FDE-1.4593	FRA10.7734	FC-12.4894	BSP 15739	SGB 9102.7	R23 .1259	R13 -.9857	LSA	152.3	MSA	25.1	SSA	.7
BDE 1.8368	BRA 4.8954	BC3 6.6976	FSP 2804	SG1 9087.8	SG2 521.8	THA 159.02	EL1	144.2	EL2	9.7	ALF	160.10

LAUNCH DATE JUL 16 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 24 1974

HELIOCENTRIC CONIC DISTANCE 691.759 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.866	GAL	-3.56	AZL	94.57	HCA	203.89	SMA	199.42	ECC	.24509	INC	4.5673	V1	29.301
RP	247.91	LAP	1.85	LOP	137.15	VP	20.129	GAP	-1.82	AZP	85.82	TAL	341.74	TAP	185.63	RCA	150.54	APO	248.30	V2	22.101
RC	322.829	GL	-33.70	GP	30.61	ZAL	114.47	ZAP	61.36	ETS	200.57	ZAE	83.94	ETE	185.09	ZAC	119.18	ETC	286.26	LVI	-53.38

PLANETOCENTRIC CONIC

C3	22.168	VHL	4.708	DLA	-14.12	RAL	59.06	RAD	6643.8	VEL	11.923	PTH	6.93	VHP	2.829	DPA	31.78	RAP	358.39	ECC	1.3648

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 31 44	2875.13	-25.44	83.80	278.12	131.67	17 19 39	1875.1	-7.79	66.47
60.00	17 27 8	2727.81	-20.47	74.84	282.42	125.51	18 12 36	1727.8	-4.99	55.89
70.00	18 37 22	2521.33	-15.86	61.25	285.58	120.65	19 19 24	1521.3	-2.31	41.17
80.00	20 2 31	2254.81	-12.39	43.00	287.56	117.38	20 40 6	1254.8	-.27	22.21
90.00	21 31 29	1967.80	-11.06	22.58	288.25	116.19	22 4 17	967.8	.53	1.55
100.00	22 45 23	1729.28	-12.39	4.37	287.56	117.38	23 14 12	729.3	-.27	343.58
110.00	23 36 49	1568.15	-15.86	350.17	285.58	120.65	24 2 57	568.1	-2.31	330.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6989	TRA 4.5207	TC3-6.5614	BAU 2.0343	SGT 8638.8	SGR 3157.6	SG3 1573.1	ST	134.2	SR	47.6	SS	53.8
RDE .4949	RRA-1.9527	RC3 2.0139	FAU .32590	RRT -.9852	RRF -.9926	RTF .9827	CRT	-.9810	CRS	.9511	CST	-.8735
FDE-1.3103	FRA10.8487	FC-12.7275	BSP 15932	SGB 9197.8	R23 .1231	R13 -.9854	LSA	150.1	MSA	25.4	SSA	.7
BDE 1.7695	BRA 4.9244	BC3 6.8641	FSP 2834	SG1 9183.7	SG2 509.1	THA 160.13	EL1	142.1	EL2	8.7	ALF	160.74

LAUNCH DATE JUL 16 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 26 1974

HELIOCENTRIC CONIC DISTANCE 695.497 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.870	GAL	-3.62	AZL	94.42	HCA	204.77	SMA	199.50	ECC	.24563	INC	4.4166	V1	29.301
RP	248.03	LAP	1.85	LOP	138.03	VP	20.123	GAP	-2.03	AZP	85.99	TAL	341.49	TAP	186.26	RCA	150.50	APO	248.51	V2	22.089
RC	324.997	GL	-32.66	GP	29.58	ZAL	115.04	ZAP	60.33	ETS	200.57	ZAE	82.84	ETE	185.53	ZAC	118.18	ETC	286.11	LVI	-52.36

PLANETOCENTRIC CONIC

C3	21.912	VHL	4.681	DLA	-13.06	RAL	59.07	RAD	6643.7	VEL	11.912	PTH	6.92	VHP	2.820	DPA	30.88	RAP	359.00	ECC	1.3606

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 27 34	2894.12	-26.29	84.80	278.15	131.20	17 15 48	1894.1	-8.74	67.29
60.00	17 21 38	2750.32	-21.35	76.08	282.38	125.03	18 7 28	1750.3	-5.97	56.97
70.00	18 30 18	2548.45	-16.79	62.80	285.47	120.19	19 12 47	1548.5	-3.35	42.58
80.00	19 53 54	2286.77	-13.39	44.85	287.39	116.94	20 32 1	1286.8	-1.35	23.97
90.00	21 22 9	2002.09	-12.08	24.58	288.05	115.76	21 55 31	1002.1	-.58	3.46
100.00	22 36 46	1761.24	-13.39	6.22	287.39	116.94	23 6 7	761.2	-1.35	345.33
110.00	23 29 44	1595.27	-16.79	351.71	285.47	120.19	23 56 20	595.3	-3.35	331.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6408	TRA 4.5904	TC3-6.7509	BAU 2.0580	SGT 8788.9	SGR 3030.9	SG3 1583.2	ST	132.9	SR	45.5	SS	53.1
RDE .4660	RRA-1.8745	RC3 1.9444	FAU .32693	RRT -.9849	RRF -.9917	RTF .9827	CRT	-.9838	CRS	.9410	CST	-.8656
FDE-1.1636	FRA10.8982	FC-12.9171	BSP 16124	SGB 9296.9	R23 .1195	R13 -.9851	LSA	148.0	MSA	25.6	SSA	.8
BDE 1.7057	BRA 4.9584	BC3 7.0254	FSP 2854	SG1 9283.6	SG2 497.4	THA 161.18	EL1	140.2	EL2	7.7	ALF	161.33

LAUNCH DATE JUL 16 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 26 1974

HELIOCENTRIC CONIC DISTANCE 699.233 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.875	GAL	-3.67	AZL	94.28	HCA	205.65	SMA	199.59	ECC	.24618	INC	4.2758	V1	29.301
RP	248.14	LAP	1.85	LOP	138.91	VP	20.118	GAP	-2.24	AZP	86.14	TAL	341.24	TAP	186.89	RCA	150.45	APO	248.73	V2	22.078
RC	327.134	GL	-31.68	GP	28.60	ZAL	115.60	ZAP	59.33	ETS	200.55	ZAE	81.75	ETE	185.93	ZAC	117.21	ETC	285.96	LVI	-51.38

PLANETOCENTRIC CONIC

C3	21.697	VHL	4.658	DLA	-12.03	RAL	59.11	RAD	6643.6	VEL	11.904	PTH	6.91	VHP	2.814	DPA	30.04	RAP	359.59	ECC	1.3571

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 23 42	2912.58	-27.12	65.79	278.24	130.72	17 12 15	1912.6	-9.66	68.08
60.00	17 16 32	2772.07	-22.20	77.30	282.42	124.54	18 2 45	1772.1	-6.92	58.03
70.00	18 23 45	2574.46	-17.68	64.29	285.43	119.71	19 6 40	1574.5	-4.34	43.95
80.00	19 45 56	2317.20	-14.32	46.63	287.30	116.48	20 24 34	1317.2	-2.38	25.64
90.00	21 13 32	2034.62	-13.04	26.49	287.94	115.32	21 47 26	1034.6	-1.63	5.28
100.00	22 28 48	1791.68	-14.32	8.00	287.30	116.48	22 58 40	791.7	-2.38	347.01
110.00	23 23 12	1621.28	-17.68	353.21	285.43	119.71	23 50 13	621.3	-4.34	332.87

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY					
TDE	-1.5845	TRA	4.6620	TC3	-6.9314	BAU	2.0827	SGT	8937.2	SGR	2910.1	SG3	1589.4	ST	131.6	SR	43.6	SS	52.6
RDE	.4411	RRA	-1.8012	RC3	1.8723	FAU	.32721	RRT	-.9844	RRF	-.9906	RTF	.9827	CRT	-.9867	CRS	.9294	CST	-.8580
FDE	-1.0210	FRA	10.9284	FC	-13.0556	BSP	16314	SGB	9399.0	R23	.1154	R13	-.9848	LSA	146.0	MSA	25.8	SSA	.8
BDE	1.6448	BRA	4.9979	BC3	7.1798	FSP	2866	SG1	9386.4	SG2	487.1	THA	162.18	EL1	138.5	EL2	6.7	ALF	161.67

LAUNCH DATE JUL 16 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 30 1974

HELIOCENTRIC CONIC DISTANCE 702.968 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.879	GAL	-3.73	AZL	94.14	HCA	206.53	SMA	199.68	ECC	.24675	INC	4.1437	V1	29.301
RP	248.25	LAP	1.85	LOP	139.70	VP	20.114	GAP	-2.45	AZP	86.29	TAL	340.99	TAP	187.52	RCA	150.41	APO	248.95	V2	22.067
RC	329.241	GL	-30.73	GP	27.66	ZAL	116.16	ZAP	58.36	ETS	200.52	ZAE	80.66	ETE	186.30	ZAC	116.29	ETC	285.83	LVI	-50.44

PLANETOCENTRIC CONIC

C3	21.520	VHL	4.639	DLA	-11.05	RAL	59.17	RAD	6643.5	VEL	11.896	PTH	6.91	VHP	2.811	DPA	29.25	RAP	.17	ECC	1.3542

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 20 8	2930.53	-27.91	86.76	278.40	130.23	17 8 59	1930.5	-10.55	68.85
60.00	17 11 49	2793.11	-23.00	78.49	282.51	124.05	17 58 22	1793.1	-7.84	59.05
70.00	18 17 40	2599.48	-18.51	65.75	285.47	119.23	19 1 0	1599.5	-5.29	45.26
80.00	19 38 34	2346.29	-15.19	48.35	287.28	116.02	20 17 40	1346.3	-3.36	27.24
90.00	21 5 33	2065.62	-13.93	28.33	287.90	114.86	21 39 59	1065.6	-2.62	7.01
100.00	22 21 25	1820.76	-15.19	9.71	287.28	116.02	22 51 46	820.8	-3.36	348.61
110.00	23 17 7	1646.30	-18.51	354.67	285.47	119.23	23 44 33	646.3	-5.29	334.18

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY					
TDE	-1.5310	TRA	4.7338	TC3	-7.1060	BAU	2.1091	SGT	9084.6	SGR	2794.3	SG3	1591.8	ST	130.5	SR	41.8	SS	52.0
RDE	.4198	RRA	-1.7315	RC3	1.8009	FAU	.32692	RRT	-.9839	RRF	-.9894	RTF	.9827	CRT	-.9897	CRS	.9164	CST	-.8507
FDE	-.8836	FRA	10.9351	FC	-13.1516	BSP	16493	SGB	9504.6	R23	.1108	R13	-.9846	LSA	144.2	MSA	26.0	SSA	.8
BDE	1.5875	BRA	5.0405	BC3	7.3306	FSP	2869	SG1	9492.6	SG2	478.0	THA	163.12	EL1	136.9	EL2	5.7	ALF	162.38

LAUNCH DATE JUL 16 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 1 1974

HELIOCENTRIC CONIC DISTANCE 706.702 EARTH TO MARS

RL	152.05	LAL	-.00	LOL	293.32	VL	32.884	GAL	-3.79	AZL	94.02	HCA	207.41	SMA	199.77	ECC	.24732	INC	4.0197	V1	29.301
RP	248.35	LAP	1.85	LOP	140.67	VP	20.110	GAP	-2.65	AZP	86.43	TAL	340.73	TAP	188.14	RCA	150.36	APO	249.18	V2	22.057
RC	331.317	GL	-29.83	GP	26.77	ZAL	116.71	ZAP	57.41	ETS	200.48	ZAE	79.58	ETE	186.64	ZAC	115.40	ETC	285.71	LVI	-49.55

PLANETOCENTRIC CONIC

C3	21.376	VHL	4.623	DLA	-10.10	RAL	59.25	RAD	6643.4	VEL	11.890	PTH	6.90	VHP	2.810	DPA	28.50	RAP	.74	ECC	1.3518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 16 50	2948.01	-28.68	87.72	278.61	129.74	17 5 58	1948.0	-11.41	69.61
60.00	17 7 25	2813.50	-23.77	79.67	282.67	123.55	17 54 18	1813.5	-8.72	60.05
70.00	18 12 1	2623.59	-19.31	67.17	285.57	118.73	18 55 44	1623.6	-6.20	46.53
80.00	19 31 41	2374.17	-16.02	50.00	287.34	115.54	20 11 15	1374.2	-4.30	28.77
90.00	20 58 8	2095.25	-14.77	30.10	287.94	114.39	21 33 4	1095.3	-3.58	8.67
100.00	22 14 33	1848.64	-16.02	11.37	287.34	115.54	22 45 22	848.6	-4.30	350.14
110.00	23 11 27	1670.41	-19.31	356.08	285.57	118.73	23 39 17	670.4	-6.20	335.45

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY					
TDE	-1.4773	TRA	4.8095	TC3	-7.2699	BAU	2.1355	SGT	9230.0	SGR	2684.1	SG3	1591.1	ST	129.3	SR	40.2	SS	51.5
RDE	.4013	RRA	-1.6662	RC3	1.7297	FAU	.32599	RRT	-.9833	RRF	-.9881	RTF	.9828	CRT	-.9926	CRS	.9016	CST	-.8438
FDE	-.7485	FRA	10.9286	FC	-13.2027	BSP	16694	SGB	9612.3	R23	.1055	R13	-.9843	LSA	142.5	MSA	26.2	SSA	.9
BDE	1.5308	BRA	5.0900	BC3	7.4728	FSP	2867	SG1	9600.8	SG2	470.0	THA	164.00	EL1	135.3	EL2	4.7	ALF	162.84

LAUNCH DATE JUL 17 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 12 1973

HELIOCENTRIC CONIC DISTANCE 339.799 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	35.131	GAL	-4.44	AZL	90.25	HCA	107.64	SMA	259.41	ECC	.41985	INC	.2906	V1	29.302
RP	217.81	LAP	-.24	LOP	41.92	VP	26.591	GAP	23.15	AZP	89.92	TAL	344.94	TAP	92.58	RCA	150.50	APO	368.33	V2	25.227
RC	73.631	GL	-1.40	GP	-5.10	ZAL	114.56	ZAP	173.00	ETS	228.43	ZAE	168.33	ETE	336.18	ZAC	79.36	ETC	283.34	LVI	-13.51

PLANETOCENTRIC CONIC

C3	39.621	VHL	6.295	DLA	16.09	RAL	46.79	RAD	6650.5	VEL	12.629	PTH	7.48	VHP	8.443	DPA	8.75	RAP	36.74	ECC	1.6521

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 44 53	3627.39	-47.48	140.15	296.77	93.50	14 45 20	2627.4	-40.58	107.66
60.00	14 6 7	3570.84	-40.30	135.36	297.06	89.90	15 5 38	2570.8	-35.93	105.15
70.00	14 37 19	3479.04	-34.04	127.72	296.85	87.07	15 35 18	2479.0	-31.69	99.23
80.00	15 25 39	3327.56	-29.49	115.87	296.49	85.11	16 21 7	2327.6	-28.52	88.48
90.00	16 38 5	3093.77	-27.76	98.50	296.31	84.38	17 29 39	2093.8	-27.31	71.51
100.00	18 8 31	2802.03	-29.49	77.23	296.49	85.11	18 55 13	1802.0	-28.52	49.85
110.00	19 36 45	2525.86	-34.04	56.63	296.85	87.07	20 18 51	1525.9	-31.69	28.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4280	TRA	-1.4612	TC3	.1372	BAU	.0818	SGT	1448.4	SGR	604.9	SG3	173.4	ST	28.5	SR	27.5	SS	20.1
RDE	-.5994	RRA	.2590	RC3	-.0709	FAU	.05516	RRT	-.1627	RRF	.1842	RTF	-.7397	CRT	.5805	CRS	.6297	CST	.9952
FDE	.4407	FRA	1.3209	FC3	-1.2053	BSP	2300	SGB	1569.6	R23	-.0399	R13	.7415	LSA	40.0	MSA	19.2	SSA	1.2
BDE	.7365	BRA	1.4840	BC3	.1545	FSP	221	SG1	1452.4	SG2	595.2	THA	175.33	EL1	35.2	EL2	18.1	ALF	43.34

LAUNCH DATE JUL 17 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 342.182 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	35.004	GAL	-4.33	AZL	90.21	HCA	108.78	SMA	254.97	ECC	.40955	INC	.2136	V1	29.302
RP	218.16	LAP	-.20	LOP	43.06	VP	26.294	GAP	22.79	AZP	89.93	TAL	345.05	TAP	93.83	RCA	150.55	APO	359.39	V2	25.188
RC	74.953	GL	-1.22	GP	-5.25	ZAL	114.40	ZAP	172.38	ETS	225.21	ZAE	167.53	ETE	336.54	ZAC	79.13	ETC	283.31	LVI	-13.25

PLANETOCENTRIC CONIC

C3	37.849	VHL	6.152	DLA	16.22	RAL	46.57	RAD	6649.9	VEL	12.559	PTH	7.43	VHP	8.201	DPA	8.75	RAP	37.18	ECC	1.6229

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 43 29	3618.50	-47.44	139.29	295.52	94.16	14 43 47	2618.5	-40.30	107.00
60.00	14 4 33	3562.42	-40.30	134.64	295.91	90.39	15 3 55	2562.4	-35.73	104.52
70.00	14 35 31	3471.23	-34.07	127.11	295.76	87.43	15 33 23	2471.2	-31.56	98.66
80.00	15 23 39	3320.43	-29.53	115.34	295.43	85.39	16 18 59	2320.4	-28.44	87.97
90.00	16 35 58	3086.99	-27.81	98.01	295.26	84.62	17 27 25	2087.0	-27.25	71.02
100.00	18 6 31	2794.90	-29.53	76.71	295.43	85.39	18 53 5	1794.9	-28.44	49.34
110.00	19 34 58	2516.05	-34.07	56.03	295.76	87.43	20 16 56	1518.0	-31.56	27.58

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4283	TRA	-1.4567	TC3	.1592	BAU	.0900	SGT	1481.1	SGR	606.0	SG3	184.2	ST	29.1	SR	27.4	SS	20.9
RDE	-.5826	RRA	.2592	RC3	-.0794	FAU	.05728	RRT	-.1759	RRF	.1990	RTF	-.7484	CRT	.5785	CRS	.6317	CST	.9950
FDE	.4631	FRA	1.3688	FC3	-1.3101	BSP	2374	SGB	1600.2	R23	-.0427	R13	.7503	LSA	40.7	MSA	19.3	SSA	1.3
BDE	.7231	BRA	1.4796	BC3	.1779	FSP	238	SG1	1485.6	SG2	594.7	THA	175.10	EL1	35.5	EL2	18.3	ALF	42.01

LAUNCH DATE JUL 17 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 344.693 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	34.883	GAL	-4.22	AZL	90.18	HCA	109.92	SMA	250.91	ECC	.39980	INC	.1762	V1	29.302
RP	218.53	LAP	-.17	LOP	44.19	VP	26.186	GAP	22.43	AZP	89.94	TAL	345.16	TAP	95.07	RCA	150.59	APO	351.22	V2	25.148
RC	76.362	GL	-1.02	GP	-5.42	ZAL	114.22	ZAP	171.72	ETS	222.50	ZAE	166.79	ETE	336.74	ZAC	78.89	ETC	283.28	LVI	-12.99

PLANETOCENTRIC CONIC

C3	36.197	VHL	6.016	DLA	16.35	RAL	46.33	RAD	6649.3	VEL	12.494	PTH	7.38	VHP	7.968	DPA	8.73	RAP	37.62	ECC	1.5957

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 41 59	3610.03	-47.39	138.48	294.30	94.78	14 42 9	2610.0	-40.03	106.37
60.00	14 2 52	3554.43	-40.29	133.96	294.78	90.85	15 2 6	2554.4	-35.54	103.93
70.00	14 33 37	3463.89	-34.09	126.54	294.69	87.77	15 31 21	2463.9	-31.44	98.12
80.00	15 21 31	3313.81	-29.57	114.85	294.38	85.64	16 16 45	2313.8	-28.37	87.49
90.00	16 33 44	3080.73	-27.84	97.56	294.22	84.85	17 25 4	2080.7	-27.19	70.57
100.00	18 4 23	2788.29	-29.57	76.22	294.38	85.64	18 50 51	1788.3	-28.37	48.86
110.00	19 33 4	2510.71	-34.09	55.45	294.69	87.77	20 14 54	1510.7	-31.44	27.04

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4291	TRA	-1.4516	TC3	.1831	BAU	.0984	SGT	1513.6	SGR	607.0	SG3	195.7	ST	29.7	SR	27.2	SS	21.7
RDE	-.5661	RRA	.2597	RC3	-.0887	FAU	.05950	RRT	-.1899	RRF	.2150	RTF	-.7569	CRT	.5768	CRS	.6338	CST	.9947
FDE	.4871	FRA	1.4182	FC3	-1.4231	BSP	2434	SGB	1630.8	R23	-.0458	R13	.7590	LSA	41.4	MSA	19.4	SSA	1.3
BDE	.7104	BRA	1.4747	BC3	.2034	FSP	256	SG1	1518.8	SG2	593.9	THA	174.86	EL1	35.9	EL2	18.5	ALF	40.65

LAUNCH DATE JUL 17 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 347.321 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	34.769	GAL	-4.12	AZL	90.14	HCA	111.05	SMA	247.18	ECC	.39057	INC	.1383	V1	29.302
RP	218.89	LAP	-.13	LOP	45.33	VP	25.994	GAP	22.08	AZP	89.95	TAL	345.27	TAP	96.32	RCA	150.64	APO	343.72	V2	25.107
RC	77.855	GL	-.82	GP	-5.59	ZAL	114.03	ZAP	171.04	ETS	220.20	ZAE	166.10	ETE	336.80	ZAC	78.64	ETC	283.25	LVI	-12.72

PLANETOCENTRIC CONIC

C3	34.658	VHL	5.887	DLA	16.49	RAL	46.08	RAD	6648.8	VEL	12.432	PTH	7.34	VHP	7.742	DPA	8.70	RAP	38.04	ECC	1.5704

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 40 24	3602.00	-47.34	137.71	293.09	95.37	14 40 26	2602.0	-39.77	105.77
60.00	14 1 5	3546.91	-40.28	133.32	293.66	91.28	15 0 12	2546.9	-35.36	103.37
70.00	14 31 37	3457.06	-34.11	126.00	293.62	88.08	15 29 14	2457.1	-31.33	97.62
80.00	15 19 15	3307.74	-29.60	114.40	293.34	85.87	16 14 23	2307.7	-28.30	87.05
90.00	16 31 21	3075.03	-27.88	97.15	293.18	85.05	17 22 36	2075.0	-27.13	70.16
100.00	18 2 7	2782.21	-29.60	75.77	293.34	85.87	18 48 30	1782.2	-28.30	48.42
110.00	19 31 3	2503.88	-34.11	54.92	293.62	88.08	20 12 47	1503.9	-31.33	26.54

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4303	TRA	-1.4462	TC3	.2081	BAU	.1068	SGT	1546.1	SGR	608.1	SG3	207.7	ST	30.4	SR	27.0	SS	22.5
RDE	-.5498	RRA	.2605	RC3	-.0989	FAU	.06185	RRT	-.2048	RRF	.2320	RTF	-.7649	CRT	.5753	CRS	.6359	CST	.9945
FDE	.5125	FRA	1.4689	FC3	-1.5449	BSP	2502	SGB	1661.4	R23	-.0493	R13	.7672	LSA	42.2	MSA	19.5	SSA	1.3
BDE	.6982	BRA	1.4695	BC3	.2304	FSP	274	SG1	1551.9	SG2	592.9	THA	174.60	EL1	36.2	EL2	18.6	ALF	39.26

LAUNCH DATE JUL 17 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 350.051 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	34.660	GAL	-4.02	AZL	90.10	HCA	112.18	SMA	243.76	ECC	.38181	INC	.0992	V1	29.302
RP	219.26	LAP	-.09	LOP	46.46	VP	25.809	GAP	21.73	AZP	89.96	TAL	345.40	TAP	97.58	RCA	150.69	APO	336.82	V2	25.067
RC	79.428	GL	-.61	GP	-5.77	ZAL	113.62	ZAP	170.33	ETS	218.23	ZAE	165.46	ETE	336.74	ZAC	78.39	ETC	283.22	LVI	-12.44

PLANETOCENTRIC CONIC

C3	33.221	VHL	5.764	DLA	16.64	RAL	45.82	RAD	6648.2	VEL	12.375	PTH	7.29	VHP	7.524	DPA	8.66	RAP	38.46	ECC	1.5467

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 38 43	3594.40	-47.29	136.98	291.91	95.93	14 38 37	2594.4	-39.52	105.22
60.00	13 59 12	3539.84	-40.27	132.72	292.56	91.69	14 58 12	2539.8	-35.19	102.85
70.00	14 29 29	3450.71	-34.12	125.51	292.56	88.38	15 27 0	2450.7	-31.22	97.16
80.00	15 16 52	3302.19	-29.62	113.99	292.31	86.09	16 11 54	2302.2	-28.23	86.65
90.00	16 28 50	3069.90	-27.91	96.77	292.16	85.23	17 20 0	2069.9	-27.08	69.80
100.00	17 59 44	2776.67	-29.62	75.36	292.31	86.09	18 46 1	1776.7	-28.23	48.02
110.00	19 28 55	2497.53	-34.12	54.43	292.56	88.38	20 10 33	1497.5	-31.22	26.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4212	TRA	-1.4300	TC3	.2471	BAU	.1201	SGT	1567.8	SGR	609.1	SG3	220.5	ST	30.6	SR	26.6	SS	23.5
RDE	-.5334	RRA	.2619	RC3	-.1098	FAU	.06416	RRT	-.2274	RRF	.2493	RTF	-.7807	CRT	.5664	CRS	.6396	CST	.9933
FDE	.5435	FRA	1.5250	FC3	-1.6720	BSP	2443	SGB	1681.9	R23	-.0436	R13	.7829	LSA	42.7	MSA	19.5	SSA	1.3
BDE	.6796	BRA	1.4538	BC3	.2704	FSP	298	SG1	1574.9	SG2	590.4	THA	174.12	EL1	36.1	EL2	18.7	ALF	38.50

LAUNCH DATE JUL 17 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 352.875 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	34.557	GAL	-3.92	AZL	90.06	HCA	113.30	SMA	240.60	ECC	.37353	INC	.0606	V1	29.302
RP	219.63	LAP	-.06	LOP	47.58	VP	25.631	GAP	21.38	AZP	89.98	TAL	345.53	TAP	98.83	RCA	150.73	APO	330.48	V2	25.026
RC	81.081	GL	-.38	GP	-5.96	ZAL	113.61	ZAP	169.61	ETS	216.54	ZAE	164.88	ETE	336.57	ZAC	78.13	ETC	283.20	LVI	-12.16

PLANETOCENTRIC CONIC

C3	31.884	VHL	5.647	DLA	16.80	RAL	45.54	RAD	6647.7	VEL	12.321	PTH	7.25	VHP	7.313	DPA	8.61	RAP	38.87	ECC	1.5247

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 36 57	3587.30	-47.24	136.30	290.76	96.45	14 36 44	2587.3	-39.29	104.70
60.00	13 57 14	3533.30	-40.26	132.17	291.48	92.07	14 56 7	2533.3	-35.03	102.37
70.00	14 27 14	3444.95	-34.13	125.06	291.53	88.64	15 24 39	2444.9	-31.12	96.74
80.00	15 14 21	3297.29	-29.65	113.63	291.29	86.28	16 9 19	2297.3	-28.17	86.30
90.00	16 26 11	3065.42	-27.93	96.45	291.15	85.40	17 17 17	2065.4	-27.03	69.48
100.00	17 57 13	2771.76	-29.65	75.00	291.29	86.28	18 43 25	1771.8	-28.17	47.67
110.00	19 26 41	2491.77	-34.13	53.98	291.53	88.64	20 8 13	1491.8	-31.12	25.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4263	TRA	-1.4279	TC3	.2708	BAU	.1266	SGT	1603.5	SGR	610.4	SG3	234.0	ST	31.4	SR	26.6	SS	24.3
RDE	-.5175	RRA	.2632	RC3	-.1222	FAU	.06684	RRT	-.2425	RRF	.2693	RTF	-.7850	CRT	.5670	CRS	.6407	CST	.9933
FDE	.5709	FRA	1.5779	FC3	-1.8150	BSP	2556	SGB	1715.8	R23	-.0507	R13	.7875	LSA	43.6	MSA	19.5	SSA	1.3
BDE	.6705	BRA	1.4520	BC3	.2971	FSP	318	SG1	1611.4	SG2	589.3	THA	173.91	EL1	36.6	EL2	18.8	ALF	36.85

LAUNCH DATE JUL 17 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 355.783 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	34.459	GAL	-3.83	AZL	90.02	HCA	114.43	SMA	237.70	ECC	.36569	INC	.0156	V1	29.302
RP	220.00	LAP	-.02	LOP	48.70	VP	25.459	GAP	21.04	AZP	89.99	TAL	345.66	TAP	100.09	RCA	150.77	APO	324.62	V2	24.985
RC	82.809	GL	-.14	GP	-6.16	ZAL	113.39	ZAP	168.86	ETS	215.08	ZAE	164.37	ETE	336.29	ZAC	77.87	ETC	283.17	LVI	-11.88

PLANETOCENTRIC CONIC

C3	30.635	VHL	5.535	DLA	16.97	RAL	45.24	RAD	6647.3	VEL	12.271	PTH	7.21	VHP	7.109	DPA	8.54	RAP	39.28	ECC	1.5042

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 35 5	3580.68	-47.19	135.67	289.64	96.94	14 34 46	2580.7	-39.06	104.22
60.00	13 55 9	3527.28	-40.24	131.65	290.42	92.42	14 53 56	2527.3	-34.88	101.93
70.00	14 24 53	3439.74	-34.14	124.65	290.51	88.88	15 22 13	2439.7	-31.03	96.36
80.00	15 11 43	3292.99	-29.66	113.31	290.29	86.44	16 6 36	2293.0	-28.12	85.99
90.00	16 23 24	3061.59	-27.95	96.17	290.16	85.53	17 14 26	2061.6	-27.00	69.20
100.00	17 54 34	2767.46	-29.66	74.68	290.29	86.44	18 40 42	1767.5	-28.12	47.36
110.00	19 24 19	2486.56	-34.14	53.57	290.51	88.88	20 5 46	1486.6	-31.03	25.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4303	TRA	-1.4237	TC3	.2969	BAU	.1337	SGT	1637.2	SGR	612.0	SG3	248.2	ST	32.1	SR	26.3	SS	25.2
RDE	-.5018	RRA	.2649	RC3	-.1356	FAU	.06984	RRT	-.2592	RRF	.2904	RTF	-.[illegible]99	CRT	.5667	CRS	.6421	CST	.9931
FDE	.6007	FRA	1.6324	FC3	-1.9680	BSP	2655	SGB	1747.9	R23	-.0572	R13	.7927	LSA	44.5	MSA	19.4	SSA	1.3
BDE	.6810	BRA	1.4481	BC3	.3264	FSP	340	SG1	1646.0	SG2	587.9	THA	173.65	EL1	37.0	EL2	18.8	ALF	35.30

LAUNCH DATE JUL 17 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 358.768 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	34.366	GAL	-3.73	AZL	89.98	HCA	115.54	SMA	235.01	ECC	.35825	INC	.0000	V1	29.302
RP	220.38	LAP	.02	LOP	49.82	VP	25.292	GAP	20.70	AZP	90.01	TAL	345.80	TAP	101.35	RCA	150.82	APO	319.20	V2	24.944
RC	84.610	GL	.11	GP	-6.37	ZAL	113.16	ZAP	168.10	ETS	213.82	ZAE	163.91	ETE	335.92	ZAC	77.60	ETC	283.15	LVI	-11.58

PLANETOCENTRIC CONIC

C3	29.470	VHL	5.429	DLA	17.14	RAL	44.94	RAD	6646.8	VEL	12.223	PTH	7.18	VHP	6.911	DPA	8.46	RAP	39.67	ECC	1.4850

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 33 9	3574.57	-47.14	135.09	288.54	97.38	14 32 43	2574.6	-38.86	103.78
60.00	13 52 58	3521.79	-40.22	131.19	289.39	92.73	14 51 40	2521.8	-34.74	101.53
70.00	14 22 25	3435.12	-34.14	124.29	289.51	89.10	15 19 40	2435.1	-30.94	96.03
80.00	15 8 56	3289.34	-29.68	113.04	289.31	86.59	16 3 45	2289.3	-28.07	85.73
90.00	16 20 26	3058.42	-27.97	95.94	289.18	85.65	17 11 26	2058.4	-26.96	68.96
100.00	17 51 47	2763.81	-29.68	74.41	289.31	86.59	18 37 51	1763.8	-28.07	47.10
110.00	19 21 51	2481.94	-34.14	53.21	289.51	89.10	20 3 13	1481.9	-30.94	24.94

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4338	TRA	-1.4182	TC3	.3257	BAU	.1413	SGT	1669.8	SGR	613.9	SG3	263.3	ST	32.8	SR	26.0	SS	26.1
RDE	-.4861	RRA	.2670	RC3	-.1502	FAU	.07259	RRT	-.2778	RRF	.3128	RTF	-.7953	CRT	.5657	CRS	.6437	CST	.9929
FDE	.6334	FRA	1.6892	FC3	-2.1324	BSP	2739	SGB	1779.0	R23	-.0631	R13	.7985	LSA	45.4	MSA	19.4	SSA	1.4
BDE	.6515	BRA	1.4431	BC3	.3586	FSP	363	SG1	1679.7	SG2	586.2	THA	173.36	EL1	37.4	EL2	18.8	ALF	33.79

LAUNCH DATE JUL 17 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 361.021 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	34.278	GAL	-3.64	AZL	89.94	HCA	116.66	SMA	232.82	ECC	.35120	INC	.0542	V1	29.302
RP	220.76	LAP	.09	LOP	50.93	VP	25.132	GAP	20.36	AZP	90.03	TAL	345.95	TAP	102.60	RCA	150.86	APO	314.18	V2	24.902
RC	86.480	GL	.37	GP	-6.59	ZAL	112.92	ZAP	167.32	ETS	212.71	ZAE	163.50	ETE	335.45	ZAC	77.32	ETC	283.13	LVI	-11.29

PLANETOCENTRIC CONIC

C3	28.382	VHL	5.327	DLA	17.32	RAL	44.62	RAD	6646.4	VEL	12.179	PTH	7.14	VHP	6.720	DPA	8.37	RAP	40.06	ECC	1.4671

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 31 7	3568.96	-47.09	134.56	287.48	97.79	14 30 36	2569.0	-38.66	103.38
60.00	13 50 41	3516.85	-40.21	130.77	288.38	93.02	14 49 18	2516.9	-34.62	101.17
70.00	14 19 49	3431.10	-34.15	123.98	288.53	89.28	15 17 0	2431.1	-30.87	95.74
80.00	15 6 0	3286.34	-29.69	112.82	288.34	86.70	16 0 47	2286.3	-28.04	85.52
90.00	16 17 23	3055.96	-27.98	95.76	288.22	85.74	17 8 19	2056.0	-26.94	68.80
100.00	17 48 52	2760.82	-29.69	74.19	288.34	86.70	18 34 53	1760.8	-28.04	46.88
110.00	19 19 15	2477.91	-34.15	52.89	288.53	89.28	20 0 33	1477.9	-30.87	24.65

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4364	TRA	-1.4111	TC3	.3559	BAU	.1490	SGT	1700.3	SGR	616.1	SG3	279.2	ST	33.5	SR	25.7	SS	27.1
RDE	-.4706	RRA	.2695	RC3	-.1661	FAU	.07565	RRT	-.2980	RRF	.3361	RTF	-.8009	CRT	.5638	CRS	.6451	CST	.9925
FDE	.6685	FRA	1.7479	FC3	-2.3076	BSP	2812	SGB	1808.5	R23	-.0685	R13	.8045	LSA	46.3	MSA	19.3	SSA	1.4
BDE	.6417	BRA	1.4366	BC3	.3927	FSP	388	SG1	1711.5	SG2	584.3	THA	173.02	EL1	37.8	EL2	18.8	ALF	32.35

LAUNCH DATE JUL 17 1973 FLIGHT TIME 136.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 364.937 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	34.195	GAL	-3.55	AZL	89.90	HCA	117.77	SMA	230.21	ECC	.34451	INC	.0969	V1	29.302
RP	221.14	LAP	.09	LOP	52.04	VP	24.976	GAP	20.03	AZP	90.05	TAL	346.09	TAP	103.86	RCA	150.90	APO	309.52	V2	24.861
RC	88.416	GL	.64	GP	-6.81	ZAL	112.67	ZAP	166.52	ETS	211.75	ZAE	163.15	ETE	334.88	ZAC	77.04	ETC	283.11	LVI	-10.98

PLANETOCENTRIC CONIC

C3	27.366	VHL	5.231	DLA	17.52	RAL	44.29	RAD	6646.0	VEL	12.138	PTH	7.11	VHP	6.534	DPA	8.26	RAP	40.43	ECC	1.4504

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 29 0	3563.87	-47.04	134.08	286.44	98.16	14 28 24	2563.9	-38.49	103.02
60.00	13 48 18	3512.47	-40.19	130.40	287.39	93.27	14 46 51	2512.5	-34.50	100.85
70.00	14 17 6	3427.70	-34.15	123.71	287.57	89.44	15 14 14	2427.7	-30.81	95.49
80.00	15 2 56	3284.05	-29.70	112.65	287.40	86.79	15 57 40	2284.0	-28.01	85.35
90.00	16 14 8	3054.23	-27.99	95.63	287.27	85.80	17 5 2	2054.2	-26.92	68.68
100.00	17 45 48	2758.52	-29.70	74.02	287.40	86.79	18 31 47	1758.5	-28.01	46.72
110.00	19 16 32	2474.51	-34.15	52.63	287.57	89.44	19 57 47	1474.5	-30.81	24.41

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4387	TRA	-1.4035	TC3	.3878	BAU	.1569	SGT	1730.3	SGR	618.9	SG3	295.9	ST	34.1	SR	25.4	SS	28.1
RDE	-.4550	RRA	.2723	RC3	-.1833	FAU	.07887	RRT	-.3199	RRF	.3609	RTF	-.8066	CRT	.5610	CRS	.6461	CST	.9921
FDE	.7063	FRA	1.8093	FC3	-2.4952	BSP	2881	SGB	1837.6	R23	-.0738	R13	.8106	LSA	47.2	MSA	19.2	SSA	1.4
BDE	.6320	BRA	1.4297	BC3	.4289	FSP	415	SG1	1743.0	SG2	582.1	THA	172.65	EL1	38.1	EL2	18.8	ALF	30.92

LAUNCH DATE JUL 17 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 368.110 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	34.115	GAL	-3.46	AZL	89.86	HCA	118.87	SMA	228.07	ECC	.33818	INC	.1388	V1	29.302
RP	221.52	LAP	.12	LOP	53.15	VP	24.826	GAP	19.70	AZP	90.07	TAL	346.24	TAP	105.11	RCA	150.94	APO	305.19	V2	24.819
RC	90.414	GL	.93	GP	-7.05	ZAL	112.42	ZAP	165.71	ETS	210.90	ZAE	162.86	ETE	334.22	ZAC	76.74	ETC	283.09	LVI	-10.67

PLANETOCENTRIC CONIC

C3	26.417	VHL	5.140	DLA	17.72	RAL	43.95	RAD	6645.6	VEL	12.099	PTH	7.08	VHP	6.355	DPA	8.13	RAP	40.80	ECC	1.4348

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 26 48	3559.33	-46.99	133.65	285.44	98.49	14 26 7	2559.3	-38.33	102.70
60.00	13 45 49	3508.68	-40.18	130.08	286.43	93.48	14 44 18	2508.7	-34.41	100.58
70.00	14 14 16	3424.94	-34.15	123.50	286.63	89.57	15 11 21	2424.9	-30.76	95.29
80.00	14 59 43	3282.47	-29.71	112.53	286.47	86.85	15 54 26	2282.5	-27.99	85.24
90.00	16 10 44	3053.25	-28.00	95.56	286.34	85.83	17 1 37	2053.3	-26.91	68.61
100.00	17 42 35	2756.94	-29.71	73.90	286.47	86.85	18 28 32	1756.9	-27.99	46.61
110.00	19 13 42	2471.76	-34.15	52.41	286.63	89.57	19 54 54	1471.8	-30.76	24.21

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4420	TRA	-1.3956	TC3	.4200	BAU	.1646	SGT	1759.8	SGR	622.2	SG3	313.6	ST	34.8	SR	25.0	SS	29.2
RDE	-.4395	RRA	.2756	RC3	-.2019	FAU	.08224	RRT	-.3424	RRF	.3868	RTF	-.8120	CRT	.5587	CRS	.6472	CST	.9917
FDE	.7475	FRA	1.8726	FC3	-2.6952	BSP	2953	SGB	1866.5	R23	-.0797	R13	.8163	LSA	48.2	MSA	19.0	SSA	1.4
BDE	.6233	BRA	1.4226	BC3	.4660	FSP	444	SG1	1774.2	SG2	579.8	THA	172.27	EL1	38.5	EL2	18.7	ALF	29.47

LAUNCH DATE JUL 17 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 371.334 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	34.040	GAL	-3.38	AZL	89.82	HCA	119.98	SMA	226.07	ECC	.33217	INC	.1616	V1	29.302
RP	221.90	LAP	.16	LOP	54.25	VP	24.680	GAP	19.37	AZP	90.09	TAL	346.39	TAP	106.37	RCA	150.98	APO	301.17	V2	24.778
RC	92.473	GL	1.23	GP	-7.30	ZAL	112.16	ZAP	164.88	ETS	210.15	ZAE	162.62	ETE	333.46	ZAC	76.44	ETC	283.07	LVI	-10.35

PLANETOCENTRIC CONIC

C3	25.530	VHL	5.053	DLA	17.93	RAL	43.60	RAD	6645.2	VEL	12.062	PTH	7.05	VHP	6.182	DPA	7.99	RAP	41.15	ECC	1.4202

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 24 31	3555.33	-46.95	133.27	284.47	98.77	14 23 46	2555.3	-38.19	102.42
60.00	13 43 14	3505.48	-40.16	129.80	285.50	93.67	14 41 39	2505.5	-34.32	100.35
70.00	14 11 18	3422.84	-34.15	123.33	285.71	89.66	15 8 21	2422.8	-30.72	95.14
80.00	14 56 21	3281.63	-29.71	112.47	285.56	86.88	15 51 3	2281.6	-27.98	85.18
90.00	16 7 10	3053.07	-28.00	95.55	285.43	85.84	16 58 3	2053.1	-26.91	68.60
100.00	17 39 13	2756.11	-29.71	73.84	285.56	86.88	18 25 9	1756.1	-27.98	46.55
110.00	19 10 44	2469.66	-34.15	52.25	285.71	89.66	19 51 54	1469.7	-30.72	24.06

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4442	TRA	-1.3863	TC3	.4539	BAU	.1725	SGT	1787.2	SGR	626.3	SG3	332.2	ST	35.3	SR	24.6	SS	30.3
RDE	-.4240	RRA	.2792	RC3	-.2222	FAU	.08581	RRT	-.3668	RRF	.4142	RTF	-.8172	CRT	.5549	CRS	.6475	CST	.9912
FDE	.7906	FRA	1.9369	FC3	-2.9099	BSP	3012	SGB	1893.7	R23	-.0854	R13	.8220	LSA	49.1	MSA	18.8	SSA	1.5
BDE	.6141	BRA	1.4141	BC3	.5054	FSP	474	SG1	1803.6	SG2	577.4	THA	171.83	EL1	38.8	EL2	18.6	ALF	28.07

LAUNCH DATE JUL 17 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 374.607 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.968	GAL	-3.30	AZL	89.77	HCA	121.07	SMA	224.21	ECC	.32647	INC	.2252	V1	29.302
RP	222.28	LAP	.19	LOP	55.35	VP	24.540	GAP	19.05	AZP	90.12	TAL	346.55	TAP	107.62	RCA	151.02	APO	297.41	V2	24.736
RC	94.587	GL	1.54	GP	-7.57	ZAL	111.89	ZAP	164.03	ETS	209.50	ZAE	162.42	ETE	332.60	ZAC	76.13	ETC	283.06	LVI	-10.02

PLANETOCENTRIC CONIC

C3	24.702	VHL	4.970	DLA	18.16	RAL	43.25	RAD	6644.9	VEL	12.028	PTH	7.02	VHP	6.014	DPA	7.83	RAP	41.49	ECC	1.4065

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 22 8	3551.89	-46.92	132.94	283.54	99.02	14 21 20	2551.9	-38.07	102.18
60.00	13 40 33	3502.89	-40.15	129.59	284.59	93.82	14 38 55	2502.9	-34.26	100.16
70.00	14 8 13	3421.43	-34.15	123.22	284.82	89.73	15 5 14	2421.4	-30.69	95.04
80.00	14 52 50	3281.57	-29.71	112.47	284.67	86.89	15 47 31	2281.6	-27.98	85.18
90.00	16 3 25	3053.72	-27.99	95.60	284.54	85.82	16 54 19	2053.7	-26.91	68.64
100.00	17 35 42	2756.05	-29.71	73.83	284.67	86.89	18 21 38	1756.0	-27.98	46.54
110.00	19 7 39	2468.25	-34.15	52.14	284.82	89.73	19 48 47	1468.2	-30.69	23.96

DIFFERENTIAL CORRECTIONS

TDE	-.4467	TRA	-1.3766	TC3	.4888	BAU	.1805												
RDE	-.4085	RRA	.2832	RC3	-.2442	FAU	.08958												
FDE	.8373	FRA	2.0041	FC3	-3.1394	BSP	3073												
BDE	.6053	BRA	1.4054	BC3	.5464	FSP	506												

MID-COURSE EXECUTION ACCURACY

SGT	1814.0	SGR	631.4	SG3	351.8						
RRT	-.3922	RRF	.4427	RTF	-.8223						
SGB	1920.8	R23	-.0914	R13	.8276						
SG1	1832.7	SG2	574.9	THA	171.37						

ORBIT DETERMINATION ACCURACY

ST	35.9	SR	24.1	SS	31.5						
CRT	.5506	CRS	.6473	CST	.9907						
LSA	50.2	MSA	18.7	SSA	1.5						
EL1	39.1	EL2	18.5	ALF	26.67						

LAUNCH DATE JUL 17 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 377.923 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.901	GAL	-3.22	AZL	89.73	HCA	122.17	SMA	222.48	ECC	.32106	INC	.2694	V1	29.302
RP	222.67	LAP	.23	LOP	56.45	VP	24.403	GAP	18.73	AZP	90.14	TAL	346.70	TAP	108.87	RCA	151.05	APO	293.91	V2	24.694
RC	96.756	GL	1.87	GP	-7.84	ZAL	111.63	ZAP	163.16	ETS	208.91	ZAE	162.28	ETE	331.63	ZAC	75.82	ETC	283.05	LVI	-9.69

PLANETOCENTRIC CONIC

C3	23.928	VHL	4.892	DLA	18.39	RAL	42.88	RAD	6644.5	VEL	11.996	PTH	6.99	VHP	5.851	DPA	7.66	RAP	41.82	ECC	1.3938

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 19 41	3549.03	-46.89	132.68	282.64	99.23	14 18 50	2549.0	-37.97	101.98
60.00	13 37 45	3500.93	-40.14	129.42	283.72	93.93	14 36 6	2500.9	-34.20	100.02
70.00	14 4 59	3420.72	-34.15	123.17	283.96	89.76	15 2 0	2420.7	-30.68	94.99
80.00	14 49 9	3282.32	-29.71	112.52	283.80	86.86	15 43 51	2282.3	-27.99	85.23
90.00	15 59 30	3055.22	-27.99	95.71	283.68	85.76	16 50 25	2055.2	-26.93	68.75
100.00	17 32 0	2756.79	-29.71	73.89	283.80	86.86	18 17 57	1756.8	-27.99	46.60
110.00	19 4 26	2467.54	-34.15	52.08	283.96	89.76	19 45 33	1467.5	-30.68	23.91

DIFFERENTIAL CORRECTIONS

TDE	-.4495	TRA	-1.3662	TC3	.5239	BAU	.1882												
RDE	-.3928	RRA	.2876	RC3	-.2679	FAU	.09351												
FDE	.8876	FRA	2.0728	FC3	-3.3831	BSP	3130												
BDE	.5969	BRA	1.3961	BC3	.5885	FSP	540												

MID-COURSE EXECUTION ACCURACY

SGT	1839.4	SGR	637.5	SG3	372.4						
RRT	-.4185	RRF	.4721	RTF	-.8271						
SGB	1946.8	R23	-.0977	R13	.8330						
SG1	1860.8	SG2	572.4	THA	170.88						

ORBIT DETERMINATION ACCURACY

ST	36.5	SR	23.6	SS	32.8						
CRT	.5457	CRS	.6466	CST	.9901						
LSA	51.2	MSA	18.4	SSA	1.5						
EL1	39.4	EL2	18.3	ALF	25.26						

LAUNCH DATE JUL 17 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 381.278 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.836	GAL	-3.15	AZL	89.68	HCA	123.26	SMA	220.87	ECC	.31594	INC	.3145	V1	29.302
RP	223.06	LAP	.26	LOP	57.54	VP	24.271	GAP	18.41	AZP	90.17	TAL	346.85	TAP	110.11	RCA	151.09	APO	290.65	V2	24.652
RC	98.976	GL	2.21	GP	-8.13	ZAL	111.36	ZAP	162.28	ETS	208.40	ZAE	162.17	ETE	330.55	ZAC	75.49	ETC	283.04	LVI	-9.34

PLANETOCENTRIC CONIC

C3	23.206	VHL	4.817	DLA	18.64	RAL	42.51	RAD	6644.2	VEL	11.986	PTH	6.97	VHP	5.694	DPA	7.46	RAP	42.14	ECC	1.3819

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 17 8	3546.76	-46.86	132.46	281.78	99.39	14 16 15	2546.8	-37.89	101.82
60.00	13 34 51	3499.60	-40.14	129.31	282.87	94.00	14 33 10	2499.6	-34.17	99.93
70.00	14 1 38	3420.74	-34.15	123.17	283.12	89.76	14 58 38	2420.7	-30.68	94.99
80.00	14 45 17	3283.89	-29.70	112.64	282.96	86.80	15 40 1	2283.9	-28.01	85.34
90.00	15 55 23	3057.62	-27.97	95.88	282.83	85.68	16 46 21	2057.6	-26.95	68.92
100.00	17 28 9	2758.37	-29.70	74.01	282.96	86.80	18 14 7	1758.4	-28.01	46.71
110.00	19 1 4	2467.56	-34.15	52.09	283.12	89.76	19 42 12	1467.6	-30.68	23.91

DIFFERENTIAL CORRECTIONS

TDE	-.4520	TRA	-1.3551	TC3	.5591	BAU	.1959												
RDE	-.3771	RRA	.2924	RC3	-.2937	FAU	.09766												
FDE	.9408	FRA	2.1433	FC3	-3.6435	BSP	3184												
BDE	.5886	BRA	1.3863	BC3	.6316	FSP	575												

MID-COURSE EXECUTION ACCURACY

SGT	1863.4	SGR	645.0	SG3	394.2						
RRT	-.4457	RRF	.5026	RTF	-.8515						
SGB	1971.9	R23	-.1046	R13	.8380						
SG1	1887.8	SG2	569.9	THA	170.34						

ORBIT DETERMINATION ACCURACY

ST	37.1	SR	23.1	SS	34.0						
CRT	.5396	CRS	.6448	CST	.9895						
LSA	52.3	MSA	18.2	SSA	1.5						
EL1	39.7	EL2	18.1	ALF	23.85						

LAUNCH DATE JUL 17 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 384.670 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.775	GAL	-3.07	AZL	89.64	HCA	124.35	SMA	219.36	ECC	.31108	INC	.3609	V1	29.302
RP	223.44	LAP	.30	LOP	58.63	VP	24.143	GAP	18.09	AZP	90.20	TAL	347.01	TAP	111.36	RCA	151.12	APO	287.60	V2	24.611
RC	101.244	GL	2.57	GP	-8.43	ZAL	111.09	ZAP	161.37	ETS	207.94	ZAE	162.10	ETE	329.35	ZAC	75.15	ETC	283.03	LVI	-8.99

PLANETOCENTRIC CONIC

C3	22.531	VHL	4.747	DLA	18.91	RAL	42.13	RAD	6643.9	VEL	11.938	PTH	6.94	VHP	5.542	DPA	7.25	RAP	42.45	ECC	1.3708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 14 30	3545.08	-46.84	132.30	280.96	99.51	14 13 35	2545.1	-37.83	101.70
60.00	13 31 50	3498.94	-40.13	129.25	282.06	94.04	14 30 9	2498.9	-34.15	99.88
70.00	13 58 8	3421.51	-34.15	123.23	282.30	89.72	14 55 9	2421.5	-30.70	95.04
80.00	14 41 15	3286.34	-29.69	112.62	282.14	86.70	15 36 1	2286.3	-28.04	85.52
90.00	15 51 4	3060.95	-27.96	96.12	282.00	85.56	16 42 5	2061.0	-26.99	69.16
100.00	17 24 7	2760.81	-29.69	74.19	282.14	86.70	18 10 8	1760.8	-28.04	46.88
110.00	18 57 34	2468.33	-34.15	52.15	282.30	89.72	19 38 42	1468.3	-30.70	23.96

DIFFERENTIAL CORRECTIONS

TDE	-.4555	TRA	-1.3440	TC3	.5929	BAU	.2031												
RDE	-.3611	RRA	.2978	RC3	-.3212	FAU	.10194												
FDE	.9991	FRA	2.2166	FC3	-3.9171	BSP	3241												
BDE	.5813	BRA	1.3766	BC3	.6744	FSP	613												

MID-COURSE EXECUTION ACCURACY

SGT	1886.7	SGR	653.7	SG3	416.9						
RRT	-.4731	RRF	.5335	RTF	-.8355						
SGB	1996.8	R23	-.1121	R13	.8427						
SG1	1914.4	SG2	567.6	THA	169.78						

ORBIT DETERMINATION ACCURACY

ST	37.7	SR	22.5	SS	35.4						
CRT	.5329	CRS	.6422	CST	.9890						
LSA	53.4	MSA	18.0	SSA	1.6						
EL1	40.1	EL2	17.9	ALF	22.41						

LAUNCH DATE JUL 17 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 388.095 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.717	GAL	-3.00	AZL	89.59	HCA	125.43	SMA	217.95	ECC	.30648	INC	.4079
RP	223.83	LAP	.33	LOP	59.71	VP	24.019	GAP	17.78	AZP	90.24	TAL	347.16	TAP	112.59	RCA	151.15	APO	284.74
RC	103.560	GL	2.94	GP	-8.75	ZAL	110.82	ZAP	160.45	ETS	207.54	ZAE	162.07	ETE	328.03	ZAC	74.80	ETC	283.03

V1	29.302																		
V2	24.569																		
LVI	-8.63																		

PLANETOCENTRIC CONIC

C3	21.901	VHL	4.680	DLA	19.18	RAL	41.75	RAD	6643.7	VEL	11.912	PTH	6.92	VHP	5.395	DPA	7.01	RAP	42.75
ECC	1.3604																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 11 47	3544.01	-46.83	132.20	280.17	99.59	14 10 51	2544.0	-37.79	101.63
60.00	13 28 42	3498.95	-40.13	129.25	281.27	94.04	14 27 1	2498.9	-34.15	99.88
70.00	13 54 29	3423.05	-34.15	123.35	281.52	89.65	14 51 32	2423.0	-30.72	95.15
80.00	14 37 2	3289.69	-29.68	113.07	281.34	86.57	15 31 51	2289.7	-28.08	85.76
90.00	15 46 33	3065.26	-27.93	96.44	281.20	85.40	16 37 38	2065.3	-27.03	69.47
100.00	17 19 33	2764.16	-29.68	74.43	281.34	86.57	18 5 58	1764.2	-28.08	47.12
110.00	18 53 55	2469.86	-34.15	52.27	281.52	89.65	19 35 5	1469.9	-30.72	24.07

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4578	TRA	-1.3320	TC3	.6287	BAU	.2109	SGT	1908.4	SGR	664.4	SG3	440.9	ST	38.2	SR	21.9	SS	36.8
RDE	-.3451	RRA	.3035	RC3	-.3513	FAU	.10653	RRT	-.5017	RRF	.5653	RTF	-.8395	CRT	.5239	CRS	.6378	CST	.9883
FDE	1.0596	FRA	2.2915	FC3	-4.2111	BSP	3297	SGB	2020.8	R23	-.1196	R13	.8475	LSA	54.6	MSA	17.7	SSA	1.6
BDE	.5733	BRA	1.3662	BC3	.7202	FSP	654	SG1	1940.1	SG2	565.4	THA	169.16	EL1	40.3	EL2	17.7	ALF	20.98

LAUNCH DATE JUL 17 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 391.552 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.662	GAL	-2.93	AZL	89.54	HCA	126.51	SMA	216.63	ECC	.30211	INC	.4562
RP	224.22	LAP	.37	LOP	60.79	VP	23.899	GAP	17.47	AZP	90.27	TAL	347.32	TAP	113.83	RCA	151.18	APO	282.07
RC	105.921	GL	3.33	GP	-9.08	ZAL	110.55	ZAP	159.50	ETS	207.18	ZAE	162.07	ETE	326.57	ZAC	74.44	ETC	283.03

V1	29.302																		
V2	24.527																		
LVI	-8.26																		

PLANETOCENTRIC CONIC

C3	21.313	VHL	4.617	DLA	19.47	RAL	41.36	RAD	6643.4	VEL	11.887	PTH	6.90	VHP	5.253	DPA	6.75	RAP	43.03
ECC	1.3508																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 8 58	3543.56	-46.82	132.16	279.42	99.62	14 8 2	2543.6	-37.78	101.60
60.00	13 25 28	3499.64	-40.14	129.31	280.52	94.00	14 23 48	2499.6	-34.17	99.93
70.00	13 50 41	3425.38	-34.15	123.53	280.76	89.55	14 47 47	2425.4	-30.77	95.32
80.00	14 32 36	3293.97	-29.66	113.38	280.57	86.41	15 27 30	2294.0	-28.13	86.06
90.00	15 41 48	3070.61	-27.90	96.83	280.42	85.21	16 32 58	2070.6	-27.09	69.85
100.00	17 15 28	2768.45	-29.66	74.75	280.57	86.41	18 1 37	1768.4	-28.13	47.43
110.00	18 50 7	2472.20	-34.15	52.45	280.76	89.55	19 31 20	1472.2	-30.77	24.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4611	TRA	-1.3196	TC3	.6633	BAU	.2183	SGT	1928.8	SGR	676.9	SG3	466.1	ST	38.7	SR	21.3	SS	38.3
RDE	-.3286	RRA	.3098	RC3	-.3836	FAU	.11131	RRT	-.5301	RRF	.5971	RTF	-.8431	CRT	.5138	CRS	.6324	CST	.9877
FDE	1.1263	FRA	2.3688	FC3	-4.5216	BSP	3347	SGB	2044.2	R23	-.1277	R13	.8520	LSA	55.8	MSA	17.4	SSA	1.6
BDE	.5663	BRA	1.3555	BC3	.7662	FSP	696	SG1	1965.0	SG2	563.4	THA	168.51	EL1	40.6	EL2	17.4	ALF	19.51

LAUNCH DATE JUL 17 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 395.036 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.610	GAL	-2.87	AZL	89.49	HCA	127.59	SMA	215.39	ECC	.29797	INC	.5057
RP	224.61	LAP	.40	LOP	61.86	VP	23.782	GAP	17.17	AZP	90.31	TAL	347.47	TAP	115.06	RCA	151.21	APO	279.57
RC	108.326	GL	3.73	GP	-9.43	ZAL	110.28	ZAP	158.54	ETS	206.86	ZAE	162.10	ETE	324.96	ZAC	74.06	ETC	283.03

V1	29.302																		
V2	24.485																		
LVI	-7.88																		

PLANETOCENTRIC CONIC

C3	20.764	VHL	4.557	DLA	19.78	RAL	40.97	RAD	6643.2	VEL	11.865	PTH	6.88	VHP	5.115	DPA	6.48	RAP	43.29
ECC	1.3417																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 6 4	3543.75	-46.83	132.18	278.71	99.61	14 5 8	2543.7	-37.79	101.61
60.00	13 22 6	3501.05	-40.14	129.43	279.81	93.92	14 20 27	2501.1	-34.21	100.03
70.00	13 46 44	3428.54	-34.15	123.78	280.02	89.40	14 43 52	2428.5	-30.83	95.55
80.00	14 27 58	3299.25	-29.64	113.77	279.82	86.20	15 22 58	2299.2	-28.20	86.44
90.00	15 36 49	3077.03	-27.87	97.29	279.66	84.98	16 28 6	2077.0	-27.15	70.31
100.00	17 10 50	2773.72	-29.64	75.14	279.82	86.20	17 57 4	1773.7	-28.20	47.81
110.00	18 46 10	2475.36	-34.15	52.69	280.02	89.40	19 27 26	1475.4	-30.83	24.47

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4645	TRA	-1.3062	TC3	.6968	BAU	.2256	SGT	1947.0	SGR	691.4	SG3	492.5	ST	39.2	SR	20.6	SS	39.8
RDE	-.3118	RRA	.3166	RC3	-.4184	FAU	.11630	RRT	-.5582	RRF	.6287	RTF	-.8464	CRT	.5018	CRS	.6251	CST	.9871
FDE	1.1976	FRA	2.4472	FC3	-4.8489	BSP	3392	SGB	2066.1	R23	-.1363	R13	.8563	LSA	57.0	MSA	17.1	SSA	1.6
BDE	.5594	BRA	1.3440	BC3	.8128	FSP	739	SG1	1988.3	SG2	561.7	THA	167.80	EL1	40.9	EL2	17.1	ALF	18.03

LAUNCH DATE JUL 17 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 398.547 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.560	GAL	-2.80	AZL	89.44	HCA	128.66	SMA	214.23	ECC	.29404	INC	.5562
RP	225.00	LAP	.43	LOP	62.94	VP	23.668	GAP	16.86	AZP	90.35	TAL	347.62	TAP	116.28	RCA	151.24	APO	277.22
RC	110.773	GL	4.15	GP	-9.80	ZAL	110.01	ZAP	157.55	ETS	206.58	ZAE	162.14	ETE	323.21	ZAC	73.67	ETC	283.04

V1	29.302																		
V2	24.443																		
LVI	-7.49																		

PLANETOCENTRIC CONIC

C3	20.252	VHL	4.500	DLA	20.10	RAL	40.57	RAD	6642.9	VEL	11.843	PTH	6.86	VHP	4.982	DPA	6.17	RAP	43.55
ECC	1.3333																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 3 4	3544.56	-46.84	132.25	278.04	99.55	14 2 9	2544.6	-37.81	101.67
60.00	13 18 37	3503.16	-40.15	129.61	279.12	93.80	14 17 0	2503.2	-34.26	100.18
70.00	13 42 36	3432.53	-34.15	124.09	279.32	89.22	14 39 49	2432.5	-30.90	95.84
80.00	14 23 7	3305.52	-29.61	114.24	279.09	85.96	15 18 13	2305.5	-28.27	86.89
90.00	15 31 34	3084.56	-27.82	97.84	278.93	84.71	16 22 58	2084.6	-27.22	70.85
100.00	17 5 59	2779.99	-29.61	75.61	279.09	85.96	17 52 19	1780.0	-28.27	48.26
110.00	18 42 3	2479.35	-34.15	53.01	279.32	89.22	19 23 22	1479.3	-30.90	24.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4568	TRA	-1.2815	TC3	.7497	BAU	.2376	SGT	1952.5	SGR	708.4	SG3	520.0	ST	39.1	SR	19.9	SS	41.4
RDE	-.2948	RRA	.3236	RC3	-.4560	FAU	.12157	RRT	-.5935	RRF	.6601	RTF	-.8549	CRT	.4808	CRS	.6154	CST	.9853
FDE	1.2714	FRA	2.5250	FC3	-5.1972	BSP	3310	SGB	2077.0	R23	-.1338	R13	.8654	LSA	57.8	MSA	16.9	SSA	1.6
BDE	.5437	BRA	1.3217	BC3	.8775	FSP	784	SG1	2001.1	SG2	556.3	THA	166.81	EL1	40.5	EL2	16.8	ALF	16.74

LAUNCH DATE JUL 17 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 402.081 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.515	GAL	-2.74	AZL	89.39	HCA	129.73	SMA	213.15	ECC	.29032	INC	.6084	V1	29.302
RP	225.39	LAP	.47	LOP	64.01	VP	23.558	GAP	16.56	AZP	90.39	TAL	347.77	TAP	117.50	RCA	151.27	APO	275.03	V2	24.401
RC	113.259	GL	4.59	GP	-10.19	ZAL	109.74	ZAP	156.54	ETS	206.33	ZAE	162.20	ETE	321.29	ZAC	73.27	ETC	283.05	LVI	-7.08

PLANETOCENTRIC CONIC

C3	19.778	VHL	4.447	DLA	20.44	RAL	40.17	RAD	6642.7	VEL	11.823	PTH	6.84	VHP	4.854	DPA	5.85	RAP	43.79	ECC	1.3255

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 59 59	3548.06	-46.85	132.40	277.42	99.44	13 59 5	2546.1	-37.87	101.77
60.00	13 15 1	3506.05	-40.16	129.85	278.47	93.64	14 13 27	2506.0	-34.34	100.39
70.00	13 38 19	3437.44	-34.14	124.47	278.65	88.99	14 35 36	2437.4	-30.99	96.19
80.00	14 18 2	3312.93	-29.57	114.79	278.39	85.67	15 13 15	2312.9	-28.36	87.43
90.00	15 26 2	3093.36	-27.76	98.47	278.22	84.39	16 17 36	2093.4	-27.30	71.48
100.00	17 0 53	2787.40	-29.57	76.15	278.39	85.67	17 47 21	1787.4	-28.36	48.79
110.00	18 37 45	2484.26	-34.14	53.39	278.65	88.99	19 19 9	1484.3	-30.99	25.11

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4652	TRA	-1.2721	TC3	.7717	BAU	.2425	SGT	1972.2	SGR	727.9	SG3	548.9	ST	39.8	SR	19.1	SS	43.1
RDE	-.2770	RRA	.3315	RC3	-.4961	FAU	.12700	RRT	-.6173	RRF	.6907	RTF	-.6551	CRT	.4655	CRS	.6026	CST	.9851
FDE	1.3545	FRA	2.6090	FC3	-5.5596	BSP	3414	SGB	2102.2	R23	-.1484	R13	.8672	LSA	59.5	MSA	16.5	SSA	1.6
BDE	.5414	BRA	1.3145	BC3	.9174	FSP	834	SG1	2027.1	SG2	557.2	THA	166.09	EL1	41.0	EL2	16.4	ALF	15.07

LAUNCH DATE JUL 17 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 405.637 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.468	GAL	-2.68	AZL	89.34	HCA	130.79	SMA	212.13	ECC	.28679	INC	.6619	V1	29.302
RP	225.78	LAP	.50	LOP	65.07	VP	23.451	GAP	16.26	AZP	90.43	TAL	347.91	TAP	118.70	RCA	151.29	APO	272.97	V2	24.359
RC	115.782	GL	5.04	GP	-10.59	ZAL	109.48	ZAP	155.51	ETS	206.11	ZAE	162.27	ETE	319.20	ZAC	72.86	ETC	283.06	LVI	-6.87

PLANETOCENTRIC CONIC

C3	19.333	VHL	4.397	DLA	20.80	RAL	39.77	RAD	6642.5	VEL	11.805	PTH	6.83	VHP	4.730	DPA	5.50	RAP	44.01	ECC	1.3182

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 56 48	3548.24	-46.88	132.60	276.83	99.28	13 55 56	2548.2	-37.94	101.92
60.00	13 11 16	3509.71	-40.18	130.16	277.86	93.43	14 9 46	2509.7	-34.43	100.65
70.00	13 33 50	3443.27	-34.13	124.93	278.00	88.72	14 31 13	2443.3	-31.09	96.62
80.00	14 12 41	3321.47	-29.53	115.42	277.72	85.35	15 8 2	2321.5	-28.46	88.04
90.00	15 20 13	3103.44	-27.69	99.20	277.53	84.04	16 11 56	2103.4	-27.39	72.20
100.00	16 55 32	2795.94	-29.53	76.78	277.72	85.35	17 42 8	1795.9	-28.46	49.41
110.00	18 33 16	2490.09	-34.13	53.84	278.00	88.72	19 14 46	1490.1	-31.09	25.54

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4708	TRA	-1.2592	TC3	.7959	BAU	.2485	SGT	1986.7	SGR	750.4	SG3	579.1	ST	40.4	SR	18.3	SS	44.9
RDE	-.2587	RRA	.3399	RC3	-.5393	FAU	.13268	RRT	-.6417	RRF	.7203	RTF	-.8560	CRT	.4447	CRS	.5860	CST	.9847
FDE	1.4422	FRA	2.6931	FC3	-5.9414	BSP	3487	SGB	2123.7	R23	-.1612	R13	.8698	LSA	61.0	MSA	16.2	SSA	1.7
BDE	.5373	BRA	1.3042	BC3	.9614	FSP	885	SG1	2049.1	SG2	558.0	THA	165.26	EL1	41.4	EL2	16.0	ALF	13.43

LAUNCH DATE JUL 17 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 409.214 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.426	GAL	-2.63	AZL	89.28	HCA	131.85	SMA	211.17	ECC	.28346	INC	.7171	V1	29.302
RP	226.17	LAP	.53	LOP	66.13	VP	23.348	GAP	15.97	AZP	90.48	TAL	348.06	TAP	119.91	RCA	151.32	APO	271.03	V2	24.318
RC	118.341	GL	5.51	GP	-11.02	ZAL	109.22	ZAP	154.45	ETS	205.91	ZAE	162.34	ETE	316.92	ZAC	72.42	ETC	283.08	LVI	-6.24

PLANETOCENTRIC CONIC

C3	18.921	VHL	4.350	DLA	21.17	RAL	39.36	RAD	6642.4	VEL	11.787	PTH	6.81	VHP	4.611	DPA	5.12	RAP	44.22	ECC	1.3114

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 53 31	3551.11	-46.91	132.87	276.29	99.08	13 52 42	2551.1	-38.05	102.12
60.00	13 7 23	3514.15	-40.20	130.54	277.28	93.17	14 5 57	2514.2	-34.55	100.97
70.00	13 29 9	3450.06	-34.12	125.46	277.39	88.41	14 26 39	2450.1	-31.21	97.11
80.00	14 7 3	3331.23	-29.47	116.14	277.07	84.97	15 2 34	2331.2	-28.56	88.75
90.00	15 14 3	3114.91	-27.61	100.03	276.86	83.63	16 5 58	2114.9	-27.49	73.03
100.00	16 49 55	2805.71	-29.47	77.50	277.07	84.97	17 36 40	1805.7	-28.56	50.12
110.00	18 28 35	2496.88	-34.12	54.37	277.39	88.41	19 10 12	1496.9	-31.21	26.03

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4761	TRA	-1.2452	TC3	.8194	BAU	.2547	SGT	1998.8	SGR	775.9	SG3	610.5	ST	41.0	SR	17.4	SS	46.8
RDE	-.2397	RRA	.3490	RC3	-.5853	FAU	.13854	RRT	-.6655	RRF	.7486	RTF	-.8972	CRT	.4182	CRS	.5648	CST	.9842
FDE	1.5374	FRA	2.7795	FC3	-6.3391	BSP	3548	SGB	2144.1	R23	-.1733	R13	.8728	LSA	62.6	MSA	15.8	SSA	1.7
BDE	.5331	BRA	1.2931	BC3	1.0070	FSP	940	SG1	2069.9	SG2	559.2	THA	164.34	EL1	41.7	EL2	15.6	ALF	11.78

LAUNCH DATE JUL 17 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 412.809 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.386	GAL	-2.58	AZL	89.23	HCA	132.91	SMA	210.28	ECC	.28029	INC	.7737	V1	29.302
RP	226.56	LAP	.57	LOP	67.19	VP	23.247	GAP	15.68	AZP	90.53	TAL	348.20	TAP	121.10	RCA	151.34	APO	269.22	V2	24.278
RC	120.933	GL	6.01	GP	-11.46	ZAL	108.96	ZAP	153.37	ETS	205.73	ZAE	162.41	ETE	314.47	ZAC	71.98	ETC	283.11	LVI	-5.79

PLANETOCENTRIC CONIC

C3	18.538	VHL	4.306	DLA	21.57	RAL	38.95	RAD	6642.2	VEL	11.771	PTH	6.80	VHP	4.496	DPA	4.71	RAP	44.42	ECC	1.3051

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 50 7	3554.69	-46.95	133.21	275.79	98.82	13 49 22	2554.7	-38.17	102.37
60.00	13 3 21	3519.42	-40.22	130.99	276.74	92.87	14 2 1	2519.4	-34.68	101.36
70.00	13 24 16	3457.85	-34.10	126.06	276.80	88.05	14 21 53	2457.9	-31.34	97.68
80.00	14 1 7	3342.29	-29.40	116.95	276.44	84.55	14 56 49	2342.3	-28.68	89.55
90.00	15 7 32	3127.87	-27.51	100.97	276.21	83.17	15 59 40	2127.9	-27.59	73.96
100.00	16 43 59	2816.76	-29.40	78.32	276.44	84.55	17 30 55	1816.8	-28.68	50.92
110.00	18 23 42	2504.67	-34.10	54.98	276.80	88.05	19 5 27	1504.7	-31.34	26.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4802	TRA	-1.2293	TC3	.8420	BAU	.2614	SGT	2006.9	SGR	804.8	SG3	643.2	ST	41.4	SR	16.6	SS	48.7
RDE	-.2200	RRA	.3585	RC3	-.6348	FAU	.14468	RRT	-.6882	RRF	.7755	RTF	-.8583	CRT	.3843	CRS	.5368	CST	.9836
FDE	1.6380	FRA	2.8654	FC3	-6.7564	BSP	3595	SGB	2162.3	R23	-.1850	R13	.8760	LSA	64.2	MSA	15.5	SSA	1.7
BDE	.5282	BRA	1.2805	BC3	1.0545	FSP	995	SG1	2088.2	SG2	561.1	THA	163.33	EL1	42.0	EL2	15.1	ALF	10.03

LAUNCH DATE JUL 17 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 416.422 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.348	GAL	-2.53	AZL	89.17	HCA	133.96	SMA	209.44	ECC	.27730	INC	.8321	V1	29.302
RP	226.95	LAP	.60	LOP	68.24	VP	23.149	GAP	15.39	AZP	90.58	TAL	348.33	TAP	122.29	RCA	151.36	APO	267.51	V2	24.234
RC	123.556	GL	6.52	GP	-11.93	ZAL	108.71	ZAP	152.27	ETS	205.58	ZAE	162.46	ETE	311.82	ZAC	71.51	ETC	283.14	LVI	-5.34

PLANETOCENTRIC CONIC

C3	18.184	VHL	4.264	DLA	21.98	RAL	38.54	RAD	6642.0	VEL	11.756	PTH	6.78	VHP	4.385	DPA	4.28	RAP	44.60	ECC	1.2993

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 46 36	3559.00	-46.99	133.62	275.33	98.51	13 45 55	2559.0	-38.32	102.68
60.00	12 59 10	3525.53	-40.24	131.51	276.23	92.52	13 57 56	2525.5	-34.84	101.80
70.00	13 19 8	3466.70	-34.08	126.75	276.24	87.64	14 16 55	2466.7	-31.49	98.33
80.00	13 54 51	3354.74	-29.32	117.87	275.84	84.07	14 50 45	2354.7	-28.80	90.45
90.00	15 0 35	3142.47	-27.39	102.02	275.58	82.66	15 52 58	2142.5	-27.70	75.01
100.00	16 37 43	2829.21	-29.32	79.23	275.84	84.07	17 24 52	1829.2	-28.80	51.82
110.00	18 18 35	2513.52	-34.08	55.67	276.24	87.64	19 0 28	1513.5	-31.49	27.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4838	TRA	-1.2123	TC3	.8641	BAU	.2685	SGT	2012.7	SGR	837.5	SG3	677.3	ST	41.9	SR	15.6	SS	50.8
RDE	-.1993	RRA	.3687	RC3	-.6880	FAU	.15108	RRT	-.7100	RRF	.8007	RTF	-.8596	CRT	.3410	CRS	.5005	CST	.9829
FDE	1.7465	FRA	2.9533	FC3	-7.1929	BSP	3643	SGB	2180.0	R23	-.1959	R13	.8796	LSA	65.9	MSA	15.1	SSA	1.7
BDE	.5232	BRA	1.2671	BC3	1.1046	FSP	1055	SG1	2105.8	SG2	563.7	THA	162.22	EL1	42.2	EL2	14.6	ALF	8.25

LAUNCH DATE JUL 17 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 420.050 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.312	GAL	-2.48	AZL	89.11	HCA	135.01	SMA	208.65	ECC	.27446	INC	.8926	V1	29.302
RP	227.34	LAP	.63	LOP	69.29	VP	23.053	GAP	15.10	AZP	90.63	TAL	348.46	TAP	123.47	RCA	151.38	APO	265.91	V2	24.193
RC	126.208	GL	7.05	GP	-12.43	ZAL	108.46	ZAP	151.13	ETS	205.44	ZAE	162.49	ETE	308.97	ZAC	71.02	ETC	283.17	LVI	-4.86

PLANETOCENTRIC CONIC

C3	17.857	VHL	4.226	DLA	22.41	RAL	38.13	RAD	6641.9	VEL	11.742	PTH	6.77	VHP	4.278	DPA	3.81	RAP	44.76	ECC	1.2939

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 42 58	3564.06	-47.04	134.09	274.92	98.14	13 42 22	2564.1	-38.50	103.04
60.00	12 54 49	3532.53	-40.25	132.10	275.77	92.11	13 53 41	2532.5	-35.01	102.31
70.00	13 13 46	3476.67	-34.05	127.53	275.72	87.18	14 11 43	2476.7	-31.65	99.06
80.00	13 48 12	3368.69	-29.21	118.89	275.26	83.54	14 44 21	2368.7	-28.94	91.47
90.00	14 53 12	3158.86	-27.24	103.19	274.97	82.09	15 45 50	2158.9	-27.81	76.20
100.00	16 31 4	2843.16	-29.21	80.26	275.26	83.54	17 18 27	1843.2	-28.94	52.84
110.00	18 13 13	2523.49	-34.05	56.45	275.72	87.18	18 55 16	1523.5	-31.65	27.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4869	TRA	-1.1948	TC3	.8824	BAU	.2756	SGT	2015.6	SGR	874.2	SG3	712.6	ST	42.2	SR	14.7	SS	52.9
RDE	-.1777	RRA	.3798	RC3	-.7448	FAU	.15766	RRT	-.7300	RRF	.8242	RTF	-.8605	CRT	.2854	CRS	.4527	CST	.9822
FDE	1.8624	FRA	3.0435	FC3	-7.6435	BSP	3682	SGB	2197.0	R23	-.2068	R13	.8832	LSA	67.7	MSA	14.7	SSA	1.7
BDE	.5163	BRA	1.2537	BC3	1.1546	FSP	1117	SG1	2122.5	SG2	567.4	THA	161.02	EL1	42.4	EL2	14.0	ALF	6.37

LAUNCH DATE JUL 17 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 423.694 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.278	GAL	-2.43	AZL	89.04	HCA	136.06	SMA	207.90	ECC	.27178	INC	.9550	V1	29.302
RP	227.73	LAP	.66	LOP	70.34	VP	22.960	GAP	14.81	AZP	90.69	TAL	348.59	TAP	124.65	RCA	151.40	APO	264.41	V2	24.152
RC	126.887	GL	7.60	GP	-12.94	ZAL	108.22	ZAP	149.97	ETS	205.32	ZAE	162.48	ETE	305.95	ZAC	70.52	ETC	283.22	LVI	-4.37

PLANETOCENTRIC CONIC

C3	17.556	VHL	4.190	DLA	22.87	RAL	37.72	RAD	6641.7	VEL	11.730	PTH	6.76	VHP	4.175	DPA	3.31	RAP	44.91	ECC	1.2869

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 39 13	3569.91	-47.10	134.65	274.56	97.72	13 38 43	2569.9	-38.70	103.45
60.00	12 50 16	3540.45	-40.27	132.77	275.33	91.66	13 49 17	2540.4	-35.21	102.89
70.00	13 8 8	3487.81	-34.01	128.40	275.22	86.67	14 6 16	2487.8	-31.82	99.88
80.00	13 41 9	3384.28	-29.09	120.03	274.69	82.96	14 37 33	2384.3	-29.07	92.61
90.00	14 45 16	3177.25	-27.06	104.51	274.38	81.45	15 38 13	2177.2	-27.92	77.53
100.00	16 24 1	2858.75	-29.09	81.40	274.69	82.96	17 11 39	1858.8	-29.07	53.98
110.00	18 7 35	2534.63	-34.01	57.32	275.22	86.67	18 49 49	1534.6	-31.82	28.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4897	TRA	-1.1763	TC3	.8979	BAU	.2831	SGT	2015.5	SGR	915.2	SG3	749.3	ST	42.5	SR	13.8	SS	55.2
RDE	-.1550	RRA	.3914	RC3	-.8051	FAU	.16449	RRT	-.7481	RRF	.8457	RTF	-.8611	CRT	.2145	CRS	.3900	CST	.9814
FDE	1.9861	FRA	3.1334	FC3	-8.1114	BSP	3712	SGB	2213.5	R23	-.2174	R13	.8869	LSA	69.5	MSA	14.4	SSA	1.8
BDE	.5136	BRA	1.2397	BC3	1.2060	FSP	1180	SG1	2138.2	SG2	572.5	THA	159.72	EL1	42.6	EL2	13.4	ALF	4.41

LAUNCH DATE JUL 17 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 427.350 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.246	GAL	-2.38	AZL	88.98	HCA	137.10	SMA	207.21	ECC	.26924	INC	1.0195	V1	29.302
RP	228.12	LAP	.69	LOP	71.38	VP	22.870	GAP	14.53	AZP	90.75	TAL	348.71	TAP	125.81	RCA	151.42	APO	262.99	V2	24.110
RC	131.592	GL	8.18	GP	-13.49	ZAL	107.98	ZAP	148.78	ETS	205.21	ZAE	162.44	ETE	302.75	ZAC	69.99	ETC	283.26	LVI	-3.86

PLANETOCENTRIC CONIC

C3	17.279	VHL	4.157	DLA	23.34	RAL	37.30	RAD	6641.6	VEL	11.718	PTH	6.75	VHP	4.076	DPA	2.78	RAP	45.04	ECC	1.2844

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 35 19	3576.55	-47.15	135.28	274.24	97.24	13 34 56	2576.6	-38.92	103.92
60.00	12 45 32	3549.32	-40.29	133.53	274.94	91.15	13 44 42	2549.3	-35.42	103.55
70.00	13 2 12	3500.21	-33.96	129.36	274.75	86.10	14 0 33	2500.2	-32.01	100.80
80.00	13 33 37	3401.68	-28.94	121.30	274.15	82.31	14 30 19	2401.7	-29.21	93.68
90.00	14 36 44	3197.90	-26.84	105.98	273.80	80.75	15 30 2	2197.9	-28.03	79.04
100.00	16 16 29	2876.15	-28.94	82.67	274.15	82.31	17 4 25	1876.2	-29.21	55.25
110.00	18 1 39	2547.03	-33.96	58.28	274.75	86.10	18 44 6	1547.0	-32.01	29.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4919	TRA	-1.1560	TC3	.9108	BAU	.2909	SGT	2011.3	SGR	960.5	SG3	787.0	ST	42.8	SR	12.9	SS	57.5
RDE	-.1310	RRA	.4035	RC3	-.8699	FAU	.17157	RRT	-.7643	RRF	.8652	RTF	-.8615	CRT	.1242	CRS	.3082	CST	.9806
FDE	2.1179	FRA	3.2208	FC3	-8.5964	BSP	3744	SGB	2228.9	R23	-.2273	R13	.8907	LSA	71.4	MSA	14.1	SSA	1.8
BDE	.5091	BRA	1.2244	BC3	1.2595	FSP	1245	SG1	2152.4	SG2	578.8	THA	158.30	EL1	42.8	EL2	12.7	ALF	2.35

LAUNCH DATE JUL 17 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 431.020 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.215	GAL	-2.35	AZL	88.91	HCA	138.14	SMA	206.95	ECC	.26683	INC	1.0864	V1	29.302
RP	228.51	LAP	.73	LOP	72.42	VP	22.782	GAP	14.25	AZP	90.81	TAL	348.83	TAP	126.97	RCA	151.44	APO	261.66	V2	24.069
RC	134.321	GL	8.77	GP	-14.06	ZAL	107.75	ZAP	147.56	ETS	205.11	ZAE	162.33	ETE	299.39	ZAC	69.45	ETC	283.32	LVI	-3.33

PLANETOCENTRIC CONIC

C3	17.026	VHL	4.126	DLA	23.85	RAL	36.88	RAD	6641.5	VEL	11.707	PTH	6.74	VHP	3.982	DPA	2.22	RAP	45.16	ECC	1.2802

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 31 17	3584.03	-47.22	135.99	273.97	96.69	13 31 1	2564.0	-39.18	104.46
60.00	12 40 36	3559.21	-40.30	134.37	274.58	90.57	13 39 55	2559.2	-35.66	104.28
70.00	12 55 57	3513.96	-33.89	130.43	274.30	85.47	13 54 31	2514.0	-32.21	101.82
80.00	13 25 33	3421.09	-28.75	122.72	273.62	81.58	14 22 34	2421.1	-29.35	95.31
90.00	14 27 29	3221.14	-26.58	107.63	273.22	79.96	15 21 10	2221.1	-28.12	80.73
100.00	16 8 25	2895.56	-28.75	84.08	273.62	81.58	16 56 41	1895.6	-29.35	56.67
110.00	17 55 23	2560.78	-33.89	59.35	274.30	85.47	18 38 4	1560.8	-32.21	30.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4942	TRA	-1.1361	TC3	.9190	BAU	.2990	SGT	2005.3	SGR	1010.7	SG3	826.1	ST	43.0	SR	12.0	SS	60.0
RDE	-.1055	RRA	.4166	RC3	-.9387	FAU	.17682	RRT	-.7785	RRF	.8829	RTF	-.8613	CRT	.0086	CRS	.2001	CST	.9798
FDE	2.2598	FRA	3.3110	FC3	-9.0928	BSP	3775	SG8	2245.6	R23	-.2367	R13	.8948	LSA	73.5	MSA	13.7	SSA	1.8
BDE	.5054	BRA	1.2101	BC3	1.3137	FSP	1314	SG1	2167.6	SG2	586.8	THA	156.77	EL1	43.0	EL2	12.0	ALF	.15

LAUNCH DATE JUL 17 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 434.701 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.186	GAL	-2.31	AZL	88.84	HCA	139.18	SMA	205.93	ECC	.26456	INC	1.1560	V1	29.302
RP	228.90	LAP	.76	LOP	73.46	VP	22.697	GAP	13.97	AZP	90.87	TAL	348.94	TAP	128.12	RCA	151.45	APO	260.42	V2	24.028
RC	137.073	GL	9.40	GP	-14.66	ZAL	107.53	ZAP	146.31	ETS	205.02	ZAE	162.17	ETE	295.89	ZAC	68.87	ETC	283.38	LVI	-2.78

PLANETOCENTRIC CONIC

C3	16.795	VHL	4.098	DLA	24.37	RAL	36.46	RAD	6641.4	VEL	11.697	PTH	6.73	VHP	3.891	DPA	1.62	RAP	45.26	ECC	1.2764

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 27 5	3592.37	-47.28	136.79	273.75	96.08	13 26 57	2592.4	-39.45	105.07
60.00	12 35 25	3570.14	-40.30	135.30	274.26	89.94	13 34 55	2570.1	-35.91	105.10
70.00	12 49 20	3529.15	-33.80	131.61	273.89	84.78	13 48 9	2529.1	-32.42	102.96
80.00	13 16 52	3442.75	-28.53	124.29	273.11	80.79	14 14 15	2442.7	-29.49	96.90
90.00	14 17 21	3247.41	-26.25	109.48	272.65	79.09	15 11 29	2247.4	-28.20	82.65
100.00	15 59 44	2917.22	-28.53	85.65	273.11	80.79	16 48 21	1917.2	-29.49	58.27
110.00	17 48 46	2575.97	-33.80	60.53	273.89	84.78	18 31 42	1576.0	-32.42	31.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4898	TRA	-1.1086	TC3	.9376	BAU	.3099	SGT	1988.7	SGR	1068.2	SG3	866.2	ST	42.7	SR	11.4	SS	62.5
RDE	-.0789	RRA	.4298	RC3	-1.0131	FAU	.18647	RRT	-.7947	RRF	.8988	RTF	-.8637	CRT	-.1340	CRS	.0658	CST	.9783
FDE	2.4057	FRA	3.3935	FC3	-9.6122	BSP	3736	SG8	2256.5	R23	-.2384	R13	.9009	LSA	75.3	MSA	13.4	SSA	1.7
BDE	.4961	BRA	1.1890	BC3	1.3804	FSP	1379	SG1	2177.8	SG2	591.0	THA	154.95	EL1	42.8	EL2	11.3	ALF	177.80

LAUNCH DATE JUL 17 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 438.392 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.139	GAL	-2.27	AZL	88.77	HCA	140.21	SMA	205.36	ECC	.26242	INC	1.2281	V1	29.302
RP	229.28	LAP	.79	LOP	74.49	VP	22.614	GAP	13.69	AZP	90.94	TAL	349.05	TAP	129.25	RCA	151.47	APO	259.24	V2	23.988
RC	139.847	GL	10.04	GP	-15.30	ZAL	107.31	ZAP	145.03	ETS	204.93	ZAE	161.93	ETE	292.29	ZAC	68.28	ETC	283.45	LVI	-2.21

PLANETOCENTRIC CONIC

C3	16.587	VHL	4.073	DLA	24.93	RAL	36.04	RAD	6641.3	VEL	11.689	PTH	6.72	VHP	3.804	DPA	.98	RAP	45.35	ECC	1.2730

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 22 43	3601.64	-47.34	137.68	273.58	95.40	13 22 44	2601.6	-39.76	105.75
60.00	12 30 0	3582.22	-40.29	136.33	273.98	89.25	13 29 42	2582.2	-36.18	106.01
70.00	12 42 19	3545.94	-33.69	132.91	273.49	84.02	13 41 24	2545.9	-32.64	104.22
80.00	13 7 27	3467.06	-28.25	126.04	272.60	79.91	14 5 14	2467.1	-29.62	98.70
90.00	14 6 10	3277.42	-25.85	111.59	272.07	78.11	15 0 47	2277.4	-28.26	84.84
100.00	15 50 19	2941.53	-28.25	87.41	272.60	79.91	16 39 20	1941.5	-29.62	60.07
110.00	17 41 45	2592.76	-33.69	61.82	273.49	84.02	18 24 58	1592.8	-32.64	33.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4958	TRA	-1.0913	TC3	.9241	BAU	.3169	SGT	1979.6	SGR	1126.3	SG3	907.0	ST	43.2	SR	11.0	SS	65.2
RDE	-.0498	RRA	.4446	RC3	-1.0898	FAU	.19388	RRT	-.8015	RRF	.9127	RTF	-.8700	CRT	-.3002	CRS	-.1027	CST	.9779
FDE	2.5692	FRA	3.4830	FC3	-10.1190	BSP	3830	SG8	2277.6	R23	-.2513	R13	.9033	LSA	77.9	MSA	13.1	SSA	1.8
BDE	.4983	BRA	1.1783	BC3	1.4288	FSP	1456	SG1	2195.1	SG2	607.4	THA	153.28	EL1	43.3	EL2	10.5	ALF	175.35

LAUNCH DATE JUL 17 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 442.092 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.133	GAL	-2.24	AZL	88.70	HCA	141.24	SMA	204.81	ECC	.26039	INC	1.3032	V1	29.302
RP	229.67	LAP	.82	LOP	75.52	VP	22.533	GAP	13.42	AZP	91.02	TAL	349.19	TAP	130.38	RCA	151.48	APO	258.14	V2	23.947
RC	142.641	GL	10.72	GP	-15.96	ZAL	107.10	ZAP	143.72	ETS	204.85	ZAE	161.60	ETE	288.63	ZAC	67.66	ETC	283.53	LVI	-1.62

PLANETOCENTRIC CONIC

C3	16.401	VHL	4.050	DLA	25.51	RAL	35.62	RAD	6641.2	VEL	11.681	PTH	6.72	VHP	3.722	DPA	.30	RAP	45.42	ECC	1.2699

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 18 9	3611.85	-47.40	138.66	273.46	94.65	13 18 21	2611.8	-40.09	106.50
60.00	12 24 18	3595.48	-40.28	137.45	273.73	88.48	13 24 13	2595.5	-36.47	107.01
70.00	12 34 50	3564.45	-33.55	134.33	273.12	83.19	13 34 14	2564.4	-32.86	105.61
80.00	12 57 8	3494.42	-27.91	128.00	272.09	78.93	13 55 23	2494.4	-29.73	100.72
90.00	13 53 35	3312.08	-25.34	114.00	271.48	77.00	14 48 48	2312.1	-28.28	87.37
100.00	15 40 0	2968.90	-27.91	89.37	272.09	78.93	16 29 29	1968.9	-29.73	62.09
110.00	17 34 16	2611.27	-33.55	63.25	273.12	83.19	18 17 47	1611.3	-32.86	34.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4979	TRA	-1.0699	TC3	.9155	BAU	.3260	SGT	1964.3	SGR	1192.2	SG3	948.8	ST	43.3	SR	11.0	SS	68.1
RDE	-.0184	RRA	.4600	RC3	-1.1717	FAU	.20154	RRT	-.8090	RRF	.9250	RTF	-.8578	CRT	-.4789	CRS	-.2894	CST	.9770
FDE	2.7421	FRA	3.5686	FC3	-10.6383	BSP	3867	SG8	2297.7	R23	-.2583	R13	.9075	LSA	80.4	MSA	12.8	SSA	1.8
BDE	.4982	BRA	1.1645	BC3	1.4870	FSP	1529	SG1	2211.9	SG2	622.3	THA	151.37	EL1	43.6	EL2	9.6	ALF	172.72

LAUNCH DATE JUL 17 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 445.802 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 33.108 GAL -2.20 AZL 88.62 HCA 142.26 SMA 204.30 ECC .25848 INC 1.3815 V1 29.302
RP 230.05 LAP .85 LOP 76.55 VP 22.454 GAP 13.15 AZP 91.09 TAL 349.24 TAP 131.50 RCA 151.49 APO 257.11 V2 23.907
RC 145.456 GL 11.42 GP -16.66 ZAL 106.90 ZAP 142.38 ETS 204.77 ZAE 161.19 ETE 284.93 ZAC 67.01 ETC 283.61 LVI -1.00

PLANETOCENTRIC CONIC

C3 16.237 VHL 4.029 DLA 26.11 RAL 35.19 RAD 6641.1 VEL 11.674 PTH 6.71 VHP 3.643 DPA -.42 RAP 45.48 ECC 1.2672

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 13 24	3623.05	-47.46	139.73	273.40	93.82	13 13 47	2623.1	-40.45	107.34
60.00	12 18 17	3610.02	-40.24	138.69	273.52	87.64	13 18 28	2610.0	-36.78	108.12
70.00	12 26 49	3584.87	-33.37	135.90	272.77	82.28	13 26 34	2584.9	-33.09	107.16
80.00	12 45 44	3525.50	-27.48	130.21	271.57	77.84	13 44 29	2525.5	-29.81	103.03
90.00	13 39 9	3352.96	-24.68	116.81	270.84	75.74	14 35 1	2353.0	-28.23	90.36
100.00	15 28 36	2999.97	-27.48	91.58	271.57	77.84	16 18 36	2000.0	-29.81	64.40
110.00	17 26 16	2631.69	-33.37	64.82	272.77	82.28	18 10 7	1631.7	-33.09	36.08

DIFFERENTIAL CORRECTIONS

TDE -.4981 TRA-1.0463 TC3 .9040 BAU .3364
RDE .0150 RRA .4761 RC3-1.2588 FAU .20937
FDE 2.9245 FRA 3.6512 FC-11.1633 BSP 3904
BDE .4984 BRA 1.1495 BC3 1.5498 FSP 1605

MID-COURSE EXECUTION ACCURACY

SGT 1943.7 SGR 1264.1 SG3 991.4
RRT -.8154 RRF .9358 RTF -.8555
SGB 2318.6 R23 -.2622 R13 .9124
SG1 2229.0 SG2 638.2 THA 149.28

ORBIT DETERMINATION ACCURACY

ST 43.3 SR 11.5 SS 71.0
CRT -.6460 CRS -.4727 CST .9761
LSA 83.0 MSA 12.5 SSA 1.7
EL1 43.9 EL2 8.6 ALF 169.90

LAUNCH DATE JUL 17 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 449.520 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 33.085 GAL -2.17 AZL 88.54 HCA 143.28 SMA 203.82 ECC .25667 INC 1.4633 V1 29.302
RP 230.44 LAP .87 LOP 77.57 VP 22.377 GAP 12.88 AZP 91.17 TAL 349.33 TAP 132.61 RCA 151.51 APO 256.14 V2 23.867
RC 148.289 GL 12.15 GP -17.39 ZAL 106.70 ZAP 141.01 ETS 204.69 ZAE 160.68 ETE 281.25 ZAC 66.34 ETC 283.71 LVI -.35

PLANETOCENTRIC CONIC

C3 16.093 VHL 4.012 DLA 26.75 RAL 34.76 RAD 6641.0 VEL 11.668 PTH 6.70 VHP 3.569 DPA -1.18 RAP 45.52 ECC 1.2649

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 8 25	3635.31	-47.51	140.91	273.38	92.91	13 9 0	2635.3	-40.83	108.26
60.00	12 11 57	3625.92	-40.19	140.04	273.35	86.73	13 12 22	2625.9	-37.11	109.35
70.00	12 18 13	3607.43	-33.15	137.62	272.43	81.28	13 18 20	2607.4	-33.32	108.88
80.00	12 32 55	3561.25	-26.94	132.73	271.03	76.62	13 32 16	2561.2	-29.86	105.68
90.00	13 21 54	3403.00	-23.80	120.21	270.12	74.26	14 18 37	2403.0	-28.08	94.01
100.00	15 15 47	3035.72	-26.94	94.10	271.03	76.62	16 6 23	2035.7	-29.86	67.05
110.00	17 17 39	2654.25	-33.15	66.54	272.43	81.28	18 1 53	1654.3	-33.32	37.80

DIFFERENTIAL CORRECTIONS

TDE -.4960 TRA-1.0209 TC3 .8866 BAU .3475
RDE .0506 RRA .4926 RC3-1.3500 FAU .21714
FDE 3.1145 FRA 3.7268 FC-11.6811 BSP 3935
BDE .4986 BRA 1.1336 BC3 1.6151 FSP 1681

MID-COURSE EXECUTION ACCURACY

SGT 1916.9 SGR 1341.4 SG3 1033.8
RRT -.8200 RRF .9452 RTF -.8525
SGB 2339.6 R23 -.2637 R13 .9177
SG1 2245.9 SG2 655.3 THA 146.99

ORBIT DETERMINATION ACCURACY

ST 43.1 SR 12.5 SS 74.0
CRT -.7805 CRS -.6290 CST .9748
LSA 85.7 MSA 12.3 SSA 1.7
EL1 44.2 EL2 7.6 ALF 166.88

LAUNCH DATE JUL 17 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 453.246 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 33.063 GAL -2.15 AZL 88.45 HCA 144.30 SMA 203.37 ECC .25497 INC 1.5487 V1 29.302
RP 230.82 LAP .90 LOP 78.59 VP 22.302 GAP 12.61 AZP 91.26 TAL 349.41 TAP 133.71 RCA 151.52 APO 255.22 V2 23.827
RC 151.140 GL 12.91 GP -18.16 ZAL 106.51 ZAP 139.60 ETS 204.60 ZAE 160.06 ETE 277.60 ZAC 65.63 ETC 283.81 LVI .32

PLANETOCENTRIC CONIC

C3 15.970 VHL 3.996 DLA 27.43 RAL 34.32 RAD 6641.0 VEL 11.662 PTH 6.70 VHP 3.498 DPA -1.98 RAP 45.55 ECC 1.2628

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 3 11	3648.68	-47.55	142.21	273.41	91.92	13 4 0	2648.7	-41.23	109.29
60.00	12 5 12	3643.28	-40.11	141.51	273.20	85.73	13 5 56	2643.3	-37.44	110.70
70.00	12 8 53	3632.43	-32.88	139.52	272.09	80.19	13 9 26	2632.4	-33.54	110.80
80.00	12 18 11	3603.20	-26.25	135.65	270.43	75.23	13 18 15	2603.2	-29.83	108.80
90.00	12 59 41	3469.06	-22.51	124.62	269.24	72.42	13 57 30	2469.1	-27.71	98.81
100.00	15 1 3	3077.67	-26.25	97.02	270.43	75.23	15 52 21	2077.7	-29.83	70.17
110.00	17 8 20	2679.25	-32.88	68.44	272.09	80.19	17 52 59	1679.2	-33.54	39.72

DIFFERENTIAL CORRECTIONS

TDE -.4982 TRA -.9891 TC3 .8797 BAU .3620
RDE .0883 RRA .5090 RC3-1.4495 FAU .22549
FDE 3.3091 FRA 3.7893 FC-12.2235 BSP 3901
BDE .4961 BRA 1.1123 BC3 1.6955 FSP 1747

MID-COURSE EXECUTION ACCURACY

SGT 1880.6 SGR 1426.2 SG3 1077.1
RRT -.8264 RRF .9534 RTF -.8617
SGB 2360.2 R23 -.2575 R13 .9249
SG1 2264.0 SG2 667.0 THA 144.36

ORBIT DETERMINATION ACCURACY

ST 42.4 SR 14.0 SS 77.0
CRT -.8753 CRS -.7470 CST .9729
LSA 88.2 MSA 12.1 SSA 1.7
EL1 44.2 EL2 6.5 ALF 163.56

LAUNCH DATE JUL 17 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 456.978 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 33.043 GAL -2.12 AZL 88.36 HCA 145.32 SMA 202.95 ECC .25337 INC 1.6381 V1 29.302
RP 231.20 LAP .93 LOP 79.60 VP 22.229 GAP 12.34 AZP 91.35 TAL 349.49 TAP 134.80 RCA 151.53 APO 254.37 V2 23.787
RC 154.008 GL 13.71 GP -18.97 ZAL 106.33 ZAP 138.16 ETS 204.51 ZAE 159.34 ETE 274.06 ZAC 64.89 ETC 283.93 LVI 1.03

PLANETOCENTRIC CONIC

C3 15.870 VHL 3.984 DLA 28.13 RAL 33.88 RAD 6640.9 VEL 11.658 PTH 6.70 VHP 3.432 DPA -2.83 RAP 45.56 ECC 1.2612

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 57 41	3663.26	-47.57	143.61	273.51	90.83	12 58 44	2663.3	-41.67	110.42
60.00	11 58 3	3662.29	-40.00	143.11	273.09	84.65	12 59 5	2662.3	-37.79	112.20
70.00	11 58 43	3660.29	-32.54	141.62	271.76	78.99	12 59 44	2660.3	-33.74	112.95
80.00	12 0 38	3654.31	-25.31	139.16	269.75	73.61	13 1 32	2654.3	-29.69	112.59
90.00	12 22 25	3583.80	-19.96	132.06	267.82	69.54	13 22 8	2583.8	-26.63	107.03
100.00	14 43 29	3128.79	-25.31	100.53	269.75	73.61	15 35 38	2128.8	-29.69	73.96
110.00	16 58 10	2707.11	-32.54	70.54	271.76	78.99	17 43 17	1707.1	-33.74	41.87

DIFFERENTIAL CORRECTIONS

TDE -.4921 TRA -.9696 TC3 .8334 BAU .3730
RDE .1312 RRA .5282 RC3-1.5482 FAU .23292
FDE 3.5326 FRA 3.8648 FC-12.7066 BSP 4022
BDE .5093 BRA 1.1041 BC3 1.7583 FSP 1833

MID-COURSE EXECUTION ACCURACY

SGT 1855.3 SGR 1516.3 SG3 1120.0
RRT -.8228 RRF .9603 RTF -.8434
SGB 2396.1 R23 -.2604 R13 .9291
SG1 2292.4 SG2 697.5 THA 141.93

ORBIT DETERMINATION ACCURACY

ST 42.6 SR 16.1 SS 80.5
CRT -.9357 CRS -.8340 CST .9722
LSA 91.7 MSA 11.9 SSA 1.7
EL1 45.2 EL2 5.4 ALF 160.24

LAUNCH DATE JUL 17 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 460.717 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.023	GAL	-2.10	AZL	88.27	HCA	146.35	SMA	202.86	ECC	.25186	INC	1.7320	V1	29.302
RP	231.58	LAP	.96	LOP	80.62	VP	22.158	GAP	12.08	AZP	91.44	TAL	349.56	TAP	135.09	RCA	151.54	APO	253.57	V2	23.748
RC	156.890	GL	14.54	GP	-19.82	ZAL	106.15	ZAP	136.68	ETS	204.42	ZAE	158.51	ETE	270.62	ZAC	64.12	ETC	284.05	LVI	1.76

PLANETOCENTRIC CONIC

C3	15.790	VHL	3.974	DLA	28.87	RAL	33.44	RAD	6640.9	VEL	11.655	PTH	6.69	VHP	3.370	DPA	-3.73	RAP	45.87	ECC	1.2599

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 52	3679.09	-47.58	148.15	273.65	89.65	12 53 11	2679.1	-42.12	111.67
60.00	11 50 23	3683.05	-39.86	144.86	273.01	83.47	12 51 46	2683.0	-38.15	113.84
70.00	11 47 32	3691.49	-32.11	143.95	271.42	77.68	12 49 3	2691.5	-33.93	115.37
80.00	11 38 6	3721.16	-23.95	143.66	268.88	71.62	12 40 7	2721.2	-29.32	117.53
83.93	11 4 42	3828.62	-18.30	149.31	266.61	67.27	12 8 31	2828.6	-26.08	124.84
100.00	14 20 58	3195.63	-23.95	105.03	268.88	71.62	15 14 13	2195.6	-29.32	78.89
110.00	16 46 58	2738.31	-32.11	72.87	271.42	77.68	17 32 36	1738.3	-33.93	44.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4876	TRA	-.9419	TC3	.7974	BAU	.3876	SGT	1816.9	SGR	1613.5	SG3	1162.4	ST	42.2	SR	18.7	SS	83.9
RDE	.1766	RRA	.5467	RC3	-1.6541	FAU	.24064	RRT	-.8215	RRF	.9663	RTF	-.8374	CRT	-.9703	CRS	-.8904	CST	.9706
FDE	3.7577	FRA	3.9218	FC	-13.1938	BSP	4080	SGB	2429.9	R23	-.2543	R13	.9354	LSA	95.0	MSA	11.7	SSA	1.6
BDE	.5186	BRA	1.0891	BC3	1.8363	FSP	1912	SG1	2320.7	SG2	720.3	THA	139.12	EL1	45.9	EL2	4.1	ALF	156.55

LAUNCH DATE JUL 17 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 464.461 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	33.005	GAL	-2.07	AZL	88.17	HCA	147.33	SMA	202.18	ECC	.25044	INC	1.8305	V1	29.302
RP	231.95	LAP	.99	LOP	81.63	VP	22.089	GAP	11.82	AZP	91.54	TAL	349.62	TAP	136.96	RCA	151.54	APO	252.81	V2	23.708
RC	159.785	GL	15.41	GP	-20.71	ZAL	105.98	ZAP	135.17	ETS	204.31	ZAE	157.57	ETE	267.32	ZAC	63.32	ETC	284.19	LVI	2.53

PLANETOCENTRIC CONIC

C3	15.732	VHL	3.966	DLA	29.65	RAL	32.98	RAD	6640.9	VEL	11.652	PTH	6.69	VHP	3.312	DPA	-4.67	RAP	45.56	ECC	1.2589

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 45 43	3696.30	-47.55	146.81	273.84	88.37	12 47 19	2696.3	-42.60	113.04
60.00	11 42 10	3705.77	-39.67	146.76	272.94	82.20	12 43 55	2705.8	-38.51	115.67
70.00	11 35 2	3726.81	-31.56	146.56	271.04	76.22	12 37 9	2726.8	-34.07	118.11
80.00	11 1 27	3832.78	-21.37	150.94	267.44	68.63	12 5 20	2832.8	-28.27	125.65
80.70	10 37 17	3910.07	-18.78	155.54	266.31	66.63	11 42 27	2910.1	-26.78	131.04
100.00	13 44 19	3307.25	-21.37	112.31	267.44	68.63	14 39 26	2307.2	-28.27	87.02
110.00	16 34 29	2773.63	-31.56	75.48	271.04	76.22	17 20 42	1773.6	-34.07	47.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4819	TRA	-.9135	TC3	.7548	BAU	.4037	SGT	1774.4	SGR	1717.8	SG3	1204.1	ST	41.6	SR	21.7	SS	87.4
RDE	.2259	RRA	.5658	RC3	-1.7648	FAU	.24821	RRT	-.8180	RRF	.9715	RTF	-.8299	CRT	-.9883	CRS	-.9273	CST	.9688
FDE	3.9928	FRA	3.9697	FC	-13.6590	BSP	4133	SGB	2469.7	R23	-.2454	R13	.9420	LSA	98.5	MSA	11.6	SSA	1.6
BDE	.5322	BRA	1.0745	BC3	1.9194	FSP	1984	SG1	2354.8	SG2	744.6	THA	136.13	EL1	46.8	EL2	2.8	ALF	152.65

LAUNCH DATE JUL 17 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 468.211 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.988	GAL	-2.05	AZL	88.07	HCA	148.34	SMA	201.83	ECC	.24911	INC	1.9344	V1	29.302
RP	232.33	LAP	1.02	LOP	82.63	VP	22.021	GAP	11.56	AZP	91.65	TAL	349.68	TAP	138.02	RCA	151.55	APO	252.11	V2	23.670
RC	162.693	GL	16.31	GP	-21.64	ZAL	105.82	ZAP	133.63	ETS	204.19	ZAE	156.53	ETE	264.19	ZAC	62.48	ETC	284.34	LVI	3.33

PLANETOCENTRIC CONIC

C3	15.697	VHL	3.962	DLA	30.47	RAL	32.52	RAD	6640.9	VEL	11.651	PTH	6.69	VHP	3.259	DPA	-5.67	RAP	45.54	ECC	1.2583

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 39 10	3714.98	-47.50	148.61	274.08	86.98	12 41 5	2715.0	-43.10	114.56
60.00	11 33 17	3730.70	-39.41	148.84	272.89	80.81	12 35 27	2730.7	-38.87	117.69
70.00	11 20 51	3767.39	-30.87	149.52	270.61	74.60	12 23 39	2767.4	-34.15	121.28
78.16	10 16 18	3970.53	-19.29	160.28	266.04	65.95	11 22 29	2970.5	-27.51	135.74
78.16	10 16 18	3970.53	-19.29	160.28	266.04	65.95	11 22 29	2970.5	-27.51	135.74
78.16	10 16 18	3970.53	-19.29	160.28	266.04	65.95	11 22 29	2970.5	-27.51	135.74
110.00	16 20 18	2814.20	-30.87	78.44	270.61	74.60	17 7 12	1814.2	-34.15	50.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4746	TRA	-.8843	TC3	.7048	BAU	.4211	SGT	1727.6	SGR	1829.1	SG3	1244.5	ST	40.9	SR	25.1	SS	91.0
RDE	.2798	RRA	.5856	RC3	-1.8790	FAU	.25542	RRT	-.8124	RRF	.9759	RTF	-.8408	CRT	-.9962	CRS	-.9514	CST	.9666
FDE	4.2407	FRA	4.0089	FC	-14.0876	BSP	4206	SGB	2516.0	R23	-.2338	R13	.9487	LSA	102.2	MSA	11.5	SSA	1.5
BDE	.5510	BRA	1.0606	BC3	2.0068	FSP	2059	SG1	2395.5	SG2	769.2	THA	132.99	EL1	48.0	EL2	1.9	ALF	148.48

LAUNCH DATE JUL 17 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 471.968 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.972	GAL	-2.03	AZL	87.98	HCA	149.34	SMA	201.50	ECC	.24786	INC	2.0439	V1	29.302
RP	232.70	LAP	1.04	LOP	83.63	VP	21.955	GAP	11.30	AZP	91.78	TAL	349.73	TAP	138.07	RCA	151.56	APO	251.48	V2	23.631
RC	165.610	GL	17.26	GP	-22.62	ZAL	105.65	ZAP	132.09	ETS	204.06	ZAE	155.37	ETE	261.22	ZAC	61.61	ETC	284.51	LVI	4.17

PLANETOCENTRIC CONIC

C3	15.685	VHL	3.960	DLA	31.33	RAL	32.04	RAD	6640.9	VEL	11.650	PTH	6.69	VHP	3.210	DPA	-6.71	RAP	45.52	ECC	1.2581

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 32 10	3735.27	-47.41	150.57	274.37	85.48	12 34 26	2735.3	-43.61	116.24
60.00	11 23 37	3758.12	-39.09	151.10	272.84	79.31	12 26 15	2758.1	-39.22	119.93
70.00	11 4 20	3815.13	-29.95	152.94	270.09	72.77	12 7 55	2815.1	-34.13	125.01
75.92	9 58 21	4021.10	-19.80	164.33	265.80	65.21	11 5 22	3021.1	-28.28	139.75
75.92	9 58 21	4021.10	-19.80	164.33	265.80	65.21	11 5 22	3021.1	-28.28	139.75
75.92	9 58 21	4021.10	-19.80	164.33	265.80	65.21	11 5 22	3021.1	-28.28	139.75
110.00	16 3 46	2861.95	-29.95	81.86	270.09	72.77	16 51 28	1862.0	-34.13	53.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4643	TRA	-.8531	TC3	.6517	BAU	.4409	SGT	1674.9	SGR	1948.4	SG3	1283.4	ST	40.0	SR	29.0	SS	94.6
RDE	.3380	RRA	.6050	RC3	-1.9991	FAU	.26258	RRT	-.8048	RRF	.9796	RTF	-.8102	CRT	-.9980	CRS	-.9671	CST	.9639
FDE	4.4931	FRA	4.0312	FC	-14.4930	BSP	4281	SGB	2569.3	R23	-.2188	R13	.9556	LSA	106.1	MSA	11.5	SSA	1.5
BDE	.5744	BRA	1.0458	BC3	2.1026	FSP	2127	SG1	2444.1	SG2	792.5	THA	129.66	EL1	49.4	EL2	1.5	ALF	144.08

LAUNCH DATE JUL 17 1973 FLIGHT TIME 198.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 475.724 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.957	GAL	-2.02	AZL	87.84	HCA	150.34	SMA	201.20	ECC	.24668	INC	2.1597	V1	29.302
RP	233.07	LAP	1.07	LOP	84.63	VP	21.891	GAP	11.04	AZP	91.68	TAL	349.78	TAP	140.11	RCA	151.56	APO	250.83	V2	23.593
RC	168.537	GL	18.26	GP	-23.64	ZAL	105.50	ZAP	130.45	ETS	203.91	ZAE	154.12	ETE	258.42	ZAC	60.70	ETC	284.69	LVI	5.05

PLANETOCENTRIC CONIC

C3	15.698	VHL	3.962	DLA	32.23	RAL	31.55	RAD	6640.9	VEL	11.651	PTH	6.69	VHP	3.165	DPA	-7.81	RAP	45.49	ECC	1.2584

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 24 40	3757.33	-47.27	152.68	274.69	83.86	12 27 18	2757.3	-44.14	118.09
60.00	11 13 1	3788.44	-38.68	153.57	272.78	77.68	12 16 9	2788.4	-39.56	122.44
70.00	10 44 11	3873.75	-28.70	157.04	269.39	70.64	11 48 45	2873.7	-33.93	129.57
73.85	9 42 14	4065.63	-20.33	167.97	265.59	64.43	10 49 59	3065.6	-29.07	143.36
73.85	9 42 14	4065.63	-20.33	167.97	265.59	64.43	10 49 59	3065.6	-29.07	143.36
73.85	9 42 14	4065.63	-20.33	167.97	265.59	64.43	10 49 59	3065.6	-29.07	143.36
110.00	15 43 38	2920.57	-28.70	85.96	269.39	70.64	16 32 18	1920.6	-33.93	58.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4497	TRA	-.8197	TC3	.5951	BAU	.4627	SGT	1615.3	SGR	2074.9	SG3	1319.8	ST	38.7	SR	33.2	SS	98.2
RDE	.4010	RRA	.6243	RC3	-2.1228	FAU	.26931	RRT	-.7955	RRF	.9828	RTF	-.7981	CRT	-.9959	CRS	-.9774	CST	.9604
FDE	4.7498	FRA	4.0384	FC	-14.8519	BSP	4352	SGB	2629.5	R23	-.2009	R13	.9624	LSA	110.1	MSA	11.5	SSA	1.4
BDE	.6026	BRA	1.0304	BC3	2.2046	FSP	2189	SG1	2501.0	SG2	812.0	THA	126.18	EL1	51.0	EL2	2.3	ALF	139.40

LAUNCH DATE JUL 17 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 479.487 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.942	GAL	-2.00	AZL	87.72	HCA	151.33	SMA	200.91	ECC	.24558	INC	2.2824	V1	29.302
RP	233.44	LAP	1.09	LOP	85.63	VP	21.828	GAP	10.79	AZP	92.00	TAL	349.81	TAP	141.15	RCA	151.57	APO	250.25	V2	23.554
RC	171.472	GL	19.30	GP	-24.72	ZAL	105.34	ZAP	128.81	ETS	203.74	ZAE	152.76	ETE	255.80	ZAC	59.75	ETC	284.89	LVI	5.97

PLANETOCENTRIC CONIC

C3	15.737	VHL	3.967	DLA	33.19	RAL	31.04	RAD	6640.9	VEL	11.653	PTH	6.69	VHP	3.126	DPA	-8.97	RAP	45.45	ECC	1.2590

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 16 35	3781.32	-47.07	154.97	275.05	82.11	12 19 36	2781.3	-44.68	120.15
60.00	11 1 17	3822.16	-38.16	156.28	272.70	75.90	12 4 59	2822.2	-39.86	125.26
70.00	10 17 14	3952.81	-26.80	162.40	268.32	67.99	11 23 6	2952.8	-33.37	135.67
71.86	9 27 21	4106.00	-20.87	171.35	265.41	63.59	10 35 47	3106.0	-29.90	146.71
71.86	9 27 21	4106.00	-20.87	171.35	265.41	63.59	10 35 47	3106.0	-29.90	146.71
71.86	9 27 21	4106.00	-20.87	171.35	265.41	63.59	10 35 47	3106.0	-29.90	146.71
110.00	15 16 40	2999.63	-26.80	91.32	268.32	67.99	16 6 40	1999.6	-33.37	64.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4284	TRA	-.7805	TC3	.5453	BAU	.4680	SGT	1544.1	SGR	2209.9	SG3	1353.9	ST	37.0	SR	37.8	SS	101.7
RDE	.4685	RRA	.6416	RC3	-2.2546	FAU	.27614	RRT	-.7865	RRF	.9854	RTF	-.7862	CRT	-.9911	CRS	-.9843	CST	.9554
FDE	5.0041	FRA	4.0163	FC	-15.1907	BSP	4378	SGB	2695.9	R23	-.1791	R13	.9692	LSA	114.0	MSA	11.4	SSA	1.3
BDE	.6348	BRA	1.0104	BC3	2.3196	FSP	2228	SG1	2568.0	SG2	820.6	THA	122.52	EL1	52.7	EL2	3.5	ALF	134.36

LAUNCH DATE JUL 17 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 483.251 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.929	GAL	-1.99	AZL	87.59	HCA	152.32	SMA	200.64	ECC	.24456	INC	2.4128	V1	29.302
RP	233.80	LAP	1.12	LOP	86.62	VP	21.767	GAP	10.53	AZP	92.14	TAL	349.84	TAP	142.17	RCA	151.57	APO	249.71	V2	23.517
RC	174.413	GL	20.39	GP	-25.84	ZAL	105.19	ZAP	127.14	ETS	203.54	ZAE	151.30	ETE	253.36	ZAC	58.76	ETC	285.10	LVI	6.93

PLANETOCENTRIC CONIC

C3	15.806	VHL	3.976	DLA	34.19	RAL	30.52	RAD	6640.9	VEL	11.656	PTH	6.69	VHP	3.091	DPA	-10.17	RAP	45.41	ECC	1.2601

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 7 49	3807.52	-46.80	157.44	275.43	80.22	12 11 17	2807.5	-45.22	122.45
60.00	10 48 9	3860.09	-37.48	159.28	272.56	73.97	11 52 29	2860.1	-40.10	128.46
69.93	9 13 22	4143.44	-21.42	174.56	265.26	62.69	10 22 26	3143.4	-30.77	149.90
69.93	9 13 22	4143.44	-21.42	174.56	265.26	62.69	10 22 26	3143.4	-30.77	149.90
69.93	9 13 22	4143.44	-21.42	174.56	265.26	62.69	10 22 26	3143.4	-30.77	149.90
69.93	9 13 22	4143.44	-21.42	174.56	265.26	62.69	10 22 26	3143.4	-30.77	149.90
69.93	9 13 22	4143.44	-21.42	174.56	265.26	62.69	10 22 26	3143.4	-30.77	149.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4226	TRA	-.7602	TC3	.4391	BAU	.5097	SGT	1499.0	SGR	2350.9	SG3	1384.1	ST	36.4	SR	43.3	SS	106.0
RDE	.5488	RRA	.6656	RC3	-2.3717	FAU	.28024	RRT	-.7594	RRF	.9877	RTF	-.7582	CRT	-.9854	CRS	-.9892	CST	.9520
FDE	5.3064	FRA	4.0250	FC	-15.3494	BSP	4632	SGB	2788.2	R23	-.1652	R13	.9739	LSA	119.6	MSA	11.5	SSA	1.2
BDE	.6927	BRA	1.0104	BC3	2.4120	FSP	2314	SG1	2650.6	SG2	865.0	THA	119.25	EL1	56.3	EL2	4.8	ALF	129.95

LAUNCH DATE JUL 17 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 487.020 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.917	GAL	-1.98	AZL	87.45	HCA	153.31	SMA	200.39	ECC	.24360	INC	2.5516	V1	29.302
RP	234.17	LAP	1.15	LOP	87.61	VP	21.708	GAP	10.28	AZP	92.28	TAL	349.87	TAP	143.18	RCA	151.58	APO	249.21	V2	23.479
RC	177.360	GL	21.55	GP	-27.01	ZAL	105.05	ZAP	125.45	ETS	203.32	ZAE	149.75	ETE	251.08	ZAC	57.72	ETC	285.33	LVI	7.93

PLANETOCENTRIC CONIC

C3	15.905	VHL	3.988	DLA	35.25	RAL	29.97	RAD	6641.0	VEL	11.660	PTH	6.70	VHP	3.062	DPA	-11.43	RAP	45.37	ECC	1.2618

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 58 15	3836.16	-46.43	160.11	275.82	78.20	12 2 11	2836.2	-45.75	125.00
60.00	10 33 9	3903.24	-36.62	162.62	272.32	71.85	11 38 13	2903.2	-40.26	132.12
68.02	9 0 4	4178.52	-21.99	177.63	265.15	61.72	10 9 42	3178.5	-31.66	152.96
68.02	9 0 4	4178.52	-21.99	177.63	265.15	61.72	10 9 42	3178.5	-31.66	152.96
68.02	9 0 4	4178.52	-21.99	177.63	265.15	61.72	10 9 42	3178.5	-31.66	152.96
68.02	9 0 4	4178.52	-21.99	177.63	265.15	61.72	10 9 42	3178.5	-31.66	152.96
68.02	9 0 4	4178.52	-21.99	177.63	265.15	61.72	10 9 42	3178.5	-31.66	152.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4029	TRA	-.7277	TC3	.3560	BAU	.5367	SGT	1433.3	SGR	2500.8	SG3	1410.5	ST	34.7	SR	49.1	SS	109.9
RDE	.6334	RRA	.6853	RC3	-2.4988	FAU	.28469	RRT	-.7354	RRF	.9896	RTF	-.7325	CRT	-.9774	CRS	-.9925	CST	.9458
FDE	5.5902	FRA	3.9885	FC	-15.4957	BSP	4796	SGB	2882.4	R23	-.1452	R13	.9790	LSA	124.8	MSA	11.6	SSA	1.2
BDE	.7507	BRA	.9995	BC3	2.5240	FSP	2369	SG1	2743.0	SG2	885.5	THA	115.73	EL1	59.8	EL2	6.0	ALF	125.10

LAUNCH DATE JUL 17 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 490.792 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.908	GAL	-1.97	AZL	87.30	HCA	154.30	SMA	200.16	ECC	.24271	INC	2.6997	V1	29.302
RP	234.53	LAP	1.17	LOP	88.60	VP	21.650	GAP	10.03	AZP	92.43	TAL	349.69	TAP	144.18	RCA	151.58	APO	248.74	V2	23.442
RC	180.313	GL	22.75	GP	-28.23	ZAL	104.90	ZAP	123.73	ETS	203.07	ZAE	148.11	ETE	248.95	ZAC	56.65	ETC	285.59	LVI	8.98

PLANETOCENTRIC CONIC

C3	16.039	VHL	4.005	DLA	36.37	RAL	29.39	RAD	6641.0	VEL	11.665	PTH	6.70	VHP	3.039	DPA	-12.75	RAP	45.33	ECC	1.2640

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 47 43	3867.60	-45.96	162.99	276.20	76.02	11 52 10	2867.6	-46.26	127.87
60.00	10 15 39	3953.43	-35.49	166.39	271.92	69.50	11 21 32	2953.4	-40.29	136.38
66.12	8 47 14	4211.85	-22.55	180.63	265.07	60.68	9 57 26	3211.9	-32.60	155.95
66.12	8 47 14	4211.85	-22.55	180.63	265.07	60.68	9 57 26	3211.9	-32.60	155.95
66.12	8 47 14	4211.85	-22.55	180.63	265.07	60.68	9 57 26	3211.9	-32.60	155.95
66.12	8 47 14	4211.85	-22.55	180.63	265.07	60.68	9 57 26	3211.9	-32.60	155.95
66.12	8 47 14	4211.85	-22.55	180.63	265.07	60.68	9 57 26	3211.9	-32.60	155.95

DIFFERENTIAL CORRECTIONS

TDE	-.3799	TRA	-.6944	TC3	.2672	BAU	.5661
RDE	.7264	RRA	.7036	RC3	-2.6264	FAU	.28832
FDE	5.8756	FRA	3.9282	FC	-15.5628	BSP	4964
BDE	.8197	BRA	.9886	BC3	2.6400	FSP	2408

MID-COURSE EXECUTION ACCURACY

SGT	1365.1	SGR	2658.6	SG3	1432.1
RRT	-.7047	RRF	.9913	RTF	-.7004
SGB	2988.6	R23	-.1251	R13	.9833
SG1	2848.6	SG2	904.0	THA	112.25

ORBIT DETERMINATION ACCURACY

ST	32.9	SR	55.3	SS	113.8
CRT	-.9875	CRS	-.9947	CST	.9376
LSA	130.2	MSA	11.7	SSA	1.1
EL1	64.0	EL2	7.2	ALF	120.32

LAUNCH DATE JUL 17 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 494.565 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.894	GAL	-1.96	AZL	87.14	HCA	155.28	SMA	199.95	ECC	.24188	INC	2.8584	V1	29.302
RP	234.89	LAP	1.20	LOP	89.58	VP	21.593	GAP	9.78	AZP	92.60	TAL	349.90	TAP	145.18	RCA	151.58	APO	248.31	V2	23.405
RC	183.270	GL	24.03	GP	-29.50	ZAL	104.75	ZAP	121.99	ETS	202.78	ZAE	146.39	ETE	246.97	ZAC	55.53	ETC	285.86	LVI	10.08

PLANETOCENTRIC CONIC

C3	16.210	VHL	4.026	DLA	37.54	RAL	28.78	RAD	6641.1	VEL	11.673	PTH	6.71	VHP	3.021	DPA	-14.13	RAP	45.30	ECC	1.2668

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 36 1	3902.29	-45.34	166.11	276.53	73.69	11 41 4	2902.3	-46.72	131.08
60.00	9 54 21	4013.99	-33.96	170.80	271.23	66.85	11 1 15	3014.0	-40.09	141.52
64.20	8 34 48	4243.69	-23.13	183.57	265.03	59.57	9 45 32	3243.7	-33.57	158.89
64.20	8 34 48	4243.69	-23.13	183.57	265.03	59.57	9 45 32	3243.7	-33.57	158.89
64.20	8 34 48	4243.69	-23.13	183.57	265.03	59.57	9 45 32	3243.7	-33.57	158.89
64.20	8 34 48	4243.69	-23.13	183.57	265.03	59.57	9 45 32	3243.7	-33.57	158.89
64.20	8 34 48	4243.69	-23.13	183.57	265.03	59.57	9 45 32	3243.7	-33.57	158.89

DIFFERENTIAL CORRECTIONS

TDE	-.3517	TRA	-.6602	TC3	.1753	BAU	.5978
RDE	.8280	RRA	.7205	RC3	-2.7529	FAU	.29098
FDE	6.1564	FRA	3.8446	FC	-15.5396	BSP	5156
BDE	.8996	BRA	.9773	BC3	2.7585	FSP	2440

MID-COURSE EXECUTION ACCURACY

SGT	1294.0	SGR	2824.0	SG3	1448.2
RRT	-.6663	RRF	.9926	RTF	-.6606
SGB	3106.3	R23	-.1054	R13	.9870
SG1	2967.5	SG2	918.2	THA	108.85

ORBIT DETERMINATION ACCURACY

ST	30.7	SR	62.1	SS	117.6
CRT	-.9544	CRS	-.9962	CST	.9260
LSA	136.0	MSA	11.8	SSA	1.0
EL1	68.8	EL2	8.3	ALF	115.65

LAUNCH DATE JUL 17 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 498.341 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.884	GAL	-1.96	AZL	86.97	HCA	156.26	SMA	199.74	ECC	.24110	INC	3.0287	V1	29.302
RP	235.24	LAP	1.22	LOP	90.57	VP	21.538	GAP	9.53	AZP	92.77	TAL	349.90	TAP	146.16	RCA	151.58	APO	247.90	V2	23.369
RC	186.232	GL	25.37	GP	-30.83	ZAL	104.59	ZAP	120.22	ETS	202.46	ZAE	144.59	ETE	245.11	ZAC	54.37	ETC	286.16	LVI	11.23

PLANETOCENTRIC CONIC

C3	16.424	VHL	4.053	DLA	38.79	RAL	28.13	RAD	6641.2	VEL	11.682	PTH	6.72	VHP	3.009	DPA	-15.56	RAP	45.28	ECC	1.2703

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 22 54	3940.84	-44.55	169.48	276.77	71.19	11 28 34	2940.8	-47.13	134.72
60.00	9 26 18	4092.88	-31.71	176.27	270.01	63.69	10 34 31	3092.9	-39.47	148.14
62.27	8 22 38	4274.45	-23.71	186.49	265.02	58.36	9 33 52	3274.5	-34.57	161.83
62.27	8 22 38	4274.45	-23.71	186.49	265.02	58.36	9 33 52	3274.5	-34.57	161.83
62.27	8 22 38	4274.45	-23.71	186.49	265.02	58.36	9 33 52	3274.5	-34.57	161.83
62.27	8 22 38	4274.45	-23.71	186.49	265.02	58.36	9 33 52	3274.5	-34.57	161.83
62.27	8 22 38	4274.45	-23.71	186.49	265.02	58.36	9 33 52	3274.5	-34.57	161.83

DIFFERENTIAL CORRECTIONS

TDE	-.3173	TRA	-.6247	TC3	.0816	BAU	.6324
RDE	.9387	RRA	.7347	RC3	-2.8788	FAU	.29271
FDE	6.4254	FRA	3.7320	FC	-15.4293	BSP	5348
BDE	.9909	BRA	.9644	BC3	2.8800	FSP	2483

MID-COURSE EXECUTION ACCURACY

SGT	1220.5	SGR	2997.0	SG3	1457.9
RRT	-.6178	RRF	.9938	RTF	-.6105
SGB	3235.9	R23	-.0869	R13	.9900
SG1	3100.1	SG2	927.8	THA	105.55

ORBIT DETERMINATION ACCURACY

ST	28.1	SR	69.4	SS	121.1
CRT	-.9363	CRS	-.9973	CST	.9090
LSA	141.9	MSA	11.9	SSA	.9
EL1	74.3	EL2	9.2	ALF	111.13

LAUNCH DATE JUL 17 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 502.119 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.874	GAL	-1.95	AZL	86.79	HCA	157.23	SMA	199.56	ECC	.24039	INC	3.2124	V1	29.302
RP	235.59	LAP	1.24	LOP	91.54	VP	21.485	GAP	9.28	AZP	92.96	TAL	349.90	TAP	147.13	RCA	151.59	APO	247.53	V2	23.332
RC	189.197	GL	26.79	GP	-32.22	ZAL	104.43	ZAP	118.45	ETS	202.10	ZAE	142.71	ETE	243.37	ZAC	53.16	ETC	286.49	LVI	12.43

PLANETOCENTRIC CONIC

C3	16.686	VHL	4.085	DLA	40.10	RAL	27.44	RAD	6641.3	VEL	11.693	PTH	6.73	VHP	3.005	DPA	-17.05	RAP	45.27	ECC	1.2746

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 7 57	3984.12	-43.53	173.15	276.87	68.52	11 14 21	2984.1	-47.43	138.86
60.00	8 36 28	4231.67	-27.16	185.21	267.04	59.00	9 46 59	3231.7	-37.40	159.34
60.30	8 10 38	4304.35	-24.29	189.40	265.05	57.06	9 22 22	3304.4	-35.61	164.78
60.30	8 10 38	4304.35	-24.29	189.40	265.05	57.06	9 22 22	3304.4	-35.61	164.78
60.30	8 10 38	4304.35	-24.29	189.40	265.05	57.06	9 22 22	3304.4	-35.61	164.78
60.30	8 10 38	4304.35	-24.29	189.40	265.05	57.06	9 22 22	3304.4	-35.61	164.78
60.30	8 10 38	4304.35	-24.29	189.40	265.05	57.06	9 22 22	3304.4	-35.61	164.78

DIFFERENTIAL CORRECTIONS

TDE	-.2822	TRA	-.5933	TC3	-.0256	BAU	.6678
RDE	1.0643	RRA	.7494	RC3	-2.9932	FAU	.29249
FDE	6.7041	FRA	3.6101	FC	-15.1751	BSP	5618
BDE	1.1011	BRA	.9558	BC3	2.9933	FSP	2472

MID-COURSE EXECUTION ACCURACY

SGT	1157.8	SGR	3177.6	SG3	1461.0
RRT	-.5530	RRF	.9948	RTF	-.5447
SGB	3381.9	R23	-.0703	R13	.9923
SG1	3247.5	SG2	943.9	THA	102.46

ORBIT DETERMINATION ACCURACY

ST	25.7	SR	77.5	SS	124.9
CRT	-.9120	CRS	-.9981	CST	.8857
LSA	148.7	MSA	12.1	SSA	.9
EL1	81.0	EL2	10.1	ALF	107.07

LAUNCH DATE JUL 17 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 505.898 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.865	GAL	-1.95	AZL	86.59	HCA	158.21	SMA	199.38	ECC	.23973	INC	3.4108	V1	29.302
RP	235.94	LAP	1.27	LOP	92.52	VP	21.432	GAP	9.04	AZP	93.17	TAL	349.89	TAP	148.10	RCA	151.59	APO	247.18	V2	23.297
RC	192.165	GL	28.29	GP	-33.66	ZAL	104.27	ZAP	116.68	ETS	201.69	ZAE	140.77	ETE	241.73	ZAC	51.91	ETC	286.85	LVI	13.68

PLANETOCENTRIC CONIC

C3	17.005	VHL	4.124	DLA	41.49	RAL	26.69	RAD	6641.5	VEL	11,706	PTH	6.74	VHP	3.008	DPA	-18.60	RAP	45.28	ECC	1.2799

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 50 35	4033.41	-42.22	177.16	276.74	65.64	10 57 48	3033.4	-47.57	143.62
58.28	7 58 43	4333.59	-24.86	192.32	265.11	55.65	9 10 57	3333.6	-36.68	167.78
58.28	7 58 43	4333.59	-24.86	192.32	265.11	55.65	9 10 57	3333.6	-36.68	167.78
58.28	7 58 43	4333.59	-24.86	192.32	265.11	55.65	9 10 57	3333.6	-36.68	167.78
58.28	7 58 43	4333.59	-24.86	192.32	265.11	55.65	9 10 57	3333.6	-36.68	167.78
58.28	7 58 43	4333.59	-24.86	192.32	265.11	55.65	9 10 57	3333.6	-36.68	167.78
58.28	7 58 43	4333.59	-24.86	192.32	265.11	55.65	9 10 57	3333.6	-36.68	167.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2392	TRA	-.5603	TC3	-.1311	BAU	.7062	SGT	1096.3	SGR	3364.7	SG3	1456.1	ST	22.8	SR	86.2	SS	128.2
RDE	1.2012	RRA	.7592	RC3	-3.1038	FAU	.29121	RRT	-.4720	RRF	.9956	RTF	-.4625	CRT	-.8737	CRS	-.9986	CST	.8478
FDE	6.9606	FRA	3.4522	FC	-14.8257	BSP	5883	SGB	3538.8	R23	-.0550	R13	.9941	LSA	155.7	MSA	12.2	SSA	.8
BDE	1.2248	BRA	.9436	BC3	3.1065	FSP	2468	SG1	3407.7	SG2	954.3	THA	99.50	EL1	88.5	EL2	10.8	ALF	103.21

LAUNCH DATE JUL 17 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 509.679 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.857	GAL	-1.95	AZL	86.37	HCA	159.18	SMA	199.22	ECC	.23912	INC	3.6261	V1	29.302
RP	236.29	LAP	1.29	LOP	93.49	VP	21.381	GAP	8.79	AZP	93.39	TAL	349.88	TAP	149.05	RCA	151.59	APO	246.86	V2	23.261
RC	195.134	GL	29.87	GP	-35.15	ZAL	104.09	ZAP	114.86	ETS	201.24	ZAE	138.76	ETE	240.19	ZAC	50.62	ETC	287.25	LVI	14.98

PLANETOCENTRIC CONIC

C3	17.389	VHL	4.170	DLA	42.95	RAL	25.87	RAD	6641.7	VEL	11.723	PTH	6.75	VHP	3.018	DPA	-20.20	RAP	45.30	ECC	1.2862

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 29 50	4090.86	-40.51	181.61	276.23	62.54	10 38 1	3090.9	-47.47	149.17
56.21	7 46 47	4362.39	-25.42	195.28	265.19	54.13	8 59 29	3362.4	-37.78	170.85
56.21	7 46 47	4362.39	-25.42	195.28	265.19	54.13	8 59 29	3362.4	-37.78	170.85
56.21	7 46 47	4362.39	-25.42	195.28	265.19	54.13	8 59 29	3362.4	-37.78	170.85
56.21	7 46 47	4362.39	-25.42	195.28	265.19	54.13	8 59 29	3362.4	-37.78	170.85
56.21	7 46 47	4362.39	-25.42	195.28	265.19	54.13	8 59 29	3362.4	-37.78	170.85
56.21	7 46 47	4362.39	-25.42	195.28	265.19	54.13	8 59 29	3362.4	-37.78	170.85

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1814	TRA	-.5195	TC3	-.2183	BAU	.7501	SGT	1022.9	SGR	3557.5	SG3	1442.4	ST	19.2	SR	95.0	SS	130.7
RDE	1.3458	RRA	.7586	RC3	-3.2192	FAU	.28975	RRT	-.3739	RRF	.9963	RTF	-.3625	CRT	-.8017	CRS	-.9990	CST	.7750
FDE	7.1683	FRA	3.2370	FC	-14.4261	BSP	6070	SGB	3701.6	R23	-.0412	R13	.9955	LSA	162.2	MSA	12.3	SSA	.7
BDE	1.3580	BRA	.9194	BC3	3.2266	FSP	2418	SG1	3579.5	SG2	942.9	THA	96.60	EL1	96.2	EL2	11.3	ALF	99.34

LAUNCH DATE JUL 17 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 513.458 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.850	GAL	-1.95	AZL	86.14	HCA	160.14	SMA	199.08	ECC	.23856	INC	3.8609	V1	29.302
RP	236.63	LAP	1.31	LOP	94.46	VP	21.332	GAP	8.55	AZP	93.63	TAL	349.86	TAP	150.00	RCA	151.58	APO	246.57	V2	23.226
RC	198.104	GL	31.55	GP	-36.70	ZAL	103.90	ZAP	113.06	ETS	200.74	ZAE	136.69	ETE	238.72	ZAC	49.28	ETC	287.68	LVI	16.34

PLANETOCENTRIC CONIC

C3	17.849	VHL	4.225	DLA	44.50	RAL	24.98	RAD	6641.9	VEL	11.742	PTH	6.77	VHP	3.038	DPA	-21.86	RAP	45.36	ECC	1.2938

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 3 51	4160.80	-38.19	186.70	275.09	59.13	10 13 12	3160.8	-46.95	155.85
54.08	7 34 49	4390.87	-25.95	198.28	265.32	52.48	8 47 59	3390.9	-38.90	174.02
54.08	7 34 49	4390.87	-25.95	198.28	265.32	52.48	8 47 59	3390.9	-38.90	174.02
54.08	7 34 49	4390.87	-25.95	198.28	265.32	52.48	8 47 59	3390.9	-38.90	174.02
54.08	7 34 49	4390.87	-25.95	198.28	265.32	52.48	8 47 59	3390.9	-38.90	174.02
54.08	7 34 49	4390.87	-25.95	198.28	265.32	52.48	8 47 59	3390.9	-38.90	174.02
54.08	7 34 49	4390.87	-25.95	198.28	265.32	52.48	8 47 59	3390.9	-38.90	174.02

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1305	TRA	-.4947	TC3	-.3415	BAU	.7905	SGT	999.7	SGR	3757.2	SG3	1420.4	ST	16.7	SR	105.4	SS	133.9
RDE	1.5194	RRA	.7656	RC3	-3.2950	FAU	.28411	RRT	-.2478	RRF	.9969	RTF	-.2561	CRT	-.6937	CRS	-.9993	CST	.6668
FDE	7.4102	FRA	3.0534	FC	-13.7797	BSP	6447	SGB	3887.9	R23	-.0293	R13	.9965	LSA	170.8	MSA	12.6	SSA	.6
BDE	1.5250	BRA	.9115	BC3	3.3126	FSP	2407	SG1	3766.0	SG2	966.2	THA	94.04	EL1	106.0	EL2	11.9	ALF	96.34

LAUNCH DATE JUL 17 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 517.240 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.843	GAL	-1.95	AZL	85.88	HCA	161.11	SMA	198.94	ECC	.23805	INC	4.1179	V1	29.302
RP	236.98	LAP	1.33	LOP	95.43	VP	21.283	GAP	8.31	AZP	93.90	TAL	349.83	TAP	150.93	RCA	151.58	APO	246.30	V2	23.191
RC	201.073	GL	33.33	GP	-38.31	ZAL	103.70	ZAP	111.27	ETS	200.18	ZAE	134.58	ETE	237.33	ZAC	47.89	ETC	288.15	LVI	17.75

PLANETOCENTRIC CONIC

C3	18.401	VHL	4.290	DLA	46.14	RAL	23.99	RAD	6642.1	VEL	11.765	PTH	6.79	VHP	3.068	DPA	-23.57	RAP	45.45	ECC	1.3028

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 27 38	4254.84	-34.71	192.99	272.69	55.15	9 38 32	3254.8	-45.61	164.52
51.88	7 22 37	4419.32	-26.45	201.36	265.45	50.70	8 36 17	3419.3	-40.04	177.32
51.88	7 22 37	4419.32	-26.45	201.36	265.45	50.70	8 36 17	3419.3	-40.04	177.32
51.88	7 22 37	4419.32	-26.45	201.36	265.45	50.70	8 36 17	3419.3	-40.04	177.32
51.88	7 22 37	4419.32	-26.45	201.36	265.45	50.70	8 36 17	3419.3	-40.04	177.32
51.88	7 22 37	4419.32	-26.45	201.36	265.45	50.70	8 36 17	3419.3	-40.04	177.32
51.88	7 22 37	4419.32	-26.45	201.36	265.45	50.70	8 36 17	3419.3	-40.04	177.32

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0641	TRA	-.4644	TC3	-.4463	BAU	.8357	SGT	977.5	SGR	3961.4	SG3	1388.5	ST	14.1	SR	116.1	SS	136.3
RDE	1.7060	RRA	.7613	RC3	-3.3675	FAU	.27786	RRT	-.1040	RRF	.9974	RTF	-.0916	CRT	-.4766	CRS	-.9995	CST	.4490
FDE	7.5970	FRA	2.8185	FC	-13.0728	BSP	6783	SGB	4080.2	R23	-.0189	R13	.9973	LSA	179.1	MSA	12.8	SSA	.6
BDE	1.7072	BRA	.8917	BC3	3.3969	FSP	2360	SG1	3962.8	SG2	971.8	THA	91.56	EL1	116.3	EL2	12.4	ALF	93.35

LAUNCH DATE JUL 17 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 521.021 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.837	GAL	-1.95	AZL	85.60	HCA	162.07	SMA	198.82	ECC	.23758	INC	4.4008	VI	29.302
RP	237.31	LAP	1.35	LOP	96.39	VP	21.236	GAP	8.07	AZP	94.19	TAL	349.80	TAP	151.86	RCA	151.58	APO	246.05	V2	23.157
RC	204.040	GL	38.22	GP	-39.96	ZAL	103.48	ZAP	108.48	ETS	199.57	ZAE	132.42	ETE	235.99	ZAC	46.46	ETC	288.67	LVI	19.21

PLANETOCENTRIC CONIC

C3	19.063	VHL	4.366	DLA	47.88	RAL	22.88	RAD	6642.4	VEL	11.793	PTH	6.82	VHP	3.108	DPA	-28.33	RAP	45.58	ECC	1.3137

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
49.61	7 10 9	4447.85	-26.89	204.51	265.60	48.77	8 24 17	3447.9	-41.18	180.79
49.61	7 10 9	4447.85	-26.89	204.51	265.60	48.77	8 24 17	3447.9	-41.18	180.79
49.61	7 10 9	4447.85	-26.89	204.51	265.60	48.77	8 24 17	3447.9	-41.18	180.79
49.61	7 10 9	4447.85	-26.89	204.51	265.60	48.77	8 24 17	3447,9	-41.18	180.79
49.61	7 10 9	4447.85	-26.89	204.51	265.60	48.77	8 24 17	3447.9	-41.18	180.79
49.61	7 10 9	4447.85	-26.89	204.51	265.60	48.77	8 24 17	3447.9	-41.18	180.79
49.61	7 10 9	4447.85	-26.89	204.51	265.60	48.77	8 24 17	3447.9	-41.18	180.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0121	TRA	-.4361	TC3	-.5482	BAU	.8831	SGT	978.6	SGR	4169.8	SG3	1348.8	ST	12.8	SR	127.6	SS	138.1
RDE	1.9143	RRA	.7497	RC3	-3.4213	FAU	.26982	RRT	.0535	RRF	.9978	RTF	.0663	CRT	-.1092	CRS	-.9996	CST	.0828
FDE	7.7501	FRA	2.5568	FC	-12.2535	BSP	7123	SGB	4283.1	R23	-.0098	R13	.9979	LSA	188.0	MSA	13.0	SSA	.5
BDE	1.9143	BRA	.8673	BC3	3.4649	FSP	2292	SG1	4170.2	SG2	977.1	THA	89.24	EL1	127.6	EL2	12.8	ALF	90.64

LAUNCH DATE JUL 17 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 524.803 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.831	GAL	-1.96	AZL	85.29	HCA	163.02	SMA	198.70	ECC	.23716	INC	4.7130	VI	29.302
RP	237.65	LAP	1.38	LOP	97.35	VP	21.190	GAP	7.83	AZP	94.51	TAL	349.76	TAP	152.78	RCA	151.58	APO	245.83	V2	23.123
RC	207.005	GL	37.23	GP	-41.68	ZAL	103.23	ZAP	107.72	ETS	198.90	ZAE	130.22	ETE	234.69	ZAC	44.99	ETC	289.24	LVI	20.74

PLANETOCENTRIC CONIC

C3	19.859	VHL	4.456	DLA	49.71	RAL	21.63	RAD	6642.8	VEL	11.827	PTH	6.85	VHP	3.161	DPA	-27.13	RAP	45.75	ECC	1.3268

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
47.25	6 57 17	4476.65	-27.27	207.75	265.74	46.68	8 11 54	3476.7	-42.30	184.44
47.25	6 57 17	4476.65	-27.27	207.75	265.74	46.68	8 11 54	3476.7	-42.30	184.44
47.25	6 57 17	4476.65	-27.27	207.75	265.74	46.68	8 11 54	3476.7	-42.30	184.44
47.25	6 57 17	4476.65	-27.27	207.75	265.74	46.68	8 11 54	3476.7	-42.30	184.44
47.25	6 57 17	4476.65	-27.27	207.75	265.74	46.68	8 11 54	3476.7	-42.30	184.44
47.25	6 57 17	4476.65	-27.27	207.75	265.74	46.68	8 11 54	3476.7	-42.30	184.44
47.25	6 57 17	4476.65	-27.27	207.75	265.74	46.68	8 11 54	3476.7	-42.30	184.44

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0998	TRA	-.4099	TC3	-.6436	BAU	.9329	SGT	1004.9	SGR	4381.5	SG3	1295.0	ST	13.8	SR	139.8	SS	139.3
RDE	2.1468	RRA	.7288	RC3	-3.4544	FAU	.26003	RRT	.2132	RRF	.9982	RTF	.2260	CRT	.3224	CRS	-.9997	CST	-.3436
FDE	7.8596	FRA	2.2751	FC	-11.3360	BSP	7482	SGB	4495.2	R23	-.0020	R13	.9983	LSA	197.4	MSA	13.2	SSA	.4
BDE	2.1491	BRA	.8362	BC3	3.5138	FSP	2207	SG1	4387.0	SG2	980.6	THA	87.05	EL1	139.9	EL2	13.1	ALF	88.16

LAUNCH DATE JUL 17 1973 FLIGHT TIME 226.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 528.584 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.825	GAL	-1.96	AZL	84.94	HCA	163.96	SMA	198.60	ECC	.23678	INC	5.0608	VI	29.302
RP	237.98	LAP	1.40	LOP	98.31	VP	21.145	GAP	7.59	AZP	94.87	TAL	349.71	TAP	153.69	RCA	151.57	APO	245.62	V2	23.090
RC	209.965	GL	39.36	GP	-43.44	ZAL	102.96	ZAP	105.98	ETS	198.17	ZAE	127.99	ETE	233.43	ZAC	43.48	ETC	289.87	LVI	22.31

PLANETOCENTRIC CONIC

C3	20.820	VHL	4.563	DLA	51.65	RAL	20.20	RAD	6643.2	VEL	11.867	PTH	6.88	VHP	3.229	DPA	-28.98	RAP	45.97	ECC	1.3426

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
44.79	6 43 51	4506.00	-27.56	211.10	265.84	44.42	7 58 57	3506.0	-43.39	188.33
44.79	6 43 51	4506.00	-27.56	211.10	265.84	44.42	7 58 57	3506.0	-43.39	188.33
44.79	6 43 51	4506.00	-27.56	211.10	265.84	44.42	7 58 57	3506.0	-43.39	188.33
44.79	6 43 51	4506.00	-27.56	211.10	265.84	44.42	7 58 57	3506.0	-43.39	188.33
44.79	6 43 51	4506.00	-27.56	211.10	265.84	44.42	7 58 57	3506.0	-43.39	188.33
44.79	6 43 51	4506.00	-27.56	211.10	265.84	44.42	7 58 57	3506.0	-43.39	188.33
44.79	6 43 51	4506.00	-27.56	211.10	265.84	44.42	7 58 57	3506.0	-43.39	188.33

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2008	TRA	-.3871	TC3	-.7315	BAU	.9844	SGT	1059.8	SGR	4394.8	SG3	1233.0	ST	17.3	SR	152.7	SS	139.8
RDE	2.4082	RRA	.6983	RC3	-3.4601	FAU	.24824	RRT	.3821	RRF	.9985	RTF	.5145	CRT	.6301	CRS	-.9998	CST	-.6448
FDE	7.9213	FRA	1.9754	FC	-10.3224	BSP	7865	SGB	4715.4	R23	.0047	R13	.9986	LSA	207.3	MSA	13.4	SSA	.4
BDE	2.4165	BRA	.7985	BC3	3.5365	FSP	2108	SG1	4611.5	SG2	984.3	THA	85.00	EL1	153.1	EL2	13.4	ALF	85.90

LAUNCH DATE JUL 17 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 532.368 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.821	GAL	-1.97	AZL	84.55	HCA	164.93	SMA	198.51	ECC	.23644	INC	5.4499	VI	29.302
RP	238.30	LAP	1.42	LOP	99.27	VP	21.101	GAP	7.35	AZP	95.26	TAL	349.67	TAP	154.59	RCA	151.57	APO	245.44	V2	23.056
RC	212.919	GL	41.64	GP	-45.25	ZAL	102.65	ZAP	104.28	ETS	197.38	ZAE	125.74	ETE	232.20	ZAC	41.93	ETC	290.57	LVI	23.94

PLANETOCENTRIC CONIC

C3	21.989	VHL	4.689	DLA	53.69	RAL	18.55	RAD	6643.7	VEL	11.918	PTH	6.92	VHP	3.313	DPA	-30.87	RAP	46.26	ECC	1.3619

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
42.25	6 29 38	4536.18	-27.72	214.55	265.85	41.98	7 45 14	3536.2	-44.40	192.50
42.25	6 29 38	4536.18	-27.72	214.55	265.85	41.98	7 45 14	3536.2	-44.40	192.50
42.25	6 29 38	4536.18	-27.72	214.55	265.85	41.98	7 45 14	3536.2	-44.40	192.50
42.25	6 29 38	4536.18	-27.72	214.55	265.85	41.98	7 45 14	3536.2	-44.40	192.50
42.25	6 29 38	4536.18	-27.72	214.55	265.85	41.98	7 45 14	3536.2	-44.40	192.50
42.25	6 29 38	4536.18	-27.72	214.55	265.85	41.98	7 45 14	3536.2	-44.40	192.50
42.25	6 29 38	4536.18	-27.72	214.55	265.85	41.98	7 45 14	3536.2	-44.40	192.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3164	TRA	-.3688	TC3	-.8103	BAU	1.0395	SGT	1142.9	SGR	4807.2	SG3	1160.8	ST	22.5	SR	166.2	SS	139.3
RDE	2.6995	RRA	.6517	RC3	-3.4421	FAU	.23502	RRT	.4923	RRF	.9988	RTF	.5042	CRT	.7930	CRS	-.9999	CST	-.8029
FDE	7.9169	FRA	1.6511	FC	-9.2532	BSP	8224	SGB	4941.2	R23	.0106	R13	.9988	LSA	217.6	MSA	13.6	SSA	.3
BDE	2.7180	BRA	.7488	BC3	3.5362	FSP	1983	SG1	4841.5	SG2	987.8	THA	83.03	EL1	167.2	EL2	13.6	ALF	83.84

LAUNCH DATE JUL 17 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 536.145 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.816	GAL	-1.98	AZL	84.11	HCA	165.87	SMA	198.42	ECC	.23614	INC	5.8892	V1	29.302
RP	238.63	LAP	1.44	LOP	100.22	VP	21.059	GAP	7.11	AZP	95.71	TAL	349.61	TAP	155.48	RCA	151.57	APO	245.28	V2	23.024
RC	215.868	GL	44.06	GP	-47.11	ZAL	102.31	ZAP	102.62	ETS	196.52	ZAE	123.49	ETE	231.00	ZAC	40.35	ETC	291.34	LVI	25.61

PLANETOCENTRIC CONIC

C3	23.421	VHL	4.840	DLA	55.85	RAL	16.61	RAD	6644.3	VEL	11.975	PTH	6.97	VHP	3.416	DPA	-32.80	RAP	46.61	ECC	1.3855

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.61	6 14 25	4567.43	-27.73	218.12	265.73	39.37	7 30 32	3567.4	-45.31	196.97
39.61	6 14 25	4567.43	-27.73	218.12	265.73	39.37	7 30 32	3567.4	-45.31	196.97
39.61	6 14 25	4567.43	-27.73	218.12	265.73	39.37	7 30 32	3567.4	-45.31	196.97
39.61	6 14 25	4567.43	-27.73	218.12	265.73	39.37	7 30 32	3567.4	-45.31	196.97
39.61	6 14 25	4567.43	-27.73	218.12	265.73	39.37	7 30 32	3567.4	-45.31	196.97
39.61	6 14 25	4567.43	-27.73	218.12	265.73	39.37	7 30 32	3567.4	-45.31	196.97
39.61	6 14 25	4567.43	-27.73	218.12	265.73	39.37	7 30 32	3567.4	-45.31	196.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	.4500	TRA	-.3554	TC3	-.8752	BAU	1.0952	SGT	1250.3	SGR	5020.6	SG3	1079.5	ST	28.9	SR	180.6	SS	137.9
RDE	3.0328	RRA	.5945	RC3	-3.3864	FAU	.21962	RRT	.5974	RRF	.9990	RTF	.6086	CRT	.8758	CRS	-.9999	CST	-.8825
FDE	7.8558	FRA	1.3311	FC3	-8.1179	BSP	8643	SGB	5174.0	R23	.0155	R13	.9990	LSA	228.6	MSA	13.8	SSA	.3
BDE	3.0660	BRA	.6926	BC3	3.4977	FSP	1854	SG1	5078.1	SG2	991.3	THA	81.20	EL1	182.4	EL2	13.8	ALF	81.96

LAUNCH DATE JUL 17 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 539.923 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.812	GAL	-1.99	AZL	83.61	HCA	166.82	SMA	198.35	ECC	.23587	INC	6.3864	V1	29.302
RP	238.95	LAP	1.45	LOP	101.17	VP	21.017	GAP	6.88	AZP	96.22	TAL	349.55	TAP	156.37	RCA	151.56	APO	245.13	V2	22.991
RC	218.810	GL	46.63	GP	-49.01	ZAL	101.92	ZAP	101.01	ETS	195.60	ZAE	121.23	ETE	229.80	ZAC	38.74	ETC	292.20	LVI	27.33

PLANETOCENTRIC CONIC

C3	25.194	VHL	5.019	DLA	58.10	RAL	14.30	RAD	6645.1	VEL	12.048	PTH	7.03	VHP	3.544	DPA	-34.74	RAP	47.04	ECC	1.4146

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.87	5 57 51	4600.09	-27.54	221.78	265.38	36.58	7 14 31	3600.1	-46.05	201.76
36.87	5 57 51	4600.09	-27.54	221.78	265.38	36.58	7 14 31	3600.1	-46.05	201.76
36.87	5 57 51	4600.09	-27.54	221.78	265.38	36.58	7 14 31	3600.1	-46.05	201.76
36.87	5 57 51	4600.09	-27.54	221.78	265.38	36.58	7 14 31	3600.1	-46.05	201.76
36.87	5 57 51	4600.09	-27.54	221.78	265.38	36.58	7 14 31	3600.1	-46.05	201.76
36.87	5 57 51	4600.09	-27.54	221.78	265.38	36.58	7 14 31	3600.1	-46.05	201.76
36.87	5 57 51	4600.09	-27.54	221.78	265.38	36.58	7 14 31	3600.1	-46.05	201.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	.6026	TRA	-.3481	TC3	-.9252	BAU	1.1569	SGT	1378.9	SGR	5228.1	SG3	989.1	ST	36.2	SR	195.0	SS	135.0
RDE	3.4037	RRA	.5091	RC3	-3.3080	FAU	.20337	RRT	.6838	RRF	.9991	RTF	.6943	CRT	.9204	CRS	-.9999	CST	-.9251
FDE	7.7021	FRA	.9862	FC3	-6.9884	BSP	8986	SGB	5406.8	R23	.0155	R13	.9991	LSA	239.5	MSA	14.0	SSA	.2
BDE	3.4566	BRA	.6168	BC3	3.4349	FSP	1694	SG1	5315.5	SG2	989.6	THA	79.41	EL1	197.9	EL2	14.0	ALF	80.25

LAUNCH DATE JUL 17 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 543.699 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.809	GAL	-2.00	AZL	83.04	HCA	167.76	SMA	198.28	ECC	.23564	INC	6.9617	V1	29.302
RP	239.26	LAP	1.47	LOP	102.12	VP	20.977	GAP	6.64	AZP	96.81	TAL	349.49	TAP	157.25	RCA	151.56	APO	245.00	V2	22.960
RC	221.744	GL	49.38	GP	-50.94	ZAL	101.49	ZAP	99.47	ETS	194.62	ZAE	118.99	ETE	228.61	ZAC	37.11	ETC	293.15	LVI	29.09

PLANETOCENTRIC CONIC

C3	27.414	VHL	5.236	DLA	60.46	RAL	11.51	RAD	6646.0	VEL	12.139	PTH	7.11	VHP	3.699	DPA	-36.71	RAP	47.56	ECC	1.4512

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.05	5 39 27	4634.64	-27.09	225.53	264.67	33.63	6 56 42	3634.6	-46.56	206.89
34.05	5 39 27	4634.64	-27.09	225.53	264.67	33.63	6 56 42	3634.6	-46.56	206.89
34.05	5 39 27	4634.64	-27.09	225.53	264.67	33.63	6 56 42	3634.6	-46.56	206.89
34.05	5 39 27	4634.64	-27.09	225.53	264.67	33.63	6 56 42	3634.6	-46.56	206.89
34.05	5 39 27	4634.64	-27.09	225.53	264.67	33.63	6 56 42	3634.6	-46.56	206.89
34.05	5 39 27	4634.64	-27.09	225.53	264.67	33.63	6 56 42	3634.6	-46.56	206.89
34.05	5 39 27	4634.64	-27.09	225.53	264.67	33.63	6 56 42	3634.6	-46.56	206.89

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	.7764	TRA	-.3500	TC3	-.9597	BAU	1.2182	SGT	1528.2	SGR	5432.5	SG3	891.4	ST	44.1	SR	210.2	SS	130.9
RDE	3.8328	RRA	.4070	RC3	-3.1822	FAU	.18491	RRT	.7481	RRF	.9993	RTF	.8181	CRT	.9453	CRS	-.9999	CST	-.9487
FDE	7.4744	FRA	.6619	FC3	-5.8396	BSP	9431	SGB	5643.3	R23	.0229	R13	.9992	LSA	251.1	MSA	14.1	SSA	.2
BDE	3.9106	BRA	.5368	BC3	3.3238	FSP	1540	SG1	5555.5	SG2	991.6	THA	77.72	EL1	214.3	EL2	14.1	ALF	78.74

LAUNCH DATE JUL 17 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 547.473 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.806	GAL	-2.01	AZL	82.37	HCA	168.69	SMA	198.22	ECC	.23545	INC	7.6268	V1	29.302
RP	239.57	LAP	1.49	LOP	103.07	VP	20.938	GAP	6.41	AZP	97.48	TAL	349.42	TAP	158.11	RCA	151.55	APO	244.89	V2	22.928
RC	224.672	GL	52.31	GP	-52.90	ZAL	101.00	ZAP	98.00	ETS	193.58	ZAE	116.77	ETE	227.41	ZAC	35.47	ETC	294.21	LVI	30.88

PLANETOCENTRIC CONIC

C3	30.234	VHL	5.499	DLA	62.90	RAL	8.05	RAD	6647.1	VEL	12.254	PTH	7.20	VHP	3.890	DPA	-38.67	RAP	48.18	ECC	1.4976

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.15	5 18 35	4671.50	-26.34	229.33	263.38	30.55	6 36 26	3671.5	-46.75	212.31
31.15	5 18 35	4671.50	-26.34	229.33	263.38	30.55	6 36 26	3671.5	-46.75	212.31
31.15	5 18 35	4671.50	-26.34	229.33	263.38	30.55	6 36 26	3671.5	-46.75	212.31
31.15	5 18 35	4671.50	-26.34	229.33	263.38	30.55	6 36 26	3671.5	-46.75	212.31
31.15	5 18 35	4671.50	-26.34	229.33	263.38	30.55	6 36 26	3671.5	-46.75	212.31
31.15	5 18 35	4671.50	-26.34	229.33	263.38	30.55	6 36 26	3671.5	-46.75	212.31
31.15	5 18 35	4671.50	-26.34	229.33	263.38	30.55	6 36 26	3671.5	-46.75	212.31

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	.9738	TRA	-.3607	TC3	-.9733	BAU	1.2844	SGT	1690.0	SGR	5627.4	SG3	787.4	ST	52.2	SR	225.1	SS	125.0
RDE	4.3149	RRA	.2716	RC3	-3.0248	FAU	.16554	RRT	.8002	RRF	.9994	RTF	.8100	CRT	.9608	CRS	-1.0000	CST	-.9635
FDE	7.1339	FRA	.3431	FC3	-4.7401	BSP	9832	SGB	5875.7	R23	.0249	R13	.9992	LSA	262.3	MSA	14.1	SSA	.2
BDE	4.4234	BRA	.4516	BC3	3.1776	FSP	1367	SG1	5792.5	SG2	984.8	THA	76.08	EL1	230.6	EL2	14.1	ALF	77.38

LAUNCH DATE JUL 17 1973 FLIGHT TIME 250.00 ARRIVAL DATE MAR 12 1974

HELIOCENTRIC CONIC DISTANCE 551.244 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.883 GAL -2.02 AZL 81.59 HCA 169.62 SMA 198.17 ECC .23528 INC 0.4078 V1 29.302
RP 239.88 LAP 1.51 LOP 104.01 VP 20.900 GAP 6.17 AZP 98.27 TAL 349.35 TAP 158.98 RCA 151.54 APO 244.79 V2 22.897
RC 227.591 GL 55.44 GP -54.87 ZAL 100.45 ZAP 96.61 ETS 192.48 ZAE 114.59 ETE 226.22 ZAC 33.83 ETC 295.38 LVI 32.69

PLANETOCENTRIC CONIC

C3 33.880 VHL 5.821 DLA 65.40 RAL 3.69 RAD 6648.5 VEL 12.401 PTH 7.31 VHP 4.124 DPA -40.63 RAP 48.90 ECC 1.5576

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.21	4 54 20	4711.16	-25.22	233.11	261.25	27.39	6 12 52	3711.2	-46.52	217.95
28.21	4 54 20	4711.16	-25.22	233.11	261.25	27.39	6 12 52	3711.2	-46.52	217.95
28.21	4 54 20	4711.16	-25.22	233.11	261.25	27.39	6 12 52	3711.2	-46.52	217.95
28.21	4 54 20	4711.16	-25.22	233.11	261.25	27.39	6 12 52	3711.2	-46.52	217.95
28.21	4 54 20	4711.16	-25.22	233.11	261.25	27.39	6 12 52	3711.2	-46.52	217.95
28.21	4 54 20	4711.16	-25.22	233.11	261.25	27.39	6 12 52	3711.2	-46.52	217.95
28.21	4 54 20	4711.16	-25.22	233.11	261.25	27.39	6 12 52	3711.2	-46.52	217.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.1886 TRA -.3860 TC3 -.9677 BAU 1.3574 SGT 1863.2 SGR 5815.2 SG3 679.5 ST 60.1 SR 239.2 SS 117.0
RDE 4.8576 RRA .0963 RC3-2.8362 FAU .14545 RRT .8404 RRF .9994 RTF .8504 CRT .9703 CRS-1.0000 CST -.9726
FDE 6.6707 FRA .0443 FC3-3.7187 BSP 10212 SGB 6106.4 R23 .0254 R13 .9993 LSA 272.6 MSA 14.1 SSA .1
BDE 5.0009 BRA .3979 BC3 2.9968 FSP 1184 SG1 6028.2 SG2 974.0 THA 74.51 EL1 246.2 EL2 14.1 ALF 76.25

LAUNCH DATE JUL 17 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC DISTANCE 555.011 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.801 GAL -2.04 AZL 80.66 HCA 170.55 SMA 198.13 ECC .23514 INC 9.3383 V1 29.302
RP 240.18 LAP 1.53 LOP 104.95 VP 20.863 GAP 5.94 AZP 99.21 TAL 349.28 TAP 159.83 RCA 151.54 APO 244.71 V2 22.866
RC 230.502 GL 58.78 GP -56.83 ZAL 99.84 ZAP 95.32 ETS 191.33 ZAE 112.48 ETE 225.01 ZAC 32.21 ETC 296.67 LVI 34.50

PLANETOCENTRIC CONIC

C3 38.689 VHL 6.220 DLA 67.91 RAL 358.06 RAD 6650.2 VEL 12.592 PTH 7.45 VHP 4.415 DPA -42.55 RAP 49.72 ECC 1.6367

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.28	4 25 20	4754.28	-23.66	236.78	257.83	24.24	5 44 34	3754.3	-45.78	223.63
25.28	4 25 20	4754.28	-23.66	236.78	257.83	24.24	5 44 34	3754.3	-45.78	223.63
25.28	4 25 20	4754.28	-23.66	236.78	257.83	24.24	5 44 34	3754.3	-45.78	223.63
25.28	4 25 20	4754.28	-23.66	236.78	257.83	24.24	5 44 34	3754.3	-45.78	223.63
25.28	4 25 20	4754.28	-23.66	236.78	257.83	24.24	5 44 34	3754.3	-45.78	223.63
25.28	4 25 20	4754.28	-23.66	236.78	257.83	24.24	5 44 34	3754.3	-45.78	223.63
25.28	4 25 20	4754.28	-23.66	236.78	257.83	24.24	5 44 34	3754.3	-45.78	223.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.4095 TRA -.4286 TC3 -.9422 BAU 1.4373 SGT 2040.1 SGR 5991.7 SG3 569.7 ST 66.8 SR 251.2 SS 106.5
RDE 5.4522 RRA -.1295 RC3-2.6143 FAU .12465 RRT .8725 RRF .9994 RTF .8832 CRT .9761 CRS -.9999 CST -.9782
FDE 6.0589 FRA -.2211 FC3-2.7893 BSP 10595 SGB 6329.5 R23 .0235 R13 .9994 LSA 260.6 MSA 14.1 SSA .1
BDE 5.6314 BRA .4477 BC3 2.7789 FSP 998 SG1 6257.1 SG2 954.4 THA 73.05 EL1 259.6 EL2 14.1 ALF 75.40

LAUNCH DATE JUL 17 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 29 1974

HELIOCENTRIC CONIC DISTANCE 642.312 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.823 GAL -2.82 AZL 98.77 HCA 191.89 SMA 198.55 ECC .23908 INC 8.7674 V1 29.302
RP 245.93 LAP 1.80 LOP 126.03 VP 20.270 GAP .88 AZP 81.42 TAL 345.29 TAP 177.18 RCA 151.08 APO 246.02 V2 22.295
RC 293.430 GL -55.39 GP 50.79 ZAL 104.45 ZAP 77.50 ETS 198.16 ZAE 96.97 ETE 174.06 ZAC 137.95 ETC 291.44 LVI -72.27

PLANETOCENTRIC CONIC

C3 36.860 VHL 6.071 DLA -35.53 RAL 63.54 RAD 6649.6 VEL 12.520 PTH 7.40 VHP 3.711 DPA 49.75 RAP 345.81 ECC 1.6066

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 35 12	2522.39	-8.51	67.37	292.15	136.99	19 17 14	1522.4	9.87	51.61
60.00	20 21 5	2240.37	.30	50.41	300.55	130.30	20 58 25	1240.4	16.14	32.06
67.53	23 9 6	1747.88	15.02	21.26	311.46	122.59	23 38 14	747.9	27.05	358.94
67.53	23 9 6	1747.88	15.02	21.26	311.46	122.59	23 38 14	747.9	27.05	358.94
67.53	23 9 6	1747.88	15.02	21.26	311.46	122.59	23 38 14	747.9	27.05	358.94
67.53	23 9 6	1747.88	15.02	21.26	311.46	122.59	23 38 14	747.9	27.05	358.94
67.53	23 9 6	1747.88	15.02	21.26	311.46	122.59	23 38 14	747.9	27.05	358.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.8685 TRA 3.9048 TC3-3.1463 BAU 1.9337 SGT 6513.8 SGR 5344.5 SG3 832.9 ST 151.6 SR 98.7 SS 52.1
RDE 1.5891 RRA-3.6794 RC3 2.3449 FAU .19441 RRT -.9841 RRF -.9982 RTF .5010 CRT -.9710 CRS .9979 CST -.9534
FDE-2.4630 FRA 6.4984 FC3-4.5662 BSP 14504 SGB 8425.7 R23 .1141 R13 -.9917 LSA 186.8 MSA 23.1 SSA .3
BDE 3.2793 BRA 5.3652 BC3 3.9240 FSP 1499 SG1 8393.5 SG2 736.3 THA 140.72 EL1 179.7 EL2 19.9 ALF 147.25

LAUNCH DATE JUL 17 1973 FLIGHT TIME 288.00 ARRIVAL DATE MAY 1 1974

HELIOCENTRIC CONIC DISTANCE 646.060 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.826 GAL -2.86 AZL 98.19 HCA 192.78 SMA 198.61 ECC .23945 INC 8.1928 V1 29.302
RP 246.12 LAP 1.81 LOP 126.93 VP 20.255 GAP .67 AZP 82.01 TAL 345.10 TAP 177.88 RCA 151.05 APO 246.17 V2 22.276
RC 295.928 GL -53.13 GP 48.91 ZAL 105.27 ZAP 76.17 ETS 198.69 ZAE 96.17 ETE 175.40 ZAC 136.26 ETC 290.73 LVI -70.64

PLANETOCENTRIC CONIC

C3 34.105 VHL 5.840 DLA -33.39 RAL 62.68 RAD 6648.6 VEL 12.410 PTH 7.32 VHP 3.551 DPA 48.11 RAP 347.27 ECC 1.5613

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 16 59	2557.63	-10.26	68.89	289.25	136.72	18 59 37	1557.6	8.12	53.12
60.00	19 52 16	2304.00	-2.50	53.45	296.64	130.24	20 30 40	1304.0	13.48	35.33
70.00	22 25 23	1852.43	9.13	25.59	305.27	123.05	22 56 15	852.4	21.80	4.42
71.46	23 28 58	1657.56	14.88	14.09	308.89	120.24	23 56 35	657.6	26.00	351.37
71.46	23 28 58	1657.56	14.88	14.09	308.89	120.24	23 56 35	657.6	26.00	351.37
71.46	23 28 58	1657.56	14.88	14.09	308.89	120.24	23 56 35	657.6	26.00	351.37
110.00	3 28 45	6187.28	9.13	292.42	305.27	123.05	5 11 52	5187.3	21.80	271.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.7620 TRA 3.9105 TC3-3.4595 BAU 1.9228 SGT 6692.1 SGR 5162.9 SG3 926.8 ST 152.1 SR 94.0 SS 54.3
RDE 1.4517 RRA-3.4773 RC3 2.4115 FAU .21252 RRT -.9845 RRF -.9981 RTF .9813 CRT -.9714 CRS .9973 CST -.9515
FDE-2.5519 FRA 7.0740 FC3-5.3947 BSP 14521 SGB 8452.2 R23 .1179 R13 -.9911 LSA 185.5 MSA 23.0 SSA .3
BDE 3.1203 BRA 5.2330 BC3 4.2170 FSP 1663 SG1 8421.5 SG2 719.9 THA 142.46 EL1 177.8 EL2 19.1 ALF 148.61

LAUNCH DATE JUL 17 1973 FLIGHT TIME 290.00 ARRIVAL DATE MAY 3 1974

HELIOCENTRIC CONIC DISTANCE 649.807 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.829	GAL	-2.90	AZL	97.69	HCA	193.67	SMA	198.68	ECC	.23983	INC	7.6925
RP	246.30	LAP	1.81	LOP	127.83	VP	20.240	GAP	.45	AZP	82.52	TAL	344.90	TAP	178.56	RCA	151.03	APO	246.32
RC	298.401	GL	-51.02	GP	47.09	ZAL	106.06	ZAP	74.84	ETS	199.15	ZAE	85.30	ETE	176.65	ZAC	134.61	ETC	290.10

V1	29.302																		
V2	22.258																		
LVI	-69.01																		

PLANETOCENTRIC CONIC

C3	31.877	VHL	5.646	DLA	-31.36	RAL	61.97	RAD	6647.7	VEL	12.321	PTH	7.25	VHP	3.419	DPA	46.51	RAP	348.60
ECC	1.5246																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 1 25	2590.08	-11.87	70.30	286.89	136.42	18 44 35	1590.1	6.50	54.50
60.00	19 29 15	2356.37	-4.80	55.97	293.60	130.06	20 8 31	1356.4	11.26	37.96
70.00	21 33 18	1991.23	3.90	32.94	300.15	123.96	22 6 29	991.2	17.29	12.66
75.84	23 55 2	1550.53	14.60	5.75	306.64	118.07	24 20 52	550.5	24.89	342.73
75.84	23 55 2	1550.53	14.60	5.75	306.64	118.07	24 20 52	550.5	24.89	342.73
75.84	23 55 2	1550.53	14.60	5.75	306.64	118.07	24 20 52	550.5	24.89	342.73
110.00	2 36 40	1038.05	3.90	321.86	300.15	123.96	2 53 59	38.1	17.29	301.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.6612	TRA	3.9259	TC3	-3.7682	BAU	1.9169	SGT	6867.8	SGR	4981.1	SG3	1014.8	ST	152.2	SR	89.3	SS	55.9
RDE	1.3248	RRA	-3.2924	RC3	2.4564	FAU	.22928	RRT	-.9848	RRF	-.9979	RTF	.9815	CRT	-.9715	CRS	.9966	CST	-.9488
FDE	2.5956	FRA	7.5996	FC3	-6.2269	BSP	14563	SGB	8484.0	R23	.1215	R13	-.9905	LSA	183.7	MSA	23.0	SSA	.4
BDE	2.9728	BRA	5.1237	BC3	4.4981	FSP	1818	SG1	8454.9	SG2	703.0	THA	144.18	EL1	175.5	EL2	18.4	ALF	149.95

LAUNCH DATE JUL 17 1973 FLIGHT TIME 292.00 ARRIVAL DATE MAY 5 1974

HELIOCENTRIC CONIC DISTANCE 653.555 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.833	GAL	-2.95	AZL	97.25	HCA	194.55	SMA	198.74	ECC	.24023	INC	7.2527
RP	246.48	LAP	1.82	LOP	128.72	VP	20.226	GAP	.24	AZP	82.98	TAL	344.69	TAP	179.25	RCA	151.00	APO	246.49
RC	300.850	GL	-49.04	GP	45.33	ZAL	106.82	ZAP	73.52	ETS	199.54	ZAE	94.38	ETE	177.80	ZAC	133.00	ETC	289.55

V1	29.302																		
V2	22.241																		
LVI	-67.41																		

PLANETOCENTRIC CONIC

C3	30.052	VHL	5.482	DLA	-29.45	RAL	61.37	RAD	6647.0	VEL	12.247	PTH	7.19	VHP	3.309	DPA	44.95	RAP	349.82
ECC	1.4946																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 47 54	2620.43	-13.36	71.64	284.97	136.10	18 31 35	1620.4	4.98	55.79
60.00	19 10 4	2401.85	-6.79	58.16	291.18	129.82	19 50 6	1401.9	9.30	40.21
70.00	21 0 30	2077.04	.63	37.43	296.76	124.15	21 35 7	1077.0	14.31	17.52
80.00	23 41 32	1572.29	10.24	5.00	302.59	118.20	24 7 44	572.3	20.96	342.74
81.43	0 38 0	1404.08	14.22	354.61	304.68	116.06	1 1 24	404.1	23.74	331.36
100.00	2 28 19	1046.76	10.24	326.36	302.59	118.20	2 45 46	46.8	20.96	304.11
110.00	2 3 52	1123.85	.63	326.34	296.76	124.15	2 22 36	123.9	14.31	306.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.5655	TRA	3.9496	TC3	-4.0708	BAU	1.9154	SGT	7041.4	SGR	4800.7	SG3	1096.3	ST	151.9	SR	84.7	SS	57.0
RDE	1.2089	RRA	-3.1228	RC3	2.4814	FAU	.24458	RRT	-.9850	RRF	-.9978	RTF	.9817	CRT	-.9715	CRS	.9957	CST	-.9455
FDE	2.5993	FRA	8.0759	FC3	-7.0458	BSP	14625	SGB	8522.2	R23	.1247	R13	-.9900	LSA	181.6	MSA	23.0	SSA	.4
BDE	2.8361	BRA	5.0351	BC3	4.7674	FSP	1962	SG1	8494.6	SG2	685.6	THA	145.86	EL1	173.0	EL2	17.6	ALF	151.24

LAUNCH DATE JUL 17 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 7 1974

HELIOCENTRIC CONIC DISTANCE 657.305 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.836	GAL	-2.99	AZL	96.86	HCA	195.44	SMA	198.81	ECC	.24065	INC	6.8630
RP	246.65	LAP	1.82	LOP	129.61	VP	20.213	GAP	.02	AZP	83.38	TAL	344.48	TAP	179.92	RCA	150.97	APO	246.65
RC	303.274	GL	-47.18	GP	43.64	ZAL	107.56	ZAP	72.21	ETS	199.88	ZAE	93.42	ETE	178.87	ZAC	131.44	ETC	289.05

V1	29.302																		
V2	22.224																		
LVI	-65.84																		

PLANETOCENTRIC CONIC

C3	28.544	VHL	5.343	DLA	-27.64	RAL	60.87	RAD	6646.4	VEL	12.186	PTH	7.15	VHP	3.217	DPA	43.45	RAP	350.94
ECC	1.4698																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 36 3	2649.08	-14.76	72.92	283.40	135.76	18 20 12	1649.1	3.55	56.99
60.00	18 53 41	2442.60	-8.56	60.15	289.22	129.53	19 34 23	1442.6	7.53	42.20
70.00	20 35 20	2143.66	-1.92	40.90	294.21	124.11	21 11 4	1143.7	11.92	21.20
80.00	22 44 36	1738.98	4.75	14.32	298.34	119.51	23 13 35	739.0	16.41	353.03
90.00	0 53 30	1335.96	8.93	346.93	300.60	116.94	1 15 46	336.0	19.26	324.67
100.00	1 31 24	1213.46	4.75	335.69	298.34	119.51	1 51 37	213.5	16.41	314.40
110.00	1 38 43	1190.47	-1.92	329.82	294.21	124.11	1 58 33	190.5	11.92	310.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.4722	TRA	3.9827	TC3	-4.3622	BAU	1.9159	SGT	7211.0	SGR	4621.4	SG3	1170.7	ST	151.2	SR	80.1	SS	57.6
RDE	1.1019	RRA	-2.9678	RC3	2.4856	FAU	.25811	RRT	-.9852	RRF	-.9975	RTF	.9818	CRT	-.9714	CRS	.9945	CST	-.9414
FDE	2.5636	FRA	8.5071	FC3	-7.8284	BSP	14739	SGB	8564.9	R23	.1274	R13	-.9894	LSA	179.0	MSA	23.1	SSA	.4
BDE	2.7067	BRA	4.9689	BC3	5.0206	FSP	2100	SG1	8538.8	SG2	668.0	THA	147.51	EL1	170.2	EL2	16.9	ALF	152.48

LAUNCH DATE JUL 17 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 9 1974

HELIOCENTRIC CONIC DISTANCE 661.048 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.840	GAL	-3.04	AZL	96.52	HCA	196.32	SMA	198.88	ECC	.24107	INC	6.5151
RP	246.82	LAP	1.83	LOP	130.50	VP	20.201	GAP	-.19	AZP	83.75	TAL	344.27	TAP	180.60	RCA	150.94	APO	246.82
RC	305.673	GL	-45.43	GP	42.01	ZAL	108.27	ZAP	70.92	ETS	200.15	ZAE	92.42	ETE	179.86	ZAC	129.93	ETC	288.60

V1	29.302																		
V2	22.207																		
LVI	-64.32																		

PLANETOCENTRIC CONIC

C3	27.285	VHL	5.224	DLA	-25.92	RAL	60.46	RAD	6645.9	VEL	12.134	PTH	7.10	VHP	3.139	DPA	42.00	RAP	351.98
ECC	1.4490																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 25 34	2676.31	-16.09	74.15	282.11	135.40	18 10 10	1676.3	2.18	58.13
60.00	18 39 26	2479.83	-10.17	61.98	287.64	129.21	19 20 46	1479.8	5.91	44.01
70.00	20 14 43	2199.65	-4.05	43.83	292.21	123.94	20 51 23	1199.7	9.87	24.24
80.00	22 11 15	1834.92	1.52	19.60	295.67	119.82	22 41 50	834.9	13.54	358.70
90.00	0 3 35	1485.35	4.23	355.39	297.17	117.99	0 28 20	485.3	15.35	333.88
100.00	0 58 3	1309.39	1.52	340.97	295.67	119.82	1 19 52	309.4	13.54	320.07
110.00	1 18 6	1246.47	-4.05	332.75	292.21	123.94	1 38 52	246.5	9.87	313.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.3859	TRA	4.0184	TC3	-4.6492	BAU	1.9217	SGT	7379.6	SGR	4446.1	SG3	1238.1	ST	150.3	SR	75.7	SS	57.8
RDE	1.0066	RRA	-2.8226	RC3	2.4774	FAU	.27043	RRT	-.9854	RRF	-.9973	RTF	.9819	CRT	-.9714	CRS	.9930	CST	-.9368
FDE	2.5026	FRA	8.8860	FC3	-8.5805	BSP	14827	SGB	8615.4	R23	.1298	R13	-.9888	LSA	176.4	MSA	23.2	SSA	.4
BDE	2.5896	BRA	4.9107	BC3	5.2681	FSP	2220	SG1	8590.8	SG2	650.5	THA	149.11	EL1	167.5	EL2	16.1	ALF	153.67

LAUNCH DATE JUL 17 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 11 1974

HELIOCENTRIC CONIC DISTANCE 664.795 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.844 GAL -3.08 AZL 96.20 HCA 197.21 SMA 198.95 ECC .24181 INC 6.2084 V1 29.302
RP 246.98 LAP 1.83 LOP 131.38 VP 20.190 GAP -.40 AZP 84.07 TAL 344.05 TAP 181.26 RCA 150.90 APO 247.00 V2 22.191
RC 308.046 GL -43.78 GP 40.45 ZAL 108.96 ZAP 88.66 ETS 200.38 ZAE 91.39 ETE 180.76 ZAC 128.47 ETC 288.21 LVI -62.85

PLANETOCENTRIC CONIC

C3 26.228 VHL 5.121 DLA -24.30 RAL 60.12 RAD 6645.5 VEL 12.091 PTH 7.07 VHP 3.075 DPA 40.61 RAP 352.94 ECC 1.4317

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 16 12	2702.29	-17.34	78.34	281.07	135.03	18 1 15	1702.3	.87	59.21
60.00	18 26 53	2514.33	-11.65	83.89	286.35	128.86	18 8 47	1514.3	4.40	45.67
70.00	19 37 14	2248.71	-5.91	46.41	290.61	123.70	20 34 42	1248.7	8.05	26.86
80.00	21 45 57	1908.43	-.97	23.64	293.67	119.84	22 17 46	908.4	11.24	2.94
90.00	23 28 7	1578.95	1.22	.63	294.89	118.26	23 54 25	578.9	12.67	339.45
100.00	0 32 45	1382.90	-.97	345.00	293.67	119.84	0 55 48	382.9	11.24	324.31
110.00	1 0 36	1295.52	-5.91	335.33	290.61	123.70	1 22 11	295.5	8.05	315.78

DIFFERENTIAL CORRECTIONS
TDE-2.3045 TRA 4.0583 TC3-4.9286 BAU 1.9311
RDE .9221 RRA-2.6872 RC3 2.4571 FAU .28144
FDE-2.4219 FRA 9.2166 FC3-9.2898 BSP 14919
BDE 2.4822 BRA 4.8673 BC3 5.5071 FSP 2325

MID-COURSE EXECUTION ACCURACY
SGT 7546.3 SGR 4275.3 SG3 1298.5
RRT -.9855 RRF -.9970 RTF .9820
SGB 8673.2 R23 .1514 R13 -.9883
SG1 8650.2 SG2 632.0 THA 180.65

ORBIT DETERMINATION ACCURACY
ST 149.2 SR 71.6 SS 57.8
CRT -.9716 CRS .9912 CST -.9318
LSA 173.7 MSA 23.4 SSA .5
EL1 164.8 EL2 15.3 ALF 154.78

LAUNCH DATE JUL 17 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 13 1974

HELIOCENTRIC CONIC DISTANCE 668.540 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.847 GAL -3.13 AZL 95.92 HCA 196.09 SMA 199.03 ECC .24196 INC 5.9198 V1 29.302
RP 247.14 LAP 1.84 LOP 132.28 VP 20.179 GAP -.81 AZP 84.37 TAL 343.83 TAP 181.92 RCA 150.87 APO 247.19 V2 22.176
RC 310.395 GL -42.23 GP 38.96 ZAL 109.64 ZAP 88.41 ETS 200.57 ZAE 90.33 ETE 181.59 ZAC 127.08 ETC 287.65 LVI -61.43

PLANETOCENTRIC CONIC

C3 25.336 VHL 5.033 DLA -22.75 RAL 59.84 RAD 6645.1 VEL 12.054 PTH 7.04 VHP 3.021 DPA 39.28 RAP 353.84 ECC 1.4170

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 7 48	2727.19	-18.54	76.50	280.22	134.64	17 53 15	1727.2	-.38	60.25
60.00	18 15 43	2546.59	-13.02	85.31	285.30	128.48	18 58 9	1546.6	2.98	47.22
70.00	19 42 3	2292.79	-7.57	48.74	289.32	123.40	20 20 16	1292.8	6.39	29.20
80.00	21 25 15	1969.79	-3.05	27.01	292.10	119.72	21 58 5	969.8	9.26	6.43
90.00	23 3 46	1652.02	-1.13	4.70	293.17	118.26	23 31 18	652.0	10.50	343.71
100.00	0 12 3	1444.27	-3.05	348.38	292.10	119.72	0 36 7	444.3	9.26	327.80
110.00	0 45 25	1339.61	-7.57	337.66	289.32	123.40	1 7 45	339.6	6.39	318.12

DIFFERENTIAL CORRECTIONS
TDE-2.2250 TRA 4.1041 TC3-5.1955 BAU 1.9417
RDE .8450 RRA-2.5618 RC3 2.4226 FAU .29074
FDE-2.3162 FRA 9.5060 FC3-9.9347 BSP 15055
BDE 2.3800 BRA 4.8380 BC3 5.7326 FSP 2424

MID-COURSE EXECUTION ACCURACY
SGT 7709.4 SGR 4107.6 SG3 1351.4
RRT -.9856 RRF -.9966 RTF .9821
SGB 8735.4 R23 .1327 R13 -.9877
SG1 8713.7 SG2 614.3 THA 152.14

ORBIT DETERMINATION ACCURACY
ST 147.9 SR 67.6 SS 57.5
CRT -.9719 CRS .9868 CST -.9260
LSA 170.9 MSA 23.5 SSA .5
EL1 162.0 EL2 14.5 ALF 155.83

LAUNCH DATE JUL 17 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC DISTANCE 672.284 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.851 GAL -3.18 AZL 95.66 HCA 196.98 SMA 199.10 ECC .24243 INC 5.6630 V1 29.302
RP 247.29 LAP 1.84 LOP 133.17 VP 20.169 GAP -.83 AZP 84.64 TAL 343.60 TAP 182.58 RCA 150.84 APO 247.37 V2 22.161
RC 312.717 GL -40.76 GP 37.53 ZAL 110.29 ZAP 87.20 ETS 200.72 ZAE 89.26 ETE 182.35 ZAC 125.73 ETC 287.54 LVI -60.06

PLANETOCENTRIC CONIC

C3 24.578 VHL 4.958 DLA -21.29 RAL 59.62 RAD 6644.8 VEL 12.023 PTH 7.01 VHP 2.976 DPA 38.01 RAP 354.69 ECC 1.4045

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 0 14	2751.10	-19.68	77.63	279.55	134.24	17 46 5	1751.1	-1.58	61.25
60.00	18 5 42	2576.98	-14.30	86.85	284.46	128.09	18 48 39	1577.0	1.65	48.67
70.00	19 28 40	2333.09	-9.07	50.90	288.28	123.07	20 7 33	1333.1	4.87	31.33
80.00	21 7 39	2023.30	-4.85	29.96	290.87	119.50	21 41 22	1023.3	7.51	9.43
90.00	22 43 41	1713.55	-3.11	8.14	291.82	118.12	23 12 14	713.5	8.61	347.25
100.00	23 50 31	1497.78	-4.85	351.33	290.87	119.50	24 15 28	497.8	7.51	330.80
110.00	0 32 2	1379.90	-9.07	339.81	288.28	123.07	0 55 2	379.9	4.87	320.25

DIFFERENTIAL CORRECTIONS
TDE-2.1494 TRA 4.1537 TC3-5.4535 BAU 1.9552
RDE .7768 RRA-2.4448 RC3 2.3800 FAU .29883
FDE-2.1986 FRA 9.7547 FC-10.5258 BSP 15193
BDE 2.2855 BRA 4.8198 BC3 5.9502 FSP 2510

MID-COURSE EXECUTION ACCURACY
SGT 7871.0 SGR 3945.9 SG3 1397.9
RRT -.9857 RRF -.9962 RTF .9822
SGB 8804.7 R23 .1332 R13 -.9873
SG1 8784.5 SG2 596.3 THA 153.57

ORBIT DETERMINATION ACCURACY
ST 146.5 SR 64.0 SS 57.1
CRT -.9725 CRS .9859 CST -.9199
LSA 168.1 MSA 23.7 SSA .5
EL1 159.3 EL2 13.7 ALF 156.80

LAUNCH DATE JUL 17 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 17 1974

HELIOCENTRIC CONIC DISTANCE 676.027 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.855 GAL -3.23 AZL 95.43 HCA 199.86 SMA 199.18 ECC .24291 INC 5.4286 V1 29.302
RP 247.44 LAP 1.84 LOP 134.06 VP 20.160 GAP -1.04 AZP 84.89 TAL 343.37 TAP 183.23 RCA 150.80 APO 247.57 V2 22.147
RC 315.013 GL -39.37 GP 36.17 ZAL 110.93 ZAP 86.01 ETS 200.83 ZAE 88.18 ETE 183.05 ZAC 124.44 ETC 287.25 LVI -58.75

PLANETOCENTRIC CONIC

C3 23.934 VHL 4.892 DLA -19.90 RAL 59.44 RAD 6644.5 VEL 11.996 PTH 6.99 VHP 2.939 DPA 36.80 RAP 355.48 ECC 1.3939

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 53 22	2774.11	-20.77	76.74	279.03	133.62	17 39 36	1774.1	-2.74	62.22
60.00	17 56 40	2605.77	-15.51	88.34	283.80	127.68	18 40 5	1605.8	.38	50.05
70.00	19 16 44	2370.38	-10.45	52.90	287.46	122.70	19 58 15	1370.4	3.45	33.28
80.00	20 52 19	2071.21	-6.45	32.62	289.88	119.22	21 26 51	1071.2	5.92	12.10
90.00	22 26 29	1767.46	-4.83	11.16	290.76	117.90	22 55 57	767.5	6.93	350.31
100.00	23 35 11	1545.68	-6.45	353.98	289.88	119.22	24 0 57	545.7	5.92	333.47
110.00	0 20 6	1417.20	-10.45	341.82	287.46	122.70	0 43 44	417.2	3.45	322.20

DIFFERENTIAL CORRECTIONS
TDE-2.0755 TRA 4.2079 TC3-5.6999 BAU 1.9701
RDE .7152 RRA-2.3359 RC3 2.3285 FAU .30551
FDE-2.0655 FRA 9.9664 FC-11.0508 BSP 15348
BDE 2.1953 BRA 4.8127 BC3 6.1571 FSP 2582

MID-COURSE EXECUTION ACCURACY
SGT 8029.8 SGR 3789.0 SG3 1437.6
RRT -.9857 RRF -.9957 RTF .9823
SGB 8878.9 R23 .1331 R13 -.9868
SG1 8860.0 SG2 578.8 THA 154.94

ORBIT DETERMINATION ACCURACY
ST 145.0 SR 60.6 SS 56.5
CRT -.9733 CRS .9822 CST -.9131
LSA 165.3 MSA 23.9 SSA .6
EL1 156.6 EL2 12.9 ALF 157.71

LAUNCH DATE JUL 17 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC DISTANCE 679.769 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.859	GAL	-3.28	AZL	95.21	HCA	200.74	SMA	199.26	ECC	.24340	INC	5.2135	V1	29.302
RP	247.58	LAP	1.84	LOP	134.94	VP	20.151	GAP	-1.25	AZP	85.12	TAL	343.14	TAP	183.88	RCA	150.76	APO	247.76	V2	22.133
RC	317.282	GL	-38.06	GP	34.87	ZAL	111.55	ZAP	64.85	ETS	200.91	ZAE	87.08	ETE	183.69	ZAC	123.21	ETC	287.00	LVI	-57.50

PLANETOCENTRIC CONIC

C3	23.384	VHL	4.836	DLA	-18.57	RAL	59.31	RAD	6644.3	VEL	11.974	PTH	6.97	VHP	2.908	DPA	35.66	RAP	356.24	ECC	1.3848

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 47 7	2796.31	-21.81	79.82	278.64	133.40	17 33 43	1796.3	-3.85	63.14
60.00	17 48 27	2633.17	-16.64	69.76	283.28	127.25	18 32 21	1633.2	-.83	51.36
70.00	19 6 0	2405.20	-11.72	54.79	286.80	122.31	19 46 5	1405.2	2.12	35.11
80.00	20 38 46	2114.88	-7.89	35.05	289.10	118.89	21 14 1	1114.9	4.46	14.52
90.00	22 11 27	1815.88	-6.37	13.89	289.93	117.61	22 41 43	815.9	5.40	353.05
100.00	23 21 38	1589.35	-7.89	356.42	289.10	118.89	23 48 7	589.3	4.46	335.89
110.00	0 9 22	1452.02	-11.72	343.71	286.80	122.31	0 33 34	452.0	2.12	324.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.0073	TRA 4.2619	TC3-5.9415	BAU 1.9889	SGT 8188.6	SGR 3638.8	SG3 1471.7	ST 143.5	SR 57.5	SS 55.9
RDE .6621	RRA-2.2330	RC3 2.2738	FAU .31137	RRT -.9857	RRF -.9952	RTF .9823	CRT -.9746	CRS .9778	CST -.9062
FDE-1.9314	FRA10.1388	FC-11.5278	BSP 15483	SGB 8960.7	R23 .1324	R13 -.9864	LSA 162.6	NSA 24.1	SSA .6
BDE 2.1137	BRA 4.8114	BC3 6.3618	FSP 2641	SG1 8943.1	SG2 562.0	THA 156.25	EL1 154.1	EL2 12.0	ALF 158.55

LAUNCH DATE JUL 17 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC DISTANCE 683.511 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.863	GAL	-3.33	AZL	95.02	HCA	201.62	SMA	199.34	ECC	.24390	INC	5.0155	V1	29.302
RP	247.71	LAP	1.85	LOP	135.83	VP	20.143	GAP	-1.46	AZP	85.34	TAL	342.90	TAP	184.52	RCA	150.72	APO	247.96	V2	22.120
RC	319.522	GL	-36.81	GP	33.64	ZAL	112.17	ZAP	63.72	ETS	200.97	ZAE	85.98	ETE	184.28	ZAC	122.03	ETC	286.77	LVI	-56.29

PLANETOCENTRIC CONIC

C3	22.915	VHL	4.787	DLA	-17.30	RAL	59.22	RAD	6644.1	VEL	11.954	PTH	6.96	VHP	2.884	DPA	34.57	RAP	356.95	ECC	1.3771

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 25	2817.74	-22.81	80.88	278.36	132.96	17 28 22	1817.7	-4.92	64.05
60.00	17 40 58	2659.35	-17.71	71.14	282.89	126.81	18 25 18	1659.3	-1.98	52.81
70.00	18 56 17	2437.96	-12.91	56.59	286.30	121.90	19 36 55	1438.0	.87	36.82
80.00	20 26 38	2155.18	-9.21	37.32	288.49	118.53	21 2 33	1155.2	3.10	16.74
90.00	21 58 6	1860.10	-7.76	16.40	289.27	117.28	22 29 6	860.1	3.99	355.53
100.00	23 9 30	1629.65	-9.21	358.69	288.49	118.53	23 36 39	629.7	3.10	338.11
110.00	23 55 43	1484.78	-12.91	345.51	286.30	121.90	24 20 28	484.8	.87	325.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.9406	TRA 4.3199	TC3-6.1713	BAU 2.0084	SGT 8344.6	SGR 3493.3	SG3 1499.5	ST 142.0	SR 54.6	SS 55.2
RDE .6143	RRA-2.1369	RC3 2.2124	FAU .31589	RRT -.9856	RRF -.9946	RTF .9824	CRT -.9761	CRS .9724	CST -.8987
FDE-1.7884	FRA10.2804	FC-11.9342	BSP 15635	SGB 9046.3	R23 .1311	R13 -.9860	LSA 160.0	NSA 24.3	SSA .6
BDE 2.0355	BRA 4.8195	BC3 6.5559	FSP 2690	SG1 9029.8	SG2 546.4	THA 157.49	EL1 151.7	EL2 11.1	ALF 159.33

LAUNCH DATE JUL 17 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 23 1974

HELIOCENTRIC CONIC DISTANCE 687.251 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.868	GAL	-3.38	AZL	94.83	HCA	202.50	SMA	199.43	ECC	.24441	INC	4.8324	V1	29.302
RP	247.84	LAP	1.85	LOP	136.71	VP	20.136	GAP	-1.67	AZP	85.53	TAL	342.66	TAP	185.16	RCA	150.69	APO	248.17	V2	22.107
RC	321.734	GL	-35.63	GP	32.46	ZAL	112.77	ZAP	62.61	ETS	201.00	ZAE	84.88	ETE	184.81	ZAC	120.90	ETC	286.56	LVI	-55.14

PLANETOCENTRIC CONIC

C3	22.515	VHL	4.745	DLA	-16.09	RAL	59.16	RAD	6643.9	VEL	11.938	PTH	6.94	VHP	2.864	DPA	33.54	RAP	357.64	ECC	1.3705

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 11	2838.48	-23.77	81.92	278.18	132.51	17 23 30	1838.5	-5.96	64.92
60.00	17 34 7	2684.42	-18.73	72.48	282.62	126.36	18 18 52	1684.4	-3.08	53.81
70.00	18 47 25	2468.95	-14.02	58.31	285.92	121.47	19 28 34	1469.0	-.31	38.43
80.00	20 15 40	2192.75	-10.42	39.44	288.03	118.14	20 52 12	1192.7	1.84	18.81
90.00	21 46 6	1900.99	-9.03	18.73	288.77	116.91	22 17 47	901.0	2.68	357.82
100.00	22 58 31	1667.22	-10.42	.81	288.03	118.14	23 26 19	667.2	1.84	340.17
110.00	23 46 51	1515.77	-14.02	347.23	285.92	121.47	24 12 7	515.8	-.31	327.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.8746	TRA 4.3824	TC3-6.3871	BAU 2.0280	SGT 8498.9	SGR 3352.6	SG3 1521.5	ST 140.4	SR 51.9	SS 54.5
RDE .5715	RRA-2.0477	RC3 2.1443	FAU .31898	RRT -.9854	RRF -.9938	RTF .9824	CRT -.9779	CRS .9659	CST -.8908
FDE-1.6392	FRA10.3971	FC-12.2652	BSP 15826	SGB 9134.4	R23 .1293	R13 -.9856	LSA 157.4	NSA 24.6	SSA .7
BDE 1.9598	BRA 4.8372	BC3 6.7374	FSP 2736	SG1 9118.9	SG2 532.2	THA 158.68	EL1 149.3	EL2 10.2	ALF 160.04

LAUNCH DATE JUL 17 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 25 1974

HELIOCENTRIC CONIC DISTANCE 690.989 EARTH TO MARS

RL	152.04	LAL	-.00	LOL	294.28	VL	32.872	GAL	-3.43	AZL	94.66	HCA	203.38	SMA	199.51	ECC	.24493	INC	4.6626	V1	29.302
RP	247.97	LAP	1.85	LOP	137.59	VP	20.130	GAP	-1.87	AZP	85.72	TAL	342.42	TAP	185.80	RCA	150.64	APO	248.38	V2	22.095
RC	323.917	GL	-34.50	GP	31.35	ZAL	113.35	ZAP	61.54	ETS	201.01	ZAE	83.78	ETE	185.30	ZAC	119.81	ETC	286.37	LVI	-54.04

PLANETOCENTRIC CONIC

C3	22.175	VHL	4.709	DLA	-14.94	RAL	59.14	RAD	6643.8	VEL	11.923	PTH	6.93	VHP	2.849	DPA	32.57	RAP	358.30	ECC	1.3649

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 31 24	2858.56	-24.69	82.94	278.09	132.06	17 19 2	1858.6	-6.97	65.77
60.00	17 27 49	2708.51	-19.70	73.78	282.44	125.90	18 12 58	1708.5	-4.14	54.96
70.00	18 39 17	2498.41	-15.06	59.96	285.66	121.02	19 20 56	1498.4	-1.44	39.97
80.00	20 5 40	2228.02	-11.55	41.46	287.68	117.73	20 42 48	1228.0	.64	20.74
90.00	21 35 13	1939.14	-10.19	20.92	288.39	116.52	22 7 32	939.1	1.45	359.95
100.00	22 48 32	1702.49	-11.55	2.83	287.68	117.73	23 16 55	702.5	.64	342.11
110.00	23 38 44	1545.22	-15.06	348.87	285.66	121.02	24 4 29	545.2	-1.44	328.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.8127	TRA 4.4450	TC3-6.5985	BAU 2.0508	SGT 8649.6	SGR 3218.9	SG3 1539.3	ST 138.9	SR 49.4	SS 53.8
RDE .5347	RRA-1.9631	RC3 2.0772	FAU .32163	RRT -.9852	RRF -.9931	RTF .9824	CRT -.9801	CRS .9583	CST -.8830
FDE-1.4938	FRA10.4823	FC-12.5569	BSP 15987	SGB 9229.1	R23 .1266	R13 -.9852	LSA 155.0	NSA 24.8	SSA .7
BDE 1.8899	BRA 4.8591	BC3 6.9178	FSP 2765	SG1 9214.6	SG2 518.4	THA 159.80	EL1 147.2	EL2 9.3	ALF 160.70

LAUNCH DATE JUL 17 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 27 1974

HELIOCENTRIC CONIC DISTANCE 694.727 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.878 GAL -3.49 AZL 94.90 HCA 204.28 SMA 199.80 ECC .24547 INC 4.5046 V1 29.302
RP 248.09 LAP 1.85 LOP 138.47 VP 20.125 GAP -2.08 AZP 85.89 TAL 342.17 TAP 186.43 RCA 150.60 APO 248.59 V2 22.084
RC 326.069 GL -33.43 GP 30.28 ZAL 113.93 ZAP 60.50 ETS 201.01 ZAE 82.68 ETE 185.75 ZAC 118.78 ETC 286.20 LVI -52.99

PLANETOCENTRIC CONIC

C3 21.886 VHL 4.678 DLA -13.83 RAL 59.14 RAD 6643.7 VEL 11.911 PTH 6.92 VHP 2.837 DPA 31.65 RAP 358.94 ECC 1.3602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 26 59	2878.04	-25.57	83.95	278.07	131.59	17 14 57	1878.0	-7.94	66.60
60.00	17 22 1	2731.70	-20.62	78.05	282.35	125.43	18 7 32	1731.7	-5.16	56.08
70.00	18 31 48	2526.51	-16.04	61.54	285.49	120.57	19 13 55	1526.5	-2.51	41.44
80.00	19 56 31	2261.34	-12.60	43.38	287.45	117.30	20 34 13	1261.3	-.49	22.57
90.00	21 25 17	1974.99	-11.28	23.00	288.13	116.11	21 58 12	975.0	.30	1.95
100.00	22 39 23	1735.82	-12.60	4.75	287.45	117.30	23 8 19	735.8	-.49	343.94
110.00	23 31 15	1573.32	-16.04	350.46	285.49	120.57	23 57 28	573.3	-2.51	330.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7516 TRA 4.5117 TC3-6.7969 BAU 2.0735 SGT 8799.4 SGR 3090.0 SG3 1552.0 ST 137.4 SR 47.2 SS 53.1
RDE .5020 RRA-1.8842 RC3 2.0058 FAU .32304 RRT -.9848 RRF -.9922 RTF .9824 CRT -.9826 CRS .9493 CST -.8749
FDE-1.3463 FRA10.5475 FC-12.7785 BSP 16175 SGB 9326.1 R23 .1235 R13 -.9849 LSA 152.7 MSA 25.0 SSA .7
BDE 1.8221 BRA 4.8894 BC3 7.0867 FSP 2790 SG1 9312.4 SG2 506.3 THA 160.86 EL1 145.0 EL2 8.3 ALF 161.30

LAUNCH DATE JUL 17 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 29 1974

HELIOCENTRIC CONIC DISTANCE 698.463 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.881 GAL -3.54 AZL 94.36 HCA 205.14 SMA 199.69 ECC .24602 INC 4.3571 V1 29.302
RP 248.20 LAP 1.85 LOP 139.35 VP 20.120 GAP -2.29 AZP 86.05 TAL 341.92 TAP 187.06 RCA 150.56 APO 248.81 V2 22.073
RC 326.191 GL -32.41 GP 29.27 ZAL 114.50 ZAP 59.49 ETS 200.99 ZAE 81.59 ETE 186.16 ZAC 117.78 ETC 286.05 LVI -51.99

PLANETOCENTRIC CONIC

C3 21.642 VHL 4.652 DLA -12.77 RAL 59.17 RAD 6643.6 VEL 11.901 PTH 6.91 VHP 2.829 DPA 30.79 RAP 359.55 ECC 1.3562

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 22 55	2896.95	-26.42	84.95	278.13	131.12	17 11 12	1897.0	-8.88	67.41
60.00	17 16 39	2754.07	-21.50	78.29	282.34	124.95	18 2 33	1754.1	-6.13	57.16
70.00	18 24 54	2553.41	-16.96	63.08	285.40	120.10	19 7 27	1553.4	-3.54	42.84
80.00	19 48 6	2292.98	-13.58	45.21	287.31	116.85	20 26 19	1293.0	-1.56	24.31
90.00	21 16 9	2008.90	-12.28	24.98	287.96	115.67	21 49 38	1008.9	-.80	3.84
100.00	22 30 58	1767.45	-13.58	6.58	287.31	116.85	23 0 25	767.5	-1.56	345.67
110.00	23 24 20	1600.23	-16.96	352.00	285.40	120.10	23 51 1	600.2	-3.54	331.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6929 TRA 4.5788 TC3-6.9884 BAU 2.0981 SGT 8947.7 SGR 2966.7 SG3 1560.5 ST 136.0 SR 45.1 SS 52.4
RDE .4736 RRA-1.8091 RC3 1.9351 FAU .32393 RRT -.9845 RRF -.9911 RTF .9824 CRT -.9853 CRS .9389 CST -.8669
FDE-1.2019 FRA10.5853 FC-12.9577 BSP 16350 SGB 9426.6 R23 .1196 R13 -.9846 LSA 150.4 MSA 25.2 SSA .8
BDE 1.7579 BRA 4.9232 BC3 7.2514 FSP 2803 SG1 9413.7 SG2 494.7 THA 161.87 EL1 143.1 EL2 7.3 ALF 161.86

LAUNCH DATE JUL 17 1973 FLIGHT TIME 318.00 ARRIVAL DATE MAY 31 1974

HELIOCENTRIC CONIC DISTANCE 702.199 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.885 GAL -3.60 AZL 94.22 HCA 206.02 SMA 199.77 ECC .24657 INC 4.2192 V1 29.302
RP 248.30 LAP 1.85 LOP 140.23 VP 20.116 GAP -2.50 AZP 86.21 TAL 341.66 TAP 187.68 RCA 150.51 APO 249.03 V2 22.062
RC 330.283 GL -31.43 GP 28.30 ZAL 115.07 ZAP 58.51 ETS 200.95 ZAE 80.50 ETE 186.53 ZAC 116.83 ETC 285.91 LVI -51.02

PLANETOCENTRIC CONIC

C3 21.439 VHL 4.630 DLA -11.75 RAL 59.22 RAD 6643.5 VEL 11.893 PTH 6.90 VHP 2.825 DPA 29.97 RAP .15 ECC 1.3528

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 19 10	2915.33	-27.24	85.93	278.25	130.65	17 7 45	1915.3	-9.79	68.20
60.00	17 11 40	2775.70	-22.34	77.51	282.40	124.46	17 57 56	1775.7	-7.08	58.20
70.00	18 18 30	2579.24	-17.84	64.57	285.40	119.62	19 1 29	1579.2	-4.52	44.20
80.00	19 40 18	2323.14	-14.50	46.98	287.24	116.39	20 19 2	1323.1	-2.58	25.96
90.00	21 7 44	2041.11	-13.23	26.88	287.88	115.23	21 41 45	1041.1	-1.84	5.64
100.00	22 23 10	1797.62	-14.50	8.35	287.24	116.39	22 53 8	797.6	-2.58	347.33
110.00	23 17 56	1626.05	-17.84	353.49	285.40	119.62	23 45 2	626.1	-4.52	333.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6349 TRA 4.6499 TC3-7.1682 BAU 2.1228 SGT 9093.9 SGR 2848.9 SG3 1565.4 ST 134.5 SR 43.2 SS 51.8
RDE .4484 RRA-1.7395 RC3 1.8624 FAU .32387 RRT -.9840 RRF -.9900 RTF .9824 CRT -.9880 CRS .9269 CST -.8588
FDE-1.0573 FRA10.6109 FC-13.0782 BSP 16562 SGB 9529.7 R23 .1154 R13 -.9843 LSA 148.3 MSA 25.8 SSA .8
BDE 1.6953 BRA 4.9646 BC3 7.4062 FSP 2817 SG1 9517.3 SG2 485.2 THA 162.82 EL1 141.2 EL2 8.3 ALF 162.37

LAUNCH DATE JUL 17 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 2 1974

HELIOCENTRIC CONIC DISTANCE 705.933 EARTH TO MARS

RL 152.04 LAL -.00 LOL 294.28 VL 32.890 GAL -3.65 AZL 94.09 HCA 206.90 SMA 199.86 ECC .24714 INC 4.0897 V1 29.302
RP 248.40 LAP 1.85 LOP 141.11 VP 20.113 GAP -2.70 AZP 86.35 TAL 341.40 TAP 188.30 RCA 150.47 APO 249.26 V2 22.052
RC 332.344 GL -30.50 GP 27.39 ZAL 115.62 ZAP 57.56 ETS 200.91 ZAE 79.43 ETE 186.87 ZAC 115.92 ETC 285.78 LVI -50.11

PLANETOCENTRIC CONIC

C3 21.271 VHL 4.612 DLA -10.77 RAL 59.30 RAD 6643.4 VEL 11.886 PTH 6.90 VHP 2.822 DPA 29.20 RAP .74 ECC 1.3501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 15 42	2933.22	-28.03	86.91	278.43	130.16	17 4 35	1933.2	-10.68	68.97
60.00	17 7 3	2796.65	-23.14	78.70	282.52	123.97	17 53 39	1796.7	-7.99	59.22
70.00	18 12 32	2604.10	-18.67	66.02	285.46	119.13	18 55 57	1604.1	-5.46	45.51
80.00	19 33 4	2352.00	-15.36	48.68	287.26	115.92	20 12 16	1352.0	-3.55	27.55
90.00	20 59 55	2071.84	-14.11	28.70	287.87	114.76	21 34 27	1071.8	-2.82	7.36
100.00	22 15 56	1826.47	-15.36	10.05	287.26	115.92	22 46 23	826.5	-3.55	348.92
110.00	23 11 59	1650.92	-18.67	354.94	285.46	119.13	23 39 30	650.9	-5.46	334.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.5791 TRA 4.7217 TC3-7.3409 BAU 2.1488 SGT 9238.6 SGR 2736.0 SG3 1566.6 ST 133.2 SR 41.4 SS 51.2
RDE .4267 RRA-1.6732 RC3 1.7904 FAU .32326 RRT -.9834 RRF -.9887 RTF .9824 CRT -.9908 CRS .9132 CST -.8509
FDE -.9174 FRA10.6143 FC-13.1565 BSP 16749 SGB 9635.2 R23 .1106 R13 -.9841 LSA 146.4 MSA 25.7 SSA .8
BDE 1.6357 BRA 5.0094 BC3 7.5561 FSP 2818 SG1 9623.4 SG2 476.7 THA 163.72 EL1 139.4 EL2 5.4 ALF 162.85

LAUNCH DATE JUL 18 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 338.654 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	35.106	GAL	-4.23	AZL	90.23	HCA	107.26	SMA	258.49	ECC	.41728	INC	.2308	V1	29.304
RP	217.98	LAP	-.22	LOP	42.49	VP	26.537	GAP	23.05	AZP	89.93	TAL	345.68	TAP	92.84	RCA	150.62	APO	366.35	V2	25.208
RC	74.281	GL	-1.30	GP	-5.16	ZAL	113.49	ZAP	172.88	ETS	228.09	ZAE	167.71	ETE	336.96	ZAC	79.21	ETC	283.30	LVI	-13.33

PLANETOCENTRIC CONIC

C3	38.733	VHL	6.224	DLA	16.14	RAL	46.64	RAD	6650.2	VEL	12.594	PTH	7.46	VHP	8.374	DPA	8.85	RAP	37.19	ECC	1.6375

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 40 7	3622.87	-47.46	139.72	296.10	93.83	14 40 30	2622.9	-40.44	107.32
60.00	14 1 17	3566.53	-40.30	134.99	296.45	90.15	15 0 43	2566.5	-35.83	104.63
70.00	14 32 23	3475.00	-34.06	127.40	296.27	87.26	15 30 18	2475.0	-31.62	98.94
80.00	15 20 37	3323.83	-29.51	115.59	295.92	85.26	16 16 1	2323.8	-28.48	88.21
90.00	16 33 0	3090.20	-27.78	98.25	295.74	84.51	17 24 30	2090.2	-27.28	71.25
100.00	18 3 29	2798.30	-29.51	76.96	295.92	85.26	18 50 7	1798.3	-28.48	49.58
110.00	19 31 49	2521.82	-34.06	56.32	296.27	87.26	20 13 51	1521.8	-31.62	27.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4212	TRA	-1.4340	TC3	.1506	BAU	.0870	SGT	1440.3	SGR	607.2	SG3	175.2	ST	28.3	SR	27.6	SS	19.9
RDE	-.5944	RRA	.2570	RC3	-.0745	FAU	.05572	RRT	-.1643	RRF	.1863	RTF	-.7380	CRT	.5814	CRS	.6338	CST	.9948
FDE	.4377	FRA	1.2969	FC3	-1.2453	BSP	2289	SGB	1563.0	R23	-.0404	R13	.7399	LSA	39.9	MSA	19.2	SSA	1.2
BDE	.7285	BRA	1.4568	BC3	.1680	FSP	224	SG1	1444.4	SG2	597.2	THA	175.22	EL1	35.2	EL2	18.1	ALF	43.78

LAUNCH DATE JUL 18 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 341.072 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	34.980	GAL	-4.13	AZL	90.19	HCA	108.40	SMA	254.12	ECC	.40709	INC	.1936	V1	29.304
RP	218.35	LAP	-.18	LOP	43.63	VP	26.332	GAP	22.69	AZP	89.94	TAL	345.69	TAP	94.09	RCA	150.67	APO	357.57	V2	25.168
RC	75.647	GL	-1.12	GP	-5.32	ZAL	113.31	ZAP	172.24	ETS	224.94	ZAE	166.94	ETE	337.20	ZAC	78.98	ETC	283.27	LVI	-13.07

PLANETOCENTRIC CONIC

C3	37.005	VHL	6.083	DLA	16.27	RAL	46.40	RAD	6649.6	VEL	12.526	PTH	7.41	VHP	8.135	DPA	8.84	RAP	37.63	ECC	1.6090

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 38 39	3614.01	-47.41	138.86	294.84	94.49	14 38 53	2614.0	-40.16	106.66
60.00	13 59 38	3558.14	-40.30	134.28	295.29	90.64	14 58 56	2558.1	-35.63	104.20
70.00	14 30 31	3467.23	-34.08	126.80	295.17	87.62	15 28 18	2467.2	-31.49	98.37
80.00	15 18 32	3316.74	-29.55	115.07	294.85	85.53	16 13 49	2316.7	-28.40	87.70
90.00	16 30 49	3083.45	-27.83	97.76	294.68	84.75	17 22 12	2083.4	-27.21	70.77
100.00	18 1 24	2791.21	-29.55	76.44	294.85	85.53	18 47 55	1791.2	-28.40	49.07
110.00	19 29 57	2514.05	-34.08	55.71	295.17	87.62	20 11 51	1514.0	-31.49	27.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4218	TRA	-1.4296	TC3	.1743	BAU	.0956	SGT	1473.3	SGR	608.4	SG3	186.1	ST	28.9	SR	27.5	SS	20.7
RDE	-.5779	RRA	.2372	RC3	-.0833	FAU	.05787	RRT	-.1776	RRF	.2013	RTF	-.7471	CRT	.5797	CRS	.6360	CST	.9946
FDE	.4601	FRA	1.3435	FC3	-1.3539	BSP	2353	SGB	1594.0	R23	-.0432	R13	.7491	LSA	40.6	MSA	19.3	SSA	1.3
BDE	.7155	BRA	1.4526	BC3	.1932	FSP	241	SG1	1478.0	SG2	596.8	THA	174.99	EL1	35.5	EL2	18.3	ALF	42.44

LAUNCH DATE JUL 18 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 343.615 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	34.861	GAL	-4.02	AZL	90.16	HCA	109.53	SMA	250.13	ECC	.39745	INC	.1561	V1	29.304
RP	218.71	LAP	-.15	LOP	44.76	VP	26.135	GAP	22.34	AZP	89.95	TAL	345.81	TAP	95.34	RCA	150.71	APO	349.54	V2	25.127
RC	77.098	GL	-.92	GP	-5.49	ZAL	113.11	ZAP	171.58	ETS	222.28	ZAE	166.22	ETE	337.31	ZAC	78.74	ETC	283.24	LVI	-12.81

PLANETOCENTRIC CONIC

C3	35.395	VHL	5.949	DLA	16.41	RAL	46.15	RAD	6649.0	VEL	12.462	PTH	7.36	VHP	7.903	DPA	8.82	RAP	38.06	ECC	1.5825

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 37 5	3605.58	-47.37	138.05	293.61	95.11	14 37 10	2605.6	-39.89	106.04
60.00	13 57 53	3550.19	-40.29	133.60	294.14	91.10	14 57 3	2550.2	-35.44	103.61
70.00	14 28 33	3459.94	-34.10	126.23	294.07	87.95	15 26 13	2459.9	-31.37	97.83
80.00	15 16 20	3310.17	-29.59	114.58	293.78	85.78	16 11 31	2310.2	-28.33	87.23
90.00	16 28 30	3077.24	-27.87	97.31	293.62	84.97	17 19 47	2077.2	-27.15	70.32
100.00	17 59 12	2784.64	-29.59	75.95	293.78	85.78	18 45 37	1784.6	-28.33	48.60
110.00	19 27 59	2506.75	-34.10	55.15	294.07	87.95	20 9 46	1506.8	-31.37	26.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4227	TRA	-1.4243	TC3	.1989	BAU	.1039	SGT	1505.4	SGR	609.6	SG3	197.6	ST	29.6	SR	27.3	SS	21.5
RDE	-.5616	RRA	.2576	RC3	-.0931	FAU	.06015	RRT	-.1917	RRF	.2173	RTF	-.7554	CRT	.5782	CRS	.6384	CST	.9943
FDE	.4840	FRA	1.3912	FC3	-1.4711	BSP	2423	SGB	1624.2	R23	-.0464	R13	.7576	LSA	41.3	MSA	19.4	SSA	1.3
BDE	.7029	BRA	1.4474	BC3	.2196	FSP	259	SG1	1510.8	SG2	596.2	THA	174.74	EL1	35.8	EL2	18.4	ALF	41.10

LAUNCH DATE JUL 18 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 346.270 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	34.748	GAL	-3.92	AZL	90.12	HCA	110.66	SMA	246.47	ECC	.38832	INC	.1183	V1	29.304
RP	219.08	LAP	-.11	LOP	45.89	VP	25.945	GAP	21.99	AZP	89.96	TAL	345.94	TAP	96.60	RCA	150.76	APO	342.18	V2	25.087
RC	78.631	GL	-.71	GP	-5.66	ZAL	112.91	ZAP	170.89	ETS	220.02	ZAE	165.56	ETE	337.29	ZAC	78.49	ETC	283.21	LVI	-12.54

PLANETOCENTRIC CONIC

C3	33.898	VHL	5.822	DLA	16.55	RAL	45.88	RAD	6648.5	VEL	12.402	PTH	7.31	VHP	7.680	DPA	8.79	RAP	38.48	ECC	1.5578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 35 26	3597.60	-47.32	137.29	292.39	95.70	14 35 23	2597.6	-39.63	105.45
60.00	13 56 3	3542.71	-40.28	132.97	293.01	91.53	14 55 5	2542.7	-35.26	103.06
70.00	14 26 28	3453.15	-34.11	125.70	292.99	88.26	15 24 1	2453.2	-31.26	97.34
80.00	15 14 1	3304.14	-29.61	114.14	292.73	86.01	16 9 5	2304.1	-28.26	86.79
90.00	16 26 3	3071.60	-27.90	96.90	292.58	85.17	17 17 15	2071.6	-27.10	69.92
100.00	17 56 53	2778.62	-29.61	75.50	292.73	86.01	18 43 11	1778.6	-28.26	48.16
110.00	19 25 54	2499.97	-34.11	54.62	292.99	88.26	20 7 34	1500.0	-31.26	26.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4237	TRA	-1.4185	TC3	.2256	BAU	.1125	SGT	1537.5	SGR	610.8	SG3	209.8	ST	30.2	SR	27.1	SS	22.3
RDE	-.5455	RRA	.2584	RC3	-.1037	FAU	.06254	RRT	-.2068	RRF	.2345	RTF	-.7637	CRT	.5767	CRS	.6408	CST	.9940
FDE	.5095	FRA	1.4405	FC3	-1.5974	BSP	2486	SGB	1654.4	R23	-.0497	R13	.7661	LSA	42.0	MSA	19.4	SSA	1.3
BDE	.6907	BRA	1.4419	BC3	.2483	FSP	278	SG1	1543.6	SG2	595.3	THA	174.48	EL1	36.1	EL2	18.5	ALF	39.73

LAUNCH DATE JUL 18 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 349.026 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	34.640	GAL	-3.82	AZL	90.08	HCA	111.79	SMA	243.10	ECC	.37966	INC	.0794	V1	29.304
RP	219.45	LAP	-.08	LOP	47.02	VP	25.761	GAP	21.64	AZP	89.97	TAL	346.07	TAP	97.86	RCA	150.80	APO	335.39	V2	25.046
RC	80.245	GL	-.49	GP	-5.84	ZAL	112.69	ZAP	170.18	ETS	218.09	ZAE	164.95	ETE	337.16	ZAC	78.24	ETC	283.19	LVI	-12.26

PLANETOCENTRIC CONIC

C3	32.496	VHL	5.701	DLA	16.70	RAL	45.60	RAD	6648.0	VEL	12.346	PTH	7.27	VHP	7.483	DPA	8.74	RAP	38.89	ECC	1.8348

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 33 41	3590.05	-47.26	136.57	291.20	96.25	14 33 31	2590.1	-39.38	104.90
60.00	13 54 6	3535.70	-40.26	132.37	291.89	91.93	14 53 1	2535.7	-35.09	102.54
70.00	14 24 16	3446.86	-34.13	125.21	291.93	88.55	15 21 43	2446.9	-31.15	98.88
80.00	15 11 34	3298.67	-29.64	113.73	291.69	86.22	16 6 32	2298.7	-28.19	86.40
90.00	16 23 29	3066.53	-27.93	96.53	291.54	85.36	17 14 35	2066.5	-27.05	69.56
100.00	17 54 25	2773.14	-29.64	75.10	291.69	86.22	18 40 39	1773.1	-28.19	47.77
110.00	19 23 43	2493.68	-34.13	54.13	291.93	88.55	20 5 16	1493.7	-31.15	25.80

DIFFERENTIAL CORRECTIONS

TDE	-.4157	TRA	-1.4028	TC3	.2646	BAU	.1253														
RDE	-.5293	RRA	.2597	RC3	-.1150	FAU	.06489														
FDE	.5406	FRA	1.4948	FC3	-1.7267	BSP	2435														
BDE	.6730	BRA	1.4267	BC3	.2885	FSP	302														

MID-COURSE EXECUTION ACCURACY

SGT	1559.6	SGR	611.9	SG3	222.6						
RRT	-.2290	RRF	.2518	RTF	-.7789						
SGB	1675.4	R23	-.0444	R13	.7813						
SG1	1567.0	SG2	592.9	THA	174.00						

ORBIT DETERMINATION ACCURACY

ST	30.4	SR	26.9	SS	23.3						
CRT	.5687	CRS	.6449	CST	.9928						
LSA	42.5	MSA	19.5	SSA	1.3						
EL1	36.1	EL2	18.7	ALF	38.94						

LAUNCH DATE JUL 18 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 351.874 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	34.538	GAL	-3.72	AZL	90.04	HCA	112.91	SMA	240.00	ECC	.37148	INC	.0389	V1	29.304
RP	219.82	LAP	-.04	LOP	48.14	VP	25.584	GAP	21.29	AZP	89.98	TAL	346.20	TAP	99.12	RCA	150.85	APO	329.15	V2	25.005
RC	81.936	GL	-.26	GP	-6.03	ZAL	112.46	ZAP	169.45	ETS	216.43	ZAE	164.41	ETE	336.94	ZAC	77.98	ETC	283.16	LVI	-11.98

PLANETOCENTRIC CONIC

C3	31.193	VHL	5.585	DLA	16.86	RAL	45.30	RAD	6647.5	VEL	12.293	PTH	7.23	VHP	7.253	DPA	8.68	RAP	39.30	ECC	1.8134

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 31 51	3583.02	-47.21	135.90	290.04	96.77	14 31 34	2583.0	-39.14	104.39
60.00	13 52 3	3529.23	-40.25	131.82	290.81	92.30	14 50 52	2529.2	-34.93	102.07
70.00	14 21 58	3441.17	-34.14	124.76	290.88	88.82	15 19 19	2441.2	-31.05	98.47
80.00	15 8 59	3293.83	-29.66	113.37	290.66	86.41	16 3 52	2293.8	-28.13	86.05
90.00	16 20 46	3062.12	-27.95	96.21	290.52	85.51	17 11 48	2062.1	-27.00	69.24
100.00	17 51 50	2768.30	-29.66	74.74	290.66	86.41	18 37 59	1768.3	-28.13	47.42
110.00	19 21 24	2487.98	-34.14	53.68	290.88	88.82	20 2 52	1488.0	-31.05	25.38

DIFFERENTIAL CORRECTIONS

TDE	-.4204	TRA	-1.3997	TC3	.2897	BAU	.1321														
RDE	-.5136	RRA	.2610	RC3	-.1279	FAU	.06763														
FDE	.5683	FRA	1.5454	FC3	-1.8770	BSP	2545														
BDE	.6637	BRA	1.4238	BC3	.3167	FSP	322														

MID-COURSE EXECUTION ACCURACY

SGT	1594.3	SGR	613.5	SG3	236.3						
RRT	-.2442	RRF	.2717	RTF	-.7833						
SGB	1708.3	R23	-.0514	R13	.7860						
SG1	1602.5	SG2	591.9	THA	173.78						

ORBIT DETERMINATION ACCURACY

ST	31.2	SR	26.7	SS	24.1						
CRT	.5694	CRS	.6466	CST	.9927						
LSA	43.4	MSA	19.4	SSA	1.3						
EL1	36.5	EL2	18.7	ALF	37.32						

LAUNCH DATE JUL 18 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 354.803 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	34.441	GAL	-3.63	AZL	90.00	HCA	114.03	SMA	237.14	ECC	.36372	INC	.0000	V1	29.304
RP	220.19	LAP	-.00	LOP	49.26	VP	25.413	GAP	20.95	AZP	90.00	TAL	346.34	TAP	100.38	RCA	150.89	APO	323.39	V2	24.964
RC	83.701	GL	-.02	GP	-6.23	ZAL	112.22	ZAP	168.71	ETS	214.99	ZAE	163.92	ETE	336.61	ZAC	77.72	ETC	283.14	LVI	-11.69

PLANETOCENTRIC CONIC

C3	29.978	VHL	5.475	DLA	17.02	RAL	44.99	RAD	6647.0	VEL	12.244	PTH	7.19	VHP	7.051	DPA	8.61	RAP	39.70	ECC	1.4934

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 29 56	3576.47	-47.15	135.27	288.91	97.24	14 29 32	2576.5	-38.92	103.92
60.00	13 49 54	3523.28	-40.23	131.31	289.74	92.65	14 48 37	2523.3	-34.78	101.64
70.00	14 19 32	3436.03	-34.14	124.36	289.85	89.05	15 16 48	2436.0	-30.96	96.09
80.00	15 6 16	3289.61	-29.68	113.06	289.65	86.58	16 1 5	2289.6	-28.08	85.75
90.00	16 17 54	3058.37	-27.97	95.94	289.52	85.65	17 8 52	2058.4	-26.96	68.97
100.00	17 49 8	2764.08	-29.68	74.43	289.65	86.58	18 35 12	1764.1	-28.08	47.12
110.00	19 18 59	2482.85	-34.14	53.28	289.85	89.05	20 0 22	1482.9	-30.96	25.01

DIFFERENTIAL CORRECTIONS

TDE	-.4242	TRA	-1.3954	TC3	.3172	BAU	.1393														
RDE	-.4981	RRA	.2627	RC3	-.1418	FAU	.07048														
FDE	.5982	FRA	1.5990	FC3	-2.0352	BSP	2641														
BDE	.6543	BRA	1.4199	BC3	.3475	FSP	344														

MID-COURSE EXECUTION ACCURACY

SGT	1627.8	SGR	615.2	SG3	250.7						
RRT	-.2613	RRF	.2930	RTF	-.[illegible]84						
SGB	1740.2	R23	-.0577	R13	.7915						
SG1	1637.0	SG2	590.5	THA	173.51						

ORBIT DETERMINATION ACCURACY

ST	31.9	SR	26.4	SS	25.0						
CRT	.5691	CRS	.6481	CST	.9926						
LSA	44.3	MSA	19.4	SSA	1.4						
EL1	36.9	EL2	18.8	ALF	35.78						

LAUNCH DATE JUL 18 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 357.807 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	34.350	GAL	-3.54	AZL	89.96	HCA	115.15	SMA	234.49	ECC	.35636	INC	.0335	V1	29.304
RP	220.57	LAP	.03	LOP	50.38	VP	25.247	GAP	20.61	AZP	90.02	TAL	346.49	TAP	101.64	RCA	150.93	APO	318.06	V2	24.923
RC	85.536	GL	.23	GP	-6.44	ZAL	111.98	ZAP	167.94	ETS	213.74	ZAE	163.49	ETE	336.19	ZAC	77.45	ETC	283.11	LVI	-11.40

PLANETOCENTRIC CONIC

C3	28.844	VHL	5.371	DLA	17.20	RAL	44.67	RAD	6646.6	VEL	12.198	PTH	7.16	VHP	6.855	DPA	8.53	RAP	40.09	ECC	1.4747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 27 55	3570.42	-47.10	134.70	287.81	97.68	14 27 26	2570.4	-38.71	103.49
60.00	13 47 40	3517.86	-40.21	130.85	288.69	92.96	14 46 17	2517.9	-34.64	101.24
70.00	14 17 0	3431.48	-34.15	124.01	288.84	89.26	15 14 12	2431.5	-30.68	95.76
80.00	15 3 25	3286.03	-29.69	112.80	288.66	86.71	15 58 11	2286.0	-28.03	85.49
90.00	16 14 54	3055.29	-27.99	95.71	288.53	85.76	17 5 49	2055.3	-26.93	68.75
100.00	17 46 17	2760.50	-29.69	74.16	288.66	86.71	18 32 17	1760.5	-28.03	46.86
110.00	19 16 26	2478.30	-34.15	52.92	288.84	89.26	19 57 45	1478.3	-30.88	24.68

DIFFERENTIAL CORRECTIONS

TDE	-.4278	TRA	-1.3893	TC3	.3469	BAU	.1468														
RDE	-.4826	RRA	.2648	RC3	-.1570	FAU	.07346														
FDE	.6314	FRA	1.6538	FC3	-2.2049	BSP	2718														
BDE	.6450	BRA	1.4143	BC3	.3808	FSP	367														

MID-COURSE EXECUTION ACCURACY

SGT	1659.6	SGR	617.2	SG3	265.9						
RRT	-.2797	RRF	.3151	RTF	-.7939						
SGB	1770.6	R23	-.0635	R13	.7973						
SG1	1669.8	SG2	588.9	THA	173.21						

ORBIT DETERMINATION ACCURACY

ST	32.6	SR	26.1	SS	25.9						
CRT	.5685	CRS	.6503	CST	.9923						
LSA	45.2	MSA	19.3	SSA	1.4						
EL1	37.3	EL2	18.8	ALF	34.28						

LAUNCH DATE JUL 18 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 360.877 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	34.263	GAL	-3.45	AZL	89.92	HCA	118.26	SMA	232.04	ECC	.34939	INC	.0760
RP	220.95	LAP	.07	LOP	51.49	VP	25.088	GAP	20.27	AZP	90.03	TAL	346.64	TAP	102.90	RCA	150.97	APO	313.12
RC	87.440	GL	.50	GP	-6.66	ZAL	111.72	ZAP	167.16	ETS	212.85	ZAE	163.12	ETE	335.68	ZAC	77.17	ETC	283.09

V1	29.304	V2	24.882	LVI	-11.10														

PLANETOCENTRIC CONIC

C3	27.786	VHL	5.271	DLA	17.38	RAL	44.34	RAD	6646.1	VEL	12.155	PTH	7.12	VHP	6.665	DPA	8.43	RAP	40.47

ECC	1.4573																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 25 50	3564.89	-47.05	134.17	286.73	98.08	14 25 14	2564.9	-38.52	103.09
60.00	13 45 19	3513.00	-40.19	130.44	287.67	93.24	14 43 52	2513.0	-34.52	100.89
70.00	14 14 21	3427.54	-34.15	123.70	287.85	89.45	15 11 28	2427.5	-30.81	95.46
80.00	15 0 25	3283.13	-29.70	112.58	287.68	86.83	15 55 8	2283.1	-28.00	85.29
90.00	16 11 45	3052.92	-28.00	95.54	287.55	85.85	17 2 37	2052.9	-26.90	68.59
100.00	17 43 17	2757.60	-29.70	73.95	287.68	86.83	18 29 15	1757.6	-28.00	46.65
110.00	19 13 47	2474.36	-34.15	52.62	287.85	89.45	19 55 1	1474.4	-30.81	24.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4306	TRA	-1.3818	TC3	.3781	BAU	.1545	SGT	1689.7	SGR	619.6	SG3	281.9	ST	33.2	SR	25.8	SS	26.9
RDE	-.4673	RRA	.2671	RC3	-.1734	FAU	.07657	RRT	-.2999	RRF	.3385	RTF	-.7995	CRT	.5670	CRS	.6520	CST	.9919
FDE	.6666	FRA	1.7106	FC3	-2.3859	BSP	2796	SGB	1799.7	R23	-.0690	R13	.8032	LSA	46.1	MSA	19.2	SSA	1.4
BDE	.6354	BRA	1.4074	BC3	.4159	FSP	393	SG1	1701.2	SG2	587.1	THA	172.87	EL1	37.7	EL2	18.8	ALF	32.84

LAUNCH DATE JUL 18 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 364.009 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	34.180	GAL	-3.36	AZL	89.88	HCA	117.37	SMA	229.77	ECC	.34279	INC	.1168
RP	221.33	LAP	.10	LOP	52.60	VP	24.933	GAP	19.94	AZP	90.05	TAL	346.79	TAP	104.16	RCA	151.01	APO	308.53
RC	89.407	GL	.78	GP	-6.89	ZAL	111.46	ZAP	166.35	ETS	211.69	ZAE	162.80	ETE	335.08	ZAC	76.88	ETC	283.07

V1	29.304	V2	24.840	LVI	-10.80														

PLANETOCENTRIC CONIC

C3	26.798	VHL	5.177	DLA	17.57	RAL	44.00	RAD	6645.7	VEL	12.114	PTH	7.09	VHP	6.481	DPA	8.32	RAP	40.84

ECC	1.4410																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 23 39	3559.89	-47.00	133.70	285.69	98.45	14 22 59	2559.9	-38.35	102.74
60.00	13 42 52	3508.71	-40.18	130.08	286.68	93.48	14 41 21	2508.7	-34.41	100.58
70.00	14 11 34	3424.23	-34.15	123.44	286.88	89.60	15 8 38	2424.2	-30.75	95.24
80.00	14 57 17	3280.92	-29.71	112.42	286.72	86.91	15 51 58	2280.9	-27.97	85.13
90.00	16 8 26	3051.28	-28.01	95.42	286.60	85.91	16 59 17	2051.3	-26.89	68.47
100.00	17 40 9	2755.39	-29.71	73.79	286.72	86.91	18 26 5	1755.4	-27.97	46.50
110.00	19 11 0	2471.05	-34.15	52.36	286.88	89.60	19 52 11	1471.0	-30.75	24.16

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4333	TRA	-1.3738	TC3	.4111	BAU	.1624	SGT	1719.0	SGR	622.5	SG3	298.9	ST	33.9	SR	25.4	SS	27.9
RDE	-.4519	RRA	.2698	RC3	-.1912	FAU	.07988	RRT	-.3215	RRF	.3633	RTF	-.8051	CRT	.5649	CRS	.6535	CST	.9915
FDE	.7046	FRA	1.7693	FC3	-2.5806	BSP	2863	SGB	1828.3	R23	-.0745	R13	.8092	LSA	47.0	MSA	19.1	SSA	1.4
BDE	.6261	BRA	1.4001	BC3	.4534	FSP	420	SG1	1732.2	SG2	585.0	THA	172.50	EL1	38.0	EL2	18.7	ALF	31.41

LAUNCH DATE JUL 18 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 367.196 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	34.101	GAL	-3.28	AZL	89.84	HCA	118.47	SMA	227.66	ECC	.33653	INC	.1589
RP	221.71	LAP	.14	LOP	53.70	VP	24.784	GAP	19.61	AZP	90.08	TAL	346.95	TAP	105.42	RCA	151.04	APO	304.27
RC	91.436	GL	1.07	GP	-7.13	ZAL	111.20	ZAP	165.54	ETS	210.85	ZAE	162.53	ETE	334.39	ZAC	76.59	ETC	283.05

V1	29.304	V2	24.799	LVI	-10.48														

PLANETOCENTRIC CONIC

C3	25.875	VHL	5.087	DLA	17.78	RAL	43.64	RAD	6645.4	VEL	12.076	PTH	7.06	VHP	6.303	DPA	8.19	RAP	41.20

ECC	1.4258																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 21 23	3555.42	-46.95	133.28	284.69	98.77	14 20 39	2555.4	-38.20	102.43
60.00	13 40 19	3505.00	-40.16	129.76	285.71	93.70	14 38 44	2505.0	-34.31	100.31
70.00	14 8 40	3421.56	-34.15	123.23	285.93	89.72	15 5 42	2421.6	-30.70	95.09
80.00	14 54 1	3279.44	-29.72	112.31	285.78	86.97	15 48 40	2279.4	-27.95	85.02
90.00	16 4 58	3050.40	-28.01	95.36	285.66	85.94	16 55 48	2050.4	-26.88	68.41
100.00	17 36 53	2753.91	-29.72	73.68	285.78	86.97	18 22 46	1753.9	-27.95	46.39
110.00	19 8 6	2468.38	-34.15	52.15	285.93	89.72	19 49 15	1468.4	-30.70	23.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4356	TRA	-1.3652	TC3	.4448	BAU	.1703	SGT	1747.4	SGR	626.1	SG3	316.7	ST	34.5	SR	25.1	SS	29.0
RDE	-.4367	RRA	.2730	RC3	-.2106	FAU	.08333	RRT	-.3446	RRF	.3895	RTF	-.8405	CRT	.5620	CRS	.6544	CST	.9910
FDE	.7450	FRA	1.8303	FC3	-2.7880	BSP	2929	SGB	1856.2	R23	-.0800	R13	.8151	LSA	47.9	MSA	19.0	SSA	1.5
BDE	.6168	BRA	1.3922	BC3	.4922	FSP	448	SG1	1762.3	SG2	582.8	THA	172.09	EL1	38.3	EL2	18.7	ALF	30.01

LAUNCH DATE JUL 18 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 370.435 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	34.027	GAL	-3.19	AZL	89.80	HCA	119.57	SMA	225.69	ECC	.33059	INC	.2015
RP	222.09	LAP	.18	LOP	54.80	VP	24.639	GAP	19.28	AZP	90.10	TAL	347.10	TAP	106.67	RCA	151.08	APO	300.30
RC	93.523	GL	1.37	GP	-7.38	ZAL	110.92	ZAP	164.70	ETS	210.11	ZAE	162.32	ETE	333.59	ZAC	76.29	ETC	283.04

V1	29.304	V2	24.757	LVI	-10.16														

PLANETOCENTRIC CONIC

C3	25.013	VHL	5.001	DLA	17.99	RAL	43.28	RAD	6645.0	VEL	12.041	PTH	7.03	VHP	6.131	DPA	8.04	RAP	41.54

ECC	1.4117																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 19 2	3551.52	-46.91	132.91	283.71	99.05	14 18 14	2551.5	-38.06	102.15
60.00	13 37 41	3501.89	-40.15	129.50	284.77	93.87	14 36 3	2501.9	-34.23	100.09
70.00	14 5 39	3419.56	-34.15	123.08	285.01	89.81	15 2 38	2419.6	-30.66	94.90
80.00	14 50 35	3278.70	-29.72	112.25	284.87	87.00	15 45 14	2278.7	-27.94	84.97
90.00	16 1 20	3050.32	-28.01	95.35	284.75	85.94	16 52 10	2050.3	-26.88	68.40
100.00	17 33 27	2753.17	-29.72	73.62	284.87	87.00	18 19 20	1753.2	-27.94	46.34
110.00	19 5 5	2466.38	-34.15	51.99	285.01	89.81	19 46 11	1466.4	-30.66	23.82

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4384	TRA	-1.3561	TC3	.4797	BAU	.1781	SGT	1775.0	SGR	630.5	SG3	335.5	ST	35.1	SR	24.6	SS	30.1
RDE	-.4214	RRA	.2764	RC3	-.2315	FAU	.08695	RRT	-.3686	RRF	.4167	RTF	-.8158	CRT	.5590	CRS	.6552	CST	.9905
FDE	.7888	FRA	1.8929	FC3	-3.0095	BSP	2990	SGB	1883.6	R23	-.0859	R13	.8208	LSA	48.9	MSA	18.8	SSA	1.5
BDE	.6081	BRA	1.3840	BC3	.5327	FSP	479	SG1	1791.9	SG2	580.5	THA	171.66	EL1	38.7	EL2	18.6	ALF	28.58

LAUNCH DATE JUL 18 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 373.719 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.958	GAL	-3.11	AZL	89.75	HCA	120.67	SMA	223.86	ECC	.32496	INC	.2450	V1	29.304
RP	222.48	LAP	.21	LOP	55.90	VP	24.500	GAP	18.96	AZP	90.12	TAL	347.26	TAP	107.93	RCA	151.12	APO	296.61	V2	24.715
RC	95.665	GL	1.69	GP	-7.65	ZAL	110.65	ZAP	163.85	ETS	209.46	ZAE	162.19	ETE	332.70	ZAC	75.98	ETC	283.02	LVI	-9.84

PLANETOCENTRIC CONIC

C3	24.209	VHL	4.920	DLA	18.22	RAL	42.91	RAD	6644.7	VEL	12.008	PTH	7.00	VHP	5.965	DPA	7.88	RAP	41.88	ECC	1.3984

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 16 37	3548.17	-46.88	132.59	282.78	99.29	14 15 45	2548.2	-37.94	101.92
60.00	13 34 56	3499.39	-40.13	129.29	283.86	94.02	14 33 15	2499.4	-34.16	99.91
70.00	14 2 30	3418.24	-34.15	122.97	284.11	89.88	14 59 28	2418.2	-30.64	94.81
80.00	14 47 0	3278.74	-29.72	112.26	283.97	87.00	15 41 39	2278.7	-27.94	84.97
90.00	15 57 32	3051.07	-28.01	95.41	283.85	85.91	16 48 23	2051.1	-26.88	68.45
100.00	17 29 52	2753.21	-29.72	73.62	283.97	87.00	18 15 45	1753.2	-27.94	46.34
110.00	19 1 56	2465.06	-34.15	51.89	284.11	89.88	19 43 1	1465.1	-30.64	23.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4409	TRA	-1.3462	TC3	.5154	BAU	.1860	SGT	1801.3	SGR	635.8	SG3	355.3	ST	35.7	SR	24.2	SS	31.3
RDE	-.4060	RRA	.2803	RC3	-.2543	FAU	.09078	RRT	-.3940	RRF	.4451	RTF	-.8208	CRT	.5549	CRS	.6555	CST	.9899
FDE	.8358	FRA	1.9574	FC3	-3.2463	BSP	3048	SGB	1910.2	R23	-.0918	R13	.8264	LSA	49.9	MSA	18.6	SSA	1.5
BDE	.5994	BRA	1.3751	BC3	.5747	FSP	512	SG1	1820.6	SG2	578.1	THA	171.19	EL1	39.0	EL2	18.4	ALF	27.18

LAUNCH DATE JUL 18 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 377.046 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.889	GAL	-3.04	AZL	89.71	HCA	121.76	SMA	222.16	ECC	.31962	INC	.2889	V1	29.304
RP	222.86	LAP	.25	LOP	56.99	VP	24.364	GAP	18.64	AZP	90.15	TAL	347.42	TAP	109.18	RCA	151.15	APO	293.16	V2	24.673
RC	97.860	GL	2.02	GP	-7.92	ZAL	110.37	ZAP	162.97	ETS	208.88	ZAE	162.03	ETE	331.70	ZAC	75.66	ETC	283.01	LVI	-9.50

PLANETOCENTRIC CONIC

C3	23.458	VHL	4.843	DLA	18.45	RAL	42.53	RAD	6644.3	VEL	11.977	PTH	6.97	VHP	5.804	DPA	7.70	RAP	42.21	ECC	1.3861

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 14 6	3545.40	-46.85	132.33	281.87	99.49	14 13 11	2545.4	-37.84	101.73
60.00	13 32 5	3497.52	-40.13	129.13	282.98	94.12	14 30 22	2497.5	-34.11	99.78
70.00	13 59 13	3417.63	-34.15	122.93	283.24	89.90	14 56 10	2417.6	-30.62	94.76
80.00	14 43 15	3279.59	-29.72	112.32	283.10	86.96	15 37 55	2279.6	-27.95	85.03
90.00	15 53 33	3052.68	-28.00	95.52	282.97	85.85	16 44 25	2052.7	-26.90	68.57
100.00	17 26 7	2754.06	-29.72	73.69	283.10	86.96	18 12 1	1754.1	-27.95	46.40
110.00	18 58 39	2464.45	-34.15	51.84	283.24	89.90	19 39 44	1464.4	-30.62	23.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4436	TRA	-1.3354	TC3	.5510	BAU	.1937	SGT	1825.9	SGR	642.1	SG3	376.1	ST	36.2	SR	23.7	SS	32.5
RDE	-.3906	RRA	.2845	RC3	-.2788	FAU	.09480	RRT	-.4202	RRF	.4745	RTF	-.8255	CRT	.5504	CRS	.6551	CST	.9893
FDE	.8860	FRA	2.0234	FC3	-3.4988	BSP	3107	SGB	1935.5	R23	-.0984	R13	.8316	LSA	50.9	MSA	18.4	SSA	1.5
BDE	.5910	BRA	1.3654	BC3	.6176	FSP	546	SG1	1847.9	SG2	575.8	THA	170.68	EL1	39.3	EL2	18.3	ALF	25.77

LAUNCH DATE JUL 18 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 380.412 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.828	GAL	-2.96	AZL	89.67	HCA	122.85	SMA	220.56	ECC	.31456	INC	.3340	V1	29.304
RP	223.25	LAP	.28	LOP	58.08	VP	24.233	GAP	18.32	AZP	90.18	TAL	347.58	TAP	110.43	RCA	151.18	APO	289.94	V2	24.631
RC	100.104	GL	2.37	GP	-8.21	ZAL	110.09	ZAP	162.08	ETS	208.37	ZAE	161.95	ETE	330.59	ZAC	75.34	ETC	283.00	LVI	-9.16

PLANETOCENTRIC CONIC

C3	22.756	VHL	4.770	DLA	18.70	RAL	42.15	RAD	6644.0	VEL	11.948	PTH	6.95	VHP	5.648	DPA	7.50	RAP	42.52	ECC	1.3745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 11 30	3543.22	-46.82	132.13	281.01	99.64	14 10 33	2543.2	-37.77	101.57
60.00	13 29 7	3496.29	-40.12	129.03	282.13	94.19	14 27 24	2496.3	-34.08	99.69
70.00	13 55 48	3417.74	-34.15	122.93	282.39	89.90	14 52 46	2417.7	-30.63	94.77
80.00	14 39 20	3281.26	-29.71	112.44	282.25	86.90	15 34 2	2281.3	-27.97	85.15
90.00	15 49 23	3055.18	-27.99	95.70	282.12	85.76	16 40 18	2055.2	-26.93	68.75
100.00	17 22 12	2755.74	-29.71	73.81	282.25	86.90	18 8 8	1755.7	-27.97	46.52
110.00	18 55 14	2464.56	-34.15	51.85	282.39	89.90	19 36 19	1464.6	-30.63	23.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4468	TRA	-1.3245	TC3	.5869	BAU	.2013	SGT	1849.9	SGR	649.7	SG3	398.0	ST	36.8	SR	23.2	SS	33.8
RDE	-.3750	RRA	.2892	RC3	-.3053	FAU	.09900	RRT	-.4470	RRF	.5047	RTF	-.8299	CRT	.5451	CRS	.6539	CST	.9887
FDE	.9403	FRA	2.0915	FC3	-3.7665	BSP	3159	SGB	1960.7	R23	-.1053	R13	.8366	LSA	52.0	MSA	18.2	SSA	1.5
BDE	.5833	BRA	1.3557	BC3	.6615	FSP	582	SG1	1874.9	SG2	573.4	THA	170.15	EL1	39.6	EL2	18.1	ALF	24.35

LAUNCH DATE JUL 18 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 383.813 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.765	GAL	-2.89	AZL	89.62	HCA	123.94	SMA	219.08	ECC	.30977	INC	.3797	V1	29.304
RP	223.64	LAP	.32	LOP	59.17	VP	24.106	GAP	18.01	AZP	90.21	TAL	347.74	TAP	111.67	RCA	151.21	APO	286.94	V2	24.590
RC	102.397	GL	2.73	GP	-8.52	ZAL	109.81	ZAP	161.17	ETS	207.91	ZAE	161.91	ETE	329.36	ZAC	75.00	ETC	283.00	LVI	-8.81

PLANETOCENTRIC CONIC

C3	22.102	VHL	4.701	DLA	18.96	RAL	41.76	RAD	6643.8	VEL	11.920	PTH	6.93	VHP	5.497	DPA	7.28	RAP	42.82	ECC	1.3637

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 8 49	3541.63	-46.80	131.98	280.18	99.76	14 7 50	2541.6	-37.71	101.46
60.00	13 26 3	3495.71	-40.12	128.98	281.31	94.23	14 24 19	2495.7	-34.07	99.65
70.00	13 52 15	3418.60	-34.15	123.00	281.57	89.86	14 49 13	2418.6	-30.64	94.83
80.00	14 35 15	3283.81	-29.70	112.63	281.42	86.80	15 29 59	2283.8	-28.01	85.34
90.00	15 45 0	3058.62	-27.97	95.95	281.29	85.64	16 35 59	2058.6	-26.96	68.99
100.00	17 18 7	2758.28	-29.70	74.00	281.42	86.80	18 4 5	1758.3	-28.01	46.70
110.00	18 51 41	2465.42	-34.15	51.92	281.57	89.86	19 32 47	1465.4	-30.64	23.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4497	TRA	-1.3130	TC3	.6222	BAU	.2086	SGT	1872.3	SGR	658.8	SG3	421.0	ST	37.4	SR	22.6	SS	35.1
RDE	-.3593	RRA	.2942	RC3	-.3339	FAU	.10341	RRT	-.4745	RRF	.5357	RTF	-.8339	CRT	.5385	CRS	.6515	CST	.9881
FDE	.9977	FRA	2.1617	FC3	-4.0506	BSP	3213	SGB	1984.9	R23	-.1127	R13	.8414	LSA	53.1	MSA	17.9	SSA	1.6
BDE	.5756	BRA	1.3456	BC3	.7061	FSP	620	SG1	1900.9	SG2	571.2	THA	169.57	EL1	39.9	EL2	17.9	ALF	22.92

LAUNCH DATE JUL 18 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 387.247 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.708	GAL	-2.82	AZL	89.57	HCA	125.02	SMA	217.68	ECC	.30522	INC	.4268
RP	224.03	LAP	.35	LOP	60.25	VP	23.982	GAP	17.70	AZP	90.24	TAL	347.90	TAP	112.91	RCA	151.24	APO	284.13
RC	104.738	GL	3.10	GP	-8.83	ZAL	109.53	ZAP	160.25	ETS	207.51	ZAE	161.90	ETE	328.00	ZAC	74.65	ETC	282.99

V1	29.304																		
V2	24.548																		
LVI	-8.45																		

PLANETOCENTRIC CONIC

C3	21.491	VHL	4.636	DLA	19.24	RAL	41.36	RAD	6643.5	VEL	11.895	PTH	6.90	VHP	5.351	DPA	7.04	RAP	43.11
ECC	1.3537																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 6 3	3540.65	-46.79	131.89	279.39	99.83	14 5 3	2540.7	-37.68	101.40
60.00	13 22 53	3495.81	-40.12	128.99	280.52	94.22	14 21 9	2495.8	-34.07	99.66
70.00	13 48 33	3420.23	-34.15	123.13	280.78	89.78	14 45 33	2420.2	-30.67	94.95
80.00	14 30 58	3287.25	-29.69	112.89	280.62	86.67	15 25 46	2287.3	-28.05	85.58
90.00	15 40 26	3063.04	-27.95	96.28	280.48	85.48	16 31 29	2063.0	-27.01	69.31
100.00	17 13 50	2761.73	-29.69	74.25	280.62	86.67	17 59 52	1761.7	-28.05	46.95
110.00	18 47 59	2467.05	-34.15	52.05	280.78	89.78	19 29 7	1467.1	-30.67	23.87

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4530	TRA	-1.3007	TC3	.6577	BAU	.2161	SGT	1893.3	SGR	669.6	SG3	445.2			ST	37.9	SR	22.0	SS	36.6
RDE	-.3433	RRA	.2997	RC3	-.3648	FAU	.10805	RRT	-.5023	RRF	.5670	RTF	-.8377			CRT	.5308	CRS	.6483	CST	.9875
FDE	1.0603	FRA	2.2332	FC3	-4.3527	BSP	3266	SGB	2008.2	R23	-.1205	R13	.8461			LSA	54.3	MSA	17.6	SSA	1.6
BDE	.5684	BRA	1.3348	BC3	.7521	FSP	660	SG1	1925.8	SG2	569.2	THA	168.95			EL1	40.1	EL2	17.6	ALF	21.47

LAUNCH DATE JUL 18 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 390.711 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.653	GAL	-2.76	AZL	89.52	HCA	126.09	SMA	216.38	ECC	.30091	INC	.4749
RP	224.42	LAP	.38	LOP	61.33	VP	23.863	GAP	17.39	AZP	90.28	TAL	348.05	TAP	114.15	RCA	151.27	APO	281.49
RC	107.119	GL	3.49	GP	-9.17	ZAL	109.25	ZAP	159.30	ETS	207.15	ZAE	161.92	ETE	326.51	ZAC	74.28	ETC	282.99

V1	29.304																		
V2	24.506																		
LVI	-8.08																		

PLANETOCENTRIC CONIC

C3	20.921	VHL	4.574	DLA	19.53	RAL	40.96	RAD	6643.2	VEL	11.871	PTH	6.88	VHP	5.210	DPA	6.78	RAP	43.38
ECC	1.3443																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 3 11	3540.29	-46.79	131.85	278.64	99.85	14 2 12	2540.3	-37.66	101.37
60.00	13 19 36	3496.60	-40.12	129.05	279.77	94.18	14 17 52	2496.6	-34.09	99.71
70.00	13 44 43	3422.66	-34.15	123.32	280.02	89.67	14 41 45	2422.7	-30.72	95.13
80.00	14 26 30	3291.64	-29.67	113.21	279.84	86.50	15 21 22	2291.6	-28.10	85.90
90.00	15 35 38	3068.48	-27.92	96.67	279.70	85.29	16 26 47	2068.5	-27.07	69.69
100.00	17 9 22	2766.11	-29.67	74.58	279.84	86.50	17 55 28	1766.1	-28.10	47.26
110.00	18 44 9	2469.48	-34.15	52.24	280.02	89.67	19 25 18	1469.5	-30.72	24.04

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4562	TRA	-1.2881	TC3	.6924	BAU	.2234	SGT	1912.9	SGR	682.2	SG3	470.5			ST	38.4	SR	21.4	SS	38.0
RDE	-.3270	RRA	.3057	RC3	-.3980	FAU	.11289	RRT	-.5304	RRF	.5985	RTF	-.8413			CRT	.5212	CRS	.6432	CST	.9868
FDE	1.1267	FRA	2.3071	FC3	-4.6715	BSP	3318	SGB	2030.9	R23	-.1287	R13	.8505			LSA	55.5	MSA	17.4	SSA	1.6
BDE	.5613	BRA	1.3239	BC3	.7986	FSP	703	SG1	1950.0	SG2	567.3	THA	168.28			EL1	40.4	EL2	17.3	ALF	20.01

LAUNCH DATE JUL 18 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 394.203 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.601	GAL	-2.69	AZL	89.48	HCA	127.17	SMA	215.16	ECC	.29682	INC	.5240
RP	224.81	LAP	.42	LOP	62.40	VP	23.747	GAP	17.08	AZP	90.32	TAL	348.21	TAP	115.38	RCA	151.30	APO	279.03
RC	109.544	GL	3.90	GP	-9.52	ZAL	108.97	ZAP	158.33	ETS	206.83	ZAE	161.96	ETE	324.88	ZAC	73.91	ETC	283.00

V1	29.304																		
V2	24.464																		
LVI	-7.70																		

PLANETOCENTRIC CONIC

C3	20.389	VHL	4.515	DLA	19.84	RAL	40.55	RAD	6643.0	VEL	11.849	PTH	6.87	VHP	5.074	DPA	6.50	RAP	43.64
ECC	1.3356																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 15	3540.56	-46.79	131.88	277.93	99.83	13 59 15	2540.6	-37.67	101.39
60.00	13 16 12	3498.09	-40.13	129.18	279.05	94.09	14 14 30	2498.1	-34.13	99.82
70.00	13 40 43	3425.90	-34.15	123.57	279.28	89.52	14 37 49	2425.9	-30.78	95.36
80.00	14 21 50	3297.00	-29.65	113.61	279.09	86.29	15 16 47	2297.0	-28.17	86.28
90.00	15 30 36	3075.00	-27.88	97.14	278.94	85.05	16 21 51	2075.0	-27.13	70.16
100.00	17 4 42	2771.47	-29.65	74.98	279.09	86.29	17 50 53	1771.5	-28.17	47.65
110.00	18 40 9	2472.72	-34.15	52.49	279.28	89.52	19 21 22	1472.7	-30.78	24.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4594	TRA	-1.2744	TC3	.7267	BAU	.2307	SGT	1930.2	SGR	697.0	SG3	497.1			ST	38.9	SR	20.7	SS	39.6
RDE	-.3104	RRA	.3121	RC3	-.4338	FAU	.11798	RRT	-.5584	RRF	.6300	RTF	-.8446			CRT	.5097	CRS	.6365	CST	.9861
FDE	1.1983	FRA	2.3822	FC3	-5.0095	BSP	3365	SGB	2052.2	R23	-.1372	R13	.8549			LSA	56.7	MSA	17.0	SSA	1.6
BDE	.5544	BRA	1.3120	BC3	.8463	FSP	748	SG1	1972.6	SG2	565.8	THA	167.56			EL1	40.7	EL2	17.0	ALF	18.53

LAUNCH DATE JUL 18 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 397.720 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.552	GAL	-2.63	AZL	89.43	HCA	128.24	SMA	214.02	ECC	.29294	INC	.5743
RP	225.20	LAP	.45	LOP	63.47	VP	23.634	GAP	16.78	AZP	90.36	TAL	348.36	TAP	116.60	RCA	151.33	APO	276.72
RC	112.011	GL	4.32	GP	-9.89	ZAL	108.69	ZAP	157.33	ETS	206.54	ZAE	162.03	ETE	323.08	ZAC	73.52	ETC	283.01

V1	29.304																		
V2	24.422																		
LVI	-7.31																		

PLANETOCENTRIC CONIC

C3	19.893	VHL	4.460	DLA	20.16	RAL	40.14	RAD	6642.8	VEL	11.828	PTH	6.85	VHP	4.942	DPA	6.20	RAP	43.89
ECC	1.3274																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 57 12	3541.46	-46.80	131.96	277.25	99.77	13 56 14	2541.5	-37.70	101.45
60.00	13 12 40	3500.28	-40.14	129.36	278.36	93.97	14 11 0	2500.3	-34.19	99.98
70.00	13 36 33	3429.97	-34.15	123.69	278.57	89.33	14 33 43	2430.0	-30.85	95.65
80.00	14 16 56	3303.36	-29.62	114.08	278.36	86.04	15 11 59	2303.4	-28.25	86.74
90.00	15 25 18	3082.63	-27.83	97.70	278.20	84.78	16 16 41	2082.6	-27.20	70.71
100.00	16 59 48	2777.84	-29.62	75.45	278.36	86.04	17 46 6	1777.8	-28.25	48.11
110.00	18 35 59	2476.79	-34.15	52.81	278.57	89.33	19 17 16	1476.8	-30.85	24.57

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4530	TRA	-1.2508	TC3	.7796	BAU	.2425	SGT	1937.0	SGR	714.4	SG3	525.1			ST	38.8	SR	20.0	SS	41.2
RDE	-.2935	RRA	.3189	RC3	-.4727	FAU	.12337	RRT	-.5932	RRF	.6612	RTF	-.8529			CRT	.4900	CRS	.6274	CST	.9844
FDE	1.2738	FRA	2.4580	FC3	-5.3692	BSP	3290	SGB	2064.5	R23	-.1350	R13	.8640			LSA	57.6	MSA	16.8	SSA	1.6
BDE	.5397	BRA	1.2908	BC3	.9117	FSP	793	SG1	1987.0	SG2	560.7	THA	166.57			EL1	40.3	EL2	16.8	ALF	17.21

LAUNCH DATE JUL 18 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 401.260 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.506	GAL	-2.57	AZL	89.37	HCA	129.31	SMA	212.95	ECC	.28928	INC	.6260	V1	29.304
RP	225.59	LAP	.48	LOP	64.54	VP	23.525	GAP	16.48	AZP	90.40	TAL	348.51	TAP	117.82	RCA	151.35	APO	274.55	V2	24.380
RC	114.516	GL	4.76	GP	-10.28	ZAL	108.41	ZAP	156.32	ETS	206.29	ZAE	162.11	ETE	321.12	ZAC	73.12	ETC	283.02	LVI	-6.91

PLANETOCENTRIC CONIC

C3	19.432	VHL	4.408	DLA	20.49	RAL	39.73	RAD	6642.6	VEL	11.809	PTH	6.83	VHP	4.815	DPA	5.87	RAP	44.12	ECC	1.3198

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 54 5	3543.04	-46.82	132.11	276.62	99.66	13 53 8	2543.0	-37.76	101.56
60.00	13 9 2	3503.25	-40.15	129.62	277.71	93.80	14 7 25	2503.2	-34.26	100.19
70.00	13 32 13	3434.96	-34.14	124.28	277.90	89.10	14 29 28	2435.0	-30.94	96.02
80.00	14 11 46	3310.85	-29.58	114.63	277.66	85.75	15 6 59	2310.8	-28.33	87.28
90.00	15 19 45	3091.50	-27.78	98.34	277.48	84.46	16 11 16	2091.5	-27.29	71.34
100.00	16 54 40	2785.32	-29.58	76.00	277.66	85.75	17 41 5	1785.3	-28.33	48.64
110.00	18 31 39	2481.78	-34.14	53.20	277.90	89.10	19 13 1	1481.8	-30.94	24.93

DIFFERENTIAL CORRECTIONS

TDE	-.4605	TRA	-1.2404	TC3	.8024	BAU	.2475												
RDE	-.2759	RRA	.3264	RC3	-.5139	FAU	.12891												
FDE	1.3561	FRA	2.5370	FC3	-5.7431	BSP	3385												
BDE	.5368	BRA	1.2827	BC3	.9529	FSP	843												

MID-COURSE EXECUTION ACCURACY

SGT	1954.8	SGR	734.1	SG3	554.1														
RRT	-.6169	RRF	.6915	RTF	-.8531														
SGB	2088.1	R23	-.1494	R13	.8658														
SG1	2011.2	SG2	561.6	THA	165.83														

ORBIT DETERMINATION ACCURACY

ST	39.5	SR	19.2	SS	42.9														
CRT	.4752	CRS	.6154	CST	.9842														
LSA	59.1	MSA	16.4	SSA	1.7														
EL1	40.8	EL2	16.4	ALF	15.55														

LAUNCH DATE JUL 18 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 404.822 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.462	GAL	-2.51	AZL	89.32	HCA	130.37	SMA	211.95	ECC	.28580	INC	.6793	V1	29.304
RP	225.98	LAP	.52	LOP	65.60	VP	23.419	GAP	16.18	AZP	90.44	TAL	348.66	TAP	119.03	RCA	151.37	APO	272.52	V2	24.338
RC	117.057	GL	5.22	GP	-10.68	ZAL	108.14	ZAP	155.28	ETS	206.06	ZAE	162.19	ETE	318.99	ZAC	72.71	ETC	283.03	LVI	-6.49

PLANETOCENTRIC CONIC

C3	19.004	VHL	4.359	DLA	20.85	RAL	39.32	RAD	6642.4	VEL	11.791	PTH	6.81	VHP	4.692	DPA	5.51	RAP	44.34	ECC	1.3128

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 50 52	3545.29	-46.84	132.32	276.04	99.50	13 49 57	2545.3	-37.84	101.72
60.00	13 5 15	3506.97	-40.17	129.93	277.09	93.58	14 3 42	2507.0	-34.36	100.46
70.00	13 27 42	3440.86	-34.14	124.74	277.25	88.83	14 25 3	2440.9	-31.05	96.44
80.00	14 6 25	3319.47	-29.54	115.27	276.98	85.42	15 1 45	2319.5	-28.43	87.90
90.00	15 13 53	3101.66	-27.71	99.08	276.79	84.10	16 5 35	2101.7	-27.38	72.07
100.00	16 49 17	2793.94	-29.54	76.64	276.98	85.42	17 35 51	1793.9	-28.43	49.27
110.00	18 27 8	2487.68	-34.14	53.66	277.25	88.83	19 8 36	1487.7	-31.05	25.36

DIFFERENTIAL CORRECTIONS

TDE	-.4668	TRA	-1.2276	TC3	.8258	BAU	.2532												
RDE	-.2577	RRA	.3343	RC3	-.5581	FAU	.13466												
FDE	1.4452	FRA	2.6168	FC3	-6.1347	BSP	3461												
BDE	.5332	BRA	1.2723	BC3	.9967	FSP	895												

MID-COURSE EXECUTION ACCURACY

SGT	1968.7	SGR	756.7	SG3	584.5														
RRT	-.6406	RRF	.7208	RTF	-.8538														
SGB	2109.1	R23	-.1626	R13	.8682														
SG1	2032.7	SG2	562.7	THA	164.99														

ORBIT DETERMINATION ACCURACY

ST	40.2	SR	18.4	SS	44.7														
CRT	.4558	CRS	.5999	CST	.9838														
LSA	60.7	MSA	16.1	SSA	1.7														
EL1	41.2	EL2	15.9	ALF	13.89														

LAUNCH DATE JUL 18 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 408.404 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.420	GAL	-2.46	AZL	89.27	HCA	131.43	SMA	211.01	ECC	.28251	INC	.7339	V1	29.304
RP	226.37	LAP	.55	LOP	66.66	VP	23.315	GAP	15.88	AZP	90.49	TAL	348.81	TAP	120.23	RCA	151.40	APO	270.62	V2	24.297
RC	119.633	GL	5.69	GP	-11.11	ZAL	107.87	ZAP	154.22	ETS	205.86	ZAE	162.28	ETE	316.68	ZAC	72.28	ETC	283.05	LVI	-6.06

PLANETOCENTRIC CONIC

C3	18.605	VHL	4.313	DLA	21.22	RAL	38.91	RAD	6642.2	VEL	11.774	PTH	6.80	VHP	4.574	DPA	5.13	RAP	44.54	ECC	1.3062

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 47 32	3548.23	-46.88	132.60	275.49	99.29	13 46 41	2548.2	-37.94	101.92
60.00	13 1 20	3511.48	-40.19	130.31	276.51	93.32	13 59 52	2511.5	-34.48	100.78
70.00	13 22 59	3447.71	-34.13	125.27	276.63	88.52	14 20 27	2447.7	-31.17	96.94
80.00	14 0 46	3329.29	-29.48	115.99	276.33	85.05	14 56 15	2329.3	-28.54	88.61
90.00	15 7 41	3113.20	-27.62	99.91	276.12	83.69	15 59 35	2113.2	-27.48	72.90
100.00	16 43 37	2803.76	-29.48	77.36	276.33	85.05	17 30 21	1803.8	-28.54	49.98
110.00	18 22 26	2494.52	-34.13	54.19	276.63	88.52	19 4 0	1494.5	-31.17	25.86

DIFFERENTIAL CORRECTIONS

TDE	-.4713	TRA	-1.2136	TC3	.8504	BAU	.2597												
RDE	-.2389	RRA	.3429	RC3	-.6055	FAU	.14068												
FDE	1.5394	FRA	2.6996	FC3	-6.5461	BSP	3514												
BDE	.5284	BRA	1.2611	BC3	1.0440	FSP	948												

MID-COURSE EXECUTION ACCURACY

SGT	1980.1	SGR	782.6	SG3	616.2														
RRT	-.6645	RRF	.7490	RTF	-.8751														
SGB	2129.1	R23	-.1744	R13	.8714														
SG1	2053.0	SG2	564.0	THA	164.05														

ORBIT DETERMINATION ACCURACY

ST	40.7	SR	17.5	SS	46.5														
CRT	.4296	CRS	.5792	CST	.9832														
LSA	62.2	MSA	15.7	SSA	1.7														
EL1	41.5	EL2	15.5	ALF	12.20														

LAUNCH DATE JUL 18 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 412.004 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.381	GAL	-2.41	AZL	89.21	HCA	132.48	SMA	210.12	ECC	.27939	INC	.7902	V1	29.304
RP	226.76	LAP	.58	LOP	67.72	VP	23.215	GAP	15.59	AZP	90.53	TAL	348.95	TAP	121.43	RCA	151.42	APO	268.83	V2	24.255
RC	122.240	GL	6.19	GP	-11.55	ZAL	107.61	ZAP	153.14	ETS	205.68	ZAE	162.36	ETE	314.17	ZAC	71.83	ETC	283.08	LVI	-5.62

PLANETOCENTRIC CONIC

C3	18.236	VHL	4.270	DLA	21.61	RAL	38.49	RAD	6642.0	VEL	11.758	PTH	6.79	VHP	4.460	DPA	4.72	RAP	44.73	ECC	1.3001

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 44 7	3551.86	-46.92	132.94	274.99	99.02	13 43 19	2551.9	-38.07	102.18
60.00	12 57 17	3516.80	-40.21	130.76	275.97	93.02	13 55 54	2516.8	-34.62	101.17
70.00	13 18 5	3455.55	-34.11	125.89	276.05	88.15	14 15 40	2455.5	-31.30	97.51
80.00	13 54 48	3340.39	-29.41	116.81	275.70	84.62	14 50 28	2340.4	-28.66	89.41
90.00	15 1 8	3126.22	-27.52	100.85	275.47	83.23	15 53 14	2126.2	-27.58	73.84
100.00	16 37 40	2814.87	-29.41	78.18	275.70	84.62	17 24 35	1814.9	-28.66	50.78
110.00	18 17 31	2502.37	-34.11	54.80	276.05	88.15	18 59 13	1502.4	-31.30	26.43

DIFFERENTIAL CORRECTIONS

TDE	-.4754	TRA	-1.1980	TC3	.8732	BAU	.2663												
RDE	-.2193	RRA	.3521	RC3	-.6562	FAU	.14691												
FDE	1.6413	FRA	2.7832	FC3	-6.9742	BSP	3566												
BDE	.5236	BRA	1.2487	BC3	1.0923	FSP	1006												

MID-COURSE EXECUTION ACCURACY

SGT	1988.0	SGR	811.8	SG3	649.2														
RRT	-.6871	RRF	.7757	RTF	-.8563														
SGB	2147.4	R23	-.1858	R13	.8748														
SG1	2071.4	SG2	566.0	THA	163.02														

ORBIT DETERMINATION ACCURACY

ST	41.1	SR	16.6	SS	48.5														
CRT	.3967	CRS	.5524	CST	.9826														
LSA	63.9	MSA	15.4	SSA	1.7														
EL1	41.7	EL2	15.0	ALF	10.46														

LAUNCH DATE JUL 18 1973 FLIGHT TIME 166.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 415.621 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.343	GAL	-2.36	AZL	89.15	HCA	133.53	SMA	209.29	ECC	.27644	INC	.8483
RP	227.15	LAP	.62	LOP	68.77	VP	23.118	GAP	15.30	AZP	90.58	TAL	349.08	TAP	122.62	RCA	151.44	APO	267.15
RC	124.878	GL	8.70	GP	-12.02	ZAL	107.35	ZAP	152.02	ETS	205.52	ZAE	162.42	ETE	311.48	ZAC	71.36	ETC	283.11

V1	29.304																		
V2	24.214																		
LVI	-5.17																		

PLANETOCENTRIC CONIC

C3	17.894	VHL	4.230	DLA	22.02	RAL	38.07	RAD	6641.9	VEL	11.744	PTH	6.77	VHP	4.350	DPA	4.28	RAP	44.90
ECC	1.2945																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 40 35	3556.22	-46.96	133.35	274.54	98.71	13 39 51	2556.2	-38.22	102.48
60.00	12 53 4	3522.96	-40.23	131.29	275.46	92.66	13 51 47	2523.0	-34.77	101.61
70.00	13 12 56	3464.44	-34.09	126.58	275.49	87.74	14 10 41	2464.4	-31.45	98.16
80.00	13 48 31	3352.88	-29.33	117.73	275.09	84.14	14 44 24	2352.9	-28.79	90.32
90.00	14 54 11	3140.85	-27.40	101.90	274.84	82.72	15 46 32	2140.9	-27.69	74.90
100.00	16 31 23	2827.35	-29.33	79.10	275.09	84.14	17 18 30	1827.3	-28.79	51.69
110.00	18 12 23	2511.25	-34.09	55.50	275.49	87.74	18 54 14	1511.3	-31.45	27.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4787	TRA	-1.1809	TC3	.8954	BAU	.2735	SGT	1992.8	SGR	844.7	SG3	683.6	ST	41.5	SR	15.7	SS	50.5
RDE	-.1989	RRA	.3618	RC3	-.7107	FAU	.15343	RRT	-.7087	RRF	.8008	RTF	-.8576	CRT	.3546	CRS	.5175	CST	.9818
FDE	1.7500	FRA	2.8668	FC3	-7.4231	BSP	3607	SGB	2164.5	R23	-.1964	R13	.8784	LSA	65.5	MSA	15.0	SSA	1.8
BDE	.5183	BRA	1.2351	BC3	1.1432	FSP	1066	SG1	2088.4	SG2	568.7	THA	161.89	EL1	41.9	EL2	14.5	ALF	8.66

LAUNCH DATE JUL 18 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 419.253 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.308	GAL	-2.31	AZL	89.09	HCA	134.58	SMA	208.52	ECC	.27364	INC	.9082
RP	227.54	LAP	.65	LOP	69.82	VP	23.023	GAP	15.01	AZP	90.64	TAL	349.22	TAP	123.80	RCA	151.46	APO	265.57
RC	127.544	GL	7.23	GP	-12.52	ZAL	107.10	ZAP	150.88	ETS	205.38	ZAE	162.46	ETE	308.59	ZAC	70.88	ETC	283.15

V1	29.304																		
V2	24.172																		
LVI	-4.69																		

PLANETOCENTRIC CONIC

C3	17.578	VHL	4.193	DLA	22.45	RAL	37.65	RAD	6641.7	VEL	11.731	PTH	6.76	VHP	4.244	DPA	3.81	RAP	45.06
ECC	1.2893																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 36 56	3561.33	-47.01	133.84	274.12	98.34	13 36 17	2561.3	-38.40	102.84
60.00	12 48 42	3529.99	-40.25	131.88	274.99	92.26	13 47 32	2530.0	-34.95	102.13
70.00	13 7 33	3474.43	-34.06	127.36	274.96	87.28	14 5 28	2474.4	-31.61	98.89
80.00	13 41 51	3366.85	-29.23	118.76	274.51	83.61	14 37 58	2366.9	-28.92	91.34
90.00	14 46 46	3157.27	-27.25	103.08	274.23	82.14	15 39 23	2157.3	-27.80	76.09
100.00	16 24 43	2841.32	-29.23	80.12	274.51	83.61	17 12 5	1841.3	-28.92	52.70
110.00	18 7 0	2521.24	-34.06	56.27	274.96	87.28	18 49 1	1521.2	-31.61	27.81

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4823	TRA	-1.1632	TC3	.9124	BAU	.2803	SGT	1994.5	SGR	881.4	SG3	719.1	ST	41.9	SR	14.7	SS	52.7
RDE	-.1773	RRA	.3721	RC3	-.7685	FAU	.16009	RRT	-.7281	RRF	.8239	RTF	-.8582	CRT	.3010	CRS	.4715	CST	.9811
FDE	1.8675	FRA	2.9515	FC3	-7.8845	BSP	3645	SGB	2180.6	R23	-.2075	R13	.8819	LSA	67.3	MSA	14.7	SSA	1.8
BDE	.5138	BRA	1.2213	BC3	1.1929	FSP	1128	SG1	2104.0	SG2	572.7	THA	160.68	EL1	42.1	EL2	13.9	ALF	6.77

LAUNCH DATE JUL 18 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 422.900 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.274	GAL	-2.27	AZL	89.03	HCA	135.63	SMA	207.78	ECC	.27100	INC	.9699
RP	227.93	LAP	.68	LOP	70.86	VP	22.931	GAP	14.73	AZP	90.69	TAL	349.35	TAP	124.97	RCA	151.47	APO	264.09
RC	130.237	GL	7.78	GP	-13.04	ZAL	106.85	ZAP	149.72	ETS	205.25	ZAE	162.46	ETE	305.51	ZAC	70.38	ETC	283.19

V1	29.304																		
V2	24.131																		
LVI	-4.20																		

PLANETOCENTRIC CONIC

C3	17.288	VHL	4.158	DLA	22.91	RAL	37.23	RAD	6641.6	VEL	11.718	PTH	6.75	VHP	4.142	DPA	3.31	RAP	45.20
ECC	1.2845																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 33 9	3567.20	-47.07	134.39	273.76	97.92	13 32 36	2567.2	-38.60	103.26
60.00	12 44 9	3537.92	-40.27	132.56	274.56	91.80	13 43 7	2537.9	-35.15	102.71
70.00	13 1 55	3485.58	-34.02	128.23	274.46	86.77	14 0 0	2485.6	-31.79	99.72
80.00	13 34 48	3382.45	-29.11	119.90	273.95	83.03	14 31 10	2382.4	-29.06	92.47
90.00	14 38 50	3175.67	-27.08	104.40	273.63	81.51	15 31 46	2175.7	-27.91	77.42
100.00	16 17 39	2856.92	-29.11	81.27	273.95	83.03	17 5 16	1856.9	-29.06	53.84
110.00	18 1 21	2532.40	-34.02	57.14	274.46	86.77	18 43 33	1532.4	-31.79	28.63

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4850	TRA	-1.1447	TC3	.9272	BAU	.2877	SGT	1993.5	SGR	922.4	SG3	756.0	ST	42.2	SR	13.7	SS	54.9
RDE	-.1548	RRA	.3831	RC3	-.8305	FAU	.16705	RRT	-.7458	RRF	.8453	RTF	-.8586	CRT	.2319	CRS	.4109	CST	.9804
FDE	1.9913	FRA	3.0361	FC3	-8.3657	BSP	3680	SGB	2196.5	R23	-.2182	R13	.8856	LSA	69.1	MSA	14.3	SSA	1.8
BDE	.5091	BRA	1.2071	BC3	1.2447	FSP	1192	SG1	2119.1	SG2	578.1	THA	159.36	EL1	42.3	EL2	13.3	ALF	4.80

LAUNCH DATE JUL 18 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 426.560 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.242	GAL	-2.22	AZL	88.97	HCA	136.67	SMA	207.10	ECC	.26849	INC	1.0340
RP	228.32	LAP	.71	LOP	71.90	VP	22.841	GAP	14.45	AZP	90.75	TAL	349.47	TAP	126.14	RCA	151.49	APO	262.70
RC	132.954	GL	8.36	GP	-13.58	ZAL	106.61	ZAP	148.52	ETS	205.13	ZAE	162.41	ETE	302.27	ZAC	69.85	ETC	283.24

V1	29.304																		
V2	24.090																		
LVI	-3.70																		

PLANETOCENTRIC CONIC

C3	17.021	VHL	4.126	DLA	23.38	RAL	36.81	RAD	6641.5	VEL	11.707	PTH	6.74	VHP	4.044	DPA	2.78	RAP	45.32
ECC	1.2801																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 15	3573.86	-47.13	135.02	273.44	97.43	13 28 49	2573.9	-38.83	103.73
60.00	12 39 24	3546.81	-40.28	133.31	274.16	91.29	13 38 31	2546.8	-35.36	103.36
70.00	12 55 59	3497.97	-33.97	129.19	273.99	86.20	13 54 17	2498.0	-31.98	100.63
80.00	13 27 16	3399.83	-28.95	121.17	273.40	82.37	14 23 56	2399.8	-29.20	93.75
90.00	14 30 18	3196.30	-26.86	105.87	273.05	80.80	15 23 34	2196.3	-28.02	78.92
100.00	16 10 8	2874.30	-28.95	82.54	273.40	82.37	16 58 2	1874.3	-29.20	55.11
110.00	17 55 25	2544.79	-33.97	58.11	273.99	86.20	18 37 50	1544.8	-31.98	29.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4875	TRA	-1.1253	TC3	.9393	BAU	.2955	SGT	1989.4	SGR	967.8	SG3	794.0	ST	42.4	SR	12.8	SS	57.3
RDE	-.1309	RRA	.3946	RC3	-.8964	FAU	.17421	RRT	-.7618	RRF	.8647	RTF	-.8589	CRT	.1428	CRS	.3304	CST	.9796
FDE	2.1245	FRA	3.1205	FC3	-8.8610	BSP	3706	SGB	2212.3	R23	-.2279	R13	.8895	LSA	71.1	MSA	14.0	SSA	1.8
BDE	.5047	BRA	1.1925	BC3	1.2984	FSP	1257	SG1	2133.7	SG2	584.5	THA	157.92	EL1	42.5	EL2	12.7	ALF	2.71

LAUNCH DATE JUL 18 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 430.232 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.212	GAL	-8.18	AZL	88.90	HCA	137.70	SMA	208.48	ECC	.26819	INC	1.1001	V1	29.304
RP	228.70	LAP	.74	LOP	72.94	VP	22.754	GAP	14.17	AZP	90.81	TAL	349.89	TAP	127.29	RCA	151.51	APO	261.38	V2	24.049
RC	135.694	GL	8.93	GP	-14.15	ZAL	106.38	ZAP	147.30	ETS	205.02	ZAE	162.31	ETE	298.66	ZAC	69.31	ETC	283.30	LVI	-3.17

PLANETOCENTRIC CONIC

C3	16.777	VHL	4.096	DLA	23.88	RAL	36.38	RAD	6641.4	VEL	11.697	PTH	6.73	VHP	3.951	DPA	2.22	RAP	45.43	ECC	1.2781

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 25 12	3581.35	-47.19	138.74	273.17	96.89	13 24 53	2581.3	-39.09	104.27
60.00	12 34 88	3556.88	-40.30	134.18	273.80	90.72	13 33 44	2556.7	-35.60	104.09
70.00	12 49 44	3511.69	-33.90	130.25	273.55	85.58	13 48 16	2511.7	-32.18	101.65
80.00	13 19 13	3419.18	-28.77	122.58	272.87	81.65	14 16 12	2419.2	-29.34	95.17
90.00	14 21 3	3219.50	-26.60	107.51	272.48	80.02	15 14 43	2219.5	-28.12	80.61
100.00	16 2 5	2893.66	-28.77	83.93	272.87	81.65	16 50 18	1893.7	-29.34	56.54
110.00	17 49 10	2558.51	-33.90	59.17	273.55	85.58	18 31 49	1558.5	-32.18	30.57

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.4896	TRA	-1.1052	TC3	.9488	BAU	.3035	SGT	1882.2	SGR	1018.1	SG3	833.3	ST	42.8	SR	12.0	SS	59.8
RDE	-.1055	RRA	.4069	RC3	-.9669	FAU	.18162	RRT	-.7757	RRF	.8823	RTF	-.8585	CRT	.0287	CRS	.2244	CST	.9787
FDE	2.2666	FRA	3.2043	FC3	-9.3720	BSP	3736	SGB	2228.3	R23	-.2374	R13	.8934	LSA	73.1	MSA	13.7	SSA	1.8
BDE	.5009	BRA	1.1777	BC3	1.3532	FSP	1325	SG1	2146.0	SG2	592.9	THA	156.37	EL1	42.6	EL2	12.0	ALF	.50

LAUNCH DATE JUL 18 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 433.918 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.183	GAL	-2.15	AZL	88.83	HCA	138.74	SMA	205.84	ECC	.26389	INC	1.1689	V1	29.304
RP	229.09	LAP	.77	LOP	73.98	VP	22.869	GAP	13.89	AZP	90.88	TAL	349.70	TAP	128.64	RCA	151.52	APO	260.16	V2	24.008
RC	138.457	GL	9.57	GP	-14.75	ZAL	106.16	ZAP	146.05	ETS	204.92	ZAE	162.15	ETE	295.32	ZAC	68.74	ETC	283.36	LVI	-2.63

PLANETOCENTRIC CONIC

C3	16.556	VHL	4.069	DLA	24.40	RAL	35.96	RAD	6641.3	VEL	11.687	PTH	6.72	VHP	3.861	DPA	1.61	RAP	45.52	ECC	1.2725

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 21 0	3589.68	-47.26	136.53	272.95	96.28	13 20 50	2589.7	-39.36	104.87
60.00	12 29 17	3567.58	-40.30	132.06	273.46	90.08	13 29 45	2567.6	-35.85	104.91
70.00	12 43 8	3526.82	-33.82	131.43	273.13	84.89	13 41 54	2526.8	-32.39	102.78
80.00	13 10 33	3440.78	-28.55	124.14	272.36	80.86	14 7 54	2440.8	-29.48	96.76
90.00	14 10 57	3245.70	-26.27	109.36	271.90	79.14	15 5 3	2245.7	-28.20	82.52
100.00	15 53 25	2915.25	-28.55	85.51	272.36	80.86	16 42 0	1915.2	-29.48	58.12
110.00	17 42 34	2573.64	-33.82	60.35	273.13	84.89	18 25 27	1573.6	-32.39	31.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.4850	TRA	-1.0782	TC3	.9621	BAU	.3139	SGT	1864.3	SGR	1073.2	SG3	873.3	ST	42.3	SR	11.3	SS	62.2
RDE	-.0792	RRA	.4191	RC3	-1.0422	FAU	.18930	RRT	-.7913	RRF	.8980	RTF	-.8605	CRT	-.1152	CRS	.0914	CST	.9772
FDE	2.4118	FRA	3.2812	FC3	-9.8990	BSP	3697	SGB	2238.4	R23	-.2395	R13	.8995	LSA	74.9	MSA	13.4	SSA	1.8
BDE	.4915	BRA	1.1568	BC3	1.4184	FSP	1390	SG1	2157.2	SG2	597.5	THA	154.53	EL1	42.4	EL2	11.2	ALF	178.14

LAUNCH DATE JUL 18 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 437.609 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.156	GAL	-2.11	AZL	88.76	HCA	139.77	SMA	205.27	ECC	.26178	INC	1.2402	V1	29.304
RP	229.48	LAP	.80	LOP	75.01	VP	22.886	GAP	13.61	AZP	90.95	TAL	349.81	TAP	129.58	RCA	151.54	APO	259.01	V2	23.967
RC	141.241	GL	10.22	GP	-15.38	ZAL	105.94	ZAP	144.76	ETS	204.83	ZAE	161.90	ETE	291.69	ZAC	68.15	ETC	283.43	LVI	-2.06

PLANETOCENTRIC CONIC

C3	16.356	VHL	4.044	DLA	24.95	RAL	35.53	RAD	6641.2	VEL	11.679	PTH	6.71	VHP	3.775	DPA	.97	RAP	45.60	ECC	1.2692

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 16 38	3598.92	-47.32	137.41	272.77	95.60	13 16 37	2598.9	-39.67	105.55
60.00	12 23 53	3579.61	-40.30	136.10	273.20	89.40	13 23 33	2579.6	-36.13	105.81
70.00	12 36 8	3543.53	-33.71	132.72	272.73	84.13	13 35 11	2543.5	-32.61	104.03
80.00	13 1 10	3464.97	-28.27	125.89	271.85	79.98	13 58 55	2465.0	-29.61	98.54
90.00	13 59 48	3275.58	-25.87	111.46	271.33	78.17	14 54 24	2275.6	-28.26	84.70
100.00	15 44 2	2939.44	-28.27	87.26	271.85	79.98	16 33 1	1939.4	-29.61	59.91
110.00	17 35 34	2590.35	-33.71	61.64	272.73	84.13	18 18 44	1590.3	-32.61	32.95

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.4916	TRA	-1.0814	TC3	.9480	BAU	.3209	SGT	1955.4	SGR	1133.3	SG3	914.6	ST	42.8	SR	10.8	SS	65.0
RDE	-.0499	RRA	.4333	RC3	-1.1203	FAU	.19684	RRT	-.7979	RRF	.9119	RTF	-.8767	CRT	-.2823	CRS	-.0799	CST	.9769
FDE	2.5786	FRA	3.3676	FC3	-10.4184	BSP	3789	SGB	2260.1	R23	-.2521	R13	.9022	LSA	77.5	MSA	13.1	SSA	1.8
BDE	.4941	BRA	1.1464	BC3	1.4676	FSP	1468	SG1	2175.1	SG2	614.1	THA	152.84	EL1	42.9	EL2	10.4	ALF	175.66

LAUNCH DATE JUL 18 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 441.312 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.131	GAL	-2.08	AZL	88.69	HCA	140.80	SMA	204.74	ECC	.25979	INC	1.3143	V1	29.304
RP	229.86	LAP	.83	LOP	76.03	VP	22.908	GAP	13.34	AZP	91.02	TAL	349.91	TAP	130.70	RCA	151.55	APO	257.92	V2	23.927
RC	144.046	GL	10.89	GP	-16.04	ZAL	105.73	ZAP	143.45	ETS	204.74	ZAE	161.58	ETE	287.98	ZAC	67.53	ETC	283.51	LVI	-1.47

PLANETOCENTRIC CONIC

C3	16.178	VHL	4.022	DLA	25.52	RAL	35.11	RAD	6641.1	VEL	11.671	PTH	6.71	VHP	3.693	DPA	.30	RAP	45.66	ECC	1.2662

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 12 6	3609.08	-47.39	138.39	272.65	94.85	13 12 15	2609.1	-40.00	106.30
60.00	12 18 12	3592.80	-40.28	137.23	272.95	88.64	13 18 5	2592.8	-36.42	106.81
70.00	12 28 41	3561.92	-33.57	134.14	272.36	83.30	13 28 3	2561.9	-32.83	105.42
80.00	12 50 55	3492.16	-27.94	127.84	271.34	79.01	13 49 7	2492.2	-29.72	100.56
90.00	13 47 17	3310.04	-25.37	113.86	270.73	77.07	14 42 28	2310.0	-28.28	87.22
100.00	15 33 46	2966.63	-27.94	89.21	271.34	79.01	16 23 13	1966.6	-29.72	61.92
110.00	17 28 7	2608.74	-33.57	63.06	272.36	83.30	18 11 36	1608.7	-32.83	34.34

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.4926	TRA	-1.0406	TC3	.9385	BAU	.3301	SGT	1939.2	SGR	1199.3	SG3	956.7	ST	42.9	SR	10.8	SS	67.9
RDE	-.0191	RRA	.4479	RC3	-1.2038	FAU	.20463	RRT	-.8055	RRF	.9243	RTF	-.8544	CRT	-.4648	CRS	-.2696	CST	.9760
FDE	2.7502	FRA	3.4505	FC3	-10.9506	BSP	3829	SGB	2280.1	R23	-.2586	R13	.9065	LSA	80.0	MSA	12.8	SSA	1.8
BDE	.4930	BRA	1.1329	BC3	1.5264	FSP	1544	SG1	2191.7	SG2	628.9	THA	150.90	EL1	43.2	EL2	9.5	ALF	172.99

LAUNCH DATE JUL 18 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 445.024 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.107	GAL	-2.04	AZL	88.61	HCA	141.82	SMA	204.23	ECC	.25790	INC	1.3916	V1	29.304
RP	230.25	LAP	.86	LOP	77.06	VP	22.427	GAP	13.07	AZP	91.09	TAL	350.00	TAP	131.82	RCA	151.56	APO	256.91	V2	23.887
RC	146.870	GL	11.58	GP	-16.74	ZAL	105.52	ZAP	142.10	ETS	204.65	ZAE	161.16	ETE	284.26	ZAC	66.89	ETC	283.59	LVI	-.66

PLANETOCENTRIC CONIC

C3	16.020	VHL	4.003	DLA	26.12	RAL	34.67	RAD	6641.0	VEL	11.665	PTH	6.70	VHP	5.616	DPA	-.42	RAP	45.71	ECC	1.2637

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 7 22	3620.22	-47.45	139.46	272.58	94.03	13 7 42	2620.2	-40.36	107.13
60.00	12 12 14	3607.23	-40.25	138.45	272.74	87.80	13 12 21	2607.2	-36.72	107.91
70.00	12 20 44	3582.18	-33.40	135.69	272.01	82.40	13 20 26	2582.2	-33.06	106.96
80.00	12 39 35	3523.00	-27.52	130.03	270.83	77.93	13 38 18	2523.0	-29.81	102.84
90.00	13 32 56	3350.64	-24.72	116.65	270.10	75.81	14 28 47	2350.6	-28.24	90.19
100.00	15 22 27	2997.47	-27.52	91.40	270.83	77.93	16 12 24	1997.5	-29.81	64.21
110.00	17 20 10	2629.00	-33.40	64.61	272.01	82.40	18 3 59	1629.0	-33.06	35.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4923	TRA	-1.0168	TC3	.9258	BAU	.3405	SGT	1916.8	SGR	1270.8	SG3	999.3	ST	42.8	SR	11.2	SS	70.8
RDE	.0138	RRA	.4627	RC3	-1.2923	FAU	.21259	RRT	-.8115	RRF	.9351	RTF	-.8518	CRT	-.6362	CRS	-.4571	CST	.9749
FDE	2.9314	FRA	3.5251	FC	-11.4885	BSP	3853	SGB	2299.8	R23	-.2622	R13	.9115	LSA	82.5	MSA	12.5	SSA	1.8
BDE	.4925	BRA	1.1172	BC3	1.5898	FSP	1617	SG1	2207.6	SG2	644.8	THA	148.76	EL1	43.4	EL2	8.5	ALF	170.15

LAUNCH DATE JUL 18 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 448.744 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.084	GAL	-2.02	AZL	88.53	HCA	142.84	SMA	203.76	ECC	.25613	INC	1.4721	V1	29.304
RP	230.63	LAP	.89	LOP	78.08	VP	22.351	GAP	12.80	AZP	91.17	TAL	350.09	TAP	132.93	RCA	151.57	APO	255.95	V2	23.847
RC	149.713	GL	12.31	GP	-17.47	ZAL	105.33	ZAP	140.72	ETS	204.55	ZAE	160.64	ETE	280.55	ZAC	66.22	ETC	283.69	LVI	-.22

PLANETOCENTRIC CONIC

C3	15.883	VHL	3.985	DLA	26.76	RAL	34.24	RAD	6640.9	VEL	11.659	PTH	6.70	VHP	3.542	DPA	-1.18	RAP	45.74	ECC	1.2614

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 2 24	3632.38	-47.50	140.63	272.56	93.13	13 2 57	2632.4	-40.74	108.04
60.00	12 5 55	3623.00	-40.20	139.79	272.57	86.90	13 6 18	2623.0	-37.05	109.13
70.00	12 12 11	3604.54	-33.18	137.40	271.67	81.41	13 12 16	2604.5	-33.29	108.66
80.00	12 26 52	3558.41	-26.99	132.53	270.29	76.72	13 26 11	2558.4	-29.86	105.47
90.00	13 15 50	3400.22	-23.85	120.02	269.39	74.34	14 12 30	2400.2	-28.09	93.81
100.00	15 9 44	3032.88	-26.99	93.90	270.29	76.72	16 0 17	2032.9	-29.86	66.84
110.00	17 11 37	2651.36	-33.18	66.32	271.67	81.41	17 55 49	1651.4	-33.29	37.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4904	TRA	-.9914	TC3	.9085	BAU	.3519	SGT	1889.2	SGR	1348.1	SG3	1042.2	ST	42.6	SR	12.2	SS	73.8
RDE	.0492	RRA	.4780	RC3	-1.3857	FAU	.22062	RRT	-.8160	RRF	.9444	RTF	-.8487	CRT	-.7755	CRS	-.6194	CST	.9737
FDE	3.1227	FRA	3.5938	FC	-12.0249	BSP	3690	SGB	2320.8	R23	-.2630	R13	.9171	LSA	85.2	MSA	12.3	SSA	1.7
BDE	.4929	BRA	1.1006	BC3	1.6570	FSP	1695	SG1	2224.5	SG2	661.8	THA	146.43	EL1	43.7	EL2	7.5	ALF	167.11

LAUNCH DATE JUL 18 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 452.471 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.062	GAL	-1.99	AZL	88.44	HCA	143.86	SMA	203.32	ECC	.25445	INC	1.5563	V1	29.304
RP	231.01	LAP	.92	LOP	79.10	VP	22.277	GAP	12.53	AZP	91.26	TAL	350.18	TAP	134.03	RCA	151.58	APO	255.05	V2	23.807
RC	152.572	GL	13.06	GP	-18.23	ZAL	105.14	ZAP	139.31	ETS	204.46	ZAE	160.02	ETE	276.89	ZAC	65.52	ETC	283.80	LVI	.44

PLANETOCENTRIC CONIC

C3	15.766	VHL	3.971	DLA	27.42	RAL	33.80	RAD	6640.9	VEL	11.654	PTH	6.69	VHP	3.472	DPA	-1.98	RAP	45.76	ECC	1.2595

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 57 12	3645.63	-47.54	141.91	272.59	92.15	12 57 58	2645.6	-41.14	109.05
60.00	11 59 15	3640.20	-40.13	141.25	272.42	85.91	12 59 55	2640.2	-37.38	110.46
70.00	12 2 57	3629.27	-32.92	139.28	271.34	80.33	13 3 26	2629.3	-33.51	110.56
80.00	12 12 18	3599.88	-26.31	135.42	269.70	75.34	13 12 18	2599.9	-29.84	108.56
90.00	12 53 53	3465.45	-22.59	124.38	268.52	72.51	13 51 39	2465.4	-27.73	98.55
100.00	14 55 10	3074.35	-26.31	96.79	269.70	75.34	15 46 24	2074.4	-29.84	69.92
110.00	17 2 23	2676.09	-32.92	68.20	271.34	80.33	17 46 59	1676.1	-33.51	39.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4826	TRA	-.9607	TC3	.8983	BAU	.3659	SGT	1852.8	SGR	1432.0	SG3	1085.5	ST	42.0	SR	13.7	SS	76.8
RDE	.0867	RRA	.4933	RC3	-1.4856	FAU	.22892	RRT	-.8221	RRF	.9526	RTF	-.8476	CRT	-.8737	CRS	-.7418	CST	.9718
FDE	3.3189	FRA	3.6531	FC	-12.5701	BSP	3858	SGB	2341.7	R23	-.2567	R13	.9243	LSA	87.7	MSA	12.1	SSA	1.7
BDE	.4904	BRA	1.0800	BC3	1.7361	FSP	1762	SG1	2242.7	SG2	673.6	THA	143.79	EL1	43.7	EL2	6.4	ALF	163.76

LAUNCH DATE JUL 18 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 456.204 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.042	GAL	-1.96	AZL	88.36	HCA	144.87	SMA	202.90	ECC	.25288	INC	1.6443	V1	29.304
RP	231.39	LAP	.95	LOP	80.11	VP	22.204	GAP	12.26	AZP	91.34	TAL	350.25	TAP	135.12	RCA	151.59	APO	254.21	V2	23.767
RC	155.447	GL	13.85	GP	-19.03	ZAL	104.96	ZAP	137.87	ETS	204.36	ZAE	159.29	ETE	273.33	ZAC	64.79	ETC	283.91	LVI	1.14

PLANETOCENTRIC CONIC

C3	15.671	VHL	3.959	DLA	28.12	RAL	33.36	RAD	6640.8	VEL	11.650	PTH	6.69	VHP	3.406	DPA	-2.83	RAP	45.77	ECC	1.2579

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 45	3660.06	-47.57	143.31	272.68	91.07	12 52 45	2660.1	-41.57	110.17
60.00	11 52 9	3658.99	-40.02	142.84	272.31	84.84	12 53 8	2659.0	-37.73	111.94
70.00	11 52 54	3656.79	-32.58	141.36	271.01	79.14	12 53 51	2656.8	-33.72	112.68
80.00	11 54 59	3650.24	-25.39	138.88	269.03	73.74	12 55 49	2650.2	-29.70	112.29
90.00	12 17 39	3576.85	-20.13	131.62	267.14	69.70	13 17 16	2576.9	-26.71	106.53
100.00	14 37 51	3124.71	-25.39	100.25	269.03	73.74	15 29 55	2124.7	-29.70	73.66
110.00	16 52 20	2703.61	-32.58	70.28	271.01	79.14	17 37 24	1703.6	-33.72	41.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4865	TRA	-.9418	TC3	.8494	BAU	.3769	SGT	1826.7	SGR	1521.7	SG3	1128.7	ST	42.2	SR	15.8	SS	80.3
RDE	.1294	RRA	.5113	RC3	-1.5859	FAU	.23651	RRT	-.8177	RRF	.9596	RTF	-.8386	CRT	-.9357	CRS	-.8316	CST	.9711
FDE	3.5437	FRA	3.7235	FC	-13.0659	BSP	3986	SGB	2377.5	R23	-.2596	R13	.9286	LSA	91.3	MSA	11.9	SSA	1.7
BDE	.5034	BRA	1.0716	BC3	1.7991	FSP	1851	SG1	2270.7	SG2	704.6	THA	141.33	EL1	44.7	EL2	5.3	ALF	160.40

LAUNCH DATE JUL 18 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 459.944 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.023	GAL	-1.94	AZL	88.26	HCA	145.88	SMA	202.51	ECC	.25140	INC	1.7366	V1	29.304
RP	231.77	LAP	.97	LOP	81.12	VP	22.134	GAP	12.00	AZP	91.44	TAL	350.32	TAP	136.20	RCA	151.60	APO	253.42	V2	23.728
RC	158.336	GL	14.67	GP	-19.87	ZAL	104.78	ZAP	136.39	ETS	204.25	ZAE	158.46	ETE	269.88	ZAC	64.03	ETC	284.04	LVI	1.86

PLANETOCENTRIC CONIC

C3	15.596	VHL	3.949	DLA	28.85	RAL	32.91	RAD	6640.8	VEL	11.647	PTH	6.68	VHP	3.345	DPA	-3.72	RAP	45.76	ECC	1.2567

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 46 0	3675.71	-47.58	144.82	272.82	89.91	12 47 15	2675.7	-42.03	111.40
60.00	11 44 35	3679.49	-39.89	144.56	272.22	83.67	12 45 54	2679.5	-38.09	113.56
70.00	11 41 51	3687.55	-32.16	143.66	270.67	77.84	12 43 18	2687.6	-33.91	115.06
80.00	11 32 54	3715.69	-24.07	143.30	268.18	71.78	12 34 50	2715.7	-29.36	117.12
84.06	10 59 47	3822.31	-18.36	148.87	265.90	67.35	12 3 29	2822.3	-26.10	124.38
100.00	14 15 46	3190.16	-24.07	104.66	268.18	71.78	15 8 56	2190.2	-29.36	78.49
110.00	16 41 17	2734.37	-32.16	72.58	270.67	77.84	17 26 51	1734.4	-33.91	43.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4814	TRA	-.9150	TC3	.8115	BAU	.3915	SGT	1787.6	SGR	1618.2	SG3	1171.2	ST	41.7	SR	18.3	SS	83.6
RDE	.1740	RRA	.5285	RC3-1	.6933	FAU	.24437	RRT	-.8159	RRF	.9657	RTF	-.8320	CRT	-.9705	CRS	-.8890	CST	.9694
FDE	3.7662	FRA	3.7759	FC-1	3.5652	BSP	4031	SGB	2411.3	R23	-.2532	R13	.9350	LSA	94.5	MSA	11.8	SSA	1.6
BDE	.5119	BRA	1.0566	BC3	1.8777	FSP	1925	SG1	2298.9	SG2	727.5	THA	138.48	EL1	45.4	EL2	4.1	ALF	156.70

LAUNCH DATE JUL 18 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 463.690 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	33.005	GAL	-1.92	AZL	88.17	HCA	146.88	SMA	202.14	ECC	.25000	INC	1.8334	V1	29.304
RP	232.14	LAP	1.00	LOP	82.13	VP	22.065	GAP	11.74	AZP	91.54	TAL	350.39	TAP	137.27	RCA	151.61	APO	252.68	V2	23.689
RC	161.238	GL	15.53	GP	-20.75	ZAL	104.62	ZAP	134.88	ETS	204.13	ZAE	157.51	ETE	266.58	ZAC	63.24	ETC	284.18	LVI	2.62

PLANETOCENTRIC CONIC

C3	15.542	VHL	3.942	DLA	29.61	RAL	32.46	RAD	6640.8	VEL	11.644	PTH	6.68	VHP	3.288	DPA	-4.66	RAP	45.74	ECC	1.2558

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 39 54	3692.69	-47.56	146.46	273.00	88.64	12 41 27	2692.7	-42.50	112.75
60.00	11 36 27	3701.89	-39.70	146.44	272.16	82.41	12 38 9	2701.9	-38.45	115.35
70.00	11 29 33	3722.29	-31.64	146.23	270.30	76.41	12 31 35	2722.3	-34.05	117.76
80.00	10 57 57	3821.97	-21.63	150.25	266.81	68.90	12 1 39	2822.0	-28.39	124.87
80.83	10 32 16	3904.14	-18.84	155.13	265.60	66.72	11 37 20	2904.1	-26.79	130.60
100.00	13 40 49	3296.44	-21.63	111.61	266.81	68.90	14 35 45	2296.4	-28.39	86.24
110.00	16 28 59	2769.11	-31.64	75.15	270.30	76.40	17 15 8	1769.1	-34.05	46.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4757	TRA	-.8880	TC3	.7660	BAU	.4074	SGT	1745.4	SGR	1721.9	SG3	1213.3	ST	41.1	SR	21.3	SS	87.1
RDE	.2229	RRA	.5465	RC3-1	.8050	FAU	.25203	RRT	-.8118	RRF	.9709	RTF	-.8239	CRT	-.9886	CRS	-.9266	CST	.9675
FDE	4.0027	FRA	3.8225	FC-14	.0393	BSP	4099	SGB	2451.8	R23	-.2442	R13	.9416	LSA	98.0	MSA	11.6	SSA	1.6
BDE	.5253	BRA	1.0427	BC3	1.9608	FSP	2003	SG1	2333.7	SG2	752.1	THA	135.48	EL1	46.2	EL2	2.9	ALF	152.75

LAUNCH DATE JUL 18 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 467.440 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	32.988	GAL	-1.90	AZL	88.06	HCA	147.89	SMA	201.80	ECC	.24870	INC	1.9354	V1	29.304
RP	232.51	LAP	1.03	LOP	83.13	VP	21.998	GAP	11.48	AZP	91.64	TAL	350.44	TAP	138.33	RCA	151.61	APO	251.99	V2	23.650
RC	164.150	GL	16.42	GP	-21.68	ZAL	104.46	ZAP	133.34	ETS	204.00	ZAE	156.46	ETE	263.44	ZAC	62.41	ETC	284.33	LVI	3.41

PLANETOCENTRIC CONIC

C3	15.509	VHL	3.938	DLA	30.42	RAL	32.00	RAD	6640.8	VEL	11.643	PTH	6.68	VHP	3.235	DPA	-5.64	RAP	45.71	ECC	1.2552

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 33 27	3711.10	-47.52	148.24	273.24	87.27	12 35 18	2711.1	-43.00	114.24
60.00	11 27 42	3726.43	-39.46	148.48	272.11	81.05	12 29 48	2726.4	-38.81	117.34
70.00	11 15 38	3762.08	-30.96	149.14	269.88	74.81	12 18 20	2762.1	-34.14	120.87
78.30	10 11 19	3964.56	-19.33	159.85	265.33	66.05	11 17 24	2964.6	-27.51	135.29
78.30	10 11 19	3964.56	-19.33	159.85	265.33	66.05	11 17 24	2964.6	-27.51	135.29
78.30	10 11 19	3964.56	-19.33	159.85	265.33	66.05	11 17 24	2964.6	-27.51	135.29
110.00	16 15 4	2808.90	-30.96	78.05	269.88	74.81	17 1 53	1808.9	-34.14	49.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4678	TRA	-.8595	TC3	.7141	BAU	.4248	SGT	1697.7	SGR	1832.2	SG3	1253.9	ST	40.4	SR	24.7	SS	90.7
RDE	.2760	RRA	.5648	RC3-1	.9204	FAU	.25938	RRT	-.8055	RRF	.9753	RTF	-.8241	CRT	-.9962	CRS	-.9510	CST	.9652
FDE	4.2488	FRA	3.8576	FC-14	.4786	BSP	4169	SGB	2497.9	R23	-.2320	R13	.9485	LSA	101.7	MSA	11.6	SSA	1.5
BDE	.5431	BRA	1.0285	BC3	2.0489	FSP	2077	SG1	2374.2	SG2	776.4	THA	132.29	EL1	47.3	EL2	1.8	ALF	148.55

LAUNCH DATE JUL 18 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 471.196 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	32.972	GAL	-1.88	AZL	87.96	HCA	148.89	SMA	201.48	ECC	.24747	INC	2.0427	V1	29.304
RP	232.89	LAP	1.06	LOP	84.13	VP	21.933	GAP	11.22	AZP	91.75	TAL	350.49	TAP	139.38	RCA	151.62	APO	251.34	V2	23.612
RC	167.073	GL	17.36	GP	-22.64	ZAL	104.30	ZAP	131.77	ETS	203.85	ZAE	155.31	ETE	260.48	ZAC	61.55	ETC	284.49	LVI	4.23

PLANETOCENTRIC CONIC

C3	15.500	VHL	3.937	DLA	31.27	RAL	31.52	RAD	6640.8	VEL	11.642	PTH	6.68	VHP	3.186	DPA	-6.68	RAP	45.68	ECC	1.2551

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 26 33	3731.07	-47.43	150.16	273.52	85.79	12 28 44	2731.1	-43.51	115.89
60.00	11 18 12	3753.37	-39.15	150.71	272.06	79.57	12 20 45	2753.4	-39.17	119.54
70.00	10 59 29	3808.70	-30.08	152.48	269.37	73.01	12 2 57	2808.7	-34.14	124.51
76.08	9 53 25	4015.04	-19.84	163.89	265.08	65.33	11 0 20	3015.0	-28.26	139.29
76.08	9 53 25	4015.04	-19.84	163.89	265.08	65.33	11 0 20	3015.0	-28.26	139.29
76.08	9 53 25	4015.04	-19.84	163.89	265.08	65.33	11 0 20	3015.0	-28.26	139.29
110.00	15 58 55	2855.52	-30.08	81.40	269.37	73.01	16 46 31	1855.5	-34.14	53.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4567	TRA	-.8291	TC3	.6589	BAU	.4445	SGT	1644.3	SGR	1950.1	SG3	1292.9	ST	39.4	SR	28.6	SS	94.3
RDE	.3333	RRA	.5826	RC3-2	.0413	FAU	.26661	RRT	-.7973	RRF	.9790	RTF	-.8028	CRT	-.9978	CRS	-.9668	CST	.9623
FDE	4.4999	FRA	3.8763	FC-14	.8914	BSP	4234	SGB	2550.8	R23	-.2166	R13	.9555	LSA	105.5	MSA	11.5	SSA	1.5
BDE	.5653	BRA	1.0133	BC3	2.1451	FSP	2143	SG1	2422.4	SG2	798.9	THA	128.93	EL1	48.6	EL2	1.5	ALF	144.10

LAUNCH DATE JUL 18 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 474.968 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.957 GAL -1.87 AZL 87.84 HCA 149.88 SMA 201.18 ECC .24631 INC 2.1561 V1 29.304
RP 233.25 LAP 1.08 LOP 85.13 VP 21.869 GAP 10.96 AZP 91.87 TAL 350.54 TAP 140.42 RCA 151.62 APO 250.73 V2 23.573
RC 170.003 GL 18.34 GP -23.65 ZAL 104.15 ZAP 130.16 ETS 203.69 ZAE 154.05 ETE 257.69 ZAC 60.66 ETC 284.87 LVI 5.10

PLANETOCENTRIC CONIC

C3 15.514 VHL 3.939 DLA 32.16 RAL 31.03 RAD 6640.8 VEL 11.643 PTH 6.68 VHP 3.142 DPA -7.77 RAP 45.63 ECC 1.2953

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 19 11	3752.74	-47.31	152.24	273.84	84.20	12 21 43	2752.7	-44.03	117.71
60.00	11 7 48	3783.09	-38.76	153.13	272.01	77.96	12 10 51	2783.1	-39.50	122.00
70.00	10 39 57	3865.51	-28.89	156.47	268.70	70.93	11 44 23	2865.5	-33.97	128.93
74.02	9 37 23	4059.40	-20.36	167.51	264.87	64.56	10 45 2	3059.4	-29.05	142.88
74.02	9 37 23	4059.40	-20.36	167.51	264.87	64.56	10 45 2	3059.4	-29.05	142.88
74.02	9 37 23	4059.40	-20.36	167.51	264.87	64.56	10 45 2	3059.4	-29.05	142.88
110.00	15 39 23	2912.33	-28.89	85.39	268.70	70.93	16 27 56	1912.3	-33.97	57.85

DIFFERENTIAL CORRECTIONS

TDE -.4420 TRA -.7965 TC3 .6002 BAU .4663
RDE .3955 RRA .6001 RC3-2.1666 FAU .27353
FDE 4.7575 FRA 3.8791 FC-15.2636 BSP 4307
BDE .5931 BRA .9972 BC3 2.2482 FSP 2205

MID-COURSE EXECUTION ACCURACY

SGT 1584.2 SGR 2075.4 SG3 1329.8
RRT -.7871 RRF .9823 RTF -.7897
SGB 2610.9 R23 -.1982 R13 .9624
SG1 2479.5 SG2 817.9 THA 125.42

ORBIT DETERMINATION ACCURACY

ST 38.1 SR 32.8 SS 97.9
CRT -.9954 CRS -.9773 CST .9587
LSA 109.5 MSA 11.5 SSA 1.4
EL1 50.2 EL2 2.4 ALF 139.37

LAUNCH DATE JUL 18 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 478.719 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.943 GAL -1.85 AZL 87.72 HCA 150.88 SMA 200.90 ECC .24523 INC 2.2761 V1 29.304
RP 233.62 LAP 1.11 LOP 86.13 VP 21.807 GAP 10.71 AZP 91.99 TAL 350.58 TAP 141.45 RCA 151.63 APO 250.16 V2 23.536
RC 172.941 GL 19.37 GP -24.71 ZAL 104.01 ZAP 128.52 ETS 203.50 ZAE 152.68 ETE 255.07 ZAC 59.72 ETC 284.87 LVI 6.00

PLANETOCENTRIC CONIC

C3 15.554 VHL 3.944 DLA 33.09 RAL 30.53 RAD 6640.8 VEL 11.645 PTH 6.68 VHP 3.103 DPA -8.91 RAP 45.58 ECC 1.2560

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 11 14	3776.27	-47.12	154.49	274.19	82.48	12 14 10	2776.3	-44.57	119.72
60.00	10 56 20	3816.07	-38.26	155.79	271.93	76.22	11 59 56	2816.1	-39.81	124.75
70.00	10 14 15	3940.84	-27.10	161.60	267.71	68.37	11 19 55	2940.8	-33.47	134.76
72.06	9 22 35	4099.64	-20.89	170.87	264.69	63.74	10 30 55	3099.6	-29.86	146.21
72.06	9 22 35	4099.64	-20.89	170.87	264.69	63.74	10 30 55	3099.6	-29.86	146.21
72.06	9 22 35	4099.64	-20.89	170.87	264.69	63.74	10 30 55	3099.6	-29.86	146.21
110.00	15 13 41	2987.66	-27.10	90.52	267.71	68.37	16 3 28	1987.7	-33.47	63.67

DIFFERENTIAL CORRECTIONS

TDE -.4206 TRA -.7590 TC3 .5469 BAU .4913
RDE .4619 RRA .6161 RC3-2.2987 FAU .28039
FDE 5.0119 FRA 3.8580 FC-15.6069 BSP 4347
BDE .6247 BRA .9776 BC3 2.3629 FSP 2250

MID-COURSE EXECUTION ACCURACY

SGT 1513.9 SGR 2208.9 SG3 1364.2
RRT -.7770 RRF .9850 RTF -.7767
SGB 2677.9 R23 -.1764 R13 .9692
SG1 2547.2 SG2 826.4 THA 121.77

ORBIT DETERMINATION ACCURACY

ST 36.4 SR 37.3 SS 101.4
CRT -.9903 CRS -.9842 CST .9535
LSA 113.4 MSA 11.5 SSA 1.3
EL1 52.0 EL2 3.6 ALF 134.29

LAUNCH DATE JUL 18 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 482.484 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.930 GAL -1.84 AZL 87.60 HCA 151.87 SMA 200.63 ECC .24423 INC 2.4034 V1 29.304
RP 233.99 LAP 1.13 LOP 87.12 VP 21.746 GAP 10.45 AZP 92.12 TAL 350.60 TAP 142.47 RCA 151.63 APO 249.64 V2 23.498
RC 175.886 GL 20.44 GP -25.81 ZAL 103.87 ZAP 126.86 ETS 203.29 ZAE 151.23 ETE 252.64 ZAC 58.75 ETC 285.08 LVI 6.94

PLANETOCENTRIC CONIC

C3 15.622 VHL 3.952 DLA 34.08 RAL 30.01 RAD 6640.8 VEL 11.648 PTH 6.69 VHP 3.069 DPA -10.10 RAP 45.53 ECC 1.2571

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 2 39	3801.92	-46.86	156.91	274.58	80.62	12 6 1	2801.9	-45.11	121.95
60.00	10 43 31	3853.04	-37.62	158.72	271.80	74.32	11 47 45	2853.0	-40.06	127.86
70.00	9 25 11	4086.65	-23.09	171.02	265.44	64.11	10 33 17	3086.6	-31.68	145.74
70.14	9 8 43	4136.82	-21.44	174.05	264.55	62.85	10 17 40	3136.8	-30.71	149.36
70.14	9 8 43	4136.82	-21.44	174.05	264.55	62.85	10 17 40	3136.8	-30.71	149.36
70.14	9 8 43	4136.82	-21.44	174.05	264.55	62.85	10 17 40	3136.8	-30.71	149.36
110.00	14 24 37	3133.47	-23.09	99.94	265.44	64.11	15 16 50	2133.5	-31.68	74.66

DIFFERENTIAL CORRECTIONS

TDE -.4153 TRA -.7396 TC3 .4374 BAU .5129
RDE .5415 RRA .6381 RC3-2.4165 FAU .28460
FDE 5.3176 FRA 3.8646 FC-15.7725 BSP 4594
BDE .6824 BRA .9769 BC3 2.4558 FSP 2334

MID-COURSE EXECUTION ACCURACY

SGT 1468.9 SGR 2347.9 SG3 1394.8
RRT -.7477 RRF .9873 RTF -.7467
SGB 2769.5 R23 -.1821 R13 .9740
SG1 2628.9 SG2 871.1 THA 118.48

ORBIT DETERMINATION ACCURACY

ST 35.8 SR 42.8 SS 105.8
CRT -.9843 CRS -.9892 CST .9502
LSA 119.0 MSA 11.5 SSA 1.3
EL1 55.6 EL2 4.9 ALF 129.87

LAUNCH DATE JUL 18 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 486.253 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.918 GAL -1.83 AZL 87.46 HCA 152.85 SMA 200.39 ECC .24329 INC 2.5389 V1 29.304
RP 234.35 LAP 1.16 LOP 88.11 VP 21.687 GAP 10.20 AZP 92.26 TAL 350.63 TAP 143.48 RCA 151.64 APO 249.14 V2 23.461
RC 178.836 GL 21.57 GP -26.96 ZAL 103.73 ZAP 125.18 ETS 203.05 ZAE 149.69 ETE 250.36 ZAC 57.74 ETC 285.31 LVI 7.92

PLANETOCENTRIC CONIC

C3 15.718 VHL 3.965 DLA 35.11 RAL 29.47 RAD 6640.9 VEL 11.652 PTH 6.69 VHP 3.040 DPA -11.35 RAP 45.48 ECC 1.2587

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 53 18	3829.90	-46.52	159.53	274.96	78.64	11 57 8	2829.9	-45.64	124.44
60.00	10 28 59	3894.94	-36.79	161.98	271.59	72.25	11 33 54	2894.9	-40.24	131.41
68.26	8 55 30	4171.74	-21.99	177.10	264.43	61.91	10 5 2	3171.7	-31.59	152.40
68.26	8 55 30	4171.74	-21.99	177.10	264.43	61.91	10 5 2	3171.7	-31.59	152.40
68.26	8 55 30	4171.74	-21.99	177.10	264.43	61.91	10 5 2	3171.7	-31.59	152.40
68.26	8 55 30	4171.74	-21.99	177.10	264.43	61.91	10 5 2	3171.7	-31.59	152.40
68.26	8 55 30	4171.74	-21.99	177.10	264.43	61.91	10 5 2	3171.7	-31.59	152.40

DIFFERENTIAL CORRECTIONS

TDE -.3943 TRA -.7078 TC3 .3535 BAU .5401
RDE .6238 RRA .6556 RC3-2.5458 FAU .28934
FDE 5.5964 FRA 3.8254 FC-15.9363 BSP 4749
BDE .7380 BRA .9648 BC3 2.5702 FSP 2387

MID-COURSE EXECUTION ACCURACY

SGT 1402.5 SGR 2495.8 SG3 1421.7
RRT -.7222 RRF .9893 RTF -.7194
SGB 2862.9 R23 -.1416 R13 .9791
SG1 2721.1 SG2 889.8 THA 114.94

ORBIT DETERMINATION ACCURACY

ST 34.1 SR 48.4 SS 109.6
CRT -.9759 CRS -.9924 CST .9434
LSA 124.0 MSA 11.6 SSA 1.2
EL1 58.9 EL2 6.1 ALF 124.95

LAUNCH DATE JUL 18 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 490.025 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	32.906	GAL	-1.82	AZL	87.32	HCA	153.84	SMA	200.16	ECC	.24241	INC	2.6832	V1	29.304
RP	234.71	LAP	1.18	LOP	89.09	VP	21.630	GAP	9.95	AZP	92.41	TAL	350.64	TAP	144.48	RCA	151.84	APO	248.68	V2	23.424
RC	181.791	GL	22.75	GP	-28.16	ZAL	103.60	ZAP	123.46	ETS	202.79	ZAE	148.05	ETE	248.24	ZAC	56.68	ETC	285.56	LVI	8.95

PLANETOCENTRIC CONIC

C3	15.848	VHL	3.981	DLA	36.21	RAL	28.90	RAD	6640.9	VEL	11.657	PTH	6.69	VHP	3.016	DPA	-12.65	RAP	45.43	ECC	1.2608

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 43 3	3860.55	-46.07	162.35	275.34	76.51	11 47 24	2860.5	-46.15	127.22
60.00	10 12 6	3943.39	-35.73	165.65	271.22	69.96	11 17 49	2943.4	-40.30	135.53
66.39	8 42 50	4204.75	-22.56	180.06	264.35	60.90	9 52 54	3204.7	-32.51	155.35
66.39	8 42 50	4204.75	-22.56	180.06	264.35	60.90	9 52 54	3204.7	-32.51	155.35
66.39	8 42 50	4204.75	-22.56	180.06	264.35	60.90	9 52 54	3204.7	-32.51	155.35
66.39	8 42 50	4204.75	-22.56	180.06	264.35	60.90	9 52 54	3204.7	-32.51	155.35
66.39	8 42 50	4204.75	-22.56	180.06	264.35	60.90	9 52 54	3204.7	-32.51	155.35

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.3703	TRA	-.6764	TC3	.2604	BAU	.5689	SGT	1335.1	SGR	2650.3	SG3	1443.4	ST	32.2	SR	54.6	SS	113.5
RDE	.7146	RRA	.6726	RC3	-2.6723	FAU	.29289	RRT	-.6886	RRF	.9909	RTF	-.6842	CRT	-.9653	CRS	-.9946	CST	.9344
FDE	5.8799	FRA	3.7694	FC	-16.0000	BSP	4927	SGB	2967.6	R23	-.1216	R13	.9834	LSA	129.4	MSA	11.7	SSA	1.1
BDE	.8048	BRA	.9539	BC3	2.6849	FSP	2432	SG1	2825.2	SG2	908.2	THA	111.46	EL1	63.0	EL2	7.3	ALF	120.12

LAUNCH DATE JUL 18 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 493.799 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	32.896	GAL	-1.81	AZL	87.16	HCA	154.82	SMA	199.95	ECC	.24160	INC	2.8375	V1	29.304
RP	235.06	LAP	1.21	LOP	90.08	VP	21.574	GAP	9.70	AZP	92.57	TAL	350.65	TAP	145.47	RCA	151.64	APO	248.26	V2	23.387
RC	184.750	GL	24.00	GP	-29.42	ZAL	103.46	ZAP	121.73	ETS	202.49	ZAE	146.34	ETE	246.25	ZAC	55.59	ETC	285.84	LVI	10.02

PLANETOCENTRIC CONIC

C3	16.013	VHL	4.002	DLA	37.36	RAL	28.30	RAD	6641.0	VEL	11.664	PTH	6.70	VHP	2.998	DPA	-14.00	RAP	45.38	ECC	1.2635

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 31 42	3894.28	-45.49	165.39	275.68	74.22	11 36 36	2894.3	-46.63	130.33
60.00	9 51 46	4001.28	-34.29	169.89	270.61	67.39	10 58 27	3001.3	-40.16	140.45
64.50	8 30 30	4236.44	-23.12	182.97	264.31	59.80	9 41 6	3236.4	-33.46	158.26
64.50	8 30 30	4236.44	-23.12	182.97	264.31	59.80	9 41 6	3236.4	-33.46	158.26
64.50	8 30 30	4236.44	-23.12	182.97	264.31	59.80	9 41 6	3236.4	-33.46	158.26
64.50	8 30 30	4236.44	-23.12	182.97	264.31	59.80	9 41 6	3236.4	-33.46	158.26
64.50	8 30 30	4236.44	-23.12	182.97	264.31	59.80	9 41 6	3236.4	-33.46	158.26

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.3416	TRA	-.6439	TC3	.1668	BAU	.6008	SGT	1265.9	SGR	2813.9	SG3	1460.6	ST	30.0	SR	61.2	SS	117.2
RDE	.8136	RRA	.6877	RC3	-2.8013	FAU	.29588	RRT	-.6473	RRF	.9923	RTF	-.6415	CRT	-.9514	CRS	-.9962	CST	.9220
FDE	6.1581	FRA	3.6883	FC	-15.9966	BSP	5105	SGB	3085.5	R23	-.1020	R13	.9871	LSA	135.1	MSA	11.8	SSA	1.0
BDE	.8824	BRA	.9421	BC3	2.8063	FSP	2460	SG1	2944.5	SG2	922.0	THA	108.07	EL1	67.7	EL2	8.4	ALF	115.42

LAUNCH DATE JUL 18 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 497.575 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	32.886	GAL	-1.81	AZL	87.00	HCA	155.79	SMA	199.75	ECC	.24084	INC	3.0029	V1	29.304
RP	235.42	LAP	1.23	LOP	91.06	VP	21.519	GAP	9.45	AZP	92.74	TAL	350.66	TAP	146.45	RCA	151.64	APO	247.86	V2	23.351
RC	187.714	GL	25.31	GP	-30.72	ZAL	103.33	ZAP	119.98	ETS	202.15	ZAE	144.55	ETE	244.40	ZAC	54.46	ETC	286.13	LVI	11.14

PLANETOCENTRIC CONIC

C3	16.219	VHL	4.027	DLA	38.57	RAL	27.67	RAD	6641.1	VEL	11.673	PTH	6.71	VHP	2.986	DPA	-15.41	RAP	45.35	ECC	1.2669

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 19 1	3931.64	-44.75	168.69	275.95	71.78	11 24 32	2931.6	-47.04	133.85
60.00	9 25 35	4075.08	-32.24	175.06	269.53	64.37	10 33 31	3075.1	-39.65	146.66
62.60	8 18 27	4266.96	-23.70	185.85	264.29	58.63	9 29 34	3267.0	-34.45	161.16
62.60	8 18 27	4266.96	-23.70	185.85	264.29	58.63	9 29 34	3267.0	-34.45	161.16
62.60	8 18 27	4266.96	-23.70	185.85	264.29	58.63	9 29 34	3267.0	-34.45	161.16
62.60	8 18 27	4266.96	-23.70	185.85	264.29	58.63	9 29 34	3267.0	-34.45	161.16
62.60	8 18 27	4266.96	-23.70	185.85	264.29	58.63	9 29 34	3267.0	-34.45	161.16

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.3072	TRA	-.6095	TC3	.0693	BAU	.6348	SGT	1193.4	SGR	2983.0	SG3	1470.8	ST	27.5	SR	68.4	SS	120.7
RDE	.9218	RRA	.6999	RC3	-2.9266	FAU	.29764	RRT	-.5947	RRF	.9939	RTF	-.5973	CRT	-.9322	CRS	-.9973	CST	.9040
FDE	6.4286	FRA	3.5781	FC	-15.8872	BSP	5301	SGB	3212.9	R23	-.0833	R13	.9900	LSA	140.9	MSA	11.9	SSA	1.0
BDE	.9716	BRA	.9281	BC3	2.9274	FSP	2476	SG1	3075.1	SG2	930.7	THA	104.77	EL1	73.1	EL2	9.3	ALF	110.88

LAUNCH DATE JUL 18 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 501.353 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	32.876	GAL	-1.81	AZL	86.82	HCA	156.77	SMA	199.57	ECC	.24014	INC	3.1808	V1	29.304
RP	235.77	LAP	1.25	LOP	92.03	VP	21.466	GAP	9.21	AZP	92.92	TAL	350.66	TAP	147.42	RCA	151.64	APO	247.49	V2	23.318
RC	190.680	GL	26.70	GP	-32.07	ZAL	103.19	ZAP	118.21	ETS	201.78	ZAE	142.69	ETE	242.66	ZAC	53.28	ETC	286.45	LVI	12.31

PLANETOCENTRIC CONIC

C3	16.471	VHL	4.058	DLA	39.85	RAL	26.99	RAD	6641.2	VEL	11.684	PTH	6.72	VHP	2.980	DPA	-16.88	RAP	45.32	ECC	1.2711

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 4 38	3973.42	-43.80	172.25	276.09	69.16	11 10 51	2973.4	-47.37	137.83
60.00	8 44 13	4190.46	-28.58	182.65	267.23	60.28	9 54 4	3190.5	-38.14	156.08
60.67	8 6 36	4296.60	-24.27	188.72	264.32	57.37	9 18 12	3296.6	-35.47	164.06
60.67	8 6 36	4296.60	-24.27	188.72	264.32	57.37	9 18 12	3296.6	-35.47	164.06
60.67	8 6 36	4296.60	-24.27	188.72	264.32	57.37	9 18 12	3296.6	-35.47	164.06
60.67	8 6 36	4296.60	-24.27	188.72	264.32	57.37	9 18 12	3296.6	-35.47	164.06
60.67	8 6 36	4296.60	-24.27	188.72	264.32	57.37	9 18 12	3296.6	-35.47	164.06

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.2718	TRA	-.5803	TC3	-.0416	BAU	.6700	SGT	1134.5	SGR	3160.1	SG3	1474.8	ST	25.0	SR	76.3	SS	124.4
RDE	1.0434	RRA	.7130	RC3	-3.0423	FAU	.29765	RRT	-.5246	RRF	.9945	RTF	-.5162	CRT	-.9059	CRS	-.9981	CST	.8786
FDE	6.7041	FRA	3.4624	FC	-15.6449	BSP	5565	SGB	3357.6	R23	-.0669	R13	.9923	LSA	147.6	MSA	12.1	SSA	.9
BDE	1.0782	BRA	.9193	BC3	3.0426	FSP	2495	SG1	3221.1	SG2	947.6	THA	101.69	EL1	79.7	EL2	10.1	ALF	106.80

LAUNCH DATE JUL 18 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 508.132 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.868 GAL -1.80 AZL 86.63 HCA 157.74 SMA 199.40 ECC .23950 INC 3.3727 V1 29.304
RP 236.12 LAP 1.28 LOP 93.01 VP 21.414 GAP 8.96 AZP 93.12 TAL 350.65 TAP 148.39 RCA 151.64 APO 247.18 V2 23.279
RC 193.649 GL 28.16 GP -33.48 ZAL 103.04 ZAP 116.43 ETS 201.36 ZAE 140.76 ETE 241.03 ZAC 52.06 ETC 286.81 LVI 13.83

PLANETOCENTRIC CONIC

C3 16.776 VHL 4.096 DLA 41.20 RAL 26.26 RAD 6641.4 VEL 11.697 PTH 6.73 VHP 2.982 DPA -18.40 RAP 45.31 ECC 1.2761

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 48 2	4020.74	-42.58	176.15	276.02	66.36	10 55 3	3020.7	-47.56	142.39
58.69	7 54 50	4325.56	-24.83	191.60	264.37	56.00	9 6 56	3325.6	-36.52	167.01
58.69	7 54 50	4325.56	-24.83	191.60	264.37	56.00	9 6 56	3325.6	-36.52	167.01
58.69	7 54 50	4325.56	-24.83	191.60	264.37	56.00	9 6 56	3325.6	-36.52	167.01
58.69	7 54 50	4325.56	-24.83	191.60	264.37	56.00	9 6 56	3325.6	-36.52	167.01
58.69	7 54 50	4325.56	-24.83	191.60	264.37	56.00	9 6 56	3325.6	-36.52	167.01
58.69	7 54 50	4325.56	-24.83	191.60	264.37	56.00	9 6 56	3325.6	-36.52	167.01

DIFFERENTIAL CORRECTIONS

TDE -.2284 TRA -.5490 TC3 -.1488 BAU .7084
RDE 1.1761 RRA .7216 RC3-3.1550 FAU .29668
FDE 6.9614 FRA 3.3137 FC-15.3107 BSP 5824
BDE 1.1981 BRA .9067 BC3 3.1585 FSP 2492

MID-COURSE EXECUTION ACCURACY

SGT 1076.5 SGR 3344.6 SG3 1471.6
RRT -.4389 RRF .9954 RTF -.4293
SGB 3513.6 R23 -.0517 R13 .9941
SG1 3380.8 SG2 957.0 THA 98.75

ORBIT DETERMINATION ACCURACY

ST 22.1 SR 84.8 SS 127.8
CRT -.8644 CRS -.9986 CST .8374
LSA 154.5 MSA 12.3 SSA .8
EL1 86.9 EL2 10.8 ALF 102.92

LAUNCH DATE JUL 18 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 508.913 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.860 GAL -1.80 AZL 86.42 HCA 158.71 SMA 199.24 ECC .23890 INC 3.5807 V1 29.304
RP 236.46 LAP 1.30 LOP 93.98 VP 21.364 GAP 8.72 AZP 93.34 TAL 350.63 TAP 149.34 RCA 151.64 APO 246.84 V2 23.244
RC 196.619 GL 29.70 GP -34.94 ZAL 102.89 ZAP 114.65 ETS 200.89 ZAE 138.77 ETE 239.48 ZAC 50.80 ETC 287.19 LVI 14.80

PLANETOCENTRIC CONIC

C3 17.141 VHL 4.140 DLA 42.63 RAL 25.47 RAD 6641.5 VEL 11.712 PTH 6.74 VHP 2.991 DPA -19.97 RAP 45.32 ECC 1.2821

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 28 25	4075.43	-40.99	180.44	275.62	63.35	10 36 20	3075.4	-47.53	147.68
56.67	7 43 6	4354.02	-25.38	194.51	264.45	54.53	8 55 40	3354.0	-37.60	170.02
56.67	7 43 6	4354.02	-25.38	194.51	264.45	54.53	8 55 40	3354.0	-37.60	170.02
56.67	7 43 6	4354.02	-25.38	194.51	264.45	54.53	8 55 40	3354.0	-37.60	170.02
56.67	7 43 6	4354.02	-25.38	194.51	264.45	54.53	8 55 40	3354.0	-37.60	170.02
56.67	7 43 6	4354.02	-25.38	194.51	264.45	54.53	8 55 40	3354.0	-37.60	170.02
56.67	7 43 6	4354.02	-25.38	194.51	264.45	54.53	8 55 40	3354.0	-37.60	170.02

DIFFERENTIAL CORRECTIONS

TDE -.1720 TRA -.5111 TC3 -.2435 BAU .7504
RDE 1.3182 RRA .7213 RC3-3.2656 FAU .29487
FDE 7.1810 FRA 3.1148 FC-14.8930 BSP 6032
BDE 1.3294 BRA .8640 BC3 3.2747 FSP 2452

MID-COURSE EXECUTION ACCURACY

SGT 1010.6 SGR 3532.8 SG3 1459.0
RRT -.3342 RRF .9961 RTF -.3229
SGB 3674.5 R23 -.0380 R13 .9954
SG1 3550.1 SG2 947.9 THA 95.88

ORBIT DETERMINATION ACCURACY

ST 18.7 SR 93.5 SS 130.6
CRT -.7876 CRS -.9990 CST .7599
LSA 161.2 MSA 12.4 SSA .7
EL1 94.7 EL2 11.4 ALF 99.08

LAUNCH DATE JUL 18 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 512.693 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.852 GAL -1.80 AZL 86.19 HCA 159.67 SMA 199.10 ECC .23836 INC 3.8069 V1 29.304
RP 236.81 LAP 1.32 LOP 94.95 VP 21.314 GAP 8.48 AZP 93.57 TAL 350.61 TAP 150.28 RCA 151.64 APO 246.55 V2 23.208
RC 199.589 GL 31.33 GP -36.45 ZAL 102.73 ZAP 112.87 ETS 200.38 ZAE 136.73 ETE 238.02 ZAC 49.49 ETC 287.61 LVI 16.12

PLANETOCENTRIC CONIC

C3 17.578 VHL 4.193 DLA 44.14 RAL 24.60 RAD 6641.7 VEL 11.731 PTH 6.76 VHP 3.009 DPA -21.59 RAP 45.36 ECC 1.2893

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 4 14	4140.99	-38.88	185.29	274.68	60.06	10 13 15	3141.0	-47.14	153.97
54.58	7 31 18	4382.23	-25.91	197.47	264.57	52.93	8 44 20	3382.2	-38.70	173.12
54.58	7 31 18	4382.23	-25.91	197.47	264.57	52.93	8 44 20	3382.2	-38.70	173.12
54.58	7 31 18	4382.23	-25.91	197.47	264.57	52.93	8 44 20	3382.2	-38.70	173.12
54.58	7 31 18	4382.23	-25.91	197.47	264.57	52.93	8 44 20	3382.2	-38.70	173.12
54.58	7 31 18	4382.23	-25.91	197.47	264.57	52.93	8 44 20	3382.2	-38.70	173.12
54.58	7 31 18	4382.23	-25.91	197.47	264.57	52.93	8 44 20	3382.2	-38.70	173.12

DIFFERENTIAL CORRECTIONS

TDE -.1201 TRA -.4876 TC3 -.3672 BAU .7908
RDE 1.4851 RRA .7273 RC3-3.3450 FAU .28965
FDE 7.4215 FRA 2.9418 FC-14.2659 BSP 6414
BDE 1.4899 BRA .8756 BC3 3.3651 FSP 2448

MID-COURSE EXECUTION ACCURACY

SGT 991.8 SGR 3728.8 SG3 1436.9
RRT -.2042 RRF .9967 RTF -.1926
SGB 3858.4 R23 -.0262 R13 .9964
SG1 3734.7 SG2 969.4 THA 93.33

ORBIT DETERMINATION ACCURACY

ST 16.2 SR 103.7 SS 133.7
CRT -.6683 CRS -.9993 CST .6401
LSA 169.5 MSA 12.6 SSA .7
EL1 104.2 EL2 12.0 ALF 96.03

LAUNCH DATE JUL 18 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 516.474 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.846 GAL -1.81 AZL 85.95 HCA 160.63 SMA 198.96 ECC .23786 INC 4.0537 V1 29.304
RP 237.14 LAP 1.34 LOP 95.91 VP 21.286 GAP 8.23 AZP 93.83 TAL 350.58 TAP 151.21 RCA 151.64 APO 246.29 V2 23.174
RC 202.557 GL 33.06 GP -38.02 ZAL 102.56 ZAP 111.09 ETS 199.82 ZAE 134.64 ETE 236.62 ZAC 48.14 ETC 288.06 LVI 17.49

PLANETOCENTRIC CONIC

C3 18.099 VHL 4.254 DLA 45.73 RAL 23.65 RAD 6642.0 VEL 11.753 PTH 6.78 VHP 3.036 DPA -23.26 RAP 45.42 ECC 1.2979

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 31 53	4225.75	-35.83	191.11	272.74	56.31	9 42 19	3225.8	-46.10	161.88
52.44	7 19 21	4410.26	-26.41	200.48	264.70	51.21	8 32 51	3410.3	-39.81	176.34
52.44	7 19 21	4410.26	-26.41	200.48	264.70	51.21	8 32 51	3410.3	-39.81	176.34
52.44	7 19 21	4410.26	-26.41	200.48	264.70	51.21	8 32 51	3410.3	-39.81	176.34
52.44	7 19 21	4410.26	-26.41	200.48	264.70	51.21	8 32 51	3410.3	-39.81	176.34
52.44	7 19 21	4410.26	-26.41	200.48	264.70	51.21	8 32 51	3410.3	-39.81	176.34
52.44	7 19 21	4410.26	-26.41	200.48	264.70	51.21	8 32 51	3410.3	-39.81	176.34

DIFFERENTIAL CORRECTIONS

TDE -.0533 TRA -.4585 TC3 -.4735 BAU .8359
RDE 1.6632 RRA .7213 RC3-3.4221 FAU .28391
FDE 7.6064 FRA 2.7145 FC-13.5799 BSP 6718
BDE 1.6641 BRA .8547 BC3 3.4547 FSP 2394

MID-COURSE EXECUTION ACCURACY

SGT 974.6 SGR 3928.4 SG3 1408.8
RRT -.0571 RRF .9972 RTF -.0448
SGB 4047.5 R23 -.0159 R13 .9972
SG1 3928.8 SG2 972.9 THA 90.86

ORBIT DETERMINATION ACCURACY

ST 13.8 SR 114.0 SS 136.0
CRT -.4309 CRS -.9995 CST .4021
LSA 177.5 MSA 12.8 SSA .6
EL1 114.2 EL2 12.4 ALF 93.01

LAUNCH DATE JUL 18 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 520.256 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.839 GAL -1.81 AZL 85.68 HCA 161.59 SMA 198.84 ECC .23740 INC 4.3246 VI 29.304
RP 237.48 LAP 1.36 LOP 96.87 VP 21.219 GAP 7.99 AZP 94.10 TAL 350.55 TAP 152.14 RCA 151.64 APO 246.05 V2 23.140
RC 205.523 GL 34.89 GP -39.63 ZAL 102.37 ZAP 109.32 ETS 199.20 ZAE 132.50 ETE 235.28 ZAC 46.75 ETC 288.56 LVI 18.92

PLANETOCENTRIC CONIC

C3 18.722 VHL 4.327 DLA 47.41 RAL 22.59 RAD 6642.3 VEL 11.779 PTH 6.80 VHP 3.074 DPA -24.98 RAP 45.53 ECC 1.3081

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 31 1	4378.91	-29.63	200.44	267.46	50.90	8 44 0	3378.9	-42.82	175.13
50.22	7 7 9	4438.34	-26.87	203.56	264.85	49.35	8 21 8	3438.3	-40.93	179.70
50.22	7 7 9	4438.34	-26.87	203.56	264.85	49.35	8 21 8	3438.3	-40.93	179.70
50.22	7 7 9	4438.34	-26.87	203.56	264.85	49.35	8 21 8	3438.3	-40.93	179.70
50.22	7 7 9	4438.34	-26.87	203.56	264.85	49.35	8 21 8	3438.3	-40.93	179.70
50.22	7 7 9	4438.34	-26.87	203.56	264.85	49.35	8 21 8	3438.3	-40.93	179.70
50.22	7 7 9	4438.34	-26.87	203.56	264.85	49.35	8 21 8	3438.3	-40.93	179.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0224 TRA -.4318 TC3 -.5786 BAU .8824 SGT 982.5 SGR 4132.1 SG3 1369.2 ST 12.8 SR 125.2 SS 138.0
RDE 1.8634 RRA .7097 RC3-3.4777 FAU .27608 RRT .1002 RRF .9977 RTF .1127 CRT -.0485 CRS -.9996 CST .0216
FDE 7.7665 FRA 2.4691 FC-12.7659 BSP 7068 SGB 4247.3 R23 -.0068 R13 .9977 LSA 186.3 MSA 13.0 SSA .5
BDE 1.8635 BRA .8308 BC3 3.5255 FSP 2334 SG1 4133.3 SG2 977.3 THA 88.55 EL1 125.2 EL2 12.8 ALF 90.29

LAUNCH DATE JUL 18 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC DISTANCE 524.038 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.834 GAL -1.81 AZL 85.38 HCA 162.55 SMA 198.73 ECC .23699 INC 4.6231 VI 29.304
RP 237.81 LAP 1.39 LOP 97.83 VP 21.174 GAP 7.75 AZP 94.41 TAL 350.51 TAP 153.05 RCA 151.63 APO 245.83 V2 23.106
RC 208.485 GL 36.84 GP -41.30 ZAL 102.17 ZAP 107.58 ETS 198.52 ZAE 130.34 ETE 233.99 ZAC 45.33 ETC 289.11 LVI 20.39

PLANETOCENTRIC CONIC

C3 19.468 VHL 4.412 DLA 49.19 RAL 21.39 RAD 6642.6 VEL 11.810 PTH 6.83 VHP 3.123 DPA -26.75 RAP 43.67 ECC 1.3204

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.92	6 54 36	4466.64	-27.26	206.73	264.98	47.33	8 9 2	3466.6	-42.05	183.25
47.92	6 54 36	4466.64	-27.26	206.73	264.98	47.33	8 9 2	3466.6	-42.05	183.25
47.92	6 54 36	4466.64	-27.26	206.73	264.98	47.33	8 9 2	3466.6	-42.05	183.25
47.92	6 54 36	4466.64	-27.26	206.73	264.98	47.33	8 9 2	3466.6	-42.05	183.25
47.92	6 54 36	4466.64	-27.26	206.73	264.98	47.33	8 9 2	3466.6	-42.05	183.25
47.92	6 54 36	4466.64	-27.26	206.73	264.98	47.33	8 9 2	3466.6	-42.05	183.25
47.92	6 54 36	4466.64	-27.26	206.73	264.98	47.33	8 9 2	3466.6	-42.05	183.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1089 TRA -.4077 TC3 -.6770 BAU .9323 SGT 1016.4 SGR 4339.4 SG3 1320.0 ST 14.1 SR 136.9 SS 139.2
RDE 2.0842 RRA .6887 RC3-3.5173 FAU .26687 RRT .2559 RRF .9981 RTF .2684 CRT .3690 CRS -.9997 CST -.3903
FDE 7.8789 FRA 2.1975 FC-11.8674 BSP 7407 SGB 4456.9 R23 .0009 R13 .9982 LSA 195.3 MSA 13.2 SSA .5
BDE 2.0870 BRA .8003 BC3 3.5819 FSP 2249 SG1 4347.6 SG2 980.7 THA 86.39 EL1 137.0 EL2 13.1 ALF 87.81

LAUNCH DATE JUL 18 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC DISTANCE 527.819 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.829 GAL -1.82 AZL 85.05 HCA 163.50 SMA 198.63 ECC .23662 INC 4.9543 VI 29.304
RP 238.14 LAP 1.41 LOP 98.79 VP 21.129 GAP 7.52 AZP 94.75 TAL 350.46 TAP 153.96 RCA 151.63 APO 245.63 V2 23.073
RC 211.443 GL 38.90 GP -43.02 ZAL 101.94 ZAP 105.86 ETS 197.79 ZAE 128.14 ETE 232.73 ZAC 43.86 ETC 289.72 LVI 21.92

PLANETOCENTRIC CONIC

C3 20.364 VHL 4.513 DLA 51.06 RAL 20.03 RAD 6643.0 VEL 11.848 PTH 6.86 VHP 3.185 DPA -28.56 RAP 45.87 ECC 1.3351

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.54	6 41 30	4495.45	-27.57	210.00	265.09	45.15	7 56 26	3495.4	-43.13	187.01
45.54	6 41 30	4495.45	-27.57	210.00	265.09	45.15	7 56 26	3495.4	-43.13	187.01
45.54	6 41 30	4495.45	-27.57	210.00	265.09	45.15	7 56 26	3495.4	-43.13	187.01
45.54	6 41 30	4495.45	-27.57	210.00	265.09	45.15	7 56 26	3495.4	-43.13	187.01
45.54	6 41 30	4495.45	-27.57	210.00	265.09	45.15	7 56 26	3495.4	-43.13	187.01
45.54	6 41 30	4495.45	-27.57	210.00	265.09	45.15	7 56 26	3495.4	-43.13	187.01
45.54	6 41 30	4495.45	-27.57	210.00	265.09	45.15	7 56 26	3495.4	-43.13	187.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .2085 TRA -.3868 TC3 -.7685 BAU .9831 SGT 1077.9 SGR 4548.3 SG3 1260.7 ST 17.7 SR 149.5 SS 138.9
RDE 2.3325 RRA .6599 RC3-3.5281 FAU .25546 RRT .3980 RRF .9984 RTF .4.00 CRT .6536 CRS -.9998 CST -.6683
FDE 7.9497 FRA 1.9149 FC-10.8602 BSP 7784 SGB 4674.3 R23 .0075 R13 .9984 LSA 205.0 MSA 13.4 SSA .4
BDE 2.3418 BRA .7649 BC3 3.6108 FSP 2154 SG1 4569.5 SG2 984.3 THA 84.35 EL1 149.9 EL2 13.4 ALF 85.94

LAUNCH DATE JUL 18 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC DISTANCE 531.600 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.824 GAL -1.83 AZL 84.68 HCA 164.45 SMA 198.54 ECC .23629 INC 5.3238 VI 29.304
RP 238.47 LAP 1.43 LOP 99.75 VP 21.086 GAP 7.28 AZP 95.13 TAL 350.41 TAP 154.86 RCA 151.63 APO 245.45 V2 23.040
RC 214.394 GL 41.09 GP -44.78 ZAL 101.68 ZAP 104.17 ETS 196.99 ZAE 125.93 ETE 231.50 ZAC 42.35 ETC 290.38 LVI 23.50

PLANETOCENTRIC CONIC

C3 21.448 VHL 4.631 DLA 53.04 RAL 18.46 RAD 6643.5 VEL 11.893 PTH 6.90 VHP 3.263 DPA -30.40 RAP 46.13 ECC 1.3530

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.06	6 27 46	4524.88	-27.77	213.37	265.14	42.81	7 43 10	3524.9	-44.15	191.03
43.06	6 27 46	4524.88	-27.77	213.37	265.14	42.81	7 43 10	3524.9	-44.15	191.03
43.06	6 27 46	4524.88	-27.77	213.37	265.14	42.81	7 43 10	3524.9	-44.15	191.03
43.06	6 27 46	4524.88	-27.77	213.37	265.14	42.81	7 43 10	3524.9	-44.15	191.03
43.06	6 27 46	4524.88	-27.77	213.37	265.14	42.81	7 43 10	3524.9	-44.15	191.03
43.06	6 27 46	4524.88	-27.77	213.37	265.14	42.81	7 43 10	3524.9	-44.15	191.03
43.06	6 27 46	4524.88	-27.77	213.37	265.14	42.81	7 43 10	3524.9	-44.15	191.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .3224 TRA -.3698 TC3 -.8507 BAU 1.0362 SGT 1165.7 SGR 4756.5 SG3 1191.4 ST 23.0 SR 162.6 SS 139.6
RDE 2.6095 RRA .6184 RC3-3.5122 FAU .24234 RRT .5200 RRF .9987 RTF .5313 CRT .8037 CRS -.9999 CST -.8136
FDE 7.9616 FRA 1.6144 FC3-9.7817 BSP 8165 SGB 4897.3 R23 .0132 R13 .9987 LSA 215.1 MSA 13.6 SSA .4
BDE 2.6294 BRA .7206 BC3 3.6137 FSP 2040 SG1 4796.7 SG2 987.4 THA 82.41 EL1 163.7 EL2 13.6 ALF 83.47

LAUNCH DATE JUL 18 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 535.379 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.820 GAL -1.84 AZL 84.26 HCA 165.40 SMA 198.46 ECC .23600 INC 5.7387 V1 29.304
RP 238.79 LAP 1.44 LOP 100.70 VP 21.044 GAP 7.04 AZP 95.55 TAL 350.35 TAP 155.75 RCA 151.62 APO 245.30 V2 23.008
RC 217.340 GL 43.43 GP -46.59 ZAL 101.39 ZAP 102.53 ETS 196.14 ZAE 123.71 ETE 230.30 ZAC 40.62 ETC 291.12 LVI 25.13

PLANETOCENTRIC CONIC

C3 22.768 VHL 4.772 DLA 55.12 RAL 16.64 RAD 6644.0 VEL 11.948 PTH 6.95 VHP 3.359 DPA -32.28 RAP 46.45 ECC 1.3747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.50	6 13 5	4555.33	-27.82	216.85	265.07	40.29	7 29 1	3555.3	-45.08	195.33
40.50	6 13 5	4555.33	-27.82	216.85	265.07	40.29	7 29 1	3555.3	-45.08	195.33
40.50	6 13 5	4555.33	-27.82	216.85	265.07	40.29	7 29 1	3555.3	-45.08	195.33
40.50	6 13 5	4555.33	-27.82	216.85	265.07	40.29	7 29 1	3555.3	-45.08	195.33
40.50	6 13 5	4555.33	-27.82	216.85	265.07	40.29	7 29 1	3555.3	-45.08	195.33
40.50	6 13 5	4555.33	-27.82	216.85	265.07	40.29	7 29 1	3555.3	-45.08	195.33
40.50	6 13 5	4555.33	-27.82	216.85	265.07	40.29	7 29 1	3555.3	-45.08	195.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4526 TRA -.3580 TC3 -.9200 BAU 1.0920 SGT 1277.2 SGR 4964.4 SG3 1112.9 ST 29.4 SR 176.3 SS 138.4
RDE 2.9207 RRA .5628 RC3-3.4675 FAU .22761 RRT .6187 RRF .9989 RTF .6294 CRT .8805 CRS -.9999 CST -.8872
FDE 7.9094 FRA 1.3039 FC3-8.6547 BSP 8563 SGB 5126.1 R23 .0181 R13 .9988 LSA 225.6 NSA 13.8 SSA .3
BDE 2.9556 BRA .6670 BC3 3.5875 FSP 1913 SG1 5029.5 SG2 990.4 THA 80.59 EL1 178.2 EL2 13.8 ALF 81.58

LAUNCH DATE JUL 18 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 539.158 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.816 GAL -1.85 AZL 83.79 HCA 166.34 SMA 198.39 ECC .23574 INC 6.2086 V1 29.304
RP 239.10 LAP 1.46 LOP 101.65 VP 21.003 GAP 6.81 AZP 96.03 TAL 350.29 TAP 156.63 RCA 151.62 APO 245.15 V2 22.975
RC 220.278 GL 45.91 GP -48.44 ZAL 101.07 ZAP 100.94 ETS 195.22 ZAE 121.48 ETE 229.11 ZAC 39.25 ETC 291.93 LVI 26.80

PLANETOCENTRIC CONIC

C3 24.390 VHL 4.939 DLA 57.30 RAL 14.48 RAD 6644.7 VEL 12.015 PTH 7.01 VHP 3.477 DPA -34.18 RAP 46.85 ECC 1.4014

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.84	5 57 13	4587.05	-27.70	220.43	264.80	37.61	7 13 40	3587.0	-45.87	199.94
37.84	5 57 13	4587.05	-27.70	220.43	264.80	37.61	7 13 40	3587.0	-45.87	199.94
37.84	5 57 13	4587.05	-27.70	220.43	264.80	37.61	7 13 40	3587.0	-45.87	199.94
37.84	5 57 13	4587.05	-27.70	220.43	264.80	37.61	7 13 40	3587.0	-45.87	199.94
37.84	5 57 13	4587.05	-27.70	220.43	264.80	37.61	7 13 40	3587.0	-45.87	199.94
37.84	5 57 13	4587.05	-27.70	220.43	264.80	37.61	7 13 40	3587.0	-45.87	199.94
37.84	5 57 13	4587.05	-27.70	220.43	264.80	37.61	7 13 40	3587.0	-45.87	199.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .6015 TRA -.3515 TC3 -.9735 BAU 1.1497 SGT 1407.6 SGR 5170.9 SG3 1026.0 ST 36.7 SR 190.6 SS 136.1
RDE 3.2741 RRA .4898 RC3-3.3888 FAU .21119 RRT .6973 RRF .9991 RTF .7074 CRT .9224 CRS -.9999 CST -.9271
FDE 7.7897 FRA .9890 FC3-7.4962 BSP 8963 SGB 5359.1 R23 .0221 R13 .9989 LSA 236.7 NSA 14.0 SSA .3
BDE 3.3289 BRA .6029 BC3 3.5259 FSP 1768 SG1 5266.7 SG2 990.6 THA 78.85 EL1 193.6 EL2 14.0 ALF 79.87

LAUNCH DATE JUL 18 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC DISTANCE 542.935 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.813 GAL -1.86 AZL 83.25 HCA 167.28 SMA 198.32 ECC .23552 INC 6.7450 V1 29.304
RP 239.42 LAP 1.48 LOP 102.60 VP 20.963 GAP 6.57 AZP 96.58 TAL 350.23 TAP 157.50 RCA 151.61 APO 245.03 V2 22.944
RC 223.209 GL 48.56 GP -50.32 ZAL 100.70 ZAP 99.41 ETS 194.25 ZAE 119.27 ETE 227.93 ZAC 37.66 ETC 292.83 LVI 28.51

PLANETOCENTRIC CONIC

C3 26.406 VHL 5.139 DLA 59.58 RAL 11.90 RAD 6645.6 VEL 12.098 PTH 7.07 VHP 3.620 DPA -36.10 RAP 47.33 ECC 1.4348

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.10	5 39 45	4620.41	-27.36	224.09	264.22	34.76	6 56 46	3620.4	-46.45	204.87
35.10	5 39 45	4620.41	-27.36	224.09	264.22	34.76	6 56 46	3620.4	-46.45	204.87
35.10	5 39 45	4620.41	-27.36	224.09	264.22	34.76	6 56 46	3620.4	-46.45	204.87
35.10	5 39 45	4620.41	-27.36	224.09	264.22	34.76	6 56 46	3620.4	-46.45	204.87
35.10	5 39 45	4620.41	-27.36	224.09	264.22	34.76	6 56 46	3620.4	-46.45	204.87
35.10	5 39 45	4620.41	-27.36	224.09	264.22	34.76	6 56 46	3620.4	-46.45	204.87
35.10	5 39 45	4620.41	-27.36	224.09	264.22	34.76	6 56 46	3620.4	-46.45	204.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .7706 TRA -.3533 TC3-1.0113 BAU 1.2110 SGT 1856.8 SGR 5368.9 SG3 930.6 ST 44.5 SR 205.0 SS 132.3
RDE 3.6683 RRA .3926 RC3-3.2779 FAU .19348 RRT .7589 RRF .9992 RTF .7184 CRT .9465 CRS -.9999 CST -.9500
FDE 7.5752 FRA .6699 FC3-6.3432 BSP 9357 SGB 5390.1 R23 .0254 R13 .9990 LSA 247.6 NSA 14.1 SSA .2
BDE 3.7483 BRA .5282 BC3 3.4304 FSP 1610 SG1 5501.8 SG2 989.3 THA 77.17 EL1 209.3 EL2 14.1 ALF 78.32

LAUNCH DATE JUL 18 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC DISTANCE 546.710 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.810 GAL -1.87 AZL 82.64 HCA 168.21 SMA 198.27 ECC .23533 INC 7.3636 V1 29.304
RP 239.73 LAP 1.50 LOP 103.54 VP 20.925 GAP 6.34 AZP 97.21 TAL 350.16 TAP 158.37 RCA 151.61 APO 244.92 V2 22.912
RC 226.132 GL 51.37 GP -52.23 ZAL 100.29 ZAP 97.96 ETS 193.22 ZAE 117.09 ETE 226.73 ZAC 36.05 ETC 293.83 LVI 30.26

PLANETOCENTRIC CONIC

C3 28.944 VHL 5.380 DLA 61.94 RAL 8.73 RAD 6646.6 VEL 12.202 PTH 7.16 VHP 3.794 DPA -38.03 RAP 47.90 ECC 1.4764

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.29	5 20 7	4655.88	-26.73	227.81	263.17	31.78	6 37 43	3655.9	-46.76	210.11
32.29	5 20 7	4655.88	-26.73	227.81	263.17	31.78	6 37 43	3655.9	-46.76	210.11
32.29	5 20 7	4655.88	-26.73	227.81	263.17	31.78	6 37 43	3655.9	-46.76	210.11
32.29	5 20 7	4655.88	-26.73	227.81	263.17	31.78	6 37 43	3655.9	-46.76	210.11
32.29	5 20 7	4655.88	-26.73	227.81	263.17	31.78	6 37 43	3655.9	-46.76	210.11
32.29	5 20 7	4655.88	-26.73	227.81	263.17	31.78	6 37 43	3655.9	-46.76	210.11
32.29	5 20 7	4655.88	-26.73	227.81	263.17	31.78	6 37 43	3655.9	-46.76	210.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .9606 TRA -.3643 TC3-1.0293 BAU 1.2768 SGT 1718.5 SGR 5562.9 SG3 829.4 ST 52.6 SR 219.3 SS 126.9
RDE 4.1147 RRA .2670 RC3-3.1348 FAU .17469 RRT .8075 RRF .9993 RTF .8168 CRT .9614 CRS -.9999 CST -.9641
FDE 7.2663 FRA .3583 FC3-5.2251 BSP 9733 SGB 5822.3 R23 .0275 R13 .9991 LSA 258.5 NSA 14.1 SSA .2
BDE 4.2253 BRA .4516 BC3 3.2995 FSP 1437 SG1 5738.8 SG2 982.5 THA 75.56 EL1 225.1 EL2 14.1 ALF 76.95

LAUNCH DATE JUL 18 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 13 1974

HELIOCENTRIC CONIC DISTANCE 550.482 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.807 GAL -1.88 AZL 81.91 HCA 169.15 SMA 198.22 ECC .23517 INC 8.0852 V1 29.304
RP 240.03 LAP 1.52 LOP 104.48 VP 20.887 GAP 6.10 AZP 97.94 TAL 350.08 TAP 159.23 RCA 151.60 APO 244.83 V2 22.882
RC 229.048 GL 54.37 GP -54.16 ZAL 99.83 ZAP 96.58 ETS 192.14 ZAE 114.94 ETE 225.57 ZAC 34.44 ETC 294.94 LVI 32.03

PLANETOCENTRIC CONIC

C3 32.191 VHL 5.674 DLA 64.37 RAL 4.78 RAD 6647.8 VEL 12.333 PTH 7.26 VHP 4.008 DPA -39.95 RAP 48.57 ECC 1.5298

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.42	4 57 34	4693.90	-25.77	231.54	261.41	28.70	6 15 48	3693.9	-46.70	215.58
29.42	4 57 34	4693.90	-25.77	231.54	261.41	28.70	6 15 48	3693.9	-46.70	215.58
29.42	4 57 34	4693.90	-25.77	231.54	261.41	28.70	6 15 48	3693.9	-46.70	215.58
29.42	4 57 34	4693.90	-25.77	231.54	261.41	28.70	6 15 48	3693.9	-46.70	215.58
29.42	4 57 34	4693.90	-25.77	231.54	261.41	28.70	6 15 48	3693.9	-46.70	215.58
29.42	4 57 34	4693.90	-25.77	231.54	261.41	28.70	6 15 48	3693.9	-46.70	215.58
29.42	4 57 34	4693.90	-25.77	231.54	261.41	28.70	6 15 48	3693.9	-46.70	215.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.1696 TRA -.3876 TC3-1.0278 BAU 1.3459 SGT 1890.6 SGR 5748.2 SG3 723.5 ST 60.6 SR 233.2 SS 119.7
RDE 4.6176 RRA .1089 RC3-2.9536 FAU .15470 RRT .8453 RRF .9994 RTF .8545 CRT .9708 CRS-1.0000 CST -.9730
FDE 6.8467 FRA .0682 FC3-4.1604 BSP 10127 SGB 6051.1 R23 .0283 R13 .9992 LSA 268.7 MSA 14.1 SSA .2
BDE 4.7634 BRA .4026 BC3 3.1273 FSP 1259 SG1 5972.5 SG2 972.1 THA 74.03 EL1 240.6 EL2 14.1 ALF 75.79

LAUNCH DATE JUL 18 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 15 1974

HELIOCENTRIC CONIC DISTANCE 554.249 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.805 GAL -1.90 AZL 81.06 HCA 170.07 SMA 198.17 ECC .23504 INC 8.9380 V1 29.304
RP 240.34 LAP 1.54 LOP 105.42 VP 20.850 GAP 5.87 AZP 98.81 TAL 350.01 TAP 160.08 RCA 151.59 APO 244.75 V2 22.851
RC 231.955 GL 57.58 GP -56.09 ZAL 99.31 ZAP 95.30 ETS 191.02 ZAE 112.85 ETE 224.39 ZAC 32.83 ETC 296.16 LVI 33.81

PLANETOCENTRIC CONIC

C3 36.421 VHL 6.035 DLA 66.83 RAL 359.76 RAD 6649.4 VEL 12.502 PTH 7.39 VHP 4.270 DPA -41.85 RAP 49.35 ECC 1.5994

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.54	4 30 58	4735.02	-24.40	235.21	258.57	25.60	5 49 53	3735.0	-46.18	221.17
26.54	4 30 58	4735.02	-24.40	235.21	258.57	25.60	5 49 53	3735.0	-46.18	221.17
26.54	4 30 58	4735.02	-24.40	235.21	258.57	25.60	5 49 53	3735.0	-46.18	221.17
26.54	4 30 58	4735.02	-24.40	235.21	258.57	25.60	5 49 53	3735.0	-46.18	221.17
26.54	4 30 58	4735.02	-24.40	235.21	258.57	25.60	5 49 53	3735.0	-46.18	221.17
26.54	4 30 58	4735.02	-24.40	235.21	258.57	25.60	5 49 53	3735.0	-46.18	221.17
26.54	4 30 58	4735.02	-24.40	235.21	258.57	25.60	5 49 53	3735.0	-46.18	221.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.3884 TRA -.4272 TC3-1.0059 BAU 1.4213 SGT 2067.4 SGR 5925.1 SG3 615.2 ST 67.7 SR 245.6 SS 110.3
RDE 5.1731 RRA -.0901 RC3-2.7402 FAU .13401 RRT .8746 RRF .9994 RTF .8643 CRT .9765 CRS-1.0000 CST -.9785
FDE 6.2938 FRA -.1898 FC3-3.1855 BSP 10541 SGB 6275.4 R23 .0273 R13 .9992 LSA 277.3 MSA 14.1 SSA .1
BDE 5.3562 BRA .4366 BC3 2.9190 FSP 1079 SG1 6201.9 SG2 957.6 THA 72.60 EL1 254.4 EL2 14.1 ALF 74.88

LAUNCH DATE JUL 18 1973 FLIGHT TIME 286.00 ARRIVAL DATE APR 30 1974

HELIOCENTRIC CONIC DISTANCE 641.546 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.829 GAL -2.69 AZL 99.17 HCA 191.39 SMA 198.63 ECC .23899 INC 9.1654 V1 29.304
RP 246.02 LAP 1.80 LOP 126.48 VP 20.267 GAP .82 AZP 81.01 TAL 345.98 TAP 177.37 RCA 151.16 APO 246.10 V2 22.286
RC 294.682 GL -57.04 GP 51.97 ZAL 103.29 ZAP 77.83 ETS 198.48 ZAE 96.70 ETE 174.11 ZAC 138.98 ETC 291.90 LVI -73.22

PLANETOCENTRIC CONIC

C3 38.758 VHL 6.226 DLA -37.11 RAL 64.12 RAD 6650.2 VEL 12.595 PTH 7.46 VHP 3.836 DPA 50.84 RAP 344.97 ECC 1.6379

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 45 35	2492.59	-7.03	66.10	294.34	137.18	19 27 7	1492.6	11.35	50.32
60.00	20 42 34	2180.69	2.92	47.56	303.62	130.21	21 18 54	1180.7	18.59	28.91
64.89	22 53 17	1802.70	15.12	25.73	313.18	124.31	23 23 20	802.7	27.80	3.74
64.89	22 53 17	1802.70	15.12	25.73	313.18	124.31	23 23 20	802.7	27.80	3.74
64.89	22 53 17	1802.70	15.12	25.73	313.18	124.31	23 23 20	802.7	27.80	3.74
64.89	22 53 17	1802.70	15.12	25.73	313.18	124.31	23 23 20	802.7	27.80	3.74
64.89	22 53 17	1802.70	15.12	25.73	313.18	124.31	23 23 20	802.7	27.80	3.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.0683 TRA 3.9039 TC3-3.0368 BAU 1.9763 SGT 6524.7 SGR 5421.8 SG3 761.3 ST 156.6 SR 103.3 SS 50.8
RDE 1.7493 RRA-3.7316 RC3 2.3077 FAU .18148 RRT -.9842 RRF -.9982 RTF .5008 CRT -.9737 CRS .9982 CST -.9584
FDE-2.4683 FRA 5.9398 FC3-4.0538 BSP 14529 SGB 8483.3 R23 .1138 R13 -.9917 LSA 193.1 MSA 22.5 SSA .3
BDE 3.5319 BRA 5.4005 BC3 3.8141 FSP 1362 SG1 8450.8 SG2 742.2 THA 140.36 EL1 186.6 EL2 19.7 ALF 148.87

LAUNCH DATE JUL 18 1973 FLIGHT TIME 288.00 ARRIVAL DATE MAY 2 1974

HELIOCENTRIC CONIC DISTANCE 645.292 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.832 GAL -2.73 AZL 98.54 HCA 192.28 SMA 198.69 ECC .23936 INC 8.5380 V1 29.304
RP 246.21 LAP 1.81 LOP 127.38 VP 20.252 GAP .61 AZP 81.65 TAL 345.79 TAP 178.07 RCA 151.13 APO 246.25 V2 22.267
RC 297.167 GL -54.69 GP 50.08 ZAL 104.11 ZAP 76.49 ETS 199.04 ZAE 95.91 ETE 175.47 ZAC 137.28 ETC 291.15 LVI -71.61

PLANETOCENTRIC CONIC

C3 35.601 VHL 5.967 DLA -34.89 RAL 63.17 RAD 6649.1 VEL 12.470 PTH 7.36 VHP 3.657 DPA 49.20 RAP 346.51 ECC 1.5859

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 25 12	2530.31	-8.91	67.71	291.00	136.93	19 7 23	1530.3	9.48	51.95
60.00	20 7 31	2257.85	-.47	51.25	299.05	130.30	20 45 9	1257.9	15.42	32.97
68.65	23 10 4	1719.91	15.09	19.09	310.40	121.84	23 38 44	719.9	26.82	356.62
68.65	23 10 4	1719.91	15.09	19.09	310.40	121.84	23 38 44	719.9	26.82	356.62
68.65	23 10 4	1719.91	15.09	19.09	310.40	121.84	23 38 44	719.9	26.82	356.62
68.65	23 10 4	1719.91	15.09	19.09	310.40	121.84	23 38 44	719.9	26.82	356.62
68.65	23 10 4	1719.91	15.09	19.09	310.40	121.84	23 38 44	719.9	26.82	356.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.9480 TRA 3.9045 TC3-3.3536 BAU 1.9582 SGT 6702.6 SGR 5240.0 SG3 856.2 ST 157.4 SR 98.5 SS 53.5
RDE 1.5947 RRA-3.5244 RC3 2.3832 FAU .19973 RRT -.9845 RRF -.9981 RTF .9811 CRT -.9740 CRS .9978 CST -.9568
FDE-2.5836 FRA 6.5302 FC3-4.0570 BSP 14626 SGB 8507.8 R23 .1177 R13 -.9912 LSA 191.9 MSA 22.4 SSA .3
BDE 3.3517 BRA 5.2598 BC3 4.1142 FSP 1535 SG1 8476.7 SG2 726.7 THA 142.09 EL1 184.7 EL2 19.0 ALF 148.25

LAUNCH DATE JUL 16 1973 FLIGHT TIME 290.00 ARRIVAL DATE MAY 4 1974

HELIOCENTRIC CONIC DISTANCE 649.038 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.835 GAL -2.77 AZL 97.99 HCA 193.16 SMA 198.76 ECC .23974 INC 7.0945 V1 29.304
RP 246.39 LAP 1.82 LOP 128.27 VP 20.237 GAP .39 AZP 82.21 TAL 345.89 TAP 178.75 RCA 151.11 APO 246.41 V2 22.249
RC 299.628 GL -52.49 GP 48.23 ZAL 104.90 ZAP 75.15 ETS 199.53 ZAE 93.05 ETE 176.73 ZAC 135.60 ETC 290.46 LVI -69.98

PLANETOCENTRIC CONIC

C3 33.066 VHL 5.750 DLA -32.79 RAL 62.38 RAD 6648.2 VEL 12.369 PTH 7.29 VHP 3.510 DPA 47.58 RAP 347.93 ECC 1.5442

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 8 0	2564.56	-10.61	69.19	288.31	136.66	18 50 44	1564.6	7.77	53.42
60.00	19 40 54	2317.30	-3.09	54.09	295.46	130.20	20 19 31	1317.3	12.82	36.01
70.00	22 2 8	1901.13	7.31	28.19	303.23	123.46	22 33 49	901.1	20.27	7.37
72.66	23 31 25	1626.30	14.90	11.69	307.97	119.56	23 58 31	626.3	25.75	348.86
72.66	23 31 25	1626.30	14.90	11.69	307.97	119.56	23 58 31	626.3	25.75	348.86
72.66	23 31 25	1626.30	14.90	11.69	307.97	119.56	23 58 31	626.3	25.75	348.86
110.00	3 5 30	6235.99	7.31	295.01	303.23	123.46	4 49 26	5236.0	20.27	274.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.8359 TRA 3.9137 TC3-3.6689 BAU 1.9474 SGT 6878.1 SGR 5058.1 SG3 946.0 ST 157.6 SR 93.7 SS 55.4
RDE 1.4529 RRA-3.3349 RC3 2.4383 FAU .21682 RRT -.9848 RRF -.9980 RTF .9813 CRT -.9740 CRS .9972 CST -.9544
FDE-2.6517 FRA 7.0723 FC3-5.6768 BSP 14705 SGB 8537.7 R23 .1215 R13 -.9906 LSA 190.2 NSA 22.4 SSA .3
BDE 3.1864 BRA 5.1419 BC3 4.4053 FSP 1697 SG1 8508.0 SG2 711.1 THA 143.80 EL1 182.4 EL2 18.3 ALF 149.60

LAUNCH DATE JUL 18 1973 FLIGHT TIME 292.00 ARRIVAL DATE MAY 6 1974

HELIOCENTRIC CONIC DISTANCE 652.785 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.839 GAL -2.82 AZL 97.52 HCA 194.05 SMA 198.83 ECC .24014 INC 7.5189 V1 29.304
RP 246.57 LAP 1.82 LOP 129.17 VP 20.224 GAP .18 AZP 82.70 TAL 345.38 TAP 179.43 RCA 151.08 APO 246.57 V2 22.232
RC 302.065 GL -50.43 GP 46.43 ZAL 105.66 ZAP 73.82 ETS 199.94 ZAE 94.15 ETE 177.91 ZAC 133.96 ETC 289.88 LVI -68.37

PLANETOCENTRIC CONIC

C3 31.004 VHL 5.568 DLA -30.81 RAL 61.72 RAD 6647.4 VEL 12.285 PTH 7.22 VHP 3.387 DPA 46.01 RAP 349.22 ECC 1.5182

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 53 12	2596.29	-12.18	70.57	286.11	136.36	18 36 28	1596.3	6.19	54.77
60.00	19 19 17	2367.25	-5.28	56.49	292.65	130.01	19 58 44	1367.3	10.79	38.50
70.00	21 18 42	2015.84	2.97	34.23	298.86	124.04	21 52 18	1015.8	16.45	14.07
77.24	0 3 55	1512.40	14.58	2.87	305.83	117.44	0 29 7	512.4	24.63	339.76
77.24	0 3 55	1512.40	14.58	2.87	305.83	117.44	0 29 7	512.4	24.63	339.76
77.24	0 3 55	1512.40	14.58	2.87	305.83	117.44	0 29 7	512.4	24.63	339.76
110.00	2 22 4	1062.66	2.97	323.15	298.86	124.04	2 39 47	62.7	16.45	302.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.7342 TRA 3.9267 TC3-3.9844 BAU 1.9448 SGT 7052.4 SGR 4877.7 SG3 1030.0 ST 157.5 SR 88.9 SS 56.8
RDE 1.3269 RRA-3.1578 RC3 2.4779 FAU .23298 RRT -.9850 RRF -.9978 RTF .9815 CRT -.9740 CRS .9965 CST -.9518
FDE-2.6854 FRA 7.5581 FC3-6.5056 BSP 14727 SGB 8574.9 R23 .1248 R13 -.9900 LSA 188.2 NSA 22.4 SSA .4
BDE 3.0392 BRA 5.0390 BC3 4.6920 FSP 1841 SG1 8546.7 SG2 694.2 THA 145.47 EL1 180.0 EL2 17.6 ALF 150.91

LAUNCH DATE JUL 18 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 656.529 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.842 GAL -2.86 AZL 97.10 HCA 194.94 SMA 198.90 ECC .24054 INC 7.0994 V1 29.304
RP 246.74 LAP 1.83 LOP 130.06 VP 20.211 GAP -.03 AZP 83.14 TAL 345.17 TAP 180.11 RCA 151.05 APO 246.74 V2 22.215
RC 304.476 GL -48.49 GP 44.70 ZAL 106.40 ZAP 72.51 ETS 200.29 ZAE 93.20 ETE 178.99 ZAC 132.37 ETC 289.34 LVI -66.79

PLANETOCENTRIC CONIC

C3 29.307 VHL 5.414 DLA -28.93 RAL 61.17 RAD 6646.7 VEL 12.217 PTH 7.17 VHP 3.284 DPA 44.48 RAP 350.42 ECC 1.4823

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 40 18	2626.08	-13.64	71.89	284.32	136.04	18 24 4	1626.1	4.70	56.02
60.00	19 1 6	2411.13	-7.19	58.61	290.40	129.76	19 41 17	1411.1	8.90	40.67
70.00	20 48 45	2094.54	-.04	38.34	295.79	124.15	21 23 39	1094.5	13.69	18.49
80.00	23 15 56	1633.47	8.26	8.45	300.87	118.80	23 43 10	633.5	19.37	346.59
83.63	0 50 44	1341.60	14.17	349.98	303.96	115.49	1 13 6	341.6	23.47	326.66
100.00	2 2 44	1107.94	8.26	329.82	300.87	118.80	2 21 12	107.9	19.37	307.96
110.00	1 52 7	1141.36	-.04	327.26	295.79	124.15	2 11 8	141.4	13.69	307.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.6344 TRA 3.9521 TC3-4.2890 BAU 1.9441 SGT 7223.6 SGR 4699.4 SG3 1107.5 ST 156.9 SR 84.1 SS 57.6
RDE 1.2085 RRA-2.9988 RC3 2.4949 FAU .24737 RRT -.9852 RRF -.9976 RTF .9816 CRT -.9737 CRS .9955 CST -.9480
FDE-2.6709 FRA 8.0057 FC3-7.3075 BSP 14835 SGB 8617.7 R23 .1280 R13 -.9894 LSA 185.7 NSA 22.5 SSA .4
BDE 2.6984 BRA 4.9611 BC3 4.9619 FSP 1984 SG1 8590.9 SG2 678.4 THA 147.11 EL1 177.2 EL2 16.9 ALF 152.18

LAUNCH DATE JUL 18 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 660.276 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.846 GAL -2.90 AZL 96.73 HCA 195.82 SMA 198.97 ECC .24097 INC 6.7262 V1 29.304
RP 246.90 LAP 1.83 LOP 130.95 VP 20.199 GAP -.25 AZP 83.53 TAL 344.96 TAP 180.78 RCA 151.02 APO 246.91 V2 22.199
RC 306.863 GL -46.67 GP 43.04 ZAL 107.11 ZAP 71.20 ETS 200.58 ZAE 92.21 ETE 179.99 ZAC 130.83 ETC 288.87 LVI -65.24

PLANETOCENTRIC CONIC

C3 27.897 VHL 5.282 DLA -27.15 RAL 60.71 RAD 6646.2 VEL 12.159 PTH 7.12 VHP 3.198 DPA 43.01 RAP 351.52 ECC 1.4591

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 28 57	2654.28	-15.02	73.15	282.86	135.70	18 13 11	1654.3	3.28	57.21
60.00	18 45 29	2450.74	-8.91	60.54	288.58	129.47	19 26 19	1450.7	7.18	42.60
70.00	20 25 11	2157.52	-2.44	41.63	293.44	124.08	21 1 9	1157.5	11.42	21.96
80.00	22 30 8	1766.43	3.83	15.84	297.33	119.63	22 59 34	766.4	15.61	354.67
90.00	0 31 52	1386.53	7.36	349.82	299.26	117.38	0 54 58	386.5	17.99	327.83
100.00	1 16 55	1240.90	3.83	337.20	297.33	119.63	1 37 36	240.9	15.61	316.04
110.00	1 28 34	1204.34	-2.44	330.54	293.44	124.08	1 48 38	204.3	11.42	310.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.5407 TRA 3.9816 TC3-4.5865 BAU 1.9473 SGT 7391.3 SGR 4521.7 SG3 1177.7 ST 156.0 SR 79.4 SS 58.8
RDE 1.1027 RRA-2.8494 RC3 2.4952 FAU .26030 RRT -.9853 RRF -.9974 RTF .9817 CRT -.9736 CRS .9943 CST -.9439
FDE-2.6270 FRA 8.3990 FC3-8.0778 BSP 14924 SGB 8664.7 R23 .1306 R13 -.9888 LSA 183.0 NSA 22.6 SSA .4
BDE 2.7696 BRA 4.8961 BC3 5.2213 FSP 2110 SG1 8639.5 SG2 661.3 THA 148.72 EL1 174.3 EL2 16.2 ALF 153.39

LAUNCH DATE JUL 18 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 664.022 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.850 GAL -2.95 AZL 96.39 HCA 196.70 SMA 199.04 ECC .24140 INC 6.3920 V1 29.304
RP 247.06 LAP 1.83 LOP 131.64 VP 20.188 GAP -.46 AZP 83.88 TAL 344.74 TAP 181.44 RCA 150.99 APO 247.09 V2 22.183
RC 309.224 GL -44.96 GP 41.44 ZAL 107.81 ZAP 69.92 ETS 200.82 ZAE 91.19 ETE 180.91 ZAC 129.34 ETC 288.44 LVI -63.74

PLANETOCENTRIC CONIC

C3 26.717 VHL 5.169 DLA -25.47 RAL 60.33 RAD 6645.7 VEL 12.111 PTH 7.09 VHP 3.126 DPA 41.60 RAP 352.54 ECC 1.4397

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 18 52	2681.12	-16.32	74.37	281.66	135.34	18 3 34	1681.1	1.94	58.33
60.00	18 31 49	2487.11	-10.48	62.34	287.10	129.14	19 13 16	1487.1	5.59	44.36
70.00	20 5 39	2211.25	-4.49	44.44	291.57	123.89	20 42 30	1211.3	9.44	24.86
80.00	21 59 43	1854.23	.86	20.66	294.90	119.85	22 30 37	854.2	12.94	359.82
90.00	23 45 58	1511.57	3.39	356.86	296.30	118.09	24 11 9	511.6	14.61	335.45
100.00	0 46 31	1328.70	.86	342.03	294.90	119.85	1 8 39	328.7	12.94	321.19
110.00	1 9 1	1258.07	-4.49	333.36	291.57	123.89	1 29 59	258.1	9.44	313.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.4532 TRA 4.0156 TC3-4.8778 BAU 1.9552 SGT 7558.4 SGR 4350.1 SG3 1241.4 ST 155.0 SR 75.1 SS 58.1
RDE 1.0092 RRA-2.7107 RC3 2.4842 FAU .27210 RRT -.9854 RRF -.9971 RTF .9818 CRT -.9736 CRS .9928 CST -.9394
FDE-2.5618 FRA 8.7462 FC3-8.8169 BSP 15014 SGB 8720.8 R23 .1325 R13 -.9883 LSA 180.3 HSA 22.8 SSA .5
BDE 2.6526 BRA 4.8449 BC3 5.4739 FSP 2222 SG1 8697.1 SG2 643.1 THA 150.26 EL1 171.5 EL2 15.5 ALF 154.53

LAUNCH DATE JUL 18 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 667.766 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.853 GAL -3.00 AZL 96.09 HCA 197.59 SMA 199.12 ECC .24185 INC 6.0909 V1 29.304
RP 247.22 LAP 1.84 LOP 132.73 VP 20.178 GAP -.67 AZP 84.19 TAL 344.52 TAP 182.10 RCA 150.96 APO 247.27 V2 22.168
RC 311.559 GL -43.35 GP 39.91 ZAL 108.48 ZAP 68.67 ETS 201.01 ZAE 90.14 ETE 181.76 ZAC 127.91 ETC 288.07 LVI -62.29

PLANETOCENTRIC CONIC

C3 25.723 VHL 5.072 DLA -23.87 RAL 60.03 RAD 6645.3 VEL 12.070 PTH 7.05 VHP 3.066 DPA 40.24 RAP 353.50 ECC 1.4233

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 9 52	2706.79	-17.56	75.55	280.69	134.96	17 54 59	1706.8	.65	59.40
60.00	18 19 45	2520.93	-11.93	64.02	285.90	128.79	19 1 46	1520.9	4.11	45.99
70.00	19 48 56	2258.75	-6.29	46.94	290.08	123.64	20 26 34	1258.7	7.67	27.40
80.00	21 35 59	1923.70	-1.49	24.47	293.05	119.82	22 8 3	923.7	10.75	3.82
90.00	23 16 59	1597.93	.61	1.68	294.22	118.27	23 43 37	597.9	12.11	340.56
100.00	0 22 47	1398.17	-1.49	345.84	293.05	119.82	0 46 5	398.2	10.75	325.18
110.00	0 52 18	1305.57	-6.29	335.86	290.08	123.64	1 14 4	305.6	7.67	316.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.3683 TRA 4.0557 TC3-5.1573 BAU 1.9647 SGT 7721.8 SGR 4181.3 SG3 1297.8 ST 153.6 SR 70.9 SS 57.9
RDE .9236 RRA-2.5826 RC3 2.4579 FAU .28221 RRT -.9855 RRF -.9968 RTF .9818 CRT -.9736 CRS .9908 CST -.9341
FDE-2.4683 FRA 9.0519 FC3-9.4981 BSP 15136 SGB 8781.2 R23 .1341 R13 -.9877 LSA 177.4 HSA 22.9 SSA .5
BDE 2.5420 BRA 4.8081 BC3 5.7130 FSP 2325 SG1 8758.9 SG2 625.7 THA 151.76 EL1 168.6 EL2 14.7 ALF 155.61

LAUNCH DATE JUL 18 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC DISTANCE 671.511 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.857 GAL -3.05 AZL 95.82 HCA 198.47 SMA 199.19 ECC .24231 INC 5.8182 V1 29.304
RP 247.37 LAP 1.84 LOP 133.61 VP 20.168 GAP -.88 AZP 84.48 TAL 344.29 TAP 182.76 RCA 150.93 APO 247.46 V2 22.154
RC 313.869 GL -41.82 GP 38.45 ZAL 109.14 ZAP 67.44 ETS 201.16 ZAE 89.08 ETE 182.53 ZAC 126.53 ETC 287.73 LVI -60.89

PLANETOCENTRIC CONIC

C3 24.881 VHL 4.988 DLA -22.35 RAL 59.78 RAD 6644.9 VEL 12.035 PTH 7.02 VHP 3.016 DPA 38.94 RAP 354.39 ECC 1.4095

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 1 46	2731.41	-18.74	76.70	279.91	134.57	17 47 17	1731.4	-.59	60.43
60.00	18 8 59	2552.64	-13.28	65.62	284.93	128.41	18 51 31	1552.6	2.72	47.51
70.00	19 34 21	2301.69	-7.90	49.22	288.88	123.34	20 12 42	1301.7	6.05	29.67
80.00	21 16 18	1982.59	-3.48	27.71	291.60	119.67	21 49 21	982.6	8.85	7.15
90.00	22 54 4	1667.25	-1.62	5.55	292.63	118.24	23 21 51	667.3	10.03	344.59
100.00	0 3 6	1457.06	-3.48	349.08	291.60	119.67	0 27 23	457.1	8.85	328.52
110.00	0 37 43	1348.50	-7.90	338.14	288.88	123.34	1 0 11	348.5	6.05	318.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.2870 TRA 4.1005 TC3-5.4266 BAU 1.9767 SGT 7883.1 SGR 4017.8 SG3 1347.6 ST 152.2 SR 67.0 SS 57.5
RDE .8480 RRA-2.4630 RC3 2.4218 FAU .29104 RRT -.9856 RRF -.9964 RTF .9820 CRT -.9740 CRS .9884 CST -.9285
FDE-2.3608 FRA 9.3155 FC-10.1267 BSP 15269 SGB 8848.0 R23 .1347 R13 -.9872 LSA 174.4 HSA 23.1 SSA .5
BDE 2.4391 BRA 4.7834 BC3 5.9425 FSP 2413 SG1 8827.1 SG2 607.1 THA 153.19 EL1 165.7 EL2 13.9 ALF 156.61

LAUNCH DATE JUL 18 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 675.253 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.861 GAL -3.09 AZL 95.57 HCA 199.35 SMA 199.27 ECC .24278 INC 5.5696 V1 29.304
RP 247.51 LAP 1.84 LOP 134.50 VP 20.159 GAP -1.09 AZP 84.74 TAL 344.06 TAP 183.41 RCA 150.89 APO 247.65 V2 22.140
RC 316.151 GL -40.38 GP 37.05 ZAL 109.79 ZAP 66.24 ETS 201.28 ZAE 88.00 ETE 183.24 ZAC 125.21 ETC 287.42 LVI -59.55

PLANETOCENTRIC CONIC

C3 24.166 VHL 4.916 DLA -20.91 RAL 59.58 RAD 6644.6 VEL 12.006 PTH 7.00 VHP 2.974 DPA 37.71 RAP 355.23 ECC 1.3977

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 26	2755.09	-19.87	77.82	279.29	134.17	17 40 21	1755.1	-1.78	61.42
60.00	17 59 18	2582.59	-14.54	67.14	284.15	128.01	18 42 20	1582.6	1.40	48.94
70.00	19 21 26	2341.11	-9.37	51.33	287.92	122.99	20 0 28	1341.1	4.56	31.75
80.00	20 59 26	2034.41	-5.22	30.57	290.45	119.44	21 33 21	1034.4	7.14	10.05
90.00	22 34 55	1726.44	-3.52	8.86	291.39	118.08	23 3 41	726.4	8.21	347.98
100.00	23 42 18	1508.89	-5.22	351.94	290.45	119.44	24 7 27	508.9	7.14	331.42
110.00	0 24 49	1387.93	-9.37	340.24	287.92	122.99	0 47 57	387.9	4.56	320.67

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.2104 TRA 4.1474 TC3-5.6872 BAU 1.9913 SGT 8042.3 SGR 3858.7 SG3 1390.5 ST 150.6 SR 63.4 SS 57.0
RDE .7802 RRA-2.3514 RC3 2.3758 FAU .29845 RRT -.9855 RRF -.9959 RTF .9820 CRT -.9745 CRS .9854 CST -.9222
FDE-2.2377 FRA 9.5408 FC-10.6922 BSP 15400 SGB 8920.1 R23 .1352 R13 -.9867 LSA 171.5 HSA 23.3 SSA .6
BDE 2.3440 BRA 4.7675 BC3 6.1636 FSP 2490 SG1 8900.5 SG2 590.7 THA 154.57 EL1 162.9 EL2 13.2 ALF 157.55

LAUNCH DATE JUL 18 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC DISTANCE 678.995 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	32.865	GAL	-3.14	AZL	95.34	HCA	200.23	SMA	199.38	ECC	.24327	INC	5.3422
RP	247.65	LAP	1.85	LOP	135.38	VP	20.151	GAP	-1.30	AZP	84.99	TAL	343.82	TAP	184.06	RCA	150.88	APO	247.65
RC	318.406	GL	-39.02	GP	35.72	ZAL	110.42	ZAP	65.07	ETS	201.36	ZAE	86.91	ETE	183.89	ZAC	123.94	ETC	287.18

V1	29.304																		
V2	22.126																		
LVI	-58.26																		

PLANETOCENTRIC CONIC

C3	23.555	VHL	4.853	DLA	-19.53	RAL	59.43	RAD	6644.4	VEL	11.981	PTH	6.98	VHP	2.939	DPA	36.54	RAP	356.03

ECC	1.3877																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 47 47	2777.90	-20.95	78.92	278.82	133.75	17 34 5	1777.9	-2.93	62.37
60.00	17 50 32	2611.02	-15.72	68.61	283.54	127.60	18 34 3	1611.0	.15	50.30
70.00	19 9 54	2377.72	-10.72	53.30	287.16	122.62	19 49 32	1377.7	3.17	33.67
80.00	20 44 41	2081.10	-6.78	33.17	289.54	119.15	21 19 22	1081.1	5.59	12.65
90.00	22 18 25	1778.73	-5.19	11.79	290.40	117.84	22 48 3	778.7	6.57	350.95
100.00	23 27 32	1555.57	-6.78	354.53	289.54	119.15	23 53 28	555.6	5.59	334.02
110.00	0 13 16	1424.54	-10.72	342.22	287.16	122.62	0 37 1	424.5	3.17	322.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.1367	TRA	4.1978	TC3	-5.9388	BAU	2.0083	SGT	8200.1	SGR	3705.9	SG3	1427.5	ST	149.0	SR	60.0	SS	56.3
RDE	.7199	RRA	-2.2469	RC3	2.3242	FAU	.30483	RRT	-.9855	RRF	-.9954	RTF	.9820	CRT	-.9753	CRS	.9816	CST	-.9153
FDE	-2.1043	FRA	9.7300	FC	-11.2034	BSP	15544	SGB	8998.6	R23	.1350	R13	-.9862	LSA	168.6	MSA	23.5	SSA	.6
BDE	2.2547	BRA	4.7613	BC3	6.3774	FSP	2557	SG1	8980.3	SG2	574.0	THA	155.89	EL1	160.2	EL2	12.3	ALF	158.43

LAUNCH DATE JUL 18 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 682.736 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	32.870	GAL	-3.20	AZL	95.13	HCA	201.11	SMA	199.43	ECC	.24376	INC	5.1333
RP	247.78	LAP	1.85	LOP	136.27	VP	20.144	GAP	-1.51	AZP	85.21	TAL	343.58	TAP	184.70	RCA	150.82	APO	248.05
RC	320.632	GL	-37.72	GP	34.45	ZAL	111.03	ZAP	63.92	ETS	201.42	ZAE	85.81	ETE	184.48	ZAC	122.73	ETC	286.91

V1	29.304																		
V2	22.113																		
LVI	-57.03																		

PLANETOCENTRIC CONIC

C3	23.034	VHL	4.799	DLA	-18.22	RAL	59.32	RAD	6644.2	VEL	11.959	PTH	6.96	VHP	2.911	DPA	35.42	RAP	356.78

ECC	1.3791																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 44	2799.91	-21.98	79.99	278.47	133.32	17 28 24	1799.9	-4.03	63.30
60.00	17 42 35	2638.11	-16.84	70.02	283.07	127.17	18 26 33	1638.1	-1.04	51.59
70.00	18 59 30	2412.00	-11.97	55.17	286.56	122.23	19 39 42	1412.0	1.86	35.46
80.00	20 31 34	2123.83	-8.19	35.55	288.82	118.81	21 6 58	1123.8	4.16	15.01
90.00	22 3 54	1825.96	-6.69	14.46	289.63	117.54	22 34 20	826.0	5.08	353.61
100.00	23 14 26	1598.30	-8.19	356.92	288.82	118.81	23 41 4	598.3	4.16	336.38
110.00	0 2 52	1458.82	-11.97	344.08	286.56	122.23	0 27 11	458.8	1.86	324.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0693	TRA	4.2523	TC3	-6.1782	BAU	2.0264	SGT	8355.3	SGR	3558.1	SG3	1458.4	ST	147.3	SR	56.9	SS	55.6
RDE	.6668	RRA	-2.1493	RC3	2.2656	FAU	.30990	RRT	-.9854	RRF	-.9948	RTF	.9820	CRT	-.9765	CRS	.9770	CST	-.9083
FDE	-1.9660	FRA	9.8866	FC	-11.6476	BSP	15701	SGB	9081.3	R23	.1339	R13	-.9858	LSA	165.7	MSA	23.7	SSA	.6
BDE	2.1703	BRA	4.7646	BC3	6.5805	FSP	2612	SG1	9064.2	SG2	557.5	THA	157.14	EL1	157.5	EL2	11.5	ALF	159.22

LAUNCH DATE JUL 18 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 24 1974

HELIOCENTRIC CONIC DISTANCE 686.476 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	32.874	GAL	-3.25	AZL	94.94	HCA	201.99	SMA	199.52	ECC	.24427	INC	4.9406
RP	247.91	LAP	1.85	LOP	137.15	VP	20.137	GAP	-1.72	AZP	85.42	TAL	343.34	TAP	185.33	RCA	150.78	APO	248.25
RC	322.829	GL	-36.49	GP	33.24	ZAL	111.64	ZAP	62.81	ETS	201.45	ZAE	84.71	ETE	185.02	ZAC	121.56	ETC	286.69

V1	29.304																		
V2	22.101																		
LVI	-55.84																		

PLANETOCENTRIC CONIC

C3	22.589	VHL	4.753	DLA	-16.97	RAL	59.25	RAD	6644.0	VEL	11.941	PTH	6.94	VHP	2.888	DPA	34.37	RAP	357.50

ECC	1.3718																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 12	2821.20	-22.97	81.05	278.23	132.89	17 23 13	1821.2	-5.10	64.19
60.00	17 35 18	2664.02	-17.90	71.39	282.73	126.73	18 19 42	1664.0	-2.19	52.83
70.00	18 50 3	2444.31	-13.14	56.94	286.10	121.81	19 30 47	1444.3	.63	37.15
80.00	20 19 48	2163.40	-9.48	37.78	288.26	118.45	20 55 51	1163.4	2.83	17.19
90.00	21 50 58	1869.28	-8.04	16.92	289.03	117.20	22 22 7	869.3	3.70	356.05
100.00	23 2 39	1637.87	-9.48	359.15	288.26	118.45	23 29 57	637.9	2.83	338.56
110.00	23 49 29	1491.13	-13.14	345.86	286.10	121.81	24 14 20	491.1	.63	326.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.9958	TRA	4.3106	TC3	-6.4067	BAU	2.0458	SGT	8508.4	SGR	3416.1	SG3	1483.8	ST	145.6	SR	54.0	SS	54.8
RDE	.6187	RRA	-2.0588	RC3	2.2017	FAU	.31379	RRT	-.9853	RRF	-.9942	RTF	.9820	CRT	-.9778	CRS	.9714	CST	-.9004
FDE	-1.8173	FRA	10.0180	FC	-12.0265	BSP	15883	SGB	9168.6	R23	.1325	R13	-.9854	LSA	162.9	MSA	24.0	SSA	.7
BDE	2.0895	BRA	4.7771	BC3	6.7744	FSP	2661	SG1	9152.5	SG2	542.9	THA	158.34	EL1	154.9	EL2	10.6	ALF	159.97

LAUNCH DATE JUL 18 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 26 1974

HELIOCENTRIC CONIC DISTANCE 690.215 EARTH TO MARS

RL	152.03	LAL	-.00	LOL	295.23	VL	32.878	GAL	-3.30	AZL	94.76	HCA	202.87	SMA	199.60	ECC	.24479	INC	4.7621
RP	248.03	LAP	1.85	LOP	138.03	VP	20.131	GAP	-1.93	AZP	85.61	TAL	343.10	TAP	185.97	RCA	150.74	APO	248.46
RC	324.997	GL	-35.33	GP	32.09	ZAL	112.23	ZAP	61.73	ETS	201.46	ZAE	83.61	ETE	185.52	ZAC	120.45	ETC	286.49

V1	29.304																		
V2	22.089																		
LVI	-54.71																		

PLANETOCENTRIC CONIC

C3	22.209	VHL	4.713	DLA	-15.77	RAL	59.21	RAD	6643.8	VEL	11.925	PTH	6.93	VHP	2.870	DPA	33.37	RAP	358.19

ECC	1.3655																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 31 8	2841.80	-23.92	82.09	278.08	132.44	17 18 30	1841.8	-6.13	65.06
60.00	17 28 38	2688.87	-18.91	72.72	282.49	126.28	18 13 27	1688.9	-3.28	54.02
70.00	18 41 25	2474.93	-14.23	58.64	285.76	121.38	19 22 40	1474.9	-.54	38.74
80.00	20 9 8	2200.38	-10.67	39.88	287.84	118.05	20 45 48	1200.4	1.58	19.23
90.00	21 39 19	1909.45	-9.29	19.22	288.57	116.83	22 11 8	909.5	2.41	358.29
100.00	22 51 59	1674.86	-10.67	1.25	287.84	118.05	23 19 54	674.9	1.58	340.59
110.00	23 40 51	1521.74	-14.23	347.56	285.76	121.38	24 6 13	521.7	-.54	327.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.9289	TRA	4.3706	TC3	-6.6254	BAU	2.0667	SGT	8659.3	SGR	3279.1	SG3	1503.8	ST	143.9	SR	51.3	SS	54.0
RDE	.5765	RRA	-1.9731	RC3	2.1345	FAU	.31671	RRT	-.9851	RRF	-.9934	RTF	.9820	CRT	-.9796	CRS	.9646	CST	-.8923
FDE	-1.6683	FRA	10.1182	FC	-12.3460	BSP	16053	SGB	9259.4	R23	.1303	R13	-.9850	LSA	160.2	MSA	24.2	SSA	.7
BDE	2.0132	BRA	4.7954	BC3	6.9608	FSP	2697	SG1	9244.2	SG2	528.8	THA	159.47	EL1	152.4	EL2	9.7	ALF	160.65

LAUNCH DATE JUL 18 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 28 1974

HELIOCENTRIC CONIC DISTANCE 693.953 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.882 GAL -3.35 AZL 94.60 HCA 203.75 SMA 199.69 ECC .24532 INC 4.5964 V1 29.304
RP 248.14 LAP 1.85 LOP 138.91 VP 20.126 GAP -2.13 AZP 85.79 TAL 342.85 TAP 186.60 RCA 150.70 APO 248.68 V2 22.078
RC 327.134 GL -34.22 GP 30.99 ZAL 112.82 ZAP 60.68 ETS 201.46 ZAE 82.52 ETE 185.97 ZAC 119.38 ETC 286.31 LVI -53.63

PLANETOCENTRIC CONIC

C3 21.885 VHL 4.678 DLA -14.62 RAL 59.20 RAD 6643.7 VEL 11.911 PTH 6.92 VHP 2.857 DPA 32.43 RAP 358.86 ECC 1.3602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 26 28	2861.77	-24.83	83.11	278.02	131.98	17 14 10	1861.8	-7.13	65.91
60.00	17 22 30	2712.77	-19.87	74.01	282.35	125.81	18 7 43	1712.8	-4.33	55.16
70.00	18 33 29	2504.07	-15.26	60.27	285.53	120.93	19 15 13	1504.1	-1.65	40.26
80.00	19 59 24	2235.18	-11.78	41.87	287.54	117.64	20 36 39	1235.2	.40	21.14
90.00	21 28 43	1947.03	-10.43	21.38	288.23	116.43	22 1 10	947.0	1.20	.39
100.00	22 42 16	1709.66	-11.78	3.24	287.54	117.64	23 10 45	709.7	.40	342.50
110.00	23 32 56	1550.89	-15.26	349.19	285.53	120.93	23 58 47	550.9	-1.65	329.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.8650 TRA 4.4324 TC3-6.8362 BAU 2.0895 SGT 8809.3 SGR 3148.2 SG3 1519.2 ST 142.2 SR 48.9 SS 53.2
RDE .5400 RRA-1.8924 RC3 2.0658 FAU .31885 RRT -.9848 RRF -.9926 RTF .9821 CRT -.9817 CRS .9567 CST -.8843
FDE-1.5218 FRA10.1923 FC-12.6131 BSP 16230 SGB 9354.9 R23 .1274 R13 -.9847 LSA 157.6 MSA 24.4 SSA .7
BDE 1.9416 BRA 4.8195 BC3 7.1415 FSP 2725 SG1 9340.7 SG2 515.5 THA 160.55 EL1 150.1 EL2 8.8 ALF 161.27

LAUNCH DATE JUL 18 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 30 1974

HELIOCENTRIC CONIC DISTANCE 697.689 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.887 GAL -3.41 AZL 94.44 HCA 204.63 SMA 199.78 ECC .24586 INC 4.4419 V1 29.304
RP 248.25 LAP 1.85 LOP 139.79 VP 20.122 GAP -2.34 AZP 85.96 TAL 342.59 TAP 187.22 RCA 150.66 APO 248.89 V2 22.067
RC 329.241 GL -33.16 GP 29.95 ZAL 113.39 ZAP 59.66 ETS 201.43 ZAE 81.43 ETE 186.39 ZAC 118.36 ETC 286.14 LVI -52.60

PLANETOCENTRIC CONIC

C3 21.611 VHL 4.649 DLA -13.53 RAL 59.22 RAD 6643.5 VEL 11.900 PTH 6.91 VHP 2.847 DPA 31.54 RAP 359.50 ECC 1.3557

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 22 11	2881.14	-25.71	84.12	278.03	131.52	17 10 12	1881.1	-8.09	66.73
60.00	17 16 50	2735.80	-20.78	75.28	282.29	125.34	18 2 26	1735.8	-5.34	56.27
70.00	18 26 11	2531.91	-16.22	61.85	285.39	120.47	19 8 23	1531.9	-2.72	41.72
80.00	19 50 28	2268.12	-12.81	43.77	287.34	117.20	20 28 16	1268.1	-.72	22.94
90.00	21 19 1	1982.43	-11.50	23.43	288.01	116.01	21 52 4	982.4	.06	2.37
100.00	22 33 20	1742.59	-12.81	5.14	287.34	117.20	23 2 22	742.6	-.72	344.31
110.00	23 25 38	1578.73	-16.22	350.77	285.39	120.47	23 51 56	578.7	-2.72	330.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.8032 TRA 4.4972 TC3-7.0364 BAU 2.1131 SGT 8957.6 SGR 3023.2 SG3 1530.6 ST 140.6 SR 46.7 SS 52.5
RDE .5078 RRA-1.8172 RC3 1.9953 FAU .32014 RRT -.9845 RRF -.9916 RTF .9821 CRT -.9840 CRS .9475 CST -.8761
FDE-1.3759 FRA10.2478 FC-12.8252 BSP 16410 SGB 9454.0 R23 .1239 R13 -.9844 LSA 155.2 MSA 24.6 SSA .8
BDE 1.8733 BRA 4.8505 BC3 7.3138 FSP 2744 SG1 9440.6 SG2 503.6 THA 161.57 EL1 147.9 EL2 7.9 ALF 161.84

LAUNCH DATE JUL 18 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 1 1974

HELIOCENTRIC CONIC DISTANCE 701.425 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.891 GAL -3.46 AZL 94.30 HCA 205.51 SMA 199.87 ECC .24641 INC 4.2976 V1 29.304
RP 248.35 LAP 1.85 LOP 140.67 VP 20.118 GAP -2.55 AZP 86.12 TAL 342.34 TAP 187.84 RCA 150.62 APO 249.11 V2 22.057
RC 331.317 GL -32.15 GP 28.96 ZAL 113.96 ZAP 58.67 ETS 201.39 ZAE 80.34 ETE 186.76 ZAC 117.38 ETC 286.00 LVI -51.61

PLANETOCENTRIC CONIC

C3 21.379 VHL 4.624 DLA -12.48 RAL 59.27 RAD 6643.4 VEL 11.890 PTH 6.90 VHP 2.840 DPA 30.70 RAP .13 ECC 1.3519

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 18 14	2899.97	-26.56	85.11	278.11	131.05	17 6 34	1900.0	-9.03	67.54
60.00	17 11 36	2758.04	-21.65	76.51	282.30	124.86	17 57 34	1758.0	-6.31	57.35
70.00	18 19 26	2558.59	-17.14	63.38	285.34	120.00	19 2 5	1558.6	-3.73	43.12
80.00	19 42 14	2299.44	-13.78	45.59	287.22	116.75	20 20 33	1299.4	-1.78	24.66
90.00	21 10 6	2015.96	-12.49	25.40	287.87	115.58	21 43 42	1016.0	-1.03	4.24
100.00	22 25 6	1773.91	-13.78	6.96	287.22	116.75	22 54 40	773.9	-1.78	346.03
110.00	23 18 53	1605.41	-17.14	352.30	285.34	120.00	23 45 38	605.4	-3.73	332.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7420 TRA 4.5646 TC3-7.2258 BAU 2.1372 SGT 9103.3 SGR 2902.8 SG3 1537.5 ST 138.9 SR 44.6 SS 51.7
RDE .4790 RRA-1.7463 RC3 1.9230 FAU .32054 RRT -.9840 RRF -.9906 RTF .9820 CRT -.9865 CRS .9366 CST -.8674
FDE-1.2277 FRA10.2823 FC-12.9799 BSP 16616 SGB 9554.9 R23 .1200 R13 -.9841 LSA 152.8 MSA 24.9 SSA .8
BDE 1.8066 BRA 4.8873 BC3 7.4774 FSP 2761 SG1 9542.2 SG2 493.1 THA 162.53 EL1 145.8 EL2 7.0 ALF 162.37

LAUNCH DATE JUL 18 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 3 1974

HELIOCENTRIC CONIC DISTANCE 705.159 EARTH TO MARS

RL 152.03 LAL -.00 LOL 295.23 VL 32.896 GAL -3.52 AZL 94.16 HCA 206.38 SMA 199.96 ECC .24697 INC 4.1622 V1 29.304
RP 248.45 LAP 1.85 LOP 141.55 VP 20.115 GAP -2.75 AZP 86.27 TAL 342.08 TAP 188.46 RCA 150.57 APO 249.34 V2 22.048
RC 333.364 GL -31.18 GP 28.01 ZAL 114.52 ZAP 57.71 ETS 201.34 ZAE 79.27 ETE 187.11 ZAC 116.45 ETC 285.86 LVI -50.66

PLANETOCENTRIC CONIC

C3 21.187 VHL 4.603 DLA -11.47 RAL 59.34 RAD 6643.4 VEL 11.882 PTH 6.89 VHP 2.836 DPA 29.91 RAP .74 ECC 1.3487

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 14 35	2918.28	-27.37	86.09	278.26	130.57	17 3 13	1918.3	-9.94	68.32
60.00	17 6 44	2779.55	-22.48	77.72	282.38	124.37	17 53 4	1779.6	-7.25	58.39
70.00	18 13 10	2584.24	-18.01	64.86	285.36	119.52	18 56 15	1584.2	-4.71	44.46
80.00	19 34 36	2329.33	-14.68	47.34	287.19	116.29	20 13 26	1329.3	-2.79	26.30
90.00	21 1 51	2047.86	-13.42	27.28	287.82	115.13	21 35 59	1047.9	-2.05	6.02
100.00	22 17 28	1803.81	-14.68	8.71	287.19	116.29	22 47 32	803.8	-2.79	347.67
110.00	23 12 37	1631.06	-18.01	353.78	285.36	119.52	23 39 48	631.1	-4.71	333.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6837 TRA 4.6333 TC3-7.4068 BAU 2.1624 SGT 9247.5 SGR 2787.5 SG3 1540.8 ST 137.4 SR 42.8 SS 51.0
RDE .4543 RRA-1.6794 RC3 1.8500 FAU .32019 RRT -.9834 RRF -.9893 RTF .9820 CRT -.9891 CRS .9241 CST -.8590
FDE-1.0852 FRA10.2989 FC-13.0838 BSP 16803 SGB 9658.5 R23 .1157 R13 -.9838 LSA 150.6 MSA 25.1 SSA .8
BDE 1.7439 BRA 4.9283 BC3 7.6343 FSP 2767 SG1 9646.4 SG2 484.4 THA 163.45 EL1 143.8 EL2 6.0 ALF 162.85

LAUNCH DATE JUL 19 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 12 1973

HELIOCENTRIC CONIC DISTANCE 335.192 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	35.212	GAL	-4.13	AZL	90.25	HCA	105.73	SMA	262.25	ECC	.42536	INC	.2483	V1	29.306
RP	217.81	LAP	-.24	LOP	41.92	VP	26.695	GAP	23.32	AZP	89.93	TAL	346.13	TAP	91.86	RCA	150.70	APO	373.80	V2	25.227
RC	73.631	GL	-1.39	GP	-5.07	ZAL	112.57	ZAP	173.35	ETS	231.37	ZAE	167.90	ETE	337.33	ZAC	79.29	ETC	283.29	LVI	-13.41

PLANETOCENTRIC CONIC

C3	39.682	VHL	6.299	DLA	16.07	RAL	46.70	RAD	6650.6	VEL	12.631	PTH	7.48	VHP	8.552	DPA	8.95	RAP	37.20	ECC	1.6531

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 36 43	3627.50	-47.48	140.16	296.70	93.49	14 37 10	2627.5	-40.59	107.67
60.00	13 57 58	3570.91	-40.30	135.36	296.99	89.90	14 57 29	2570.9	-35.93	105.16
70.00	14 29 11	3479.04	-34.04	127.72	296.79	87.07	15 27 10	2479.0	-31.69	99.23
80.00	15 17 32	3327.49	-29.49	115.86	296.42	85.11	16 13 0	2327.5	-28.52	88.48
90.00	16 29 59	3093.68	-27.76	98.50	296.24	84.38	17 21 32	2093.7	-27.31	71.50
100.00	18 0 24	2801.97	-29.49	77.23	296.42	85.11	18 47 6	1802.0	-28.52	49.85
110.00	19 28 37	2525.86	-34.04	56.63	296.79	87.07	20 10 43	1525.9	-31.69	28.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4153	TRA	-1.4128	TC3	.1423	BAU	.0841	SGT	1401.1	SGR	608.1	SG3	166.5	ST	27.6	SR	27.8	SS	19.0
RDE	-.6060	RRA	.2551	RC3	-.0698	FAU	.05420	RRT	-.1531	RRF	.1743	RTF	-.7276	CRT	.5847	CRS	.6358	CST	.9947
FDE	.4139	FRA	1.2287	FC3	-1.1825	BSP	2199	SGB	1527.4	R23	-.0384	R13	.7293	LSA	39.1	MSA	19.0	SSA	1.2
BDE	.7346	BRA	1.4357	BC3	.1585	FSP	210	SG1	1404.9	SG2	599.3	THA	175.35	EL1	34.8	EL2	17.8	ALF	45.43

LAUNCH DATE JUL 19 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 337.507 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	35.081	GAL	-4.02	AZL	90.21	HCA	106.87	SMA	257.56	ECC	.41471	INC	.2117	V1	29.306
RP	218.16	LAP	-.20	LOP	43.06	VP	26.683	GAP	22.96	AZP	89.94	TAL	346.24	TAP	93.11	RCA	150.74	APO	364.37	V2	25.188
RC	74.953	GL	-1.21	GP	-5.22	ZAL	112.38	ZAP	172.74	ETS	227.72	ZAE	167.10	ETE	337.63	ZAC	79.06	ETC	283.26	LVI	-13.15

PLANETOCENTRIC CONIC

C3	37.871	VHL	6.154	DLA	16.20	RAL	46.46	RAD	6649.9	VEL	12.560	PTH	7.43	VHP	8.306	DPA	8.95	RAP	37.63	ECC	1.6233

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 35 16	3618.26	-47.44	139.27	295.41	94.18	14 35 34	2618.3	-40.29	106.98
60.00	13 56 21	3562.11	-40.30	134.62	295.80	90.41	14 55 43	2562.1	-35.72	104.50
70.00	14 27 22	3470.83	-34.07	127.08	295.66	87.45	15 25 13	2470.8	-31.55	98.63
80.00	15 15 31	3319.93	-29.53	115.30	295.32	85.40	16 10 51	2319.9	-28.44	87.93
90.00	16 27 51	3086.44	-27.81	97.97	295.15	84.64	17 19 18	2086.4	-27.24	70.98
100.00	17 58 23	2794.41	-29.53	76.67	295.32	85.40	18 44 57	1794.4	-28.44	49.30
110.00	19 26 48	2517.65	-34.07	55.99	295.66	87.45	20 8 46	1517.7	-31.55	27.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4148	TRA	-1.4083	TC3	.1660	BAU	.0929	SGT	1433.5	SGR	609.6	SG3	176.9	ST	28.1	SR	27.7	SS	19.8
RDE	-.5895	RRA	.2550	RC3	-.0782	FAU	.05629	RRT	-.1662	RRF	.1884	RTF	-.7372	CRT	.5823	CRS	.6382	CST	.9944
FDE	.4347	FRA	1.2722	FC3	-1.2868	BSP	2273	SGB	1557.8	R23	-.0405	R13	.7391	LSA	39.8	MSA	19.1	SSA	1.3
BDE	.7208	BRA	1.4312	BC3	.1835	FSP	227	SG1	1437.9	SG2	599.3	THA	175.11	EL1	35.1	EL2	18.0	ALF	44.19

LAUNCH DATE JUL 19 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 339.959 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	34.957	GAL	-3.92	AZL	90.17	HCA	108.01	SMA	253.27	ECC	.40463	INC	.1743	V1	29.306
RP	218.53	LAP	-.17	LOP	44.19	VP	26.280	GAP	22.60	AZP	89.95	TAL	346.35	TAP	94.36	RCA	150.79	APO	355.75	V2	25.148
RC	76.362	GL	-1.01	GP	-5.38	ZAL	112.19	ZAP	172.11	ETS	224.64	ZAE	166.36	ETE	337.78	ZAC	78.83	ETC	283.23	LVI	-12.89

PLANETOCENTRIC CONIC

C3	36.186	VHL	6.016	DLA	16.33	RAL	46.21	RAD	6649.3	VEL	12.493	PTH	7.38	VHP	8.069	DPA	8.93	RAP	38.07	ECC	1.5955

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 33 43	3609.44	-47.39	138.42	294.14	94.83	14 33 53	2609.4	-40.01	106.32
60.00	13 54 38	3553.75	-40.29	133.90	294.63	90.89	14 53 52	2553.7	-35.53	103.88
70.00	14 25 26	3463.09	-34.09	126.47	294.54	87.81	15 23 9	2463.1	-31.43	98.06
80.00	15 13 22	3312.88	-29.57	114.78	294.24	85.68	16 8 35	2312.9	-28.36	87.42
90.00	16 25 36	3079.73	-27.85	97.49	294.07	84.88	17 16 56	2079.7	-27.18	70.50
100.00	17 56 14	2787.35	-29.57	76.15	294.24	85.68	18 42 41	1787.4	-28.36	48.79
110.00	19 24 53	2509.91	-34.09	55.39	294.54	87.81	20 6 43	1509.9	-31.43	26.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4154	TRA	-1.4031	TC3	.1898	BAU	.1011	SGT	1465.5	SGR	610.9	SG3	187.9	ST	28.8	SR	27.6	SS	20.5
RDE	-.5731	RRA	.2551	RC3	-.0874	FAU	.05847	RRT	-.1794	RRF	.2033	RTF	-.7458	CRT	.5809	CRS	.6412	CST	.9941
FDE	.4576	FRA	1.3172	FC3	-1.3988	BSP	2342	SGB	1587.8	R23	-.0433	R13	.7479	LSA	40.5	MSA	19.2	SSA	1.3
BDE	.7078	BRA	1.4261	BC3	.2090	FSP	244	SG1	1470.4	SG2	599.0	THA	174.87	EL1	35.4	EL2	18.2	ALF	42.88

LAUNCH DATE JUL 19 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 342.533 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	34.838	GAL	-3.82	AZL	90.14	HCA	109.14	SMA	249.35	ECC	.39510	INC	.1365	V1	29.306
RP	218.69	LAP	-.13	LOP	45.33	VP	26.084	GAP	22.25	AZP	89.95	TAL	346.48	TAP	95.62	RCA	150.83	APO	347.86	V2	25.107
RC	77.855	GL	-.81	GP	-5.55	ZAL	111.98	ZAP	171.44	ETS	222.04	ZAE	165.67	ETE	337.81	ZAC	78.59	ETC	283.20	LVI	-12.63

PLANETOCENTRIC CONIC

C3	34.618	VHL	5.884	DLA	16.46	RAL	45.94	RAD	6648.8	VEL	12.431	PTH	7.33	VHP	7.839	DPA	8.91	RAP	38.49	ECC	1.5697

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 32 5	3601.05	-47.34	137.62	292.89	95.44	14 32 6	2601.1	-39.74	105.70
60.00	13 52 50	3545.84	-40.28	133.23	293.47	91.35	14 51 55	2545.8	-35.34	103.29
70.00	14 23 24	3455.84	-34.11	125.91	293.43	88.14	15 21 0	2455.8	-31.30	97.53
80.00	15 11 6	3306.35	-29.60	114.30	293.16	85.93	16 6 13	2306.4	-28.28	86.95
90.00	16 23 13	3073.57	-27.89	97.04	293.00	85.10	17 14 27	2073.6	-27.12	70.06
100.00	17 53 58	2780.83	-29.60	75.67	293.16	85.93	18 40 19	1780.8	-28.28	48.32
110.00	19 22 50	2502.66	-34.11	54.83	293.43	88.14	20 4 33	1502.7	-31.30	26.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4165	TRA	-1.3971	TC3	.2159	BAU	.1097	SGT	1497.2	SGR	612.2	SG3	199.7	ST	29.4	SR	27.4	SS	21.3
RDE	-.5571	RRA	.2556	RC3	-.0976	FAU	.06081	RRT	-.1934	RRF	.2195	RTF	-.7541	CRT	.5799	CRS	.6438	CST	.9938
FDE	.4814	FRA	1.3635	FC3	-1.5209	BSP	2403	SGB	1617.6	R23	-.0467	R13	.7564	LSA	41.2	MSA	19.3	SSA	1.3
BDE	.6956	BRA	1.4203	BC3	.2369	FSP	262	SG1	1502.8	SG2	598.4	THA	174.62	EL1	35.8	EL2	18.4	ALF	41.54

LAUNCH DATE JUL 19 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 345.217 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 34.726 GAL -3.72 AZL 90.10 HCA 110.27 SMA 245.75 ECC .30607 INC .0984 V1 29.306
RP 219.26 LAP -.09 LOP 46.46 VP 25.894 GAP 21.69 AZP 89.97 TAL 346.61 TAP 96.88 RCA 150.87 APO 340.62 V2 25.067
RC 79.428 GL -.60 GP -5.73 ZAL 111.76 ZAP 170.75 ETS 219.82 ZAE 165.04 ETE 337.72 ZAC 78.34 ETC 283.18 LVI -12.36

PLANETOCENTRIC CONIC

C3 35.157 VHL 5.758 DLA 16.60 RAL 45.66 RAD 6648.2 VEL 12.372 PTH 7.29 VHP 7.617 DPA 8.87 RAP 38.91 ECC 1.5457

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 30 22	3593.12	-47.28	136.86	291.66	96.03	14 30 15	2593.1	-39.48	105.12
60.00	13 50 55	3538.42	-40.27	132.60	292.33	91.77	14 49 53	2538.4	-35.16	102.74
70.00	14 21 15	3449.11	-34.12	125.38	292.34	88.45	15 18 44	2449.1	-31.19	97.04
80.00	15 8 43	3300.38	-29.63	113.86	292.09	86.16	16 3 43	2300.4	-28.21	86.52
90.00	16 20 43	3067.98	-27.92	96.63	291.95	85.30	17 11 51	2068.0	-27.06	69.66
100.00	17 51 34	2774.86	-29.63	75.23	292.09	86.16	18 37 49	1774.9	-28.21	47.89
110.00	19 20 41	2495.93	-34.12	54.30	292.34	88.45	20 2 17	1495.9	-31.19	25.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4177 TRA-1.3911 TC3 .2432 BAU .1181 SGT 1528.9 SGR 613.6 SG3 212.0 ST 30.0 SR 27.2 SS 22.1
RDE -.5412 RRA .2563 RC3 -.1086 FAU .06324 RRT -.2086 RRF .2367 RTF -.7622 CRT .5787 CRS .6466 CST .9935
FDE .5071 FRA 1.4113 FC3-1.6513 BSP 2470 SGB 1647.5 R23 -.0500 R13 .7647 LSA 41.9 MSA 19.3 SSA 1.3
BDE .6836 BRA 1.4146 BC3 .2664 FSP 281 SG1 1535.2 SG2 597.6 THA 174.36 EL1 36.1 EL2 18.5 ALF 40.18

LAUNCH DATE JUL 19 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 347.998 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 34.620 GAL -3.62 AZL 90.06 HCA 111.40 SMA 242.44 ECC .37751 INC .0593 V1 29.306
RP 219.63 LAP -.06 LOP 47.58 VP 25.712 GAP 21.54 AZP 89.98 TAL 346.75 TAP 98.14 RCA 150.91 APO 333.96 V2 25.026
RC 81.081 GL -.38 GP -5.91 ZAL 111.52 ZAP 170.03 ETS 217.93 ZAE 164.46 ETE 337.54 ZAC 78.09 ETC 283.15 LVI -12.08

PLANETOCENTRIC CONIC

C3 31.794 VHL 5.639 DLA 16.75 RAL 45.35 RAD 6647.7 VEL 12.317 PTH 7.25 VHP 7.402 DPA 8.82 RAP 39.32 ECC 1.5233

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 28 33	3585.63	-47.23	136.14	290.46	96.57	14 28 19	2585.6	-39.23	104.58
60.00	13 48 54	3531.47	-40.25	132.01	291.20	92.17	14 47 45	2531.5	-34.99	102.23
70.00	14 18 59	3442.88	-34.13	124.90	291.26	88.74	15 16 22	2442.9	-31.08	96.59
80.00	15 6 11	3294.97	-29.66	113.46	291.04	86.37	16 1 6	2295.0	-28.14	86.13
90.00	16 18 4	3062.97	-27.95	96.27	290.90	85.48	17 9 7	2063.0	-27.01	69.30
100.00	17 49 3	2769.44	-29.66	74.83	291.04	86.37	18 35 12	1769.4	-28.14	47.50
110.00	19 18 26	2489.70	-34.13	53.81	291.26	88.74	19 59 55	1489.7	-31.08	25.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4103 TRA-1.3758 TC3 .2831 BAU .1308 SGT 1551.5 SGR 614.8 SG3 224.9 ST 30.2 SR 27.0 SS 23.1
RDE -.5252 RRA .2576 RC3 -.1204 FAU .06565 RRT -.2307 RRF .2541 RTF -.7774 CRT .5712 CRS .6507 CST .9923
FDE .5381 FRA 1.4640 FC3-1.7875 BSP 2428 SGB 1668.9 R23 -.0450 R13 .7799 LSA 42.4 MSA 19.4 SSA 1.3
BDE .6665 BRA 1.3997 BC3 .3076 FSP 305 SG1 1559.1 SG2 595.3 THA 173.88 EL1 36.0 EL2 18.6 ALF 39.38

LAUNCH DATE JUL 19 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 350.869 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 34.519 GAL -3.53 AZL 90.02 HCA 112.52 SMA 239.39 ECC .36941 INC .0171 V1 29.306
RP 220.00 LAP -.02 LOP 48.70 VP 25.536 GAP 21.20 AZP 89.99 TAL 346.89 TAP 99.41 RCA 150.96 APO 327.82 V2 24.985
RC 82.809 GL -.14 GP -6.10 ZAL 111.28 ZAP 169.30 ETS 216.29 ZAE 163.95 ETE 337.26 ZAC 77.83 ETC 283.12 LVI -11.80

PLANETOCENTRIC CONIC

C3 30.526 VHL 5.525 DLA 16.91 RAL 45.04 RAD 6647.2 VEL 12.266 PTH 7.21 VHP 7.194 DPA 8.76 RAP 39.72 ECC 1.5024

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 26 39	3578.66	-47.17	135.48	289.29	97.08	14 26 18	2578.7	-38.99	104.08
60.00	13 46 47	3525.06	-40.23	131.47	290.10	92.54	14 45 32	2525.1	-34.83	101.77
70.00	14 16 37	3437.25	-34.14	124.46	290.20	89.00	15 13 54	2437.3	-30.98	96.18
80.00	15 3 32	3290.20	-29.68	113.10	290.00	86.55	15 58 22	2290.2	-28.09	85.79
90.00	16 15 16	3058.64	-27.97	95.96	289.87	85.64	17 6 15	2058.6	-26.96	68.99
100.00	17 46 24	2764.67	-29.68	74.47	290.00	86.55	18 32 29	1764.7	-28.09	47.16
110.00	19 16 3	2484.07	-34.14	53.37	290.20	89.00	19 57 27	1484.1	-30.98	25.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4148 TRA-1.3720 TC3 .3095 BAU .1376 SGT 1585.4 SGR 616.5 SG3 238.7 ST 31.0 SR 26.8 SS 23.9
RDE -.5098 RRA .2589 RC3 -.1338 FAU .06845 RRT -.2460 RRF .2743 RTF -.7817 CRT .5721 CRS .6525 CST .9922
FDE .5655 FRA 1.5129 FC3-1.9413 BSP 2531 SGB 1701.0 R23 -.0521 R13 .7845 LSA 43.2 MSA 19.4 SSA 1.3
BDE .6573 BRA 1.3962 BC3 .3371 FSP 325 SG1 1593.8 SG2 594.4 THA 173.65 EL1 36.4 EL2 18.7 ALF 37.79

LAUNCH DATE JUL 19 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 353.819 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 34.424 GAL -3.43 AZL 89.98 HCA 113.64 SMA 236.57 ECC .36174 INC .0000 V1 29.306
RP 220.38 LAP .02 LOP 49.82 VP 25.366 GAP 20.86 AZP 90.01 TAL 347.04 TAP 100.67 RCA 151.00 APO 322.15 V2 24.944
RC 84.610 GL .11 GP -6.30 ZAL 111.03 ZAP 168.55 ETS 214.88 ZAE 163.49 ETE 336.89 ZAC 77.57 ETC 283.10 LVI -11.51

PLANETOCENTRIC CONIC

C3 29.344 VHL 5.417 DLA 17.08 RAL 44.72 RAD 6646.7 VEL 12.218 PTH 7.17 VHP 6.993 DPA 8.69 RAP 40.11 ECC 1.4829

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 24 40	3572.18	-47.12	134.86	288.15	97.56	14 24 12	2572.2	-38.77	103.61
60.00	13 44 34	3519.18	-40.22	130.97	289.02	92.88	14 43 14	2519.2	-34.68	101.34
70.00	14 14 7	3432.19	-34.15	124.06	289.16	89.23	15 11 20	2432.2	-30.89	95.81
80.00	15 0 45	3286.05	-29.69	112.80	288.98	86.71	15 55 31	2286.1	-28.03	85.50
90.00	16 12 21	3054.96	-27.99	95.69	288.85	85.77	17 3 16	2055.0	-26.93	68.73
100.00	17 43 37	2760.52	-29.69	74.17	288.98	86.71	18 29 38	1760.5	-28.03	46.86
110.00	19 13 34	2479.01	-34.15	52.98	289.16	89.23	19 54 53	1479.0	-30.89	24.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4186 TRA-1.3666 TC3 .3383 BAU .1449 SGT 1617.7 SGR 618.4 SG3 253.3 ST 31.7 SR 26.5 SS 24.7
RDE -.4945 RRA .2605 RC3 -.1482 FAU .07135 RRT -.2630 RRF .2954 RTF -.7869 CRT .5721 CRS .6546 CST .9920
FDE .5957 FRA 1.5639 FC3-2.1050 BSP 2621 SGB 1731.9 R23 -.0583 R13 .7901 LSA 44.1 MSA 19.3 SSA 1.4
BDE .6479 BRA 1.3912 BC3 .3694 FSP 347 SG1 1627.2 SG2 593.2 THA 173.37 EL1 36.8 EL2 18.7 ALF 36.27

LAUNCH DATE JUL 18 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 356.841 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	34.333	GAL	-3.34	AZL	89.94	HCA	114.75	SMA	233.97	ECC	.35448	INC	.0551	V1	29.306
RP	220.76	LAP	.05	LOP	50.93	VP	25.202	GAP	20.52	AZP	90.02	TAL	347.18	TAP	101.94	RCA	151.03	APO	316.91	V2	24.902
RC	86.480	GL	.36	GP	-6.51	ZAL	110.77	ZAP	167.77	ETS	213.65	ZAE	163.09	ETE	336.43	ZAC	77.30	ETC	283.07	LVI	-11.22

PLANETOCENTRIC CONIC

C3	28.240	VHL	5.314	DLA	17.25	RAL	44.38	RAD	6646.3	VEL	12.173	PTH	7.14	VHP	6.798	DPA	8.60	RAP	40.50	ECC	1.4648

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 22 36	3566.21	-47.06	134.30	287.04	97.99	14 22 2	2566.2	-38.57	103.19
60.00	13 42 16	3513.84	-40.20	130.51	287.97	93.19	14 40 50	2513.8	-34.54	100.95
70.00	14 11 31	3427.72	-34.15	123.71	288.14	89.44	15 8 39	2427.7	-30.81	95.49
80.00	14 57 50	3282.56	-29.71	112.54	287.97	86.85	15 52 33	2282.6	-27.99	85.25
90.00	16 9 17	3051.96	-28.00	95.47	287.85	85.88	17 0 9	2052.0	-26.89	68.52
100.00	17 40 42	2757.03	-29.71	73.91	287.97	86.85	18 26 39	1757.0	-27.99	46.61
110.00	19 10 58	2474.54	-34.15	52.63	288.14	89.44	19 52 12	1474.5	-30.81	24.41

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.4221	TRA	-1.3603	TC3	.3690	BAU	.1524	SGT	1649.0	SGR	620.6	SG3	268.6	ST	32.4	SR	26.2	SS	25.7
RDE	-.4792	RRA	.2624	RC3	-.1639	FAU	.07438	RRT	-.2816	RRF	.3176	RTF	-.7924	CRT	.5717	CRS	.6569	CST	.9916
FDE	.6288	FRA	1.6172	FC3	-2.2803	BSP	2702	SGB	1761.9	R23	-.0641	R13	.7959	LSA	45.0	MSA	19.2	SSA	1.4
BDE	.6386	BRA	1.3854	BC3	.4038	FSP	371	SG1	1659.6	SG2	591.7	THA	173.07	EL1	37.2	EL2	18.7	ALF	34.79

LAUNCH DATE JUL 19 1973 FLIGHT TIME 134.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 359.929 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	34.247	GAL	-3.26	AZL	89.90	HCA	115.86	SMA	231.56	ECC	.34759	INC	.0951	V1	29.306
RP	221.14	LAP	.09	LOP	52.04	VP	25.043	GAP	20.18	AZP	90.04	TAL	347.34	TAP	103.20	RCA	151.07	APO	312.05	V2	24.861
RC	88.416	GL	.63	GP	-6.73	ZAL	110.50	ZAP	166.99	ETS	212.57	ZAE	162.75	ETE	335.89	ZAC	77.02	ETC	283.05	LVI	-10.92

PLANETOCENTRIC CONIC

C3	27.211	VHL	5.216	DLA	17.43	RAL	44.03	RAD	6645.9	VEL	12.131	PTH	7.10	VHP	6.610	DPA	8.50	RAP	40.87	ECC	1.4478

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 20 27	3560.75	-47.01	133.78	285.96	98.38	14 19 47	2560.8	-38.38	102.80
60.00	13 39 52	3509.05	-40.18	130.11	286.94	93.46	14 38 21	2509.1	-34.42	100.61
70.00	14 8 48	3423.86	-34.15	123.41	287.14	89.62	15 5 52	2423.9	-30.74	95.21
80.00	14 54 47	3279.74	-29.72	112.33	286.99	86.96	15 49 27	2279.7	-27.95	85.04
90.00	16 6 3	3049.67	-28.01	95.30	286.87	85.96	16 56 53	2049.7	-26.87	68.35
100.00	17 37 39	2754.21	-29.72	73.70	286.99	86.96	18 23 33	1754.2	-27.95	46.41
110.00	19 8 14	2470.68	-34.15	52.33	287.14	89.62	19 49 25	1470.7	-30.74	24.13

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.4251	TRA	-1.3529	TC3	.4013	BAU	.1602	SGT	1679.1	SGR	623.1	SG3	284.8	ST	33.0	SR	25.9	SS	26.7
RDE	-.4641	RRA	.2647	RC3	-.1809	FAU	.07755	RRT	-.3017	RRF	.3411	RTF	-.7981	CRT	.5705	CRS	.6591	CST	.9912
FDE	.6645	FRA	1.6722	FC3	-2.4674	BSP	2776	SGB	1791.0	R23	-.0695	R13	.8020	LSA	45.9	MSA	19.2	SSA	1.4
BDE	.6293	BRA	1.3786	BC3	.4402	FSP	397	SG1	1691.0	SG2	589.9	THA	172.72	EL1	37.6	EL2	18.7	ALF	33.34

LAUNCH DATE JUL 19 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 363.077 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	34.165	GAL	-3.17	AZL	89.86	HCA	116.97	SMA	229.32	ECC	.34106	INC	.1365	V1	29.306
RP	221.52	LAP	.12	LOP	53.15	VP	24.890	GAP	19.85	AZP	90.06	TAL	347.50	TAP	104.47	RCA	151.11	APO	307.53	V2	24.819
RC	90.414	GL	.92	GP	-6.97	ZAL	110.22	ZAP	166.18	ETS	211.62	ZAE	162.46	ETE	335.25	ZAC	76.73	ETC	283.03	LVI	-10.61

PLANETOCENTRIC CONIC

C3	26.251	VHL	5.124	DLA	17.63	RAL	43.67	RAD	6645.5	VEL	12.092	PTH	7.07	VHP	6.428	DPA	8.38	RAP	41.24	ECC	1.4320

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 18 12	3555.83	-46.96	133.32	284.91	98.74	14 17 28	2555.8	-38.21	102.45
60.00	13 37 21	3504.84	-40.16	129.75	285.94	93.70	14 35 46	2504.8	-34.31	100.30
70.00	14 5 58	3420.63	-34.15	123.16	286.16	89.76	15 2 58	2420.6	-30.68	94.98
80.00	14 51 35	3277.62	-29.72	112.17	286.02	87.04	15 46 13	2277.6	-27.93	84.89
90.00	16 2 41	3048.13	-28.02	95.19	285.90	86.02	16 53 29	2048.1	-26.85	68.24
100.00	17 34 27	2752.09	-29.72	73.54	286.02	87.04	18 20 19	1752.1	-27.93	46.26
110.00	19 5 24	2467.45	-34.15	52.08	286.16	89.76	19 46 31	1467.4	-30.68	23.90

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.4278	TRA	-1.3446	TC3	.4393	BAU	.1681	SGT	1707.9	SGR	626.3	SG3	301.9	ST	33.7	SR	25.5	SS	27.7
RDE	-.4489	RRA	.2673	RC3	-.1995	FAU	.08093	RRT	-.3234	RRF	.3659	RTF	-.8036	CRT	.5688	CRS	.6610	CST	.9908
FDE	.7027	FRA	1.7289	FC3	-2.6690	BSP	2842	SGB	1819.1	R23	-.0751	R13	.8079	LSA	46.8	MSA	19.0	SSA	1.5
BDE	.6201	BRA	1.3709	BC3	.4789	FSP	425	SG1	1721.5	SG2	588.0	THA	172.34	EL1	37.9	EL2	18.6	ALF	31.92

LAUNCH DATE JUL 19 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 366.278 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	34.087	GAL	-3.09	AZL	89.82	HCA	118.07	SMA	227.24	ECC	.33488	INC	.1783	V1	29.306
RP	221.90	LAP	.16	LOP	54.25	VP	24.742	GAP	19.52	AZP	90.08	TAL	347.66	TAP	105.73	RCA	151.14	APO	303.34	V2	24.778
RC	92.473	GL	1.21	GP	-7.21	ZAL	109.95	ZAP	165.36	ETS	210.79	ZAE	162.22	ETE	334.52	ZAC	76.44	ETC	283.01	LVI	-10.30

PLANETOCENTRIC CONIC

C3	25.354	VHL	5.035	DLA	17.83	RAL	43.30	RAD	6645.1	VEL	12.055	PTH	7.04	VHP	6.251	DPA	8.25	RAP	41.59	ECC	1.4173

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 15 53	3551.46	-46.91	132.90	283.90	99.05	14 15 4	2551.5	-38.06	102.15
60.00	13 34 45	3501.22	-40.14	129.44	284.96	93.91	14 33 6	2501.2	-34.21	100.04
70.00	14 3 0	3418.05	-34.15	122.96	285.21	89.88	14 59 58	2418.0	-30.63	94.79
80.00	14 48 15	3276.22	-29.73	112.07	285.07	87.09	15 42 51	2276.2	-27.91	84.79
90.00	15 59 9	3047.34	-28.02	95.13	284.96	86.05	16 49 57	2047.3	-26.84	68.19
100.00	17 31 7	2750.70	-29.73	73.44	285.07	87.09	18 16 58	1750.7	-27.91	46.16
110.00	19 2 26	2464.87	-34.15	51.88	285.21	89.88	19 43 31	1464.9	-30.63	23.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.4304	TRA	-1.3357	TC3	.4705	BAU	.1760	SGT	1735.9	SGR	630.0	SG3	319.9	ST	34.3	SR	25.2	SS	28.8
RDE	-.4338	RRA	.2703	RC3	-.2195	FAU	.08445	RRT	-.3463	RRF	.3919	RTF	-.8091	CRT	.5664	CRS	.6626	CST	.9902
FDE	.7436	FRA	1.7871	FC3	-2.8838	BSP	2906	SGB	1846.7	R23	-.0806	R13	.8138	LSA	47.7	MSA	18.9	SSA	1.5
BDE	.6111	BRA	1.3628	BC3	.5192	FSP	454	SG1	1751.3	SG2	585.8	THA	171.93	EL1	38.2	EL2	18.6	ALF	30.51

LAUNCH DATE JUL 19 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 369,530 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	34.014	GAL	-3.01	AZL	89.78	HCA	119.17	SMA	225.31	ECC	.32901	INC	.2208
RP	222.28	LAP	.19	LOP	55.35	VP	24.598	GAP	19.19	AZP	90.11	TAL	347.82	TAP	108.99	RCA	151.18	APO	299.43
RC	94.587	GL	1.52	GP	-7.46	ZAL	109.66	ZAP	164.52	ETS	210.06	ZAE	162.04	ETE	333.70	ZAC	76.14	ETC	283.00

V1	29.306																		
V2	24.736																		
LVI	-9.98																		

PLANETOCENTRIC CONIC

C3	24.517	VHL	4.951	DLA	18.04	RAL	42.92	RAD	6644.8	VEL	12.020	PTH	7.01	VHP	6.081	DPA	8.10	RAP	41.93

ECC	1.4035																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 13 29	3547.64	-46.87	132.54	282.92	99.33	14 12 36	2547.6	-37.92	101.88
60.00	13 32 3	3498.20	-40.13	129.19	284.02	94.09	14 30 21	2498.2	-34.13	99.83
70.00	13 59 55	3416.13	-34.15	122.81	284.28	89.97	14 56 51	2416.1	-30.60	94.66
80.00	14 44 46	3275.58	-29.73	112.02	284.15	87.12	15 39 21	2275.6	-27.90	84.75
90.00	15 55 28	3047.36	-28.02	95.14	284.03	86.05	16 46 15	2047.4	-26.84	68.19
100.00	17 27 38	2750.05	-29.73	73.39	284.15	87.12	18 13 28	1750.1	-27.90	46.12
110.00	18 59 21	2462.95	-34.15	51.73	284.28	89.97	19 40 24	1463.0	-30.60	23.58

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
DE	-.4332	TRA	-1.3260	TC3	.5061	BAU	.1837	SGT	1762.5	SGR	634.6	SG3	338.9			ST	34.9	SR	24.7	SS	29.9
DE	-.4187	RRA	.2736	RC3	-.2412	FAU	.08814	RRT	-.3703	RRF	.4191	RTF	-.8143			CRT	.5636	CRS	.6637	CST	.9897
FDE	.7876	FRA	1.8476	FC3	-3.1123	BSP	2967	SGB	1873.3	R23	-.0864	R13	.8196			LSA	48.7	MSA	18.7	SSA	1.5
BDE	.6025	BRA	1.3540	BC3	.5606	FSP	485	SG1	1780.1	SG2	583.7	THA	171.48			EL1	38.5	EL2	18.5	ALF	29.10

LAUNCH DATE JUL 19 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 372,826 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.944	GAL	-2.93	AZL	89.74	HCA	120.26	SMA	223.50	ECC	.32345	INC	.2642
RP	222.67	LAP	.23	LOP	56.45	VP	24.459	GAP	18.87	AZP	90.13	TAL	347.98	TAP	108.25	RCA	151.21	APO	295.80
RC	96.756	GL	1.84	GP	-7.72	ZAL	109.37	ZAP	163.66	ETS	209.41	ZAE	161.90	ETE	332.77	ZAC	75.83	ETC	282.99

V1	29.306																		
V2	24.694																		
LVI	-9.66																		

PLANETOCENTRIC CONIC

C3	23.736	VHL	4.872	DLA	18.27	RAL	42.54	RAD	6644.5	VEL	11.988	PTH	6.98	VHP	5.915	DPA	7.93	RAP	42.26

ECC	1.3906																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 10 59	3544.38	-46.83	132.24	281.98	99.56	14 10 4	2544.4	-37.81	101.66
60.00	13 29 14	3495.79	-40.12	128.98	283.10	94.22	14 27 30	2495.8	-34.07	99.65
70.00	13 56 43	3414.91	-34.15	122.71	283.38	90.03	14 53 38	2414.9	-30.57	94.57
80.00	14 41 7	3275.72	-29.73	112.03	283.25	87.11	15 35 43	2275.7	-27.90	84.76
90.00	15 51 36	3048.20	-28.02	95.20	283.13	86.02	16 42 24	2048.2	-26.85	68.25
100.00	17 23 59	2750.19	-29.73	73.40	283.25	87.11	18 9 49	1750.2	-27.90	46.12
110.00	18 56 9	2461.73	-34.15	51.63	283.38	90.03	19 37 11	1461.7	-30.57	23.49

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4357	TRA	-1.3159	TC3	.5427	BAU	.1916	SGT	1788.2	SGR	640.1	SG3	358.9			ST	35.4	SR	24.3	SS	31.1
RDE	-.4036	RRA	.2773	RC3	-.2646	FAU	.09204	RRT	-.3957	RRF	.4475	RTF	-.8194			CRT	.5600	CRS	.6642	CST	.9891
FDE	.8347	FRA	1.9095	FC3	-3.3571	BSP	3025	SGB	1899.3	R23	-.0924	R13	.8251			LSA	49.6	MSA	18.5	SSA	1.5
BDE	.5939	BRA	1.3448	BC3	.6038	FSP	518	SG1	1808.2	SG2	581.4	THA	171.00			EL1	38.8	EL2	18.4	ALF	27.70

LAUNCH DATE JUL 19 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 376,164 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.877	GAL	-2.85	AZL	89.69	HCA	121.35	SMA	221.82	ECC	.31818	INC	.3081
RP	223.06	LAP	.26	LOP	57.54	VP	24.325	GAP	18.55	AZP	90.16	TAL	348.15	TAP	109.50	RCA	151.24	APO	292.40
RC	98.976	GL	2.18	GP	-8.00	ZAL	109.08	ZAP	162.78	ETS	208.83	ZAE	161.80	ETE	331.75	ZAC	75.51	ETC	282.97

V1	29.306																		
V2	24.652																		
LVI	-9.32																		

PLANETOCENTRIC CONIC

C3	23.007	VHL	4.797	DLA	18.50	RAL	42.15	RAD	6644.2	VEL	11.958	PTH	6.96	VHP	5.756	DPA	7.74	RAP	42.58

ECC	1.3786																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 8 25	3541.71	-46.80	131.99	281.07	99.75	14 7 27	2541.7	-37.71	101.47
60.00	13 26 20	3494.01	-40.11	128.83	282.21	94.32	14 24 34	2494.0	-34.02	99.53
70.00	13 53 23	3414.39	-34.15	122.67	282.50	90.05	14 50 17	2414.4	-30.56	94.53
80.00	14 37 19	3276.65	-29.73	112.10	282.37	87.08	15 31 56	2276.7	-27.91	84.82
90.00	15 47 34	3049.91	-28.01	95.32	282.25	85.95	16 38 24	2049.9	-26.87	68.37
100.00	17 20 11	2751.13	-29.73	73.47	282.37	87.08	18 6 2	1751.1	-27.91	46.19
110.00	18 52 49	2461.20	-34.15	51.59	282.50	90.05	19 33 50	1461.2	-30.56	23.45

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4388	TRA	-1.3052	TC3	.5792	BAU	.1992	SGT	1812.8	SGR	646.7	SG3	379.9			ST	36.0	SR	23.8	SS	32.3
RDE	-.3883	RRA	.2814	RC3	-.2900	FAU	.09612	RRT	-.4215	RRF	.4767	RTF	-.8240			CRT	.5561	CRS	.6642	CST	.9885
FDE	.8852	FRA	1.9729	FC3	-3.6170	BSP	3081	SGB	1924.7	R23	-.0991	R13	.8303			LSA	50.7	MSA	18.3	SSA	1.5
BDE	.5860	BRA	1.3352	BC3	.6477	FSP	552	SG1	1835.5	SG2	579.2	THA	170.49			EL1	39.1	EL2	18.2	ALF	26.28

LAUNCH DATE JUL 19 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 379,540 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.814	GAL	-2.78	AZL	89.65	HCA	122.44	SMA	220.25	ECC	.31319	INC	.3528
RP	223.44	LAP	.30	LOP	58.63	VP	24.194	GAP	18.23	AZP	90.19	TAL	348.31	TAP	110.75	RCA	151.27	APO	289.23
RC	101.244	GL	2.53	GP	-8.29	ZAL	108.79	ZAP	161.89	ETS	208.32	ZAE	161.75	ETE	330.60	ZAC	75.19	ETC	282.97

V1	29.306																		
V2	24.611																		
LVI	-8.98																		

PLANETOCENTRIC CONIC

C3	22.327	VHL	4.725	DLA	18.75	RAL	41.75	RAD	6643.9	VEL	11.930	PTH	6.93	VHP	5.601	DPA	7.54	RAP	42.89

ECC	1.3674																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 5 46	3539.61	-46.78	131.79	280.20	99.90	14 4 46	2539.6	-37.64	101.33
60.00	13 23 20	3492.87	-40.10	128.74	281.36	94.39	14 21 32	2492.9	-33.99	99.45
70.00	13 49 55	3414.59	-34.15	122.69	281.65	90.04	14 46 49	2414.6	-30.57	94.55
80.00	14 33 21	3278.43	-29.72	112.23	281.51	87.01	15 28 0	2278.4	-27.94	84.95
90.00	15 43 20	3052.51	-28.00	95.51	281.39	85.86	16 34 13	2052.5	-26.90	68.56
100.00	17 16 13	2752.90	-29.72	73.60	281.51	87.01	18 2 6	1752.9	-27.94	46.32
110.00	18 49 21	2461.41	-34.15	51.61	281.65	90.04	19 30 23	1461.4	-30.57	23.46

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4419	TRA	-1.2938	TC3	.6157	BAU	.2068	SGT	1835.9	SGR	654.5	SG3	402.0			ST	36.6	SR	23.3	SS	33.6
RDE	-.3729	RRA	.2858	RC3	-.3174	FAU	.10042	RRT	-.4482	RRF	.5068	RTF	-.8283			CRT	.5513	CRS	.6636	CST	.9879
FDE	.9399	FRA	2.0381	FC3	-3.8939	BSP	3135	SGB	1949.1	R23	-.1060	R13	.8354			LSA	51.7	MSA	18.1	SSA	1.6
BDE	.5782	BRA	1.3250	BC3	.6927	FSP	588	SG1	1861.8	SG2	577.0	THA	169.95			EL1	39.4	EL2	18.0	ALF	24.86

LAUNCH DATE JUL 19 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 382.951 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.755	GAL	-2.71	AZL	89.60	HCA	123.52	SMA	218.79	ECC	.30845	INC	.3987	V1	29.306
RP	223.63	LAP	.33	LOP	59.71	VP	24.068	GAP	17.92	AZP	90.22	TAL	348.47	TAP	112.00	RCA	151.30	APO	286.27	V2	24.569
RC	103.560	GL	2.89	GP	-8.60	ZAL	108.50	ZAP	160.97	ETS	207.87	ZAE	161.73	ETE	329.34	ZAC	74.85	ETC	282.96	LVI	-8.63

PLANETOCENTRIC CONIC

C3	21.692	VHL	4.657	DLA	19.01	RAL	41.35	RAD	6643.6	VEL	11.903	PTH	6.91	VHP	5.452	DPA	7.32	RAP	43.18	ECC	1.3570

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 3 2	3538.12	-46.76	131.65	279.37	100.01	14 2 0	2538.1	-37.59	101.22
60.00	13 20 13	3492.39	-40.10	128.70	280.53	94.42	14 18 25	2492.4	-33.98	99.41
70.00	13 46 19	3415.54	-34.15	122.76	280.82	90.00	14 43 14	2415.5	-30.58	94.61
80.00	14 29 13	3281.06	-29.71	112.43	280.68	86.91	15 23 54	2281.1	-27.97	85.14
90.00	15 38 55	3056.04	-27.98	95.77	280.55	85.73	16 29 51	2056.0	-26.94	68.81
100.00	17 12 5	2755.53	-29.71	73.80	280.68	86.91	17 58 0	1755.5	-27.97	46.51
110.00	18 45 45	2462.36	-34.15	51.68	280.82	90.00	19 26 47	1462.4	-30.58	23.53

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4447	TRA	-1.2821	TC3	.6521	BAU	.2142	SGT	1857.8	SGR	663.8	SG3	425.2	ST	37.1	SR	22.7	SS	34.9
RDE	-.3574	RRA	.2906	RC3	-.3468	FAU	.10491	RRT	-.4756	RRF	.5376	RTF	-.8324	CRT	.5449	CRS	.6616	CST	.9872
FDE	.9977	FRA	2.1053	FC3	-4.1871	BSP	3187	SGB	1972.9	R23	-.1132	R13	.8402	LSA	52.8	MSA	17.8	SSA	1.6
BDE	.5705	BRA	1.3147	BC3	.7386	FSP	627	SG1	1887.3	SG2	574.8	THA	169.36	EL1	39.7	EL2	17.8	ALF	23.44

LAUNCH DATE JUL 19 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 386.393 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.698	GAL	-2.64	AZL	89.55	HCA	124.60	SMA	217.42	ECC	.30397	INC	.4453	V1	29.306
RP	224.22	LAP	.37	LOP	60.79	VP	23.945	GAP	17.61	AZP	90.25	TAL	348.64	TAP	113.24	RCA	151.33	APO	283.50	V2	24.527
RC	105.921	GL	3.27	GP	-8.92	ZAL	108.21	ZAP	160.04	ETS	207.46	ZAE	161.74	ETE	327.96	ZAC	74.50	ETC	282.96	LVI	-8.27

PLANETOCENTRIC CONIC

C3	21.099	VHL	4.593	DLA	19.29	RAL	40.94	RAD	6643.3	VEL	11.879	PTH	6.89	VHP	5.307	DPA	7.08	RAP	43.46	ECC	1.3472

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 13	3537.23	-46.75	131.57	278.58	100.07	13 59 11	2537.2	-37.55	101.16
60.00	13 17 0	3492.57	-40.10	128.71	279.74	94.41	14 15 12	2492.6	-33.98	99.42
70.00	13 42 34	3417.26	-34.15	122.90	280.02	89.92	14 39 32	2417.3	-30.62	94.74
80.00	14 24 54	3284.59	-29.70	112.69	279.87	86.77	15 19 38	2284.6	-28.02	85.39
90.00	15 34 18	3060.55	-27.96	96.09	279.74	85.57	16 25 18	2060.5	-26.98	69.13
100.00	17 7 45	2759.07	-29.70	74.06	279.87	86.77	17 53 44	1759.1	-28.02	46.76
110.00	18 42 1	2464.08	-34.15	51.81	280.02	89.92	19 23 5	1464.1	-30.62	23.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4483	TRA	-1.2701	TC3	.6879	BAU	.2215	SGT	1878.7	SGR	674.8	SG3	449.6	ST	37.6	SR	22.1	SS	36.3
RDE	-.3416	RRA	.2959	RC3	-.3786	FAU	.10962	RRT	-.5032	RRF	.5688	RTF	-.8361	CRT	.5378	CRS	.6587	CST	.9866
FDE	1.0605	FRA	2.1745	FC3	-4.4981	BSP	3241	SGB	1996.2	R23	-.1211	R13	.8448	LSA	54.0	MSA	17.6	SSA	1.6
BDE	.5636	BRA	1.3042	BC3	.7852	FSP	668	SG1	1912.2	SG2	572.9	THA	168.73	EL1	40.0	EL2	17.5	ALF	21.98

LAUNCH DATE JUL 19 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 389.865 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.644	GAL	-2.58	AZL	89.51	HCA	125.68	SMA	216.13	ECC	.29971	INC	.4933	V1	29.306
RP	224.61	LAP	.40	LOP	61.86	VP	23.826	GAP	17.30	AZP	90.29	TAL	348.80	TAP	114.48	RCA	151.36	APO	280.91	V2	24.485
RC	108.326	GL	3.66	GP	-9.25	ZAL	107.92	ZAP	159.08	ETS	207.10	ZAE	161.78	ETE	326.43	ZAC	74.14	ETC	282.96	LVI	-7.90

PLANETOCENTRIC CONIC

C3	20.547	VHL	4.533	DLA	19.58	RAL	40.52	RAD	6643.1	VEL	11.855	PTH	6.87	VHP	5.167	DPA	6.81	RAP	43.73	ECC	1.3382

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 57 19	3536.95	-46.75	131.54	277.83	100.09	13 56 16	2537.0	-37.54	101.14
60.00	13 13 40	3493.44	-40.10	128.79	278.99	94.36	14 11 53	2493.4	-34.01	99.49
70.00	13 38 41	3419.76	-34.15	123.09	279.26	89.80	14 35 41	2419.8	-30.66	94.92
80.00	14 20 23	3289.06	-29.68	113.02	279.09	86.60	15 15 12	2289.1	-28.07	85.71
90.00	15 29 27	3066.08	-27.93	96.50	278.95	85.37	16 20 33	2066.1	-27.04	69.52
100.00	17 3 15	2763.53	-29.68	74.39	279.09	86.60	17 49 18	1763.5	-28.07	47.08
110.00	18 38 7	2466.58	-34.15	52.01	279.26	89.80	19 19 14	1466.6	-30.66	23.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4513	TRA	-1.2570	TC3	.7232	BAU	.2288	SGT	1897.2	SGR	687.8	SG3	475.3	ST	38.1	SR	21.5	SS	37.8
RDE	-.3255	RRA	.3016	RC3	-.4129	FAU	.11458	RRT	-.5311	RRF	.6001	RTF	-.8396	CRT	.5288	CRS	.6543	CST	.9859
FDE	1.1275	FRA	2.2451	FC3	-4.8277	BSP	3291	SGB	2018.0	R23	-.1293	R13	.8493	LSA	55.1	MSA	17.3	SSA	1.6
BDE	.5564	BRA	1.2927	BC3	.8328	FSP	711	SG1	1935.5	SG2	571.2	THA	168.04	EL1	40.2	EL2	17.3	ALF	20.92

LAUNCH DATE JUL 19 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 393.364 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.593	GAL	-2.51	AZL	89.46	HCA	126.75	SMA	214.93	ECC	.29568	INC	.5422	V1	29.306
RP	225.00	LAP	.43	LOP	62.94	VP	23.711	GAP	16.99	AZP	90.32	TAL	348.96	TAP	115.71	RCA	151.38	APO	278.49	V2	24.443
RC	110.773	GL	4.07	GP	-9.61	ZAL	107.63	ZAP	158.11	ETS	206.78	ZAE	161.85	ETE	324.76	ZAC	73.76	ETC	282.97	LVI	-7.52

PLANETOCENTRIC CONIC

C3	20.032	VHL	4.476	DLA	19.88	RAL	40.11	RAD	6642.9	VEL	11.834	PTH	6.85	VHP	5.032	DPA	6.53	RAP	43.98	ECC	1.3297

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 54 20	3537.31	-46.75	131.57	277.11	100.07	13 53 18	2537.3	-37.56	101.17
60.00	13 10 13	3495.01	-40.11	128.92	278.26	94.27	14 8 28	2495.0	-34.05	99.60
70.00	13 34 39	3423.09	-34.15	123.35	278.52	89.65	14 31 42	2423.1	-30.73	95.16
80.00	14 15 40	3294.51	-29.66	113.42	278.33	86.39	15 10 34	2294.5	-28.14	86.10
90.00	15 24 23	3072.68	-27.89	96.98	278.18	85.13	16 15 35	2072.7	-27.11	70.00
100.00	16 58 32	2768.98	-29.66	74.79	278.33	86.39	17 44 41	1769.0	-28.14	47.47
110.00	18 34 5	2469.91	-34.15	52.27	278.52	89.65	19 15 15	1469.9	-30.73	24.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4546	TRA	-1.2435	TC3	.7567	BAU	.2357	SGT	1913.9	SGR	702.7	SG3	502.0	ST	38.6	SR	20.8	SS	39.3
RDE	-.3090	RRA	.3077	RC3	-.4495	FAU	.11972	RRT	-.5586	RRF	.6313	RTF	-.8426	CRT	.5179	CRS	.6481	CST	.9852
FDE	1.1993	FRA	2.3168	FC3	-5.1737	BSP	3339	SGB	2038.8	R23	-.1381	R13	.8535	LSA	56.4	MSA	17.0	SSA	1.7
BDE	.5497	BRA	1.2810	BC3	.8802	FSP	757	SG1	1957.6	SG2	569.8	THA	167.32	EL1	40.4	EL2	17.0	ALF	19.03

LAUNCH DATE JUL 19 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 396.888 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.545	GAL	-2.45	AZL	89.41	HCA	127.82	SMA	213.81	ECC	.29186	INC	.5924	V1	29.306
RP	225.39	LAP	.47	LOP	64.01	VP	23.599	GAP	16.69	AZP	90.36	TAL	349.11	TAP	116.93	RCA	151.41	APO	276.21	V2	24.401
RC	113.259	GL	4.50	GP	-9.98	ZAL	107.34	ZAP	157.11	ETS	206.49	ZAE	161.93	ETE	322.92	ZAC	73.38	ETC	282.97	LVI	-7.13

PLANETOCENTRIC CONIC

C3	19.552	VHL	4.422	DLA	20.20	RAL	39.69	RAD	6642.6	VEL	11.814	PTH	6.83	VHP	4.902	DPA	6.22	RAP	44.22	ECC	1.3218

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 51 16	3538.28	-46.76	131.67	276.44	100.00	13 50 14	2538.3	-37.59	101.23
60.00	13 6 39	3497.28	-40.12	129.11	277.57	94.14	14 4 57	2497.3	-34.11	99.76
70.00	13 30 27	3427.23	-34.15	123.68	277.80	89.46	14 27 34	2427.2	-30.80	95.46
80.00	14 10 44	3300.94	-29.63	113.90	277.60	86.14	15 5 45	2300.9	-28.22	88.56
90.00	15 19 3	3080.38	-27.85	97.53	277.44	84.86	16 10 23	2080.4	-27.18	70.55
100.00	16 53 36	2775.41	-29.63	75.27	277.60	86.14	17 39 51	1775.4	-28.22	47.93
110.00	18 29 53	2474.05	-34.15	52.59	277.80	89.46	19 11 7	1474.1	-30.80	24.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4486	TRA	-1.2198	TC3	.8094	BAU	.2473	SGT	1920.1	SGR	720.3	SG3	530.1	ST	38.5	SR	20.0	SS	40.9
RDE	-.2923	RRA	.3141	RC3	-.4895	FAU	.12522	RRT	-.5929	RRF	.6623	RTF	-.8509	CRT	.4993	CRS	.6398	CST	.9834
FDE	1.2749	FRA	2.3885	FC3	-5.5447	BSP	3264	SGB	2050.8	R23	-.1362	R13	.8624	LSA	57.2	MSA	16.7	SSA	1.7
BDE	.5354	BRA	1.2596	BC3	.9459	FSP	802	SG1	1971.4	SG2	564.9	THA	166.31	EL1	40.1	EL2	16.7	ALF	17.72

LAUNCH DATE JUL 19 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 400.434 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.499	GAL	-2.40	AZL	89.36	HCA	128.88	SMA	212.75	ECC	.28824	INC	.6438	V1	29.306
RP	225.78	LAP	.50	LOP	65.07	VP	23.491	GAP	16.39	AZP	90.40	TAL	349.27	TAP	116.15	RCA	151.43	APO	274.08	V2	24.359
RC	115.782	GL	4.94	GP	-10.36	ZAL	107.06	ZAP	156.09	ETS	206.24	ZAE	162.03	ETE	320.93	ZAC	72.98	ETC	282.99	LVI	-6.73

PLANETOCENTRIC CONIC

C3	19.106	VHL	4.371	DLA	20.54	RAL	39.27	RAD	6642.4	VEL	11.795	PTH	6.82	VHP	4.776	DPA	5.88	RAP	44.45	ECC	1.3144

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 48 6	3539.94	-46.78	131.82	275.81	99.88	13 47 6	2539.9	-37.65	101.35
60.00	13 2 59	3500.32	-40.14	129.37	276.92	93.96	14 1 19	2500.3	-34.19	99.98
70.00	13 26 5	3432.28	-34.15	124.07	277.13	89.23	14 23 17	2432.3	-30.89	95.82
80.00	14 5 34	3308.49	-29.59	114.46	276.90	85.85	15 0 42	2308.5	-28.31	87.11
90.00	15 13 27	3089.33	-27.79	98.18	276.72	84.54	16 4 57	2089.3	-27.27	71.19
100.00	16 48 26	2782.96	-29.59	75.83	276.90	85.85	17 34 49	1783.0	-28.31	48.47
110.00	18 25 31	2479.10	-34.15	52.99	277.13	89.23	19 6 50	1479.1	-30.89	24.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4556	TRA	-1.2093	TC3	.8328	BAU	.2524	SGT	1937.0	SGR	740.3	SG3	559.4	ST	39.2	SR	19.3	SS	42.6
RDE	-.2750	RRA	.3211	RC3	-.5318	FAU	.13084	RRT	-.6165	RRF	.6924	RTF	-.8510	CRT	.4850	CRS	.6284	CST	.9832
FDE	1.3569	FRA	2.4638	FC3	-5.9287	BSP	3356	SGB	2073.7	R23	-.1504	R13	.8643	LSA	58.7	MSA	16.4	SSA	1.7
BDE	.5322	BRA	1.2512	BC3	.9881	FSP	851	SG1	1995.0	SG2	566.0	THA	165.55	EL1	40.5	EL2	16.3	ALF	16.06

LAUNCH DATE JUL 19 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 404.001 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.455	GAL	-2.34	AZL	89.30	HCA	129.94	SMA	211.76	ECC	.28481	INC	.6966	V1	29.306
RP	226.17	LAP	.53	LOP	66.13	VP	23.385	GAP	16.09	AZP	90.45	TAL	349.42	TAP	119.36	RCA	151.45	APO	272.08	V2	24.318
RC	118.341	GL	5.39	GP	-10.77	ZAL	106.78	ZAP	155.05	ETS	206.01	ZAE	162.13	ETE	318.76	ZAC	72.56	ETC	283.00	LVI	-6.32

PLANETOCENTRIC CONIC

C3	18.692	VHL	4.323	DLA	20.89	RAL	38.84	RAD	6642.2	VEL	11.778	PTH	6.80	VHP	4.654	DPA	5.52	RAP	44.66	ECC	1.3076

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 44 51	3542.25	-46.81	132.04	275.22	99.71	13 43 53	2542.3	-37.73	101.51
60.00	12 59 10	3504.10	-40.16	129.69	276.30	93.75	13 57 35	2504.1	-34.29	100.25
70.00	13 21 32	3438.24	-34.14	124.53	276.48	88.95	14 18 51	2438.2	-31.00	96.25
80.00	14 0 9	3317.16	-29.55	115.10	276.22	85.51	14 55 27	2317.2	-28.41	87.73
90.00	15 7 34	3099.54	-27.72	98.92	276.03	84.17	15 59 13	2099.5	-27.36	71.92
100.00	16 43 1	2791.63	-29.55	76.47	276.22	85.51	17 29 33	1791.6	-28.41	49.10
110.00	18 20 59	2485.06	-34.14	53.45	276.48	88.95	19 2 24	1485.1	-31.00	25.17

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4623	TRA	-1.1969	TC3	.8561	BAU	.2580	SGT	1950.8	SGR	763.0	SG3	590.0	ST	39.8	SR	18.4	SS	44.4
RDE	-.2568	RRA	.3287	RC3	-.5770	FAU	.13668	RRT	-.6399	RRF	.7214	RTF	-.8517	CRT	.4665	CRS	.6139	CST	.9827
FDE	1.4476	FRA	2.5407	FC3	-6.3305	BSP	3429	SGB	2094.7	R23	-.1635	R13	.8668	LSA	60.3	MSA	16.0	SSA	1.7
BDE	.5266	BRA	1.2412	BC3	1.0324	FSP	904	SG1	2016.4	SG2	567.3	THA	164.71	EL1	40.9	EL2	15.9	ALF	14.37

LAUNCH DATE JUL 19 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 407.588 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.414	GAL	-2.29	AZL	89.25	HCA	131.00	SMA	210.84	ECC	.28157	INC	.7508	V1	29.306
RP	226.56	LAP	.57	LOP	67.19	VP	23.283	GAP	15.80	AZP	90.49	TAL	349.57	TAP	120.57	RCA	151.47	APO	270.20	V2	24.276
RC	120.933	GL	5.87	GP	-11.20	ZAL	106.50	ZAP	153.98	ETS	205.80	ZAE	162.23	ETE	316.40	ZAC	72.13	ETC	283.03	LVI	-5.89

PLANETOCENTRIC CONIC

C3	18.307	VHL	4.279	DLA	21.26	RAL	38.42	RAD	6642.1	VEL	11.761	PTH	6.79	VHP	4.537	DPA	5.14	RAP	44.85	ECC	1.3013

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 41 30	3545.25	-46.84	132.32	274.67	99.50	13 40 35	2545.3	-37.84	101.72
60.00	12 55 14	3508.67	-40.18	130.07	275.72	93.49	13 53 43	2508.7	-34.41	100.58
70.00	13 16 48	3445.14	-34.13	125.07	275.86	88.63	14 14 14	2445.1	-31.12	96.75
80.00	13 54 28	3327.03	-29.49	115.83	275.56	85.13	14 49 56	2327.0	-28.52	88.44
90.00	15 1 21	3111.12	-27.64	99.76	275.36	83.76	15 53 12	2111.1	-27.46	72.75
100.00	16 37 20	2801.50	-29.49	77.19	275.56	85.13	17 24 2	1801.5	-28.52	49.81
110.00	18 16 15	2491.95	-34.13	53.99	275.86	88.63	18 57 47	1492.0	-31.12	25.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4665	TRA	-1.1824	TC3	.8808	BAU	.2644	SGT	1960.8	SGR	789.2	SG3	622.0	ST	40.3	SR	17.5	SS	46.3
RDE	-.2382	RRA	.3369	RC3	-.6257	FAU	.14281	RRT	-.6636	RRF	.7494	RTF	-.8530	CRT	.4413	CRS	.5942	CST	.9821
FDE	1.5423	FRA	2.6195	FC3	-6.7534	BSP	3492	SGB	2113.7	R23	-.1751	R13	.8700	LSA	61.8	MSA	15.7	SSA	1.7
BDE	.5238	BRA	1.2294	BC3	1.0805	FSP	961	SG1	2035.7	SG2	568.7	THA	163.74	EL1	41.2	EL2	15.4	ALF	12.67

LAUNCH DATE JUL 19 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 411.193 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.375	GAL	-2.24	AZL	89.19	HCA	132.05	SMA	209.97	ECC	.27849	INC	.8067
RP	226.95	LAP	.60	LOP	68.24	VP	23.183	GAP	15.51	AZP	90.54	TAL	349.71	TAP	121.76	RCA	151.49	APO	268.44
RC	125.556	GL	6.36	GP	-11.64	ZAL	106.23	ZAP	152.89	ETS	205.62	ZAE	162.32	ETE	313.85	ZAC	71.68	ETC	283.05

V1	29.306	V2	24.234	LVI	-5.45														

PLANETOCENTRIC CONIC

C3	17.950	VHL	4.237	DLA	21.65	RAL	37.99	RAD	6641.9	VEL	11.746	PTH	6.77	VHP	4.424	DPA	4.73	RAP	45.03

ECC	1.2954																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 36 3	3548.94	-46.88	132.67	274.17	99.23	13 37 12	2548.9	-37.97	101.97
60.00	12 51 9	3514.03	-40.20	130.53	275.17	93.18	13 49 43	2514.0	-34.54	100.97
70.00	13 11 52	3453.02	-34.12	125.69	275.27	88.27	14 9 25	2453.0	-31.26	97.33
80.00	13 48 30	3338.17	-29.43	116.65	274.93	84.71	14 44 8	2338.2	-28.64	89.25
90.00	14 54 47	3124.17	-27.54	100.70	274.71	83.30	15 46 51	2124.2	-27.56	73.69
100.00	16 31 22	2812.64	-29.43	78.02	274.93	84.71	17 18 14	1812.6	-28.64	50.62
110.00	18 11 19	2499.83	-34.12	54.61	275.27	88.27	18 52 59	1499.8	-31.26	26.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4710	TRA	-1.1672	TC3	.9039	BAU	.2711	SGT	1968.8	SGR	818.6	SG3	655.4	ST	40.8	SR	16.6	SS	48.2
RDE	-.2187	RRA	.3456	RC3	-.6777	FAU	.14918	RRT	-.6859	RRF	.7759	RTF	-.8541	CRT	.4096	CRS	.5687	CST	.9815
FDE	1.6456	FRA	2.6990	FC3	-7.1949	BSP	3535	SGB	2132.2	R23	-.1866	R13	.8734	LSA	63.5	MSA	15.3	SSA	1.8
BDE	.5193	BRA	1.2173	BC3	1.1297	FSP	1017	SG1	2054.3	SG2	570.9	THA	162.71	EL1	41.4	EL2	14.9	ALF	10.91

LAUNCH DATE JUL 19 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 414.814 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.338	GAL	-2.19	AZL	89.14	HCA	133.10	SMA	209.15	ECC	.27558	INC	.8642
RP	227.34	LAP	.63	LOP	69.29	VP	23.086	GAP	15.22	AZP	90.59	TAL	349.85	TAP	122.95	RCA	151.51	APO	266.79
RC	126.208	GL	6.88	GP	-12.11	ZAL	105.97	ZAP	151.77	ETS	205.45	ZAE	162.39	ETE	311.10	ZAC	71.22	ETC	283.09

V1	29.306	V2	24.193	LVI	-5.00														

PLANETOCENTRIC CONIC

C3	17.620	VHL	4.198	DLA	22.06	RAL	37.57	RAD	6641.8	VEL	11.732	PTH	6.76	VHP	4.315	DPA	4.29	RAP	45.19

ECC	1.2990																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 34 30	3553.35	-46.93	133.08	273.71	98.92	13 33 43	2553.3	-38.12	102.28
60.00	12 46 56	3520.23	-40.22	131.05	274.66	92.82	13 45 36	2520.2	-34.70	101.42
70.00	13 6 43	3461.93	-34.09	126.38	274.71	87.86	14 4 25	2461.9	-31.41	97.98
80.00	13 42 12	3350.67	-29.35	117.57	274.32	84.23	14 38 3	2350.7	-28.76	90.16
90.00	14 47 49	3138.82	-27.42	101.75	274.07	82.79	15 40 8	2138.8	-27.67	74.75
100.00	16 25 4	2825.14	-29.35	78.94	274.32	84.23	17 12 9	1825.1	-28.76	51.53
110.00	18 6 10	2508.75	-34.09	55.30	274.71	87.86	18 47 58	1508.7	-31.41	26.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4746	TRA	-1.1497	TC3	.9241	BAU	.2779	SGT	1971.8	SGR	851.5	SG3	689.8	ST	41.2	SR	15.7	SS	50.3
RDE	-.1984	RRA	.3546	RC3	-.7333	FAU	.15577	RRT	-.7066	RRF	.8006	RTF	-.8550	CRT	.3696	CRS	.5355	CST	.9808
FDE	1.7549	FRA	2.7769	FC3	-7.6533	BSP	3576	SGB	2147.8	R23	-.1977	R13	.8769	LSA	65.1	MSA	15.0	SSA	1.8
BDE	.5144	BRA	1.2031	BC3	1.1797	FSP	1077	SG1	2069.7	SG2	574.0	THA	161.56	EL1	41.6	EL2	14.4	ALF	9.10

LAUNCH DATE JUL 19 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 418.450 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.303	GAL	-2.14	AZL	89.08	HCA	134.15	SMA	208.38	ECC	.27283	INC	.9236
RP	227.73	LAP	.66	LOP	70.34	VP	22.992	GAP	14.93	AZP	90.64	TAL	349.98	TAP	124.13	RCA	151.53	APO	265.23
RC	126.887	GL	7.41	GP	-12.61	ZAL	105.71	ZAP	150.63	ETS	205.30	ZAE	162.43	ETE	308.17	ZAC	70.74	ETC	283.12

V1	29.306	V2	24.152	LVI	-4.53														

PLANETOCENTRIC CONIC

C3	17.316	VHL	4.161	DLA	22.48	RAL	37.14	RAD	6641.6	VEL	11.720	PTH	6.75	VHP	4.210	DPA	3.82	RAP	45.34

ECC	1.2850																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 30 50	3558.49	-46.99	133.57	273.30	98.55	13 30 8	2558.5	-38.30	102.64
60.00	12 42 32	3527.28	-40.24	131.65	274.19	92.42	13 41 20	2527.3	-34.88	101.93
70.00	13 1 20	3471.93	-34.07	127.16	274.18	87.40	13 59 12	2471.9	-31.57	98.71
80.00	13 35 33	3364.64	-29.25	118.59	273.74	83.70	14 31 37	2364.6	-28.90	91.17
90.00	14 40 24	3155.24	-27.27	102.93	273.46	82.21	15 32 59	2155.2	-27.79	75.94
100.00	16 18 24	2839.11	-29.25	79.96	273.74	83.70	17 5 43	1839.1	-28.90	52.54
110.00	18 0 46	2518.74	-34.07	56.08	274.18	87.40	18 42 45	1518.7	-31.57	27.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4780	TRA	-1.1324	TC3	.9418	BAU	.2849	SGT	1973.6	SGR	888.4	SG3	725.7	ST	41.5	SR	14.7	SS	52.5
RDE	-.1770	RRA	.3644	RC3	-.7924	FAU	.16257	RRT	-.7260	RRF	.8236	RTF	-.8558	CRT	.3174	CRS	.4911	CST	.9801
FDE	1.8728	FRA	2.8577	FC3	-8.1278	BSP	3611	SGB	2164.3	R23	-.2084	R13	.8806	LSA	66.9	MSA	14.6	SSA	1.8
BDE	.5097	BRA	1.1896	BC3	1.2308	FSP	1140	SG1	2085.6	SG2	578.1	THA	160.33	EL1	41.8	EL2	13.8	ALF	7.19

LAUNCH DATE JUL 19 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 422.101 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.270	GAL	-2.10	AZL	89.02	HCA	135.19	SMA	207.66	ECC	.27023	INC	.9848
RP	228.12	LAP	.69	LOP	71.38	VP	22.901	GAP	14.65	AZP	90.70	TAL	350.11	TAP	125.31	RCA	151.54	APO	263.77
RC	131.592	GL	7.96	GP	-13.12	ZAL	105.46	ZAP	149.46	ETS	205.17	ZAE	162.44	ETE	305.04	ZAC	70.24	ETC	283.17

V1	29.306	V2	24.110	LVI	-4.04														

PLANETOCENTRIC CONIC

C3	17.036	VHL	4.127	DLA	22.93	RAL	36.71	RAD	6641.5	VEL	11.708	PTH	6.74	VHP	4.109	DPA	3.31	RAP	45.47

ECC	1.2804																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 27 2	3564.38	-47.04	134.12	272.93	98.12	13 26 27	2564.4	-38.51	103.06
60.00	12 37 59	3535.23	-40.26	132.33	273.76	91.96	13 36 54	2535.2	-35.08	102.51
70.00	12 55 41	3483.07	-34.03	128.03	273.68	86.89	13 53 44	2483.1	-31.75	99.53
80.00	13 28 29	3380.21	-29.12	119.73	273.18	83.11	14 24 49	2380.2	-29.04	92.31
90.00	14 32 28	3173.60	-27.10	104.25	272.87	81.58	15 25 22	2173.6	-27.90	77.27
100.00	16 11 21	2854.68	-29.12	81.10	273.18	83.11	16 58 56	1854.7	-29.04	53.68
110.00	17 55 8	2529.89	-34.03	56.95	273.68	86.89	18 37 17	1529.9	-31.75	28.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4805	TRA	-1.1144	TC3	.9559	BAU	.2922	SGT	1972.1	SGR	929.6	SG3	762.8	ST	41.8	SR	13.7	SS	54.7
RDE	-.1546	RRA	.3748	RC3	-.8556	FAU	.16963	RRT	-.7436	RRF	.8449	RTF	-.8561	CRT	.2495	CRS	.4320	CST	.9793
FDE	1.9973	FRA	2.9391	FC3	-8.6201	BSP	3644	SGB	2180.2	R23	-.2189	R13	.8843	LSA	68.7	MSA	14.3	SSA	1.8
BDE	.5047	BRA	1.1758	BC3	1.2829	FSP	1204	SG1	2100.7	SG2	583.5	THA	158.99	EL1	42.0	EL2	13.2	ALF	5.19

LAUNCH DATE JUL 19 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 425.764 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.238	GAL	-2.06	AZL	88.95	HCA	136.23	SMA	206.98	ECC	.26776	INC	1.0481	V1	29.306
RP	228.51	LAP	.73	LOP	72.42	VP	22.812	GAP	14.36	AZP	90.76	TAL	350.24	TAP	126.47	RCA	151.56	APO	262.40	V2	24.069
RC	134.321	GL	8.53	GP	-13.67	ZAL	105.22	ZAP	148.26	ETS	205.04	ZAE	162.40	ETE	301.74	ZAC	69.72	ETC	283.22	LVI	-3.54

PLANETOCENTRIC CONIC

C3	16.779	VHL	4.096	DLA	23.40	RAL	36.28	RAD	6641.4	VEL	11.697	PTH	6.73	VHP	4.012	DPA	2.78	RAP	45.59	ECC	1.2761

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 23 8	3571.06	-47.11	134.76	272.61	97.64	13 22 39	2571.1	-38.74	103.53
60.00	12 33 15	3544.10	-40.28	133.08	273.36	91.45	13 32 19	2544.1	-35.30	103.16
70.00	12 49 46	3495.44	-33.98	128.99	273.21	86.32	13 48 1	2495.4	-31.94	100.44
80.00	13 20 58	3397.54	-28.98	121.00	272.63	82.46	14 17 36	2397.5	-29.18	93.58
90.00	14 23 57	3194.18	-26.86	105.72	272.29	80.87	15 17 11	2194.2	-28.01	78.76
100.00	16 3 50	2872.01	-28.98	82.37	272.63	82.46	16 51 42	1872.0	-29.18	54.95
110.00	17 49 12	2542.26	-33.98	57.91	273.21	86.32	18 31 34	1542.3	-31.94	29.36

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4826	TRA	-1.0947	TC3	.9668	BAU	.2999	SGT	1966.5	SGR	975.1	SG3	801.1	ST	42.0	SR	12.8	SS	57.0
RDE	-.1310	RRA	.3856	RC3	-.9231	FAU	.17694	RRT	-.7592	RRF	.8642	RTF	-.8561	CRT	.1625	CRS	.3541	CST	.9785
FDE	2.1299	FRA	3.0177	FC3	-9.1293	BSP	3675	SGB	2195.0	R23	-.2287	R13	.8882	LSA	70.6	MSA	14.0	SSA	1.8
BDE	.5001	BRA	1.1607	BC3	1.3367	FSP	1272	SG1	2114.1	SG2	590.3	THA	157.52	EL1	42.1	EL2	12.6	ALF	3.10

LAUNCH DATE JUL 19 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 429.439 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.208	GAL	-2.02	AZL	88.89	HCA	137.27	SMA	206.34	ECC	.26543	INC	1.1137	V1	29.306
RP	228.90	LAP	.76	LOP	73.46	VP	22.725	GAP	14.08	AZP	90.82	TAL	350.36	TAP	127.63	RCA	151.57	APO	261.11	V2	24.028
RC	137.073	GL	9.13	GP	-14.24	ZAL	104.98	ZAP	147.03	ETS	204.93	ZAE	162.30	ETE	298.29	ZAC	69.18	ETC	283.27	LVI	-3.02

PLANETOCENTRIC CONIC

C3	16.545	VHL	4.068	DLA	23.90	RAL	35.86	RAD	6641.3	VEL	11.687	PTH	6.72	VHP	3.919	DPA	2.21	RAP	45.69	ECC	1.2723

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 19 5	3578.54	-47.17	135.47	272.34	97.09	13 18 43	2578.5	-38.99	104.07
60.00	12 28 18	3553.96	-40.29	133.92	273.00	90.88	13 27 32	2554.0	-35.53	103.89
70.00	12 43 32	3509.11	-33.91	130.05	272.76	85.70	13 42 1	2509.1	-32.14	101.46
80.00	13 12 57	3416.82	-28.79	122.41	272.10	81.74	14 9 53	2416.8	-29.32	94.99
90.00	14 14 44	3217.28	-26.62	107.36	271.71	80.09	15 8 21	2217.3	-28.11	80.45
100.00	15 55 48	2891.29	-28.79	83.77	272.10	81.74	16 44 0	1891.3	-29.32	56.36
110.00	17 42 58	2555.93	-33.91	58.97	272.76	85.70	18 25 34	1555.9	-32.14	30.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4851	TRA	-1.0748	TC3	.9724	BAU	.3077	SGT	1958.3	SGR	1025.2	SG3	840.5	ST	42.3	SR	11.9	SS	59.5
RDE	-.1057	RRA	.3971	RC3	-.9945	FAU	.18439	RRT	-.7727	RRF	.8816	RTF	-.8556	CRT	.0497	CRS	.2495	CST	.9777
FDE	2.2739	FRA	3.0971	FC3	-9.6488	BSP	3703	SGB	2210.4	R23	-.2380	R13	.8922	LSA	72.7	MSA	13.6	SSA	1.8
BDE	.4965	BRA	1.1458	BC3	1.3909	FSP	1340	SG1	2127.7	SG2	598.9	THA	155.95	EL1	42.3	EL2	11.9	ALF	.87

LAUNCH DATE JUL 19 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 433.125 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.180	GAL	-1.98	AZL	88.82	HCA	138.30	SMA	205.75	ECC	.26323	INC	1.1816	V1	29.306
RP	229.28	LAP	.79	LOP	74.49	VP	22.641	GAP	13.81	AZP	90.88	TAL	350.47	TAP	128.77	RCA	151.59	APO	259.90	V2	23.988
RC	139.847	GL	9.74	GP	-14.84	ZAL	104.75	ZAP	145.77	ETS	204.82	ZAE	162.13	ETE	294.71	ZAC	68.61	ETC	283.34	LVI	-2.48

PLANETOCENTRIC CONIC

C3	16.332	VHL	4.041	DLA	24.41	RAL	35.43	RAD	6641.2	VEL	11.678	PTH	6.71	VHP	3.831	DPA	1.61	RAP	45.77	ECC	1.2688

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 53	3586.85	-47.24	136.26	272.12	96.49	13 14 40	2586.8	-39.27	104.67
60.00	12 23 9	3564.82	-40.30	134.85	272.68	90.25	13 22 34	2564.8	-35.79	104.70
70.00	12 36 57	3524.16	-33.83	131.22	272.34	85.01	13 35 41	2524.2	-32.35	102.58
80.00	13 4 19	3438.29	-28.58	123.96	271.59	80.95	14 1 37	2438.3	-29.46	96.57
90.00	14 4 41	3243.33	-26.30	109.20	271.14	79.22	14 58 44	2243.3	-28.19	82.35
100.00	15 47 11	2912.76	-28.58	85.33	271.59	80.95	16 35 44	1912.8	-29.46	57.94
110.00	17 36 23	2570.98	-33.83	60.14	272.34	85.01	18 19 14	1571.0	-32.35	31.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4815	TRA	-1.0488	TC3	.9858	BAU	.3179	SGT	1941.0	SGR	1080.4	SG3	880.9	ST	42.0	SR	11.2	SS	62.0
RDE	-.0794	RRA	.4086	RC3	-1.0713	FAU	.19222	RRT	-.7877	RRF	.8973	RTF	-.8571	CRT	-.0919	CRS	.1168	CST	.9763
FDE	2.4212	FRA	3.1692	FC3	-10.1895	BSP	3667	SGB	2221.4	R23	-.2406	R13	.8982	LSA	74.5	MSA	13.3	SSA	1.8
BDE	.4880	BRA	1.1256	BC3	1.4559	FSP	1406	SG1	2137.6	SG2	604.3	THA	154.10	EL1	42.0	EL2	11.1	ALF	178.50

LAUNCH DATE JUL 19 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 436.821 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.154	GAL	-1.95	AZL	88.75	HCA	139.33	SMA	205.18	ECC	.26115	INC	1.2520	V1	29.306
RP	229.67	LAP	.82	LOP	75.52	VP	22.559	GAP	13.53	AZP	90.95	TAL	350.58	TAP	129.81	RCA	151.60	APO	258.77	V2	23.947
RC	142.641	GL	10.38	GP	-15.46	ZAL	104.54	ZAP	144.48	ETS	204.71	ZAE	161.89	ETE	291.03	ZAC	68.02	ETC	283.41	LVI	-1.92

PLANETOCENTRIC CONIC

C3	16.141	VHL	4.018	DLA	24.96	RAL	35.00	RAD	6641.1	VEL	11.670	PTH	6.71	VHP	3.746	DPA	.97	RAP	45.84	ECC	1.2656

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 32	3596.05	-47.30	137.14	271.94	95.81	13 10 28	2596.1	-39.58	105.34
60.00	12 17 46	3576.79	-40.30	135.86	272.40	89.56	13 17 22	2576.8	-36.06	105.60
70.00	12 29 59	3540.77	-33.73	132.51	271.95	84.26	13 29 0	2540.8	-32.57	103.83
80.00	12 54 59	3462.31	-28.31	125.70	271.08	80.08	13 52 41	2462.3	-29.59	98.35
90.00	13 53 36	3273.01	-25.91	111.28	270.57	78.25	14 48 9	2273.0	-28.26	84.52
100.00	15 37 51	2936.78	-28.31	87.06	271.08	80.08	16 26 48	1936.8	-29.59	59.71
110.00	17 29 25	2587.58	-33.73	61.42	271.95	84.26	18 12 33	1587.6	-32.57	32.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4864	TRA	-1.0323	TC3	.9721	BAU	.3251	SGT	1930.8	SGR	1140.6	SG3	922.4	ST	42.4	SR	10.7	SS	64.8
RDE	-.0507	RRA	.4219	RC3	-1.1510	FAU	.19992	RRT	-.7946	RRF	.9112	RTF	-.8534	CRT	-.2623	CRS	-.0541	CST	.9757
FDE	2.5852	FRA	3.2512	FC3	-10.7231	BSP	3752	SGB	2242.5	R23	-.2525	R13	.9011	LSA	77.0	MSA	13.0	SSA	1.8
BDE	.4891	BRA	1.1151	BC3	1.5066	FSP	1483	SG1	2155.0	SG2	620.5	THA	152.37	EL1	42.5	EL2	10.3	ALF	175.98

LAUNCH DATE JUL 18 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 440.526 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.128	GAL	-1.91	AZL	88.67	HCA	140.35	SMA	204.66	ECC	.25919	INC	1.3252	V1	29,386
RP	230.05	LAP	.85	LOP	76.55	VP	22.479	GAP	13.26	AZP	91.02	TAL	350.68	TAP	131.03	RCA	151.61	APO	257.70	V2	23.907
RC	145.456	GL	11.05	GP	-16.12	ZAL	104.32	ZAP	143.16	ETS	204.61	ZAE	161.56	ETE	287.29	ZAC	67.41	ETC	283.49	LVI	-1.34

PLANETOCENTRIC CONIC

C3	15.970	VHL	3.996	DLA	25.52	RAL	34.56	RAD	6641.0	VEL	11.662	PTH	6.70	VHP	3.665	DPA	.29	RAP	45.89	ECC	1.2628

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 6 0	3606.16	-47.37	138.11	271.82	95.07	13 6 6	2606.2	-39.91	106.08
60.00	12 12 7	3589.89	-40.29	136.98	272.15	88.80	13 11 56	2589.9	-36.35	106.59
70.00	12 22 35	3559.02	-33.59	133.91	271.58	83.43	13 21 54	2559.0	-32.80	105.20
80.00	12 44 48	3489.28	-27.97	127.63	270.58	79.11	13 42 57	2489.3	-29.71	100.34
90.00	13 41 11	3307.18	-25.41	113.66	269.98	77.16	14 36 18	2307.2	-28.28	87.01
100.00	15 27 40	2963.75	-27.97	89.00	270.58	79.11	16 17 4	1963.7	-29.71	61.71
110.00	17 22 1	2605.84	-33.59	62.83	271.58	83.43	18 5 27	1605.8	-32.80	34.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4884	TRA	-1.0108	TC3	.9606	BAU	.3342	SGT	1912.8	SGR	1206.0	SG3	964.6	ST	42.5	SR	10.6	SS	67.6
RDE	-.0198	RRA	.4352	RC3	-1.2358	FAU	.20782	RRT	-.8015	RRF	.9235	RTF	-.8508	CRT	-.4493	CRS	-.2487	CST	.9749
FDE	2.7606	FRA	3.3253	FC	-11.2660	BSP	3791	SGB	2261.3	R23	-.2588	R13	.9055	LSA	79.5	MSA	12.8	SSA	1.8
BDE	.4888	BRA	1.1005	BC3	1.5652	FSP	1559	SG1	2170.1	SG2	635.7	THA	150.40	EL1	42.8	EL2	9.4	ALF	173.30

LAUNCH DATE JUL 19 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 444.240 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.105	GAL	-1.88	AZL	88.60	HCA	141.38	SMA	204.16	ECC	.25734	INC	1.4015	V1	29.306
RP	230.44	LAP	.87	LOP	77.57	VP	22.401	GAP	12.99	AZP	91.09	TAL	350.78	TAP	132.15	RCA	151.62	APO	256.70	V2	23.867
RC	148.285	GL	11.74	GP	-16.81	ZAL	104.12	ZAP	141.81	ETS	204.51	ZAE	161.13	ETE	283.54	ZAC	66.78	ETC	283.58	LVI	-.73

PLANETOCENTRIC CONIC

C3	15.819	VHL	3.977	DLA	26.12	RAL	34.13	RAD	6640.9	VEL	11.656	PTH	6.69	VHP	3.588	DPA	-.42	RAP	45.93	ECC	1.2603

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 1 17	3617.22	-47.43	139.17	271.75	94.25	13 1 35	2617.2	-40.26	106.90
60.00	12 6 10	3604.21	-40.26	138.20	271.94	87.98	13 6 14	2604.2	-36.66	107.66
70.00	12 14 41	3579.10	-33.43	135.46	271.23	82.54	13 14 20	2579.1	-33.03	106.72
80.00	12 33 35	3519.80	-27.56	129.81	270.07	78.04	13 32 14	2519.8	-29.80	102.61
90.00	13 26 58	3347.34	-24.78	116.43	269.35	75.91	14 22 45	2347.3	-28.24	89.95
100.00	15 16 26	2994.28	-27.56	91.17	270.07	78.04	16 6 21	1994.3	-29.80	63.97
110.00	17 14 8	2625.92	-33.43	64.38	271.23	82.54	17 57 54	1625.9	-33.03	35.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4883	TRA	-.9882	TC3	.9457	BAU	.3443	SGT	1890.6	SGR	1277.3	SG3	1007.6	ST	42.5	SR	11.0	SS	70.6
RDE	.0131	RRA	.4493	RC3	-1.3254	FAU	.21586	RRT	-.8072	RRF	.9343	RTF	-.8478	CRT	-.6270	CRS	-.4429	CST	.9739
FDE	2.9434	FRA	3.3970	FC	-11.8136	BSP	3821	SGB	2281.7	R23	-.2624	R13	.9106	LSA	82.1	MSA	12.5	SSA	1.8
BDE	.4884	BRA	1.0856	BC3	1.6282	FSP	1634	SG1	2186.5	SG2	652.0	THA	148.25	EL1	43.0	EL2	8.4	ALF	170.43

LAUNCH DATE JUL 19 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 447.962 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.082	GAL	-1.86	AZL	88.52	HCA	142.39	SMA	203.70	ECC	.25559	INC	1.4808	V1	29.306
RP	230.82	LAP	.90	LOP	78.59	VP	22.325	GAP	12.72	AZP	91.17	TAL	350.87	TAP	133.26	RCA	151.63	APO	255.76	V2	23.827
RC	151.140	GL	12.46	GP	-17.54	ZAL	103.93	ZAP	140.43	ETS	204.41	ZAE	160.61	ETE	279.80	ZAC	66.11	ETC	283.67	LVI	-.10

PLANETOCENTRIC CONIC

C3	15.688	VHL	3.961	DLA	26.74	RAL	33.70	RAD	6640.9	VEL	11.650	PTH	6.69	VHP	3.515	DPA	-1.18	RAP	45.95	ECC	1.2582

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 56 22	3629.29	-47.49	140.33	271.72	93.36	12 56 51	2629.3	-40.64	107.61
60.00	11 59 55	3619.82	-40.21	139.52	271.76	87.08	13 0 15	2619.8	-36.98	108.88
70.00	12 6 13	3601.22	-33.22	137.15	270.89	81.56	13 6 14	2601.2	-33.26	108.41
80.00	12 21 1	3554.79	-27.04	132.28	269.53	76.84	13 20 15	2554.8	-29.85	105.20
90.00	13 10 5	3396.24	-23.93	119.75	268.65	74.46	14 6 41	2396.2	-28.10	93.52
100.00	15 3 52	3029.26	-27.04	93.64	269.53	76.84	15 54 22	2029.3	-29.85	66.57
110.00	17 5 40	2648.04	-33.22	66.07	270.89	81.56	17 49 48	1648.0	-33.26	37.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4854	TRA	-.9635	TC3	.9272	BAU	.3597	SGT	1862.3	SGR	1354.4	SG3	1050.7	ST	42.2	SR	11.9	SS	73.5
RDE	.0479	RRA	.4636	RC3	-1.4202	FAU	.22402	RRT	-.8115	RRF	.9437	RTF	-.8445	CRT	-.7707	CRS	-.6098	CST	.9725
FDE	3.1329	FRA	3.4617	FC	-12.3621	BSP	3846	SGB	2302.7	R23	-.2628	R13	.9163	LSA	84.7	MSA	12.3	SSA	1.8
BDE	.4877	BRA	1.0692	BC3	1.6961	FSP	1710	SG1	2203.5	SG2	668.8	THA	145.88	EL1	43.2	EL2	7.4	ALF	167.36

LAUNCH DATE JUL 19 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 451.691 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.061	GAL	-1.83	AZL	88.44	HCA	143.41	SMA	203.26	ECC	.25395	INC	1.5637	V1	29.306
RP	231.20	LAP	.93	LOP	79.60	VP	22.251	GAP	12.45	AZP	91.26	TAL	350.95	TAP	134.36	RCA	151.64	APO	254.68	V2	23.787
RC	154.008	GL	13.21	GP	-18.29	ZAL	103.74	ZAP	139.02	ETS	204.30	ZAE	159.98	ETE	276.12	ZAC	65.42	ETC	283.78	LVI	.56

PLANETOCENTRIC CONIC

C3	15.577	VHL	3.947	DLA	27.40	RAL	33.26	RAD	6640.8	VEL	11.646	PTH	6.68	VHP	3.446	DPA	-1.98	RAP	45.96	ECC	1.2564

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 12	3642.40	-47.53	141.60	271.75	92.39	12 51 55	2642.4	-41.04	108.81
60.00	11 53 18	3636.84	-40.14	140.96	271.62	86.10	12 53 54	2636.8	-37.32	110.20
70.00	11 57 5	3625.65	-32.96	139.01	270.56	80.48	12 57 31	2625.7	-33.48	110.28
80.00	12 6 38	3595.64	-26.38	135.13	268.95	75.48	13 6 34	2595.6	-29.84	108.24
90.00	12 48 33	3460.17	-22.69	124.03	267.80	72.66	13 46 13	2460.2	-27.77	98.16
100.00	14 49 30	3070.11	-26.38	96.50	268.95	75.48	15 40 40	2070.1	-29.84	69.61
110.00	16 56 31	2672.47	-32.96	67.93	270.56	80.48	17 41 4	1672.5	-33.48	39.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4767	TRA	-.9330	TC3	.9164	BAU	.3699	SGT	1824.7	SGR	1438.2	SG3	1094.4	ST	41.5	SR	13.4	SS	76.5
RDE	.0849	RRA	.4778	RC3	-1.5218	FAU	.23251	RRT	-.8177	RRF	.9519	RTF	-.8434	CRT	-.8718	CRS	-.7361	CST	.9705
FDE	3.3278	FRA	3.5161	FC	-12.9224	BSP	3820	SGB	2323.4	R23	-.2557	R13	.9238	LSA	87.2	MSA	12.1	SSA	1.7
BDE	.4842	BRA	1.0482	BC3	1.7764	FSP	1780	SG1	2221.7	SG2	679.9	THA	143.19	EL1	43.1	EL2	6.3	ALF	163.97

LAUNCH DATE JUL 19 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 455.425 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.041	GAL	-1.81	AZL	88.35	HCA	144.42	SMA	202.85	ECC	.25240	INC	1.6503	V1	29.306
RP	231.58	LAP	.96	LOP	80.62	VP	22.180	GAP	12.18	AZP	91.34	TAL	351.03	TAP	135.45	RCA	151.65	APO	254.05	V2	23.748
RC	156.890	GL	13.99	GP	-19.09	ZAL	103.56	ZAP	137.57	ETS	204.19	ZAE	159.25	ETE	272.55	ZAC	64.70	ETC	283.90	LVI	1.24

PLANETOCENTRIC CONIC

C3	15.486	VHL	3.935	DLA	28.08	RAL	32.81	RAD	6640.8	VEL	11.642	PTH	6.68	VHP	3.381	DPA	-2.82	RAP	45.96	ECC	1.2549

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 45 48	3656.67	-47.56	142.98	271.83	91.32	12 46 45	2656.7	-41.47	109.91
60.00	11 46 17	3655.41	-40.05	142.53	271.50	85.04	12 47 12	2655.4	-37.67	111.65
70.00	11 47 10	3652.79	-32.63	141.06	270.24	79.31	12 48 2	2652.8	-33.69	112.37
80.00	11 49 37	3645.05	-25.49	138.53	268.30	73.90	12 50 22	2645.1	-29.72	111.91
90.00	12 13 59	3566.24	-20.37	130.94	266.48	69.95	13 13 25	2566.2	-26.83	105.78
100.00	14 32 29	3119.53	-25.49	99.90	268.30	73.90	15 24 29	2119.5	-29.72	73.28
110.00	16 46 36	2699.61	-32.63	69.98	270.24	79.31	17 31 36	1699.6	-33.69	41.29

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4811	TRA	-.9153	TC3	.8636	BAU	.3806	SGT	1798.4	SGR	1527.0	SG3	1137.6	ST	41.7	SR	15.5	SS	80.0
RDE	.1273	RRA	.4945	RC3	-1.6229	FAU	.24014	RRT	-.8123	RRF	.9589	RTF	-.8334	CRT	-.9354	CRS	-.8289	CST	.9699
FDE	3.5536	FRA	3.5820	FC3	-13.4245	BSP	3950	SGB	2359.2	R23	-.2589	R13	.9280	LSA	90.8	MSA	11.9	SSA	1.7
BDE	.4977	BRA	1.0403	BC3	1.8383	FSP	1869	SG1	2249.2	SG2	712.2	THA	140.72	EL1	44.2	EL2	5.2	ALF	160.59

LAUNCH DATE JUL 19 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 459.167 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.022	GAL	-1.78	AZL	88.26	HCA	145.43	SMA	202.46	ECC	.25095	INC	1.7410	V1	29.306
RP	231.95	LAP	.99	LOP	81.63	VP	22.109	GAP	11.92	AZP	91.43	TAL	351.10	TAP	136.52	RCA	151.66	APO	253.27	V2	23.708
RC	159.785	GL	14.80	GP	-19.92	ZAL	103.39	ZAP	136.09	ETS	204.07	ZAE	158.40	ETE	269.10	ZAC	63.95	ETC	284.03	LVI	1.96

PLANETOCENTRIC CONIC

C3	15.416	VHL	3.926	DLA	28.80	RAL	32.37	RAD	6640.7	VEL	11.639	PTH	6.68	VHP	3.320	DPA	-3.71	RAP	45.94	ECC	1.2537

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 40 6	3672.13	-47.58	144.47	271.97	90.17	12 41 19	2672.1	-41.92	111.11
60.00	11 38 48	3675.63	-39.91	144.24	271.42	83.89	12 40 3	2675.6	-38.02	113.25
70.00	11 36 16	3683.07	-32.23	143.33	269.91	78.03	12 37 39	2683.1	-33.88	114.71
80.00	11 28 7	3708.74	-24.22	142.83	267.47	71.98	12 29 56	2708.7	-29.41	116.61
84.29	10 55 29	3813.82	-18.40	148.27	265.16	67.44	11 59 3	2813.8	-26.10	123.76
100.00	14 10 59	3183.21	-24.22	104.20	267.47	71.98	15 4 2	2183.2	-29.41	77.98
110.00	16 35 43	2729.89	-32.23	72.25	269.91	78.03	17 21 13	1729.9	-33.88	43.63

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4755	TRA	-.8895	TC3	.8248	BAU	.3954	SGT	1759.3	SGR	1623.4	SG3	1180.7	ST	41.2	SR	18.0	SS	83.3
RDE	.1715	RRA	.5106	RC3	-1.7320	FAU	.24820	RRT	-.8102	RRF	.9650	RTF	-.8265	CRT	-.9708	CRS	-.8877	CST	.9681
FDE	3.7762	FRA	3.6314	FC3	-13.9389	BSP	3992	SGB	2393.9	R23	-.2520	R13	.9346	LSA	94.0	MSA	11.8	SSA	1.7
BDE	.5055	BRA	1.0256	BC3	1.9183	FSP	1943	SG1	2278.3	SG2	734.7	THA	137.84	EL1	44.8	EL2	4.0	ALF	156.85

LAUNCH DATE JUL 19 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 462.913 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	33.005	GAL	-1.76	AZL	88.16	HCA	146.43	SMA	202.10	ECC	.24958	INC	1.8363	V1	29.306
RP	232.33	LAP	1.02	LOP	82.63	VP	22.041	GAP	11.66	AZP	91.53	TAL	351.16	TAP	137.59	RCA	151.66	APO	252.54	V2	23.670
RC	162.693	GL	15.65	GP	-20.79	ZAL	103.23	ZAP	134.58	ETS	203.94	ZAE	157.45	ETE	265.80	ZAC	63.17	ETC	284.16	LVI	2.70

PLANETOCENTRIC CONIC

C3	15.365	VHL	3.920	DLA	29.56	RAL	31.91	RAD	6640.7	VEL	11.637	PTH	6.68	VHP	3.263	DPA	-4.64	RAP	45.91	ECC	1.2529

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 34 6	3688.88	-47.57	146.09	272.15	88.93	12 35 34	2688.9	-42.40	112.44
60.00	11 30 47	3697.69	-39.74	146.09	271.35	82.65	12 32 25	2697.7	-38.39	115.02
70.00	11 24 11	3717.17	-31.72	145.86	269.55	76.61	12 26 9	2717.2	-34.04	117.36
80.00	10 55 10	3808.71	-21.96	149.39	266.19	69.24	11 56 38	2808.7	-28.54	123.91
81.02	10 27 36	3896.91	-18.87	154.61	264.86	66.82	11 32 33	2896.9	-26.78	130.06
100.00	13 38 2	3283.19	-21.96	110.76	266.19	69.24	14 32 45	2283.2	-28.54	85.28
110.00	16 23 38	2763.99	-31.72	74.77	269.55	76.61	17 9 42	1764.0	-34.04	46.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4695	TRA	-.8628	TC3	.7758	BAU	.4109	SGT	1715.3	SGR	1725.5	SG3	1222.5	ST	40.6	SR	21.0	SS	86.9
RDE	.2199	RRA	.5271	RC3	-1.8438	FAU	.25584	RRT	-.8054	RRF	.9702	RTF	-.8276	CRT	-.9888	CRS	-.9261	CST	.9661
FDE	4.0134	FRA	3.6720	FC3	-14.4149	BSP	4059	SGB	2433.0	R23	-.2425	R13	.9414	LSA	97.4	MSA	11.7	SSA	1.6
BDE	.5165	BRA	1.0109	BC3	2.0004	FSP	2022	SG1	2311.6	SG2	759.0	THA	134.79	EL1	45.6	EL2	2.8	ALF	152.86

LAUNCH DATE JUL 19 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 466.665 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.988	GAL	-1.74	AZL	88.06	HCA	147.43	SMA	201.77	ECC	.24829	INC	1.9362	V1	29.306
RP	232.70	LAP	1.04	LOP	83.63	VP	21.975	GAP	11.40	AZP	91.63	TAL	351.22	TAP	138.65	RCA	151.67	APO	251.86	V2	23.631
RC	165.610	GL	16.53	GP	-21.71	ZAL	103.08	ZAP	133.04	ETS	203.80	ZAE	156.39	ETE	262.66	ZAC	62.35	ETC	284.32	LVI	3.46

PLANETOCENTRIC CONIC

C3	15.336	VHL	3.916	DLA	30.35	RAL	31.45	RAD	6640.7	VEL	11.635	PTH	6.67	VHP	3.211	DPA	-5.62	RAP	45.87	ECC	1.2524

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 27 43	3707.01	-47.53	147.85	272.38	87.58	12 29 30	2707.0	-42.89	113.91
60.00	11 22 10	3721.81	-39.51	148.10	271.30	81.30	12 24 12	2721.8	-38.75	116.96
70.00	11 10 34	3756.11	-31.07	148.70	269.14	75.05	12 13 10	2756.1	-34.13	120.40
78.49	10 6 37	3957.59	-19.36	159.35	264.59	66.16	11 12 34	2957.6	-27.49	134.77
78.49	10 6 37	3957.59	-19.36	159.35	264.59	66.16	11 12 34	2957.6	-27.49	134.77
78.49	10 6 37	3957.59	-19.36	159.35	264.59	66.16	11 12 34	2957.6	-27.49	134.77
110.00	16 10 0	2802.93	-31.07	77.62	269.14	75.05	16 56 43	1802.9	-34.13	49.32

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4613	TRA	-.8352	TC3	.7236	BAU	.4287	SGT	1667.9	SGR	1835.5	SG3	1263.8	ST	39.9	SR	24.4	SS	90.4
RDE	.2724	RRA	.5438	RC3	-1.9615	FAU	.26347	RRT	-.7987	RRF	.9747	RTF	-.8074	CRT	-.9963	CRS	-.9508	CST	.9638
FDE	4.2593	FRA	3.7028	FC3	-14.8731	BSP	4122	SGB	2480.1	R23	-.2297	R13	.9484	LSA	101.1	MSA	11.6	SSA	1.6
BDE	.5357	BRA	.9966	BC3	2.0907	FSP	2094	SG1	2353.3	SG2	782.8	THA	131.58	EL1	46.7	EL2	1.8	ALF	148.63

LAUNCH DATE JUL 19 1973 FLIGHT TIME 196.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 470.421 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.972	GAL	-1.73	AZL	87.96	HCA	148.43	SMA	201.48	ECC	.24708	INC	2.0416	V1	29.306
RP	233.07	LAP	1.07	LOP	84.63	VP	21.910	GAP	11.14	AZP	91.74	TAL	351.27	TAP	139.70	RCA	151.68	APO	251.23	V2	23.893
RC	168.537	GL	17.45	GP	-22.66	ZAL	102.93	ZAP	131.47	ETS	203.63	ZAE	155.23	ETE	259.70	ZAC	61.50	ETC	284.48	LVI	4.29

PLANETOCENTRIC CONIC

C3	15.329	VHL	3.915	DLA	31.19	RAL	30.98	RAD	6640.7	VEL	11.635	PTH	6.67	VHP	3.163	DPA	-6.65	RAP	45.82	ECC	1.2625

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 20 56	3726.65	-47.46	149.74	272.65	86.12	12 23 3	2726.6	-43.40	115.52
60.00	11 12 50	3748.26	-39.21	150.28	271.26	79.85	12 15 19	2748.3	-39.10	119.12
70.00	10 54 49	3801.51	-30.23	151.97	268.65	73.28	11 58 11	2801.5	-34.14	123.95
76.28	9 48 43	4008.15	-19.86	163.38	264.35	65.45	10 55 31	3008.2	-28.23	138.76
76.28	9 48 43	4008.15	-19.86	163.38	264.35	65.45	10 55 31	3008.2	-28.23	138.76
76.28	9 48 43	4008.15	-19.86	163.38	264.35	65.45	10 55 31	3008.2	-28.23	138.76
110.00	15 54 16	2848.33	-30.23	80.89	268.65	73.28	16 41 44	1848.3	-34.14	52.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4505	TRA	-.8061	TC3	.6640	BAU	.4480	SGT	1614.4	SGR	1952.0	SG3	1303.0	ST	38.9	SR	28.2	SS	94.1
RDE	.3292	RRA	.5603	RC3-2	.0828	FAU	.27072	RRT	-.7892	RRF	.9785	RTF	-.7949	CRT	-.9975	CRS	-.9668	CST	.9609
FDE	4.5124	FRA	3.7201	FC-15	.2900	BSP	4201	SGB	2533.1	R23	-.2141	R13	.9555	LSA	105.0	MSA	11.5	SSA	1.5
BDE	.5579	BRA	.9817	BC3	2.1860	FSP	2165	SG1	2401.5	SG2	805.8	THA	128.20	EL1	48.0	EL2	1.6	ALF	144.14

LAUNCH DATE JUL 19 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 474.181 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.958	GAL	-1.71	AZL	87.85	HCA	149.43	SMA	201.15	ECC	.24595	INC	2.1525	V1	29.306
RP	233.44	LAP	1.09	LOP	85.63	VP	21.847	GAP	10.88	AZP	91.85	TAL	351.31	TAP	140.74	RCA	151.68	APO	250.63	V2	23.554
RC	171.472	GL	18.41	GP	-23.66	ZAL	102.79	ZAP	129.86	ETS	203.46	ZAE	153.97	ETE	256.92	ZAC	60.62	ETC	284.66	LVI	5.14

PLANETOCENTRIC CONIC

C3	15.344	VHL	3.917	DLA	32.06	RAL	30.49	RAD	6640.7	VEL	11.636	PTH	6.68	VHP	3.119	DPA	-7.73	RAP	45.77	ECC	1.2525

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 13 41	3747.92	-47.34	151.78	272.97	84.55	12 16 9	2747.9	-43.92	117.30
60.00	11 2 40	3777.36	-38.84	152.67	271.21	78.27	12 5 37	2777.4	-39.44	121.52
70.00	10 35 56	3856.42	-29.09	155.84	268.02	71.25	11 40 13	2856.4	-34.01	128.23
74.23	9 32 43	4052.50	-20.38	166.99	264.14	64.70	10 40 16	3052.5	-29.00	142.34
74.23	9 32 43	4052.50	-20.38	166.99	264.14	64.70	10 40 16	3052.5	-29.00	142.34
74.23	9 32 43	4052.50	-20.38	166.99	264.14	64.70	10 40 16	3052.5	-29.00	142.34
110.00	15 35 23	2903.24	-29.09	84.76	268.02	71.25	16 23 46	1903.2	-34.01	57.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4351	TRA	-.7746	TC3	.6027	BAU	.4697	SGT	1554.2	SGR	2075.8	SG3	1340.1	ST	37.6	SR	32.3	SS	97.6
RDE	.3901	RRA	.5763	RC3-2	.2087	FAU	.27773	RRT	-.7780	RRF	.9817	RTF	-.7807	CRT	-.9949	CRS	-.9772	CST	.9570
FDE	4.7671	FRA	3.7206	FC-15	.6696	BSP	4266	SGB	2593.2	R23	-.1955	R13	.9625	LSA	108.9	MSA	11.5	SSA	1.4
BDE	.5844	BRA	.9655	BC3	2.2895	FSP	2224	SG1	2458.6	SG2	824.4	THA	124.67	EL1	49.5	EL2	2.5	ALF	139.37

LAUNCH DATE JUL 19 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 477.946 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.944	GAL	-1.70	AZL	87.73	HCA	150.42	SMA	200.88	ECC	.24489	INC	2.2699	V1	29.306
RP	233.80	LAP	1.12	LOP	86.62	VP	21.785	GAP	10.63	AZP	91.97	TAL	351.35	TAP	141.76	RCA	151.68	APO	250.07	V2	23.517
RC	174.413	GL	19.42	GP	-24.70	ZAL	102.65	ZAP	128.23	ETS	203.25	ZAE	152.61	ETE	254.31	ZAC	59.70	ETC	284.65	LVI	6.02

PLANETOCENTRIC CONIC

C3	15.384	VHL	3.922	DLA	32.98	RAL	30.00	RAD	6640.7	VEL	11.638	PTH	6.68	VHP	3.080	DPA	-8.86	RAP	45.70	ECC	1.2532

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 5 54	3770.99	-47.17	153.99	273.32	82.86	12 8 45	2771.0	-44.45	119.26
60.00	10 51 27	3809.58	-38.36	155.27	271.14	76.56	11 54 57	2809.6	-39.75	124.21
70.00	10 11 30	3927.96	-27.42	160.74	267.09	68.79	11 16 58	2928.0	-33.58	133.77
72.28	9 18 0	4092.59	-20.90	170.33	263.96	63.89	10 26 13	3092.6	-29.81	145.65
72.28	9 18 0	4092.59	-20.90	170.33	263.96	63.89	10 26 13	3092.6	-29.81	145.65
72.28	9 18 0	4092.59	-20.90	170.33	263.96	63.89	10 26 13	3092.6	-29.81	145.65
110.00	15 10 57	2974.78	-27.42	89.65	267.09	68.79	16 0 32	1974.8	-33.58	62.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4124	TRA	-.7378	TC3	.5487	BAU	.4949	SGT	1482.9	SGR	2208.2	SG3	1375.0	ST	35.8	SR	36.7	SS	101.0
RDE	.4550	RRA	.5904	RC3-2	.3428	FAU	.28485	RRT	-.7672	RRF	.9845	RTF	-.7968	CRT	-.9893	CRS	-.9841	CST	.9514
FDE	5.0172	FRA	3.6955	FC-16	.0303	BSP	4302	SGB	2659.9	R23	-.1732	R13	.9693	LSA	112.7	MSA	11.5	SSA	1.3
BDE	.6141	BRA	.9450	BC3	2.4061	FSP	2268	SG1	2526.7	SG2	831.2	THA	120.98	EL1	51.1	EL2	3.7	ALF	134.22

LAUNCH DATE JUL 19 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 481.711 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.931	GAL	-1.69	AZL	87.81	HCA	151.41	SMA	200.62	ECC	.24391	INC	2.3942	V1	29.306
RP	234.17	LAP	1.15	LOP	87.81	VP	21.725	GAP	10.38	AZP	92.10	TAL	351.37	TAP	142.78	RCA	151.69	APO	249.55	V2	23.479
RC	177.360	GL	20.48	GP	-25.78	ZAL	102.52	ZAP	126.57	ETS	203.03	ZAE	151.15	ETE	251.88	ZAC	58.75	ETC	285.06	LVI	6.95

PLANETOCENTRIC CONIC

C3	15.451	VHL	3.931	DLA	33.94	RAL	29.48	RAD	6640.7	VEL	11.640	PTH	6.68	VHP	3.046	DPA	-10.03	RAP	45.64	ECC	1.2543

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 57 31	3796.09	-46.93	156.36	273.70	81.04	12 0 47	2796.1	-44.99	121.44
60.00	10 38 59	3845.60	-37.75	158.14	271.03	74.70	11 43 5	2845.6	-40.02	127.23
70.00	9 30 25	4049.70	-24.17	168.70	265.26	65.10	10 37 55	3049.7	-32.24	143.00
70.39	9 4 11	4129.79	-21.44	173.50	263.81	63.03	10 13 0	3129.8	-30.64	148.79
70.39	9 4 11	4129.79	-21.44	173.50	263.81	63.03	10 13 0	3129.8	-30.64	148.79
70.39	9 4 11	4129.79	-21.44	173.50	263.81	63.03	10 13 0	3129.8	-30.64	148.79
110.00	14 29 51	3096.52	-24.17	97.62	265.26	65.10	15 21 28	2096.5	-32.24	71.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4073	TRA	-.7201	TC3	.4340	BAU	.5161	SGT	1438.6	SGR	2344.7	SG3	1405.6	ST	35.2	SR	42.2	SS	105.4
RDE	.5334	RRA	.6107	RC3-2	.4605	FAU	.28908	RRT	-.7350	RRF	.9869	RTF	-.7340	CRT	-.9831	CRS	-.9891	CST	.9479
FDE	5.3240	FRA	3.7009	FC-16	.1977	BSP	4566	SGB	2750.8	R23	-.1588	R13	.9741	LSA	118.3	MSA	11.6	SSA	1.3
BDE	.6711	BRA	.9442	BC3	2.4985	FSP	2359	SG1	2607.2	SG2	877.3	THA	117.67	EL1	54.7	EL2	5.0	ALF	129.79

LAUNCH DATE JUL 19 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 485.481 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.919	GAL	-1.68	AZL	87.47	HCA	152.39	SMA	200.38	ECC	.24299	INC	2.5264
RP	234.53	LAP	1.17	LOP	88.60	VP	21.667	GAP	10.12	AZP	92.24	TAL	351.40	TAP	143.79	RCA	151.69	APO	249.07
RC	180.313	GL	21.59	GP	-26.92	ZAL	102.40	ZAP	124.89	ETS	202.78	ZAE	149.61	ETE	249.61	ZAC	57.75	ETC	285.29

V1	29.306																		
V2	23.442																		
LVI	7.91																		

PLANETOCENTRIC CONIC

C3	15.545	VHL	3.943	DLA	34.96	RAL	28.95	RAD	6640.8	VEL	11.644	PTH	6.68	VHP	3.017	DPA	-11.27	RAP	45.58
ECC	1.2558																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 48 23	3823.42	-46.61	158.93	274.09	79.09	11 52 7	2823.4	-45.52	123.86
60.00	10 24 53	3886.24	-36.97	161.31	270.84	72.67	11 29 40	2886.2	-40.21	130.67
68.53	8 51 4	4164.49	-21.98	176.52	263.70	62.11	10 0 29	3164.5	-31.51	151.79
68.53	8 51 4	4164.49	-21.98	176.52	263.70	62.11	10 0 29	3164.5	-31.51	151.79
68.53	8 51 4	4164.49	-21.98	176.52	263.70	62.11	10 0 29	3164.5	-31.51	151.79
68.53	8 51 4	4164.49	-21.98	176.52	263.70	62.11	10 0 29	3164.5	-31.51	151.79
68.53	8 51 4	4164.49	-21.98	176.52	263.70	62.11	10 0 29	3164.5	-31.51	151.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3861	TRA	-.6895	TC3	.3470	BAU	.5431	SGT	1372.7	SGR	2490.4	SG3	1432.9	ST	33.5	SR	47.8	SS	109.3
RDE	.6144	RRA	.6264	RC3	-2.5899	FAU	.29388	RRT	-.7073	RRF	.9889	RTF	-.7045	CRT	-.9742	CRS	-.9924	CST	.9409
FDE	5.6040	FRA	3.6618	FC	-16.3664	BSP	4704	SGB	2843.6	R23	-.1381	R13	.9792	LSA	123.3	MSA	11.6	SSA	1.2
BDE	.7257	BRA	.9316	BC3	2.6130	FSP	2406	SG1	2699.0	SG2	895.4	THA	114.12	EL1	58.0	EL2	6.2	ALF	124.83

LAUNCH DATE JUL 19 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 489.253 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.908	GAL	-1.67	AZL	87.33	HCA	153.37	SMA	200.16	ECC	.24213	INC	2.6670
RP	234.89	LAP	1.20	LOP	89.58	VP	21.610	GAP	9.87	AZP	92.38	TAL	351.41	TAP	144.79	RCA	151.69	APO	248.62
RC	183.270	GL	22.75	GP	-28.10	ZAL	102.28	ZAP	123.18	ETS	202.50	ZAE	147.98	ETE	247.49	ZAC	56.72	ETC	285.54

V1	29.306																		
V2	23.405																		
LVI	8.92																		

PLANETOCENTRIC CONIC

C3	15.671	VHL	3.959	DLA	36.03	RAL	28.39	RAD	6640.8	VEL	11.650	PTH	6.69	VHP	2.993	DPA	-12.55	RAP	45.51
ECC	1.2579																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 38 24	3853.28	-46.18	161.68	274.47	77.01	11 42 38	2853.3	-46.03	126.56
60.00	10 8 38	3932.96	-35.97	164.87	270.52	70.44	11 14 10	2933.0	-40.30	134.64
66.68	8 38 28	4197.43	-22.54	179.46	263.62	61.12	9 48 25	3197.4	-32.41	154.72
66.68	8 38 28	4197.43	-22.54	179.46	263.62	61.12	9 48 25	3197.4	-32.41	154.72
66.68	8 38 28	4197.43	-22.54	179.46	263.62	61.12	9 48 25	3197.4	-32.41	154.72
66.68	8 38 28	4197.43	-22.54	179.46	263.62	61.12	9 48 25	3197.4	-32.41	154.72
66.68	8 38 28	4197.43	-22.54	179.46	263.62	61.12	9 48 25	3197.4	-32.41	154.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3617	TRA	-.6592	TC3	.2537	BAU	.5722	SGT	1306.2	SGR	2643.8	SG3	1455.8	ST	31.6	SR	53.8	SS	113.1
RDE	.7032	RRA	.6415	RC3	-2.7195	FAU	.29785	RRT	-.6717	RRF	.9906	RTF	-.6674	CRT	-.9631	CRS	-.9946	CST	.9314
FDE	5.8858	FRA	3.6053	FC	-16.4544	BSP	4878	SGB	2948.9	R23	-.1178	R13	.9835	LSA	128.6	MSA	11.7	SSA	1.1
BDE	.7908	BRA	.9198	BC3	2.7313	FSP	2451	SG1	2804.2	SG2	912.3	THA	110.64	EL1	62.0	EL2	7.4	ALF	119.95

LAUNCH DATE JUL 19 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 493.028 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.897	GAL	-1.67	AZL	87.18	HCA	154.35	SMA	199.95	ECC	.24133	INC	2.6171
RP	235.24	LAP	1.22	LOP	90.57	VP	21.554	GAP	9.62	AZP	92.54	TAL	351.42	TAP	145.77	RCA	151.69	APO	248.20
RC	186.232	GL	23.97	GP	-29.33	ZAL	102.16	ZAP	121.46	ETS	202.18	ZAE	146.28	ETE	245.52	ZAC	55.65	ETC	285.81

V1	29.306																		
V2	23.369																		
LVI	9.96																		

PLANETOCENTRIC CONIC

C3	15.831	VHL	3.979	DLA	37.15	RAL	27.80	RAD	6640.9	VEL	11.657	PTH	6.69	VHP	2.975	DPA	-13.88	RAP	45.45
ECC	1.2605																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 27 24	3886.06	-45.64	164.66	274.82	74.77	11 32 10	2886.1	-46.52	129.57
60.00	9 49 15	3988.26	-34.63	168.95	269.97	67.95	10 55 43	2988.3	-40.21	139.34
64.83	8 26 15	4228.91	-23.10	182.34	263.57	60.05	9 36 44	3228.9	-33.34	157.60
64.83	8 26 15	4228.91	-23.10	182.34	263.57	60.05	9 36 44	3228.9	-33.34	157.60
64.83	8 26 15	4228.91	-23.10	182.34	263.57	60.05	9 36 44	3228.9	-33.34	157.60
64.83	8 26 15	4228.91	-23.10	182.34	263.57	60.05	9 36 44	3228.9	-33.34	157.60
64.83	8 26 15	4228.91	-23.10	182.34	263.57	60.05	9 36 44	3228.9	-33.34	157.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3328	TRA	-.6291	TC3	.1542	BAU	.6034	SGT	1239.6	SGR	2803.8	SG3	1473.2	ST	29.4	SR	60.4	SS	116.8
RDE	.7999	RRA	.6556	RC3	-2.8468	FAU	.30072	RRT	-.6261	RRF	.9920	RTF	-.6203	CRT	-.9483	CRS	-.9962	CST	.9181
FDE	6.1633	FRA	3.5310	FC	-16.4451	BSP	5068	SGB	3065.7	R23	-.0965	R13	.9871	LSA	134.2	MSA	11.9	SSA	1.1
BDE	.8664	BRA	.9088	BC3	2.8510	FSP	2484	SG1	2922.0	SG2	927.5	THA	107.27	EL1	66.6	EL2	8.5	ALF	115.23

LAUNCH DATE JUL 19 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 496.804 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.887	GAL	-1.66	AZL	87.02	HCA	155.33	SMA	199.75	ECC	.24059	INC	2.9778
RP	235.59	LAP	1.24	LOP	91.54	VP	21.500	GAP	9.38	AZP	92.71	TAL	351.42	TAP	146.75	RCA	151.69	APO	247.81
RC	189.197	GL	25.25	GP	-30.60	ZAL	102.04	ZAP	119.71	ETS	201.83	ZAE	144.50	ETE	243.67	ZAC	54.54	ETC	286.10

V1	29.306																		
V2	23.332																		
LVI	11.06																		

PLANETOCENTRIC CONIC

C3	16.029	VHL	4.004	DLA	38.34	RAL	27.18	RAD	6641.0	VEL	11.665	PTH	6.70	VHP	2.963	DPA	-15.27	RAP	45.40
ECC	1.2638																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 15 8	3922.26	-44.94	167.87	275.11	72.38	11 20 30	2922.3	-46.95	132.96
60.00	9 24 47	4057.42	-32.75	173.85	269.03	65.07	10 32 24	3057.4	-39.80	145.18
62.96	8 14 19	4259.24	-23.66	185.19	263.55	58.91	9 25 19	3259.2	-34.31	160.46
62.96	8 14 19	4259.24	-23.66	185.19	263.55	58.91	9 25 19	3259.2	-34.31	160.46
62.96	8 14 19	4259.24	-23.66	185.19	263.55	58.91	9 25 19	3259.2	-34.31	160.46
62.96	8 14 19	4259.24	-23.66	185.19	263.55	58.91	9 25 19	3259.2	-34.31	160.46
62.96	8 14 19	4259.24	-23.66	185.19	263.55	58.91	9 25 19	3259.2	-34.31	160.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2975	TRA	-.5962	TC3	.0555	BAU	.6372	SGT	1169.0	SGR	2970.6	SG3	1484.4	ST	26.8	SR	67.4	SS	120.4
RDE	.9054	RRA	.6666	RC3	-2.9728	FAU	.30263	RRT	-.5703	RRF	.9932	RTF	-.5628	CRT	-.9277	CRS	-.9972	CST	.8985
FDE	6.4336	FRA	3.4280	FC	-16.3453	BSP	5266	SGB	3192.4	R23	-.0799	R13	.9900	LSA	140.0	MSA	12.0	SSA	1.0
BDE	.9530	BRA	.8944	BC3	2.9733	FSP	2504	SG1	3052.5	SG2	934.5	THA	103.99	EL1	71.9	EL2	9.4	ALF	110.63

LAUNCH DATE JUL 19 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 500.582 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.878 GAL -1.66 AZL 86.85 HCA 156.30 SMA 199.57 ECC .23991 INC 3.1502 V1 29.306
RP 235.94 LAP 1.27 LOP 92.52 VP 21.447 GAP 9.13 AZP 92.89 TAL 351.42 TAP 147.72 RCA 151.69 APO 247.45 V2 23.297
RC 192.165 GL 26.60 GP -31.93 ZAL 101.92 ZAP 117.96 ETS 201.45 ZAE 142.65 ETE 241.93 ZAC 53.39 ETC 286.42 LVI 12.20

PLANETOCENTRIC CONIC

C3 16.271 VHL 4.034 DLA 39.59 RAL 26.52 RAD 6641.1 VEL 11.675 PTH 6.71 VHP 2.956 DPA -16.71 RAP 45.36 ECC 1.2678

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 1 18	3962.59	-44.05	171.34	275.28	69.83	11 7 21	2962.6	-47.30	136.79
60.00	8 48 53	4157.78	-29.67	180.56	267.16	61.37	9 58 10	3157.8	-38.65	153.46
61.06	8 2 36	4288.67	-24.23	188.03	263.57	57.68	9 14 5	3288.7	-35.31	163.33
61.06	8 2 36	4288.67	-24.23	188.03	263.57	57.68	9 14 5	3288.7	-35.31	163.33
61.06	8 2 36	4288.67	-24.23	188.03	263.57	57.68	9 14 5	3288.7	-35.31	163.33
61.06	8 2 36	4288.67	-24.23	188.03	263.57	57.68	9 14 5	3288.7	-35.31	163.33
61.06	8 2 36	4288.67	-24.23	188.03	263.57	57.68	9 14 5	3288.7	-35.31	163.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2617 TRA -.5684 TC3 -.0588 BAU .6723 SGT 1112.7 SGR 3144.2 SG3 1489.3 ST 24.3 SR 75.1 SS 124.0
RDE 1.0231 RRA .6774 RC3-3.0902 FAU .30292 RRT -.4945 RRF .9943 RTF -.4861 CRT -.8994 CRS -.9980 CST .8710
FDE 6.7060 FRA 3.3137 FC-16.1176 BSP 5522 SGB 3335.3 R23 -.0633 R13 .9923 LSA 146.5 MSA 12.1 SSA .9
BDE 1.0561 BRA .8843 BC3 3.0908 FSP 2522 SG1 3196.8 SG2 951.3 THA 100.90 EL1 78.3 EL2 10.2 ALF 106.53

LAUNCH DATE JUL 19 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 504.361 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.870 GAL -1.66 AZL 86.66 HCA 157.27 SMA 199.41 ECC .23928 INC 3.3361 V1 29.306
RP 236.29 LAP 1.29 LOP 93.49 VP 21.396 GAP 8.89 AZP 93.08 TAL 351.41 TAP 148.68 RCA 151.69 APO 247.12 V2 23.261
RC 195.134 GL 28.02 GP -33.30 ZAL 101.80 ZAP 116.19 ETS 201.01 ZAE 140.74 ETE 240.30 ZAC 52.21 ETC 286.76 LVI 13.38

PLANETOCENTRIC CONIC

C3 16.562 VHL 4.070 DLA 40.90 RAL 25.81 RAD 6641.3 VEL 11.688 PTH 6.72 VHP 2.957 DPA -18.20 RAP 45.33 ECC 1.2786

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 45 27	4008.02	-42.92	175.12	275.27	67.10	10 52 15	3008.0	-47.53	141.16
59.12	7 50 59	4317.40	-24.79	190.87	263.62	56.36	9 2 57	3317.4	-36.34	166.22
59.12	7 50 59	4317.40	-24.79	190.87	263.62	56.36	9 2 57	3317.4	-36.34	166.22
59.12	7 50 59	4317.40	-24.79	190.87	263.62	56.36	9 2 57	3317.4	-36.34	166.22
59.12	7 50 59	4317.40	-24.79	190.87	263.62	56.36	9 2 57	3317.4	-36.34	166.22
59.12	7 50 59	4317.40	-24.79	190.87	263.62	56.36	9 2 57	3317.4	-36.34	166.22
59.12	7 50 59	4317.40	-24.79	190.87	263.62	56.36	9 2 57	3317.4	-36.34	166.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2178 TRA -.5378 TC3 -.1690 BAU .7100 SGT 1056.7 SGR 3323.8 SG3 1486.6 ST 21.5 SR 83.4 SS 127.4
RDE 1.1522 RRA .6840 RC3-3.2020 FAU .30195 RRT -.4030 RRF .9951 RTF -.3935 CRT -.8543 CRS -.9986 CST .8262
FDE 6.9651 FRA 3.1686 FC-15.7837 BSP 5779 SGB 3487.7 R23 -.0480 R13 .9940 LSA 153.3 MSA 12.3 SSA .8
BDE 1.1726 BRA .8701 BC3 3.2065 FSP 2521 SG1 3353.4 SG2 958.5 THA 97.96 EL1 85.4 EL2 10.9 ALF 102.61

LAUNCH DATE JUL 19 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 508.142 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.862 GAL -1.66 AZL 86.46 HCA 158.24 SMA 199.26 ECC .23869 INC 3.5370 V1 29.306
RP 236.63 LAP 1.31 LOP 94.46 VP 21.346 GAP 8.64 AZP 93.29 TAL 351.39 TAP 149.63 RCA 151.69 APO 246.82 V2 23.226
RC 198.104 GL 29.53 GP -34.73 ZAL 101.67 ZAP 114.42 ETS 200.54 ZAE 138.77 ETE 238.75 ZAC 50.98 ETC 287.13 LVI 14.62

PLANETOCENTRIC CONIC

C3 16.910 VHL 4.112 DLA 42.29 RAL 25.04 RAD 6641.4 VEL 11.702 PTH 6.74 VHP 2.965 DPA -19.74 RAP 45.32 ECC 1.2783

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 26 52	4060.12	-41.45	179.26	274.97	64.17	10 34 32	3060.1	-47.56	146.20
57.14	7 39 25	4345.59	-25.33	193.73	263.70	54.93	8 51 50	3345.6	-37.39	169.17
57.14	7 39 25	4345.59	-25.33	193.73	263.70	54.93	8 51 50	3345.6	-37.39	169.17
57.14	7 39 25	4345.59	-25.33	193.73	263.70	54.93	8 51 50	3345.6	-37.39	169.17
57.14	7 39 25	4345.59	-25.33	193.73	263.70	54.93	8 51 50	3345.6	-37.39	169.17
57.14	7 39 25	4345.59	-25.33	193.73	263.70	54.93	8 51 50	3345.6	-37.39	169.17
57.14	7 39 25	4345.59	-25.33	193.73	263.70	54.93	8 51 50	3345.6	-37.39	169.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1615 TRA -.5029 TC3 -.2660 BAU .7522 SGT 997.9 SGR 3510.4 SG3 1476.2 ST 18.1 SR 91.9 SS 130.1
RDE 1.2891 RRA .6833 RC3-3.3166 FAU .30063 RRT -.2931 RRF .9959 RTF -.2917 CRT -.7700 CRS -.9990 CST .7410
FDE 7.1826 FRA 2.9821 FC-15.3909 BSP 5992 SGB 3649.4 R23 -.0347 R13 .9953 LSA 159.8 MSA 12.4 SSA .8
BDE 1.2991 BRA .8484 BC3 3.3273 FSP 2485 SG1 3523.5 SG2 950.5 THA 95.14 EL1 93.0 EL2 11.4 ALF 98.77

LAUNCH DATE JUL 19 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 511.922 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.855 GAL -1.66 AZL 86.24 HCA 159.20 SMA 199.11 ECC .23816 INC 3.7549 V1 29.306
RP 236.98 LAP 1.33 LOP 95.43 VP 21.297 GAP 8.40 AZP 93.51 TAL 351.37 TAP 150.57 RCA 151.69 APO 246.54 V2 23.191
RC 201.073 GL 31.11 GP -36.21 ZAL 101.54 ZAP 112.66 ETS 200.01 ZAE 136.75 ETE 237.29 ZAC 49.70 ETC 287.54 LVI 15.90

PLANETOCENTRIC CONIC

C3 17.325 VHL 4.162 DLA 43.76 RAL 24.20 RAD 6641.6 VEL 11.720 PTH 6.75 VHP 2.981 DPA -21.33 RAP 45.34 ECC 1.2851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 4 19	4121.75	-39.52	183.90	274.22	60.99	10 13 1	3121.7	-47.29	152.13
55.10	7 27 48	4373.50	-25.86	196.63	263.80	53.38	8 40 41	3373.5	-38.47	172.21
55.10	7 27 48	4373.50	-25.86	196.63	263.80	53.38	8 40 41	3373.5	-38.47	172.21
55.10	7 27 48	4373.50	-25.86	196.63	263.80	53.38	8 40 41	3373.5	-38.47	172.21
55.10	7 27 48	4373.50	-25.86	196.63	263.80	53.38	8 40 41	3373.5	-38.47	172.21
55.10	7 27 48	4373.50	-25.86	196.63	263.80	53.38	8 40 41	3373.5	-38.47	172.21
55.10	7 27 48	4373.50	-25.86	196.63	263.80	53.38	8 40 41	3373.5	-38.47	172.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1088 TRA -.4806 TC3 -.3924 BAU .7923 SGT 983.9 SGR 3700.7 SG3 1457.0 ST 15.7 SR 101.7 SS 133.2
RDE 1.4485 RRA .6875 RC3-3.3982 FAU .29571 RRT -.1577 RRF .9965 RTF -.1462 CRT -.6371 CRS -.9993 CST .6076
FDE 7.4180 FRA 2.8160 FC-14.7761 BSP 6349 SGB 3829.2 R23 -.0229 R13 .9963 LSA 167.8 MSA 12.7 SSA .7
BDE 1.4526 BRA .8388 BC3 3.4208 FSP 2476 SG1 3704.2 SG2 970.6 THA 92.58 EL1 102.2 EL2 12.0 ALF 95.68

LAUNCH DATE JUL 19 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 515.704 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.848	GAL	-1.66	AZL	86.01	HCA	160.16	SMA	198.89	ECC	.23768	INC	3.9924	V1	29.306
RP	237.31	LAP	1.35	LOP	96.39	VP	21.249	GAP	8.16	AZP	93.76	TAL	351.34	TAP	151.50	RCA	151.69	APO	246.28	V2	23.157
RC	204.040	GL	32.79	GP	-37.73	ZAL	101.39	ZAP	110.89	ETS	199.44	ZAE	134.68	ETE	235.89	ZAC	48.39	ETC	287.98	LVI	17.24

PLANETOCENTRIC CONIC

C3	17.819	VHL	4.221	DLA	45.30	RAL	23.28	RAD	6641.9	VEL	11.741	PTH	6.77	VHP	3.006	DPA	-22.97	RAP	45.39	ECC	1.2933

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 35 5	4199.06	-36.82	189.33	272.64	57.43	9 45 4	3199.1	-46.49	159.43
53.00	7 16 4	4401.15	-26.36	199.59	263.93	51.72	8 29 25	3401.2	-39.57	175.35
53.00	7 16 4	4401.15	-26.36	199.59	263.93	51.72	8 29 25	3401.2	-39.57	175.35
53.00	7 16 4	4401.15	-26.36	199.59	263.93	51.72	8 29 25	3401.2	-39.57	175.35
53.00	7 16 4	4401.15	-26.36	199.59	263.93	51.72	8 29 25	3401.2	-39.57	175.35
53.00	7 16 4	4401.15	-26.36	199.59	263.93	51.72	8 29 25	3401.2	-39.57	175.35
53.00	7 16 4	4401.15	-26.36	199.59	263.93	51.72	8 29 25	3401.2	-39.57	175.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0431	TRA	-.4537	TC3	-.5027	BAU	.8364	SGT	974.8	SGR	3897.3	SG3	1429.3	ST	13.5	SR	111.9	SS	135.7
RDE	1.6223	RRA	.6822	RC3	-3.4750	FAU	.29001	RRT	-.0096	RRF	.9971	RTF	.0024	CRT	-.3838	CRS	-.9995	CST	.3539
FDE	7.6165	FRA	2.6065	FC	-14.0900	BSP	6677	SGB	4017.3	R23	-.0127	R13	.9971	LSA	176.0	MSA	12.8	SSA	.6
BDE	1.6229	BRA	.8193	BC3	3.5111	FSP	2436	SG1	3897.3	SG2	974.7	THA	90.15	EL1	112.1	EL2	12.4	ALF	92.68

LAUNCH DATE JUL 19 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 519.485 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.842	GAL	-1.66	AZL	85.75	HCA	161.12	SMA	198.87	ECC	.23723	INC	4.2521	V1	29.306
RP	237.65	LAP	1.38	LOP	97.35	VP	21.203	GAP	7.92	AZP	94.02	TAL	351.30	TAP	152.42	RCA	151.69	APO	246.04	V2	23.123
RC	207.005	GL	34.57	GP	-39.31	ZAL	101.24	ZAP	109.14	ETS	198.82	ZAE	132.57	ETE	234.55	ZAC	47.04	ETC	288.46	LVI	18.62

PLANETOCENTRIC CONIC

C3	18.406	VHL	4.290	DLA	46.93	RAL	22.26	RAD	6642.1	VEL	11.766	PTH	6.79	VHP	3.040	DPA	-24.65	RAP	45.47	ECC	1.3029

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 49 21	4315.53	-32.29	196.75	269.08	52.94	9 1 17	3315.5	-44.36	169.84
50.84	7 4 7	4428.85	-26.82	202.61	264.08	49.92	8 17 56	3428.9	-40.67	178.62
50.84	7 4 7	4428.85	-26.82	202.61	264.08	49.92	8 17 56	3428.9	-40.67	178.62
50.84	7 4 7	4428.85	-26.82	202.61	264.08	49.92	8 17 56	3428.9	-40.67	178.62
50.84	7 4 7	4428.85	-26.82	202.61	264.08	49.92	8 17 56	3428.9	-40.67	178.62
50.84	7 4 7	4428.85	-26.82	202.61	264.08	49.92	8 17 56	3428.9	-40.67	178.62
50.84	7 4 7	4428.85	-26.82	202.61	264.08	49.92	8 17 56	3428.9	-40.67	178.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0324	TRA	-.4289	TC3	-.6105	BAU	.8828	SGT	990.0	SGR	4095.9	SG3	1391.6	ST	12.8	SR	122.7	SS	137.6
RDE	1.8122	RRA	.6699	RC3	-3.5354	FAU	.28265	RRT	.1466	RRF	.9975	RTF	.1589	CRT	.0116	CRS	-.9996	CST	-.0390
FDE	7.7734	FRA	2.3718	FC	-13.2946	BSP	7011	SGB	4213.9	R23	-.0038	R13	.9976	LSA	184.4	MSA	13.0	SSA	.5
BDE	1.8125	BRA	.7955	BC3	3.5877	FSP	2375	SG1	4098.7	SG2	978.7	THA	87.85	EL1	122.7	EL2	12.8	ALF	89.93

LAUNCH DATE JUL 19 1973 FLIGHT TIME 224.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 523.267 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.837	GAL	-1.67	AZL	85.46	HCA	162.07	SMA	198.76	ECC	.23683	INC	4.5377	V1	29.306
RP	237.98	LAP	1.40	LOP	98.31	VP	21.158	GAP	7.68	AZP	94.32	TAL	351.26	TAP	153.33	RCA	151.69	APO	245.83	V2	23.090
RC	209.965	GL	36.45	GP	-40.93	ZAL	101.07	ZAP	107.41	ETS	198.13	ZAE	130.43	ETE	233.26	ZAC	45.66	ETC	288.99	LVI	20.05

PLANETOCENTRIC CONIC

C3	19.106	VHL	4.371	DLA	48.66	RAL	21.12	RAD	6642.4	VEL	11.795	PTH	6.82	VHP	3.086	DPA	-26.38	RAP	45.59	ECC	1.3144

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.60	6 51 50	4456.74	-27.22	205.71	264.21	47.98	8 6 6	3456.7	-41.77	182.07
48.60	6 51 50	4456.74	-27.22	205.71	264.21	47.98	8 6 6	3456.7	-41.77	182.07
48.60	6 51 50	4456.74	-27.22	205.71	264.21	47.98	8 6 6	3456.7	-41.77	182.07
48.60	6 51 50	4456.74	-27.22	205.71	264.21	47.98	8 6 6	3456.7	-41.77	182.07
48.60	6 51 50	4456.74	-27.22	205.71	264.21	47.98	8 6 6	3456.7	-41.77	182.07
48.60	6 51 50	4456.74	-27.22	205.71	264.21	47.98	8 6 6	3456.7	-41.77	182.07
48.60	6 51 50	4456.74	-27.22	205.71	264.21	47.98	8 6 6	3456.7	-41.77	182.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1182	TRA	-.4070	TC3	-.7136	BAU	.9313	SGT	1032.2	SGR	4297.9	SG3	1344.4	ST	14.4	SR	134.1	SS	139.0
RDE	2.0235	RRA	.6506	RC3	-3.5754	FAU	.27350	RRT	.2971	RRF	.9979	RTF	.0491	CRT	.4124	CRS	-.9997	CST	-.4336
FDE	7.8939	FRA	2.1190	FC	-12.3931	BSP	7354	SGB	4420.1	R23	.0039	R13	.9980	LSA	193.3	MSA	13.2	SSA	.5
BDE	2.0270	BRA	.7674	BC3	3.6459	FSP	2296	SG1	4309.4	SG2	983.0	THA	85.69	EL1	134.2	EL2	13.1	ALF	87.44

LAUNCH DATE JUL 19 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 527.048 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.832	GAL	-1.68	AZL	85.15	HCA	163.03	SMA	198.66	ECC	.23647	INC	4.8534	V1	29.306
RP	238.30	LAP	1.42	LOP	99.27	VP	21.114	GAP	7.44	AZP	94.64	TAL	351.21	TAP	154.24	RCA	151.68	APO	245.64	V2	23.056
RC	212.919	GL	38.45	GP	-42.60	ZAL	100.88	ZAP	105.71	ETS	197.40	ZAE	128.27	ETE	232.01	ZAC	44.23	ETC	289.57	LVI	21.54

PLANETOCENTRIC CONIC

C3	19.943	VHL	4.466	DLA	50.47	RAL	19.82	RAD	6642.8	VEL	11.830	PTH	6.85	VHP	3.144	DPA	-28.14	RAP	45.76	ECC	1.3282

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.28	6 39 6	4484.98	-27.55	208.90	264.33	45.88	7 53 51	3485.0	-42.85	185.71
46.28	6 39 6	4484.98	-27.55	208.90	264.33	45.88	7 53 51	3485.0	-42.85	185.71
46.28	6 39 6	4484.98	-27.55	208.90	264.33	45.88	7 53 51	3485.0	-42.85	185.71
46.28	6 39 6	4484.98	-27.55	208.90	264.33	45.88	7 53 51	3485.0	-42.85	185.71
46.28	6 39 6	4484.98	-27.55	208.90	264.33	45.88	7 53 51	3485.0	-42.85	185.71
46.28	6 39 6	4484.98	-27.55	208.90	264.33	45.88	7 53 51	3485.0	-42.85	185.71
46.28	6 39 6	4484.98	-27.55	208.90	264.33	45.88	7 53 51	3485.0	-42.85	185.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2164	TRA	-.3873	TC3	-.8083	BAU	.9816	SGT	1099.1	SGR	4501.4	SG3	1287.5	ST	18.2	SR	146.2	SS	139.8
RDE	2.2590	RRA	.6219	RC3	-3.5916	FAU	.26253	RRT	.4329	RRF	.9983	RTF	.4445	CRT	.6753	CRS	-.9998	CST	-.6899
FDE	7.9709	FRA	1.8476	FC	-11.3965	BSP	7722	SGB	4633.6	R23	.0104	R13	.9983	LSA	202.7	MSA	13.4	SSA	.4
BDE	2.2693	BRA	.7326	BC3	3.6815	FSP	2203	SG1	4527.7	SG2	985.0	THA	83.67	EL1	146.7	EL2	13.4	ALF	85.16

LAUNCH DATE JUL 19 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 530.829 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.827 GAL -1.69 AZL 84.80 HCA 183.97 SMA 198.57 ECC .23615 INC 5.2045 V1 29.306
RP 238.63 LAP 1.44 LOP 100.22 VP 21.071 GAP 7.20 AZP 95.00 TAL 351.16 TAP 155.13 RCA 151.68 APO 245.47 V2 23.024
RC 213.868 GL 40.57 GP -44.32 ZAL 100.67 ZAP 104.04 ETS 196.60 ZAE 126.09 ETE 230.79 ZAC 42.77 ETC 290.21 LVI 23.07

PLANETOCENTRIC CONIC

C3 20.950 VHL 4.577 DLA 52.38 RAL 18.34 RAD 6643.3 VEL 11.872 PTH 6.89 VHP 3.216 DPA -29.95 RAP 45.99 ECC 1.3448

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.88	6 25 45	4513.82	-27.78	212.19	264.40	43.62	7 40 59	3513.8	-43.88	189.59
43.88	6 25 45	4513.82	-27.78	212.19	264.40	43.62	7 40 59	3513.8	-43.88	189.59
43.88	6 25 45	4513.82	-27.78	212.19	264.40	43.62	7 40 59	3513.8	-43.88	189.59
43.88	6 25 45	4513.82	-27.78	212.19	264.40	43.62	7 40 59	3513.8	-43.88	189.59
43.88	6 25 45	4513.82	-27.78	212.19	264.40	43.62	7 40 59	3513.8	-43.88	189.59
43.88	6 25 45	4513.82	-27.78	212.19	264.40	43.62	7 40 59	3513.8	-43.88	189.59
43.88	6 25 45	4513.82	-27.78	212.19	264.40	43.62	7 40 59	3513.8	-43.88	189.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .3282 TRA -.3717 TC3 -.8929 BAU 1.0343 SGT 1190.7 SGR 4706.4 SG3 1221.3 ST 23.5 SR 158.9 SS 139.8
RDE 2.5217 RRA .5823 RC3-3.5833 FAU .24992 RRT .5474 RRF .9985 RTF .5583 CRT .8135 CRS -.9998 CST -.8233
FDE 7.9952 FRA 1.5620 FC-10.3278 BSP 8093 SGB 4854.7 R23 .0160 R13 .9985 LSA 212.5 MSA 13.6 SSA .4
BDE 2.5429 BRA .6908 BC3 3.6929 FSP 2093 SG1 4753.4 SG2 986.6 THA 81.76 EL1 160.1 EL2 13.6 ALF 83.08

LAUNCH DATE JUL 19 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 534.609 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.823 GAL -1.70 AZL 84.40 HCA 164.92 SMA 198.49 ECC .23587 INC 5.5973 V1 29.306
RP 238.95 LAP 1.45 LOP 101.17 VP 21.029 GAP 6.97 AZP 95.41 TAL 351.10 TAP 156.02 RCA 151.67 APO 245.31 V2 22.991
RC 218.810 GL 42.82 GP -46.08 ZAL 100.44 ZAP 102.42 ETS 195.75 ZAE 123.90 ETE 229.59 ZAC 41.27 ETC 290.91 LVI 24.65

PLANETOCENTRIC CONIC

C3 22.169 VHL 4.708 DLA 54.39 RAL 16.62 RAD 6643.8 VEL 11.923 PTH 6.93 VHP 3.305 DPA -31.78 RAP 46.28 ECC 1.3649

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.39	6 11 35	4543.52	-27.89	215.59	264.37	41.20	7 27 19	3543.5	-44.83	193.73
41.39	6 11 35	4543.52	-27.89	215.59	264.37	41.20	7 27 19	3543.5	-44.83	193.73
41.39	6 11 35	4543.52	-27.89	215.59	264.37	41.20	7 27 19	3543.5	-44.83	193.73
41.39	6 11 35	4543.52	-27.89	215.59	264.37	41.20	7 27 19	3543.5	-44.83	193.73
41.39	6 11 35	4543.52	-27.89	215.59	264.37	41.20	7 27 19	3543.5	-44.83	193.73
41.39	6 11 35	4543.52	-27.89	215.59	264.37	41.20	7 27 19	3543.5	-44.83	193.73
41.39	6 11 35	4543.52	-27.89	215.59	264.37	41.20	7 27 19	3543.5	-44.83	193.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4556 TRA -.3610 TC3 -.9660 BAU 1.0889 SGT 1305.5 SGR 4909.7 SG3 1145.6 ST 30.0 SR 172.2 SS 138.8
RDE 2.8151 RRA .5305 RC3-3.5446 FAU .23552 RRT .6395 RRF .9988 RTF .6497 CRT .8850 CRS -.9999 CST -.8917
FDE 7.9578 FRA 1.2684 FC3-9.1973 BSP 8481 SGB 5080.3 R23 .0208 R13 .9987 LSA 222.7 MSA 13.8 SSA .3
BDE 2.8517 BRA .6417 BC3 3.6739 FSP 1968 SG1 4983.2 SG2 988.8 THA 79.95 EL1 174.2 EL2 13.8 ALF 81.18

LAUNCH DATE JUL 19 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 538.388 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.820 GAL -1.71 AZL 83.96 HCA 165.86 SMA 198.42 ECC .23562 INC 6.0401 V1 29.306
RP 239.26 LAP 1.47 LOP 102.12 VP 20.989 GAP 6.73 AZP 95.86 TAL 351.04 TAP 156.90 RCA 151.67 APO 245.18 V2 22.960
RC 221.744 GL 45.21 GP -47.88 ZAL 100.17 ZAP 100.85 ETS 194.84 ZAE 121.71 ETE 228.40 ZAC 39.74 ETC 291.68 LVI 26.26

PLANETOCENTRIC CONIC

C3 23.658 VHL 4.864 DLA 56.50 RAL 14.60 RAD 6644.4 VEL 11.985 PTH 6.98 VHP 3.414 DPA -33.64 RAP 46.64 ECC 1.3894

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.81	5 56 21	4574.37	-27.83	219.08	264.17	38.62	7 12 36	3574.4	-45.65	198.17
38.81	5 56 21	4574.37	-27.83	219.08	264.17	38.62	7 12 36	3574.4	-45.65	198.17
38.81	5 56 21	4574.37	-27.83	219.08	264.17	38.62	7 12 36	3574.4	-45.65	198.17
38.81	5 56 21	4574.37	-27.83	219.08	264.17	38.62	7 12 36	3574.4	-45.65	198.17
38.81	5 56 21	4574.37	-27.83	219.08	264.17	38.62	7 12 36	3574.4	-45.65	198.17
38.81	5 56 21	4574.37	-27.83	219.08	264.17	38.62	7 12 36	3574.4	-45.65	198.17
38.81	5 56 21	4574.37	-27.83	219.08	264.17	38.62	7 12 36	3574.4	-45.65	198.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .6003 TRA -.3558 TC3-1.0239 BAU 1.1462 SGT 1438.4 SGR 5110.8 SG3 1061.3 ST 37.2 SR 185.8 SS 136.7
RDE 3.1442 RRA .4609 RC3-3.4761 FAU .21963 RRT .7129 RRF .9990 RTF .[illegible]24 CRT .9245 CRS -.9999 CST -.9293
FDE 7.8511 FRA .9645 FC3-8.0371 BSP 8866 SGB 5309.3 R23 .0247 R13 .9988 LSA 233.3 MSA 13.9 SSA .3
BDE 3.2010 BRA .5823 BC3 3.6237 FSP 1827 SG1 5216.5 SG2 988.3 THA 78.23 EL1 189.0 EL2 13.9 ALF 79.46

LAUNCH DATE JUL 19 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 542.165 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.816 GAL -1.72 AZL 83.46 HCA 166.80 SMA 198.36 ECC .23541 INC 6.5432 V1 29.306
RP 239.57 LAP 1.49 LOP 103.07 VP 20.949 GAP 6.50 AZP 96.37 TAL 350.97 TAP 157.77 RCA 151.67 APO 245.06 V2 22.928
RC 224.672 GL 47.76 GP -49.71 ZAL 99.87 ZAP 99.33 ETS 193.87 ZAE 119.53 ETE 227.23 ZAC 38.19 ETC 292.53 LVI 27.94

PLANETOCENTRIC CONIC

C3 25.495 VHL 5.049 DLA 58.70 RAL 12.20 RAD 6645.2 VEL 12.061 PTH 7.04 VHP 3.546 DPA -35.52 RAP 47.09 ECC 1.4196

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.15	5 39 43	4606.67	-27.57	222.66	263.72	35.87	6 56 30	3606.7	-46.30	202.91
36.15	5 39 43	4606.67	-27.57	222.66	263.72	35.87	6 56 30	3606.7	-46.30	202.91
36.15	5 39 43	4606.67	-27.57	222.66	263.72	35.87	6 56 30	3606.7	-46.30	202.91
36.15	5 39 43	4606.67	-27.57	222.66	263.72	35.87	6 56 30	3606.7	-46.30	202.91
36.15	5 39 43	4606.67	-27.57	222.66	263.72	35.87	6 56 30	3606.7	-46.30	202.91
36.15	5 39 43	4606.67	-27.57	222.66	263.72	35.87	6 56 30	3606.7	-46.30	202.91
36.15	5 39 43	4606.67	-27.57	222.66	263.72	35.87	6 56 30	3606.7	-46.30	202.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .7641 TRA -.3584 TC3-1.0661 BAU 1.2058 SGT 1588.7 SGR 5306.6 SG3 969.1 ST 44.9 SR 199.8 SS 133.4
RDE 3.5133 RRA .3728 RC3-3.3732 FAU .20222 RRT .7694 RRF .9991 RTF .7784 CRT .9474 CRS -.9999 CST -.9509
FDE 7.6634 FRA .6633 FC3-6.8668 BSP 9247 SGB 5539.3 R23 .0280 R13 .9989 LSA 244.0 MSA 14.1 SSA .2
BDE 3.5954 BRA .5171 BC3 3.5377 FSP 1671 SG1 5450.5 SG2 988.0 THA 76.58 EL1 204.3 EL2 14.1 ALF 77.91

LAUNCH DATE JUL 19 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 12 1974

HELIOCENTRIC CONIC DISTANCE 545.940 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.814	GAL	-1.73	AZL	82.68	HCA	167.73	SMA	198.31	ECC	.23523	INC	7.1203	V1	29.306
RP	239.88	LAP	1.51	LOP	104.01	VP	20.911	GAP	6.26	AZP	96.96	TAL	350.90	TAP	158.63	RCA	151.66	APO	244.95	V2	22.897
RC	227.591	GL	50.47	GP	-51.58	ZAL	99.53	ZAP	97.89	ETS	192.86	ZAE	117.38	ETE	226.07	ZAC	36.62	ETC	293.48	LVI	29.65

PLANETOCENTRIC CONIC

C3	27.788	VHL	5.271	DLA	61.00	RAL	9.29	RAD	6646.1	VEL	12.155	PTH	7.12	VHP	3.706	DPA	-37.41	RAP	47.62	ECC	1.4573

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.41	5 21 10	4640.89	-27.05	226.31	262.86	32.99	6 38 31	3640.9	-46.71	207.96
33.41	5 21 10	4640.89	-27.05	226.31	262.86	32.99	6 38 31	3640.9	-46.71	207.96
33.41	5 21 10	4640.89	-27.05	226.31	262.86	32.99	6 38 31	3640.9	-46.71	207.96
33.41	5 21 10	4640.89	-27.05	226.31	262.86	32.99	6 38 31	3640.9	-46.71	207.96
33.41	5 21 10	4640.89	-27.05	226.31	262.86	32.99	6 38 31	3640.9	-46.71	207.96
33.41	5 21 10	4640.89	-27.05	226.31	262.86	32.99	6 38 31	3640.9	-46.71	207.96
33.41	5 21 10	4640.89	-27.05	226.31	262.86	32.99	6 38 31	3640.9	-46.71	207.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9479	TRA	-.3694	TC3	-1.0887	BAU	1.2689	SGT	1750.6	SGR	5498.4	SG3	870.6	ST	53.0	SR	213.8	SS	128.6
RDE	3.9298	RRA	.2597	RC3	-3.2374	FAU	.18361	RRT	.8141	RRF	.9993	RTF	.8228	CRT	.9617	CRS	-.9999	CST	-.9644
FDE	7.3879	FRA	.3674	FC3	-5.7204	BSP	9668	SGB	5770.4	R23	.0303	R13	.9989	LSA	254.7	MSA	14.1	SSA	.2
BDE	4.0425	BRA	.4516	BC3	3.4155	FSP	1511	SG1	5686.0	SG2	983.1	THA	75.01	EL1	219.8	EL2	14.1	ALF	76.53

LAUNCH DATE JUL 19 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC DISTANCE 549.713 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.811	GAL	-1.74	AZL	82.21	HCA	168.67	SMA	198.26	ECC	.23508	INC	7.7889	V1	29.306
RP	240.18	LAP	1.53	LOP	104.95	VP	20.874	GAP	6.03	AZP	97.64	TAL	350.82	TAP	159.49	RCA	151.65	APO	244.87	V2	22.866
RC	230.502	GL	53.35	GP	-53.47	ZAL	99.14	ZAP	96.53	ETS	191.79	ZAE	115.26	ETE	224.91	ZAC	35.04	ETC	294.53	LVI	31.38

PLANETOCENTRIC CONIC

C3	30.693	VHL	5.540	DLA	63.36	RAL	5.71	RAD	6647.3	VEL	12.273	PTH	7.21	VHP	3.901	DPA	-39.29	RAP	48.25	ECC	1.5051

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.61	5 0 7	4677.38	-26.23	229.98	261.40	30.00	6 18 4	3677.4	-46.80	213.26
30.61	5 0 7	4677.38	-26.23	229.98	261.40	30.00	6 18 4	3677.4	-46.80	213.26
30.61	5 0 7	4677.38	-26.23	229.98	261.40	30.00	6 18 4	3677.4	-46.80	213.26
30.61	5 0 7	4677.38	-26.23	229.98	261.40	30.00	6 18 4	3677.4	-46.80	213.26
30.61	5 0 7	4677.38	-26.23	229.98	261.40	30.00	6 18 4	3677.4	-46.80	213.26
30.61	5 0 7	4677.38	-26.23	229.98	261.40	30.00	6 18 4	3677.4	-46.80	213.26
30.61	5 0 7	4677.38	-26.23	229.98	261.40	30.00	6 18 4	3677.4	-46.80	213.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1493	TRA	-.3930	TC3	-1.0924	BAU	1.3374	SGT	1923.3	SGR	5680.8	SG3	766.8	ST	61.0	SR	227.2	SS	122.0
RDE	4.3912	RRA	.1144	RC3	-3.0708	FAU	.16416	RRT	.8491	RRF	.9993	RTF	.8577	CRT	.9708	CRS	-1.0000	CST	-.9730
FDE	6.9997	FRA	.0833	FC3	-4.6303	BSP	10010	SGB	5997.5	R23	.0314	R13	.9990	LSA	264.6	MSA	14.2	SSA	.2
BDE	4.5391	BRA	.4093	BC3	3.2593	FSP	1330	SG1	5917.7	SG2	975.3	THA	73.50	EL1	234.8	EL2	14.2	ALF	75.34

LAUNCH DATE JUL 19 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 16 1974

HELIOCENTRIC CONIC DISTANCE 553.482 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.809	GAL	-1.76	AZL	81.43	HCA	169.59	SMA	198.22	ECC	.23495	INC	8.5734	V1	29.306
RP	240.48	LAP	1.54	LOP	105.89	VP	20.837	GAP	5.80	AZP	98.43	TAL	350.74	TAP	160.33	RCA	151.65	APO	244.79	V2	22.836
RC	233.405	GL	56.42	GP	-55.36	ZAL	98.71	ZAP	95.26	ETS	190.68	ZAE	113.20	ETE	223.75	ZAC	33.46	ETC	295.68	LVI	33.12

PLANETOCENTRIC CONIC

C3	34.435	VHL	5.868	DLA	65.75	RAL	1.19	RAD	6648.7	VEL	12.423	PTH	7.33	VHP	4.139	DPA	-41.16	RAP	48.98	ECC	1.5667

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.80	4 35 35	4716.68	-25.05	233.62	259.06	26.96	5 54 12	3716.7	-46.47	218.72
27.80	4 35 35	4716.68	-25.05	233.62	259.06	26.96	5 54 12	3716.7	-46.47	218.72
27.80	4 35 35	4716.68	-25.05	233.62	259.06	26.96	5 54 12	3716.7	-46.47	218.72
27.80	4 35 35	4716.68	-25.05	233.62	259.06	26.96	5 54 12	3716.7	-46.47	218.72
27.80	4 35 35	4716.68	-25.05	233.62	259.06	26.96	5 54 12	3716.7	-46.47	218.72
27.80	4 35 35	4716.68	-25.05	233.62	259.06	26.96	5 54 12	3716.7	-46.47	218.72
27.80	4 35 35	4716.68	-25.05	233.62	259.06	26.96	5 54 12	3716.7	-46.47	218.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.3648	TRA	-.4291	TC3	-1.0734	BAU	1.4092	SGT	2098.5	SGR	5856.0	SG3	660.1	ST	68.4	SR	239.8	SS	113.5
RDE	4.9063	RRA	-.0666	RC3	-2.8667	FAU	.14362	RRT	.8775	RRF	.9994	RTF	.8563	CRT	.9768	CRS	-1.0000	CST	-.9788
FDE	6.4966	FRA	-.1722	FC3	-3.6108	BSP	10411	SGB	6220.7	R23	.0308	R13	.9991	LSA	273.4	MSA	14.1	SSA	.1
BDE	5.0925	BRA	.4343	BC3	3.0611	FSP	1152	SG1	6146.3	SG2	958.8	THA	72.09	EL1	248.8	EL2	14.1	ALF	74.37

LAUNCH DATE JUL 19 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 18 1974

HELIOCENTRIC CONIC DISTANCE 557.247 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.807	GAL	-1.77	AZL	80.49	HCA	170.51	SMA	198.19	ECC	.23486	INC	9.5068	V1	29.306
RP	240.78	LAP	1.56	LOP	106.83	VP	20.802	GAP	5.57	AZP	99.38	TAL	350.66	TAP	161.17	RCA	151.64	APO	244.73	V2	22.807
RC	236.297	GL	59.70	GP	-57.25	ZAL	98.22	ZAP	94.09	ETS	189.55	ZAE	111.20	ETE	222.59	ZAC	31.89	ETC	296.95	LVI	34.87

PLANETOCENTRIC CONIC

C3	39.354	VHL	6.273	DLA	68.14	RAL	355.40	RAD	6650.4	VEL	12.619	PTH	7.47	VHP	4.433	DPA	-42.99	RAP	49.82	ECC	1.6477

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.01	4 6 15	4759.39	-23.43	237.13	255.39	23.94	5 25 34	3759.4	-45.63	224.19
25.01	4 6 15	4759.39	-23.43	237.13	255.39	23.94	5 25 34	3759.4	-45.63	224.19
25.01	4 6 15	4759.39	-23.43	237.13	255.39	23.94	5 25 34	3759.4	-45.63	224.19
25.01	4 6 15	4759.39	-23.43	237.13	255.39	23.94	5 25 34	3759.4	-45.63	224.19
25.01	4 6 15	4759.39	-23.43	237.13	255.39	23.94	5 25 34	3759.4	-45.63	224.19
25.01	4 6 15	4759.39	-23.43	237.13	255.39	23.94	5 25 34	3759.4	-45.63	224.19
25.01	4 6 15	4759.39	-23.43	237.13	255.39	23.94	5 25 34	3759.4	-45.63	224.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.5747	TRA	-.4831	TC3	-1.0333	BAU	1.4884	SGT	2270.1	SGR	6023.4	SG3	552.6	ST	74.1	SR	249.5	SS	102.5
RDE	5.4566	RRA	-.2960	RC3	-2.6335	FAU	.12261	RRT	.9004	RRF	.9993	RTF	.9098	CRT	.9803	CRS	-.9999	CST	-.9823
FDE	5.8481	FRA	-.3924	FC3	-2.6973	BSP	10812	SGB	6437.0	R23	.0279	R13	.9992	LSA	279.3	MSA	14.1	SSA	.1
BDE	5.6793	BRA	.5666	BC3	2.8290	FSP	971	SG1	6368.9	SG2	934.1	THA	70.83	EL1	259.9	EL2	14.0	ALF	73.72

LAUNCH DATE JUL 19 1973 FLIGHT TIME 288.00 ARRIVAL DATE MAY 3 1974

HELIOCENTRIC CONIC DISTANCE 644.520 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.838	GAL	-2.60	AZL	98.91	HCA	191.78	SMA	198.77	ECC	.23928	INC	8.9124	V1	29.306
RP	246.30	LAP	1.81	LOP	127.83	VP	20.248	GAP	.55	AZP	81.27	TAL	346.48	TAP	178.26	RCA	151.21	APO	246.34	V2	22.238
RC	298.401	GL	-56.28	GP	51.24	ZAL	102.97	ZAP	76.82	ETS	199.38	ZAE	95.65	ETE	175.53	ZAC	138.28	ETC	291.58	LVI	-72.38

PLANETOCENTRIC CONIC

C3	37.331	VHL	6.110	DLA	-36.44	RAL	63.69	RAD	6649.7	VEL	12.539	PTH	7.41	VHP	3.774	DPA	50.28	RAP	345.72	ECC	1.6144

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 34 38	2501.63	-7.48	66.49	293.01	137.13	19 16 20	1501.6	10.90	30.71
60.00	20 26 21	2203.92	1.90	48.67	301.95	130.26	21 3 5	1203.9	17.64	30.15
66.00	22 53 29	1775.96	15.23	23.65	312.02	123.51	23 23 5	776.0	27.60	1.47
66.00	22 53 29	1775.96	15.23	23.65	312.02	123.51	23 23 5	776.0	27.60	1.47
66.00	22 53 29	1775.96	15.23	23.65	312.02	123.51	23 23 5	776.0	27.60	1.47
66.00	22 53 29	1775.96	15.23	23.65	312.02	123.51	23 23 5	776.0	27.60	1.47
66.00	22 53 29	1775.96	15.23	23.65	312.02	123.51	23 23 5	776.0	27.60	1.47

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.1477	TRA	3.8996	TC3	-3.2410	BAU	1.9976	SGT	6712.5	SGR	5316.9	SG3	786.2	ST	162.7	SR	103.3	SS	52.4
RDE	1.7517	RRA	-3.5720	RC3	2.3486	FAU	.18699	RRT	-.9846	RRF	-.9981	RTF	.9810	CRT	-.9765	CRS	.9981	CST	-.9616
FDE	-2.5956	FRA	5.9934	FC3	-4.3365	BSP	14685	SGB	8563.1	R23	.1174	R13	-.9912	LSA	198.5	MSA	21.8	SSA	.3
BDE	3.6022	BRA	5.2883	BC3	4.0025	FSP	1404	SG1	8531.8	SG2	731.8	THA	141.72	EL1	191.8	EL2	18.9	ALF	147.88

LAUNCH DATE JUL 19 1973 FLIGHT TIME 290.00 ARRIVAL DATE MAY 5 1974

HELIOCENTRIC CONIC DISTANCE 648.265 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.841	GAL	-2.64	AZL	98.32	HCA	192.66	SMA	198.84	ECC	.23966	INC	8.3203	V1	29.306
RP	246.48	LAP	1.82	LOP	128.72	VP	20.235	GAP	.33	AZP	81.88	TAL	346.28	TAP	178.94	RCA	151.19	APO	246.49	V2	22.241
RC	300.850	GL	-54.00	GP	49.36	ZAL	103.75	ZAP	75.48	ETS	199.89	ZAE	94.82	ETE	176.82	ZAC	136.59	ETC	290.87	LVI	-70.94

PLANETOCENTRIC CONIC

C3	34.437	VHL	5.868	DLA	-34.26	RAL	62.81	RAD	6648.7	VEL	12.423	PTH	7.33	VHP	3.609	DPA	48.66	RAP	347.22	ECC	1.5667

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 15 29	2538.09	-9.29	68.05	289.92	136.88	18 57 47	1538.1	9.09	32.29
60.00	19 54 38	2274.08	-1.19	52.02	297.65	130.29	20 32 32	1274.1	14.74	33.81
69.80	23 11 28	1691.05	15.14	16.86	309.39	121.11	23 39 39	691.1	26.58	354.24
69.80	23 11 28	1691.05	15.14	16.86	309.39	121.11	23 39 39	691.1	26.58	354.24
69.80	23 11 28	1691.05	15.14	16.86	309.39	121.11	23 39 39	691.1	26.58	354.24
69.80	23 11 28	1691.05	15.14	16.86	309.39	121.11	23 39 39	691.1	26.58	354.24
69.80	23 11 28	1691.05	15.14	16.86	309.39	121.11	23 39 39	691.1	26.58	354.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.0256	TRA	3.8995	TC3	-3.5655	BAU	1.9831	SGT	6889.1	SGR	5135.5	SG3	877.6	ST	163.2	SR	98.3	SS	54.8
RDE	1.5953	RRA	-3.3755	RC3	2.4168	FAU	.20462	RRT	-.9848	RRF	-.9980	RTF	.9812	CRT	-.9765	CRS	.9977	CST	-.9596
FDE	-2.6949	FRA	6.5462	FC3	-5.1440	BSP	14764	SGB	8592.6	R23	.1214	R13	-.9907	LSA	197.0	MSA	21.8	SSA	.3
BDE	3.4204	BRA	5.1575	BC3	4.3074	FSP	1568	SG1	8562.6	SG2	717.8	THA	143.42	EL1	189.6	EL2	18.2	ALF	149.22

LAUNCH DATE JUL 19 1973 FLIGHT TIME 292.00 ARRIVAL DATE MAY 7 1974

HELIOCENTRIC CONIC DISTANCE 652.011 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.844	GAL	-2.68	AZL	97.61	HCA	193.55	SMA	198.91	ECC	.24005	INC	7.8049	V1	29.306
RP	246.65	LAP	1.82	LOP	129.61	VP	20.221	GAP	.12	AZP	82.41	TAL	346.07	TAP	179.62	RCA	151.16	APO	246.66	V2	22.224
RC	303.274	GL	-51.85	GP	47.54	ZAL	104.51	ZAP	74.14	ETS	200.33	ZAE	93.92	ETE	178.02	ZAC	134.93	ETC	290.23	LVI	-69.32

PLANETOCENTRIC CONIC

C3	32.098	VHL	5.666	DLA	-32.21	RAL	62.09	RAD	6647.8	VEL	12.330	PTH	7.26	VHP	3.472	DPA	47.07	RAP	348.59	ECC	1.5283

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 59 11	2571.46	-10.95	69.49	287.41	136.60	18 42 3	1571.5	7.43	33.71
60.00	19 29 54	2330.05	-3.65	54.70	294.36	130.16	20 8 44	1330.1	12.38	36.65
70.00	21 42 50	1938.58	5.90	30.17	301.52	123.70	22 15 9	938.6	19.05	9.59
73.91	23 34 28	1593.48	14.90	9.18	307.07	118.88	24 1 2	593.5	25.49	346.23
73.91	23 34 28	1593.48	14.90	9.18	307.07	118.88	24 1 2	593.5	25.49	346.23
73.91	23 34 28	1593.48	14.90	9.18	307.07	118.88	24 1 2	593.5	25.49	346.23
110.00	2 46 12	6273.44	5.90	297.00	301.52	123.70	4 30 46	5273.4	19.05	276.41

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.9140	TRA	3.9051	TC3	-3.8900	BAU	1.9768	SGT	7063.8	SGR	4954.6	SG3	963.7	ST	163.3	SR	93.3	SS	56.5
RDE	1.4548	RRA	-3.1932	RC3	2.4676	FAU	.22127	RRT	-.9850	RRF	-.9979	RTF	.9814	CRT	-.9764	CRS	.9971	CST	-.9573
FDE	-2.7529	FRA	7.0461	FC3	-5.9679	BSP	14806	SGB	8628.2	R23	.1250	R13	-.9901	LSA	195.1	MSA	21.8	SSA	.3
BDE	3.2569	BRA	5.0445	BC3	4.6066	FSP	1718	SG1	8599.5	SG2	702.5	THA	145.09	EL1	187.2	EL2	17.6	ALF	150.55

LAUNCH DATE JUL 19 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 9 1974

HELIOCENTRIC CONIC DISTANCE 655.755 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.848	GAL	-2.73	AZL	97.35	HCA	194.43	SMA	198.98	ECC	.24046	INC	7.3523	V1	29.306
RP	246.82	LAP	1.83	LOP	130.50	VP	20.209	GAP	-.09	AZP	82.88	TAL	345.86	TAP	180.30	RCA	151.13	APO	246.82	V2	22.207
RC	305.673	GL	-49.84	GP	45.78	ZAL	105.24	ZAP	72.81	ETS	200.69	ZAE	92.99	ETE	179.12	ZAC	133.32	ETC	289.66	LVI	-67.72

PLANETOCENTRIC CONIC

C3	30.184	VHL	5.494	DLA	-30.26	RAL	61.48	RAD	6647.1	VEL	12.252	PTH	7.20	VHP	3.358	DPA	45.52	RAP	349.86	ECC	1.4968

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 45 6	2602.54	-12.48	70.85	285.37	136.30	18 28 29	1602.5	5.88	55.03
60.00	19 9 33	2377.88	-5.74	57.00	291.75	129.96	19 49 10	1377.9	10.33	39.03
70.00	21 5 0	2038.22	2.11	35.40	297.67	124.10	21 36 58	1038.2	15.67	15.34
78.76	0 10 12	1470.21	14.55	359.70	305.04	116.83	0 34 43	470.2	24.35	336.50
78.76	0 10 12	1470.21	14.55	359.70	305.04	116.83	0 34 43	470.2	24.35	336.50
78.76	0 10 12	1470.21	14.55	359.70	305.04	116.83	0 34 43	470.2	24.35	336.50
110.00	2 8 22	1085.03	2.11	324.32	297.67	124.10	2 26 27	85.0	15.67	304.26

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.8031	TRA	3.9252	TC3	-4.2023	BAU	1.9721	SGT	7233.8	SGR	4774.5	SG3	1043.4	ST	162.7	SR	88.2	SS	57.5
RDE	1.3229	RRA	-3.0295	RC3	2.4946	FAU	.23618	RRT	-.9851	RRF	-.9977	RTF	.9815	CRT	-.9761	CRS	.9963	CST	-.9540
FDE	-2.7592	FRA	7.5074	FC3	-6.7741	BSP	14946	SGB	8667.4	R23	.1282	R13	-.9895	LSA	192.6	MSA	21.9	SSA	.4
BDE	3.0996	BRA	4.9584	BC3	4.8870	FSP	1867	SG1	8640.2	SG2	686.3	THA	146.73	EL1	184.3	EL2	16.9	ALF	151.84

LAUNCH DATE JUL 19 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 11 1974

HELIOCENTRIC CONIC DISTANCE 659.501 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.852 GAL -2.77 AZL 96.95 HCA 195.31 SMA 199.05 ECC .24887 INC 6.9513 V1 29.306
RP 246.98 LAP 1.83 LOP 131.39 VP 20.198 GAP -.51 AZP 83.29 TAL 345.65 TAP 180.98 RCA 151.10 APO 247.00 V2 22.191
RC 308.047 GL -47.95 GP 44.08 ZAL 105.96 ZAP 71.50 ETS 201.00 ZAE 92.01 ETE 180.14 ZAC 131.74 ETC 289.15 LVI -66.16

PLANETOCENTRIC CONIC

C3 28.603 VHL 5.348 DLA -26.42 RAL 60.97 RAD 6646.5 VEL 12.188 PTH 7.15 VHP 3.262 DPA 44.03 RAP 351.03 ECC 1.4707

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 32 47	2631.81	-13.92	72.14	283.70	135.97	18 16 39	1631.8	4.41	56.26
60.00	18 52 17	2420.32	-7.59	59.06	289.66	129.70	19 32 37	1420.3	8.50	41.12
70.00	20 37 24	2111.19	-.68	39.21	294.87	124.15	21 12 35	1111.2	13.09	19.42
80.00	22 55 52	1677.58	6.80	10.91	299.48	118.14	23 29 50	677.6	18.16	349.31
87.08	1 14 29	1243.57	14.11	342.75	303.27	114.92	1 35 12	243.6	23.18	319.37
100.00	1 42 40	1152.06	6.80	332.28	299.48	119.14	2 1 52	152.1	18.16	310.68
110.00	1 40 46	1158.01	-.68	328.12	294.87	124.15	2 0 4	158.0	13.09	308.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.7052 TRA 3.9444 TC3-4.5158 BAU 1.9755 SGT 7403.7 SGR 4597.9 SG3 1116.9 ST 162.0 SR 83.5 SS 58.2
RDE 1.2086 RRA-2.8746 RC3 2.5093 FAU .25017 RRT -.9853 RRF -.9975 RTF .9815 CRT -.9759 CRS .9954 CST -.9506
FDE-2.7431 FRA 7.9117 FC3-7.5720 BSP 14988 SGB 8715.3 R23 .1310 R13 -.9889 LSA 190.0 MSA 22.0 SSA .4
BDE 2.9629 BRA 4.8807 BC3 5.1661 FSP 1993 SG1 8689.5 SG2 669.9 THA 148.33 EL1 181.5 EL2 16.2 ALF 153.07

LAUNCH DATE JUL 19 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 13 1974

HELIOCENTRIC CONIC DISTANCE 663.245 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.855 GAL -2.82 AZL 96.59 HCA 196.20 SMA 199.12 ECC .24131 INC 6.5936 V1 29.306
RP 247.14 LAP 1.84 LOP 132.28 VP 20.187 GAP -.52 AZP 83.67 TAL 345.43 TAP 181.63 RCA 151.07 APO 247.17 V2 22.176
RC 310.395 GL -46.17 GP 42.44 ZAL 106.65 ZAP 70.21 ETS 201.25 ZAE 90.99 ETE 181.07 ZAC 130.22 ETC 288.69 LVI -64.63

PLANETOCENTRIC CONIC

C3 27.284 VHL 5.223 DLA -26.67 RAL 60.56 RAD 6645.9 VEL 12.134 PTH 7.10 VHP 3.182 DPA 42.59 RAP 352.12 ECC 1.4490

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 21 54	2659.58	-15.27	73.39	282.34	135.63	18 6 14	1659.6	3.02	57.43
60.00	18 37 21	2458.88	-9.27	60.94	287.97	129.40	19 18 20	1458.9	6.82	43.00
70.00	20 15 15	2171.02	-2.96	42.33	292.69	124.04	20 51 26	1171.0	10.92	22.69
80.00	22 16 32	1791.43	2.99	17.21	296.39	119.72	22 46 23	791.4	14.86	356.15
90.00	0 13 40	1426.32	6.11	352.07	298.10	117.67	0 37 27	426.3	16.95	330.29
100.00	1 3 20	1265.88	2.99	338.58	296.39	119.72	1 24 26	265.9	14.86	317.52
110.00	1 18 38	1217.84	-2.96	331.25	292.69	124.04	1 38 55	217.8	10.92	311.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.6087 TRA 3.9742 TC3-4.8163 BAU 1.9802 SGT 7569.9 SGR 4424.1 SG3 1183.5 ST 160.9 SR 78.8 SS 58.4
RDE 1.1025 RRA-2.7338 RC3 2.5051 FAU .26245 RRT -.9853 RRF -.9972 RTF .9816 CRT -.9756 CRS .9941 CST -.9463
FDE-2.6872 FRA 8.2777 FC3-8.3278 BSP 15104 SGB 8767.9 R23 .1334 R13 -.9883 LSA 187.1 MSA 22.2 SSA .4
BDE 2.8321 BRA 4.8237 BC3 5.4289 FSP 2114 SG1 8743.5 SG2 653.3 THA 149.88 EL1 178.5 EL2 15.6 ALF 154.25

LAUNCH DATE JUL 19 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC DISTANCE 666.989 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.859 GAL -2.86 AZL 96.27 HCA 197.08 SMA 199.20 ECC .24175 INC 6.2724 V1 29.306
RP 247.29 LAP 1.84 LOP 133.17 VP 20.177 GAP -.73 AZP 84.00 TAL 345.21 TAP 182.29 RCA 151.04 APO 247.36 V2 22.161
RC 312.717 GL -44.49 GP 40.87 ZAL 107.33 ZAP 68.94 ETS 201.45 ZAE 89.96 ETE 181.93 ZAC 128.76 ETC 288.29 LVI -63.15

PLANETOCENTRIC CONIC

C3 26.176 VHL 5.116 DLA -25.01 RAL 60.21 RAD 6645.5 VEL 12.089 PTH 7.07 VHP 3.115 DPA 41.20 RAP 353.13 ECC 1.4308

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 12 13	2686.07	-16.56	74.60	281.22	135.27	17 56 59	1686.1	1.69	58.54
60.00	18 24 16	2494.45	-10.80	62.70	286.59	129.07	19 5 50	1494.5	5.27	44.71
70.00	19 56 41	2222.71	-4.92	45.04	290.96	123.84	20 33 44	1222.7	9.01	25.48
80.00	21 48 32	1872.66	.24	21.67	294.17	119.86	22 19 44	872.7	12.37	.89
90.00	23 32 59	1535.76	2.62	358.21	295.49	118.17	23 58 35	535.8	13.92	336.69
100.00	0 35 20	1347.14	.24	343.04	294.17	119.86	0 57 47	347.1	12.37	322.26
110.00	1 0 3	1269.53	-4.92	333.96	290.96	123.84	1 21 13	269.5	9.01	314.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.5146 TRA 4.0117 TC3-5.1035 BAU 1.9863 SGT 7731.7 SGR 4253.2 SG3 1242.8 ST 159.4 SR 74.3 SS 58.3
RDE 1.0065 RRA-2.6042 RC3 2.4843 FAU .27301 RRT -.9854 RRF -.9969 RTF .9816 CRT -.9754 CRS .9925 CST -.9413
FDE-2.6028 FRA 8.6040 FC3-9.0294 BSP 15266 SGB 8824.3 R23 .1353 R13 -.9877 LSA 183.9 MSA 22.4 SSA .5
BDE 2.7086 BRA 4.7828 BC3 5.6760 FSP 2228 SG1 8801.3 SG2 636.3 THA 151.38 EL1 175.3 EL2 14.9 ALF 158.36

LAUNCH DATE JUL 19 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 17 1974

HELIOCENTRIC CONIC DISTANCE 670.733 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.863 GAL -2.91 AZL 95.98 HCA 197.96 SMA 199.28 ECC .24221 INC 5.9820 V1 29.306
RP 247.44 LAP 1.84 LOP 134.06 VP 20.167 GAP -.94 AZP 84.31 TAL 344.98 TAP 182.94 RCA 151.01 APO 247.54 V2 22.147
RC 315.013 GL -42.91 GP 39.37 ZAL 107.99 ZAP 67.69 ETS 201.61 ZAE 88.90 ETE 182.72 ZAC 127.35 ETC 287.93 LVI -61.72

PLANETOCENTRIC CONIC

C3 25.240 VHL 5.024 DLA -23.44 RAL 59.93 RAD 6645.1 VEL 12.050 PTH 7.04 VHP 3.059 DPA 39.88 RAP 354.07 ECC 1.4154

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 3 32	2711.44	-17.78	75.77	280.32	134.89	17 48 43	1711.4	.41	59.60
60.00	18 12 38	2527.64	-12.22	64.36	285.47	128.71	18 54 46	1527.6	3.82	46.31
70.00	19 40 41	2268.78	-6.66	47.47	289.58	123.57	20 18 30	1268.8	7.29	27.93
80.00	21 26 11	1938.63	-2.00	25.29	292.46	119.80	21 58 30	938.6	10.27	4.66
90.00	23 6 9	1616.19	.02	2.70	293.59	118.28	23 33 5	616.2	11.57	341.63
100.00	0 12 59	1413.10	-2.00	346.66	292.46	119.80	0 36 32	413.1	10.27	326.03
110.00	0 44 4	1315.60	-6.66	336.39	289.58	123.57	1 5 59	315.6	7.29	316.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.4320 TRA 4.0458 TC3-5.3909 BAU 1.9993 SGT 7894.6 SGR 4088.2 SG3 1295.9 ST 158.1 SR 70.2 SS 58.0
RDE .9251 RRA-2.4793 RC3 2.4586 FAU .28291 RRT -.9855 RRF -.9965 RTF .9817 CRT -.9757 CRS .9906 CST -.9365
FDE-2.5148 FRA 8.8733 FC3-9.7040 BSP 15328 SGB 8890.4 R23 .1362 R13 -.9872 LSA 181.0 MSA 22.5 SSA .5
BDE 2.6020 BRA 4.7450 BC3 5.9251 FSP 2312 SG1 8868.9 SG2 617.9 THA 152.82 EL1 172.4 EL2 14.1 ALF 156.39

LAUNCH DATE JUL 19 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC DISTANCE 674.476 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.867	GAL	-2.96	AZL	95.72	HCA	198.84	SMA	199.36	ECC	.24267	INC	5.7183	V1	29.306
RP	247.58	LAP	1.84	LOP	134.94	VP	20.159	GAP	-1.15	AZP	84.59	TAL	344.75	TAP	183.59	RCA	150.98	APO	247.74	V2	22.133
RC	317.282	GL	-41.41	GP	37.94	ZAL	108.64	ZAP	66.48	ETS	201.73	ZAE	87.62	ETE	183.44	ZAC	125.99	ETC	287.60	LVI	-60.35

PLANETOCENTRIC CONIC

C3	24.445	VHL	4.944	DLA	-21.94	RAL	59.71	RAD	6644.8	VEL	12.018	PTH	7.01	VHP	3.012	DPA	38.62	RAP	354.96	ECC	1.4023

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 55 42	2735.60	-18.95	76.91	279.60	134.50	17 41 18	1735.8	-.81	60.61
60.00	18 2 15	2558.84	-13.54	65.93	284.57	128.33	18 44 54	1558.8	2.44	47.80
70.00	19 26 40	2310.66	-8.24	49.70	288.46	123.26	20 5 11	1310.7	5.72	30.15
80.00	21 7 26	1995.29	-3.91	28.41	291.12	119.62	21 40 42	995.3	8.43	7.86
90.00	22 44 30	1682.22	-2.10	6.39	292.12	118.21	23 12 32	682.2	9.58	345.45
100.00	23 50 18	1469.76	-3.91	349.78	291.12	119.62	24 14 48	469.8	8.43	329.23
110.00	0 30 2	1357.48	-8.24	338.61	288.46	123.26	0 52 40	357.5	5.72	319.07

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-2.3481	TRA	4.0903	TC3	-5.6617	BAU	2.0120	SGT	8053.7	SGR	3928.0	SG3	1342.2	ST	156.4	SR	66.3	SS	57.4
RDE	.8490	RRA	-2.3666	RC3	2.4183	FAU	.29099	RRT	-.9855	RRF	-.9961	RTF	.9817	CRT	-.9758	CRS	.9880	CST	-.9306
FDE	-2.3971	FRA	9.1181	FC	-10.3056	BSP	15487	SGB	8960.5	R23	.1369	R13	-.9867	LSA	177.9	MSA	22.7	SSA	.5
BDE	2.4969	BRA	4.7256	BC3	6.1565	FSP	2400	SG1	8940.3	SG2	601.1	THA	154.20	EL1	169.3	EL2	13.4	ALF	157.37

LAUNCH DATE JUL 19 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC DISTANCE 678.217 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.871	GAL	-3.01	AZL	95.48	HCA	199.72	SMA	199.44	ECC	.24315	INC	5.4777	V1	29.306
RP	247.71	LAP	1.85	LOP	135.83	VP	20.151	GAP	-1.36	AZP	84.84	TAL	344.51	TAP	184.23	RCA	150.94	APO	247.93	V2	22.120
RC	319.522	GL	-40.00	GP	36.57	ZAL	109.27	ZAP	65.30	ETS	201.82	ZAE	86.74	ETE	184.09	ZAC	124.69	ETC	287.31	LVI	-59.03

PLANETOCENTRIC CONIC

C3	23.768	VHL	4.875	DLA	-20.52	RAL	59.54	RAD	6644.5	VEL	11.990	PTH	6.99	VHP	2.973	DPA	37.42	RAP	355.80	ECC	1.3912

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 48 38	2759.25	-20.06	78.02	279.04	134.09	17 34 37	1759.2	-1.99	61.59
60.00	17 52 53	2588.37	-14.78	67.44	283.85	127.93	18 36 1	1588.4	1.15	49.22
70.00	19 14 13	2349.27	-9.67	51.76	287.57	122.92	19 53 22	1349.3	4.25	32.18
80.00	20 51 16	2045.56	-5.59	31.19	290.05	119.38	21 25 21	1045.6	6.78	10.68
90.00	22 26 13	1739.27	-3.94	9.58	290.96	118.03	22 55 12	739.3	7.81	348.71
100.00	23 34 7	1520.03	-5.59	352.56	290.05	119.38	23 59 27	520.0	6.78	332.04
110.00	0 17 35	1396.09	-9.67	340.68	287.57	122.92	0 40 51	396.1	4.25	321.10

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-2.2676	TRA	4.1379	TC3	-5.9210	BAU	2.0264	SGT	8209.4	SGR	3771.8	SG3	1381.8	ST	154.6	SR	62.7	SS	56.7
RDE	.7811	RRA	-2.2609	RC3	2.3688	FAU	.29771	RRT	-.9854	RRF	-.9956	RTF	.9817	CRT	-.9763	CRS	.9848	CST	-.9240
FDE	-2.2662	FRA	9.3245	FC	-10.8437	BSP	15648	SGB	9034.4	R23	.1371	R13	-.9862	LSA	174.7	MSA	22.9	SSA	.6
BDE	2.3983	BRA	4.7152	BC3	6.3773	FSP	2474	SG1	9015.4	SG2	584.6	THA	155.53	EL1	166.3	EL2	12.6	ALF	158.27

LAUNCH DATE JUL 19 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 23 1974

HELIOCENTRIC CONIC DISTANCE 681.958 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.876	GAL	-3.06	AZL	95.26	HCA	200.60	SMA	199.52	ECC	.24364	INC	5.2570	V1	29.306
RP	247.84	LAP	1.85	LOP	136.71	VP	20.144	GAP	-1.57	AZP	85.08	TAL	344.27	TAP	184.87	RCA	150.91	APO	248.13	V2	22.107
RC	321.734	GL	-38.65	GP	35.26	ZAL	109.89	ZAP	64.14	ETS	201.88	ZAE	85.64	ETE	184.70	ZAC	123.44	ETC	287.05	LVI	-57.76

PLANETOCENTRIC CONIC

C3	23.190	VHL	4.816	DLA	-19.16	RAL	59.41	RAD	6644.2	VEL	11.966	PTH	6.96	VHP	2.941	DPA	36.28	RAP	356.59	ECC	1.3816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 42 12	2781.86	-21.13	79.11	278.61	133.68	17 28 33	1781.9	-3.12	62.54
60.00	17 44 24	2616.44	-15.95	68.89	283.29	127.52	18 28 0	1616.4	-.09	50.56
70.00	19 3 3	2385.23	-10.99	53.71	286.86	122.54	19 42 48	1385.2	2.88	34.06
80.00	20 37 2	2091.09	-7.11	33.72	289.21	119.08	21 11 53	1091.1	5.26	13.20
90.00	22 10 21	1790.07	-5.55	12.43	290.05	117.77	22 40 11	790.1	6.22	351.59
100.00	23 19 54	1565.56	-7.11	355.09	289.21	119.08	23 45 59	565.6	5.26	334.57
110.00	0 6 25	1432.04	-10.99	342.62	286.86	122.54	0 30 17	432.0	2.88	322.98

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-2.1930	TRA	4.1864	TC3	-6.1749	BAU	2.0448	SGT	8365.6	SGR	3622.7	SG3	1416.1	ST	152.8	SR	59.4	SS	56.0
RDE	.7223	RRA	-2.1610	RC3	2.3163	FAU	.30366	RRT	-.9854	RRF	-.9951	RTF	.9818	CRT	-.9771	CRS	.9809	CST	-.9174
FDE	-2.1336	FRA	9.4931	FC	-11.3365	BSP	15787	SGB	9116.3	R23	.1363	R13	-.9857	LSA	171.7	MSA	23.1	SSA	.6
BDE	2.3089	BRA	4.7113	BC3	6.5951	FSP	2533	SG1	9098.6	SG2	567.8	THA	156.80	EL1	163.5	EL2	11.8	ALF	159.10

LAUNCH DATE JUL 19 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 25 1974

HELIOCENTRIC CONIC DISTANCE 685.698 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32.880	GAL	-3.11	AZL	95.05	HCA	201.48	SMA	199.61	ECC	.24414	INC	5.0539	V1	29.306
RP	247.97	LAP	1.85	LOP	137.59	VP	20.138	GAP	-1.77	AZP	85.30	TAL	344.03	TAP	185.51	RCA	150.87	APO	248.34	V2	22.093
RC	323.917	GL	-37.38	GP	34.02	ZAL	110.50	ZAP	63.02	ETS	201.91	ZAE	84.55	ETE	185.25	ZAC	122.24	ETC	286.82	LVI	-56.55

PLANETOCENTRIC CONIC

C3	22.695	VHL	4.764	DLA	-17.86	RAL	59.33	RAD	6644.0	VEL	11.945	PTH	6.95	VHP	2.915	DPA	35.20	RAP	357.35	ECC	1.3735

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 19	2803.71	-22.15	80.18	278.30	133.25	17 23 3	1803.7	-4.22	63.46
60.00	17 36 40	2643.23	-17.05	70.29	282.87	127.09	18 20 43	1643.2	-1.27	51.84
70.00	18 52 57	2418.98	-12.22	55.55	286.31	122.14	19 33 16	1419.0	1.60	35.82
80.00	20 24 21	2132.94	-8.48	36.06	288.55	118.73	20 59 54	1132.9	3.85	15.52
90.00	21 56 20	1836.18	-7.01	15.04	289.34	117.47	22 26 56	836.2	4.75	354.19
100.00	23 7 12	1607.41	-8.48	357.43	288.55	118.73	23 34 0	607.4	3.85	336.88
110.00	23 52 23	1465.80	-12.22	344.47	286.31	122.14	24 16 49	465.8	1.60	324.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-2.1197	TRA	4.2400	TC3	-6.4155	BAU	2.0634	SGT	8518.7	SGR	3478.4	SG3	1444.4	ST	151.0	SR	56.3	SS	55.2
RDE	.6691	RRA	-2.0687	RC3	2.2557	FAU	.30819	RRT	-.9852	RRF	-.9945	RTF	.9817	CRT	-.9781	CRS	.9762	CST	-.9099
FDE	-1.9893	FRA	9.6368	FC	-11.7563	BSP	15953	SGB	9201.5	R23	.1352	R13	-.9853	LSA	168.7	MSA	23.3	SSA	.6
BDE	2.2228	BRA	4.7177	BC3	6.8005	FSP	2585	SG1	9184.9	SG2	552.7	THA	158.00	EL1	160.7	EL2	11.0	ALF	159.87

LAUNCH DATE JUL 18 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 27 1974

HELIOCENTRIC CONIC DISTANCE 689.437 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.884 GAL -3.17 AZL 94.87 HCA 202.36 SMA 199.69 ECC .24466 INC 4.8661 V1 29.306
RP 248.09 LAP 1.85 LOP 138.47 VP 20.132 GAP -1.98 AZP 85.50 TAL 343.78 TAP 186.14 RCA 150.84 APO 248.55 V2 22.084
RC 326.069 GL -36.17 GP 32.84 ZAL 111.10 ZAP 61.93 ETS 201.92 ZAE 83.45 ETE 185.75 ZAC 121.10 ETC 286.60 LVI -55.39

PLANETOCENTRIC CONIC

C3 22.272 VHL 4.719 DLA -16.63 RAL 59.28 RAD 6643.8 VEL 11.927 PTH 6.93 VHP 2.894 DPA 34.17 RAP 358.07 ECC 1.3665

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 30 57	2824.84	-23.14	81.23	278.10	132.81	17 18 2	1824.8	-5.28	64.34
60.00	17 29 36	2668.89	-18.10	71.65	282.56	126.64	18 14 5	1668.9	-2.40	53.06
70.00	18 43 46	2450.85	-13.37	57.30	285.90	121.72	19 24 37	1450.9	.38	37.49
80.00	20 12 55	2171.82	-9.75	38.26	288.04	118.36	20 49 7	1171.8	2.54	17.66
90.00	21 43 48	1878.64	-8.33	17.45	288.79	117.12	22 15 7	878.6	3.40	356.57
100.00	22 55 47	1646.29	-9.75	359.63	288.04	118.36	23 23 13	646.3	2.54	339.02
110.00	23 43 12	1497.67	-13.37	346.22	285.90	121.72	24 8 10	497.7	.38	326.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.0509 TRA 4.2946 TC3-6.6480 BAU 2.0844 SGT 8670.8 SGR 3340.1 SG3 1467.6 ST 149.2 SR 53.5 SS 54.3
RDE .6229 RRA-1.9813 RC3 2.1924 FAU .31189 RRT -.9850 RRF -.9938 RTF .9817 CRT -.9795 CRS .9704 CST -.9024
FDE-1.8462 FRA 9.7484 FC-12.1233 BSP 16101 SGB 9291.8 R23 .1333 R13 -.9849 LSA 165.8 MSA 23.5 SSA .7
BDE 2.1434 BRA 4.7296 BC3 7.0002 FSP 2622 SG1 9276.3 SG2 538.0 THA 159.15 EL1 158.1 EL2 10.2 ALF 160.57

LAUNCH DATE JUL 19 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 29 1974

HELIOCENTRIC CONIC DISTANCE 693.175 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.889 GAL -3.22 AZL 94.69 HCA 203.24 SMA 199.78 ECC .24518 INC 4.6921 V1 29.306
RP 248.20 LAP 1.85 LOP 139.35 VP 20.128 GAP -2.19 AZP 85.69 TAL 343.53 TAP 186.77 RCA 150.80 APO 248.76 V2 22.073
RC 328.191 GL -35.02 GP 31.71 ZAL 111.69 ZAP 60.86 ETS 201.91 ZAE 82.36 ETE 186.21 ZAC 120.00 ETC 286.41 LVI -54.28

PLANETOCENTRIC CONIC

C3 21.911 VHL 4.681 DLA -15.44 RAL 59.26 RAD 6643.7 VEL 11.912 PTH 6.92 VHP 2.878 DPA 33.20 RAP 358.76 ECC 1.3606

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 26 2	2845.31	-24.08	82.27	277.98	132.36	17 13 27	1845.3	-6.30	65.21
60.00	17 23 7	2693.52	-19.10	72.97	282.36	126.19	18 8 0	1693.5	-3.48	54.24
70.00	18 35 22	2481.11	-14.45	58.99	285.60	121.29	19 16 43	1481.1	-.78	39.07
80.00	20 2 33	2208.24	-10.92	40.33	287.66	117.96	20 39 21	1208.2	1.31	19.66
90.00	21 32 28	1918.13	-9.55	19.71	288.38	116.74	22 4 26	918.1	2.13	358.78
100.00	22 45 25	1682.71	-10.92	1.70	287.66	117.96	23 13 27	682.7	1.31	341.02
110.00	23 34 48	1527.93	-14.45	347.90	285.60	121.29	24 0 16	527.9	-.78	327.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.9826 TRA 4.3533 TC3-6.8677 BAU 2.1058 SGT 8819.7 SGR 3206.6 SG3 1485.6 ST 147.3 SR 50.8 SS 53.4
RDE .5812 RRA-1.8998 RC3 2.1246 FAU .31445 RRT -.9848 RRF -.9930 RTF .9817 CRT -.9812 CRS .9635 CST -.8941
FDE-1.6962 FRA 9.8367 FC-12.4245 BSP 16288 SGB 9384.5 R23 .1309 R13 -.9846 LSA 163.0 MSA 23.8 SSA .7
BDE 2.0660 BRA 4.7498 BC3 7.1888 FSP 2658 SG1 9369.9 SG2 524.4 THA 160.24 EL1 155.5 EL2 9.3 ALF 161.22

LAUNCH DATE JUL 19 1973 FLIGHT TIME 316.00 ARRIVAL DATE MAY 31 1974

HELIOCENTRIC CONIC DISTANCE 696.911 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.893 GAL -3.28 AZL 94.53 HCA 204.12 SMA 199.87 ECC .24571 INC 4.5302 V1 29.306
RP 248.30 LAP 1.85 LOP 140.23 VP 20.124 GAP -2.39 AZP 85.86 TAL 343.28 TAP 187.39 RCA 150.76 APO 248.98 V2 22.062
RC 330.283 GL -33.92 GP 30.64 ZAL 112.27 ZAP 59.83 ETS 201.88 ZAE 81.27 ETE 186.62 ZAC 118.95 ETC 286.24 LVI -53.22

PLANETOCENTRIC CONIC

C3 21.603 VHL 4.648 DLA -14.31 RAL 59.27 RAD 6643.5 VEL 11.900 PTH 6.91 VHP 2.865 DPA 32.29 RAP 359.44 ECC 1.3555

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 21 30	2865.16	-24.99	83.29	277.95	131.90	17 9 16	1865.2	-7.30	66.05
60.00	17 17 8	2717.24	-20.05	74.26	282.25	125.72	18 2 25	1717.2	-4.52	55.38
70.00	18 27 38	2509.96	-15.46	60.61	285.41	120.84	19 9 28	1510.0	-1.88	40.57
80.00	19 53 4	2242.58	-12.01	42.29	287.39	117.54	20 30 26	1242.6	.15	21.54
90.00	21 22 9	1955.16	-10.68	21.85	288.08	116.34	21 54 44	955.2	.94	.85
100.00	22 35 56	1717.05	-12.01	3.66	287.39	117.54	23 4 33	717.1	.15	342.91
110.00	23 27 5	1556.77	-15.46	349.52	285.41	120.84	23 53 2	556.8	-1.88	329.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.9163 TRA 4.4154 TC3-7.0768 BAU 2.1283 SGT 8967.1 SGR 3078.9 SG3 1499.2 ST 145.4 SR 48.4 SS 52.6
RDE .5443 RRA-1.8239 RC3 2.0541 FAU .31606 RRT -.9844 RRF -.9921 RTF .9817 CRT -.9831 CRS .9552 CST -.8855
FDE-1.5452 FRA 9.9060 FC-12.6659 BSP 16475 SGB 9481.0 R23 .1280 R13 -.9842 LSA 160.2 MSA 24.0 SSA .7
BDE 1.9921 BRA 4.7772 BC3 7.3689 FSP 2682 SG1 9467.1 SG2 512.5 THA 161.27 EL1 153.0 EL2 8.4 ALF 161.82

LAUNCH DATE JUL 19 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 2 1974

HELIOCENTRIC CONIC DISTANCE 700.647 EARTH TO MARS

RL 152.02 LAL -.00 LOL 296.19 VL 32.898 GAL -3.33 AZL 94.38 HCA 204.99 SMA 199.96 ECC .24626 INC 4.3791 V1 29.306
RP 248.40 LAP 1.85 LOP 141.11 VP 20.120 GAP -2.60 AZP 86.03 TAL 343.02 TAP 188.01 RCA 150.72 APO 249.20 V2 22.052
RC 332.344 GL -32.88 GP 29.61 ZAL 112.84 ZAP 58.83 ETS 201.84 ZAE 80.19 ETE 187.01 ZAC 117.94 ETC 286.08 LVI -52.20

PLANETOCENTRIC CONIC

C3 21.342 VHL 4.620 DLA -13.22 RAL 59.30 RAD 6643.4 VEL 11.889 PTH 6.90 VHP 2.856 DPA 31.43 RAP .09 ECC 1.3512

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 17 20	2884.44	-25.86	84.29	277.99	131.44	17 5 25	1884.4	-8.26	66.87
60.00	17 11 37	2740.11	-20.95	75.52	282.22	125.25	17 57 17	1740.1	-5.52	56.48
70.00	18 20 31	2537.55	-16.42	62.17	285.30	120.38	19 2 49	1537.5	-2.93	42.01
80.00	19 44 21	2275.14	-13.03	44.18	287.22	117.11	20 22 16	1275.1	-.96	23.33
90.00	21 12 42	1990.12	-11.73	23.88	287.89	115.92	21 45 52	990.1	-.19	2.80
100.00	22 27 13	1749.61	-13.03	5.54	287.22	117.11	22 56 22	749.6	-.96	344.70
110.00	23 19 57	1584.36	-16.42	351.09	285.30	120.38	23 46 22	584.4	-2.93	330.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.8521 TRA 4.4791 TC3-7.2764 BAU 2.1518 SGT 9112.6 SGR 2956.5 SG3 1508.6 ST 143.6 SR 46.2 SS 51.8
RDE .5119 RRA-1.7522 RC3 1.9824 FAU .31692 RRT -.9840 RRF -.9911 RTF .9817 CRT -.9853 CRS .9455 CST -.8767
FDE-1.3961 FRA 9.9531 FC-12.8554 BSP 16672 SGB 9580.2 R23 .1244 R13 -.9839 LSA 157.6 MSA 24.3 SSA .8
BDE 1.9216 BRA 4.8096 BC3 7.5416 FSP 2703 SG1 9567.0 SG2 501.5 THA 162.24 EL1 150.7 EL2 7.5 ALF 162.36

LAUNCH DATE JUL 19 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 4 1974

HELIOCENTRIC CONIC DISTANCE 704.382 EARTH TO MARS

RL	152.02	LAL	-.00	LOL	296.19	VL	32,902	GAL	-3.39	AZL	94.24	HCA	205.87	SMA	200.05	ECC	.24681	INC	4.2377	V1	29,306
RP	248.50	LAP	1.85	LOP	141.99	VP	20,118	GAP	-2.80	AZP	86.19	TAL	342.76	TAP	188.63	RCA	150.67	APO	249.42	V2	22,043
RC	334.376	GL	-31.88	GP	20.64	ZAL	113.41	ZAP	57.86	ETS	201.78	ZAE	79.11	ETE	187.35	ZAC	116.98	ETC	285.94	LVI	-51.23

PLANETOCENTRIC CONIC

C3	21.123	VHL	4.596	DLA	-12.17	RAL	59.36	RAD	6643.3	VEL	11.880	PTH	6.89	VHP	2.851	DPA	30.62	RAP	.72	ECC	1.3476

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 13 30	2903.19	-26.70	85.28	278.10	130.96	17 1 53	1903.2	-9.19	67.67
60.00	17 6 30	2762.22	-21.81	76.75	282.26	124.77	17 52 32	1762.2	-6.49	57.55
70.00	18 13 55	2564.02	-17.32	63.69	285.28	119.91	18 56 39	1564.0	-3.94	43.40
80.00	19 36 18	2306.15	-13.98	45.98	287.14	116.65	20 14 44	1306.1	-2.01	25.03
90.00	21 3 59	2023.27	-12.71	25.83	287.78	115.48	21 37 42	1023.3	-1.26	4.65
100.00	22 19 10	1780.62	-13.98	7.35	287.14	116.65	22 48 51	780.6	-2.01	346.40
110.00	23 13 22	1610.84	-17.32	352.61	285.28	119.91	23 40 12	610.8	-3.94	332.32

DIFFERENTIAL CORRECTIONS

TDE	-1.7913	TRA	4.5440	TC3	-7.4679	BAU	2.1768												
RDE	.4841	RRA	-1.6844	RC3	1.9106	FAU	.31714												
FDE	-1.2523	FRA	9.9797	FC	-12.9981	BSP	16855												
BDE	1.8555	BRA	4.8462	BC3	7.7084	FSP	2711												

MID-COURSE EXECUTION ACCURACY

SGT	9257.0	SGR	2839.5	SG3	1514.3														
RRT	-.9835	RRF	-.9899	RTF	.9816														
SGB	9682.7	R23	.1203	R13	-.9836														
SG1	9670.2	SG2	491.7	THA	163.17														

ORBIT DETERMINATION ACCURACY

ST	141.9	SR	44.2	SS	51.0														
CRT	-.9877	CRS	.9343	CST	-.8680														
LSA	155.2	MSA	24.5	SSA	.8														
EL1	148.5	EL2	6.6	ALF	162.85														

LAUNCH DATE JUL 20 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 334.004 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	35.186	GAL	-3.92	AZL	90.23	HCA	105.35	SMA	261.23	ECC	.42266	INC	.2286
RP	217.98	LAP	-.22	LOP	42.49	VP	26.639	GAP	23.22	AZP	89.94	TAL	346.78	TAP	92.13	RCA	150.82	APO	371.64
RC	74.281	GL	-1.29	GP	-5.13	ZAL	111.45	ZAP	173.22	ETS	230.89	ZAE	167.28	ETE	338.02	ZAC	79.15	ETC	283.26

V1	29.308	V2	25.208	LVI	-13.23														

PLANETOCENTRIC CONIC

C3	38.801	VHL	6.229	DLA	16.12	RAL	46.51	RAD	6650.2	VEL	12.597	PTH	7.46	VHP	8.482	DPA	9.05	RAP	37.64
ECC	1.6386																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 31 50	3622.78	-47.46	139.71	295.99	93.84	14 32 13	2622.8	-40.44	107.32
60.00	13 53 2	3566.36	-40.30	134.98	296.33	90.16	14 52 28	2566.4	-35.82	104.82
70.00	14 24 10	3474.71	-34.06	127.38	296.16	87.27	15 22 4	2474.7	-31.62	98.92
80.00	15 12 27	3323.40	-29.52	115.56	295.81	85.27	16 7 50	2323.4	-28.48	88.18
90.00	16 24 51	3089.70	-27.79	98.21	295.63	84.52	17 16 21	2089.7	-27.27	71.21
100.00	17 55 19	2797.87	-29.52	76.93	295.81	85.27	18 41 56	1797.9	-28.48	49.55
110.00	19 23 36	2521.53	-34.06	56.30	296.16	87.27	20 5 38	1521.5	-31.62	27.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4080	TRA	-1.3871	TC3	.1573	BAU	.0900	SGT	1394.0	SGR	610.4	SG3	168.2	ST	27.4	SR	27.9	SS	18.8
RDE	-.6009	RRA	.2531	RC3	-.0733	FAU	.05476	RRT	-.1555	RRF	.1764	RTF	-.7266	CRT	.5847	CRS	.6401	CST	.9942
FDE	.4108	FRA	1.2046	FC3	-1.2219	BSP	2189	SGB	1521.7	R23	-.0381	R13	.7284	LSA	39.0	MSA	18.9	SSA	1.2
BDE	.7263	BRA	1.4100	BC3	.1735	FSP	213	SG1	1397.9	SG2	601.2	THA	175.22	EL1	34.8	EL2	17.8	ALF	45.90

LAUNCH DATE JUL 20 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 336.357 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	35.056	GAL	-3.81	AZL	90.19	HCA	106.49	SMA	256.62	ECC	.41213	INC	.1919
RP	218.35	LAP	-.18	LOP	43.63	VP	26.429	GAP	22.86	AZP	89.95	TAL	346.90	TAP	93.38	RCA	150.86	APO	362.38
RC	75.647	GL	-1.11	GP	-5.29	ZAL	111.25	ZAP	172.61	ETS	227.33	ZAE	166.51	ETE	338.21	ZAC	78.91	ETC	283.22

V1	29.308	V2	25.168	LVI	-12.98														

PLANETOCENTRIC CONIC

C3	37.036	VHL	6.086	DLA	16.24	RAL	46.25	RAD	6649.6	VEL	12.527	PTH	7.41	VHP	8.238	DPA	9.04	RAP	38.07
ECC	1.6095																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 30 19	3613.57	-47.41	138.82	294.68	94.52	14 30 32	2613.6	-40.14	106.63
60.00	13 51 21	3557.58	-40.30	134.23	295.13	90.67	14 50 38	2557.6	-35.62	104.16
70.00	14 22 17	3466.52	-34.08	126.74	295.01	87.65	15 20 3	2466.5	-31.48	98.31
80.00	15 10 21	3315.87	-29.56	115.00	294.70	85.56	16 5 37	2315.9	-28.39	87.64
90.00	16 22 39	3082.50	-27.83	97.69	294.53	84.78	17 14 2	2082.5	-27.20	70.70
100.00	17 53 13	2790.34	-29.56	76.37	294.70	85.56	18 39 43	1790.3	-28.39	49.01
110.00	19 21 43	2513.34	-34.08	55.66	295.01	87.65	20 3 36	1513.3	-31.48	27.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4081	TRA	-1.3816	TC3	.1810	BAU	.0984	SGT	1425.4	SGR	611.9	SG3	178.7	ST	28.0	SR	27.8	SS	19.6
RDE	-.5846	RRA	.2529	RC3	-.0821	FAU	.05688	RRT	-.1681	RRF	.1905	RTF	-.7357	CRT	.5833	CRS	.6431	CST	.9939
FDE	.4319	FRA	1.2469	FC3	-1.3295	BSP	2255	SGB	1551.2	R23	-.0406	R13	.7377	LSA	39.6	MSA	19.1	SSA	1.3
BDE	.7130	BRA	1.4046	BC3	.1988	FSP	229	SG1	1429.9	SG2	601.3	THA	174.98	EL1	35.1	EL2	18.0	ALF	44.65

LAUNCH DATE JUL 20 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 338.843 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	34.933	GAL	-3.71	AZL	90.16	HCA	107.62	SMA	252.41	ECC	.40217	INC	.1545
RP	218.71	LAP	-.15	LOP	44.76	VP	26.227	GAP	22.51	AZP	89.95	TAL	347.02	TAP	94.64	RCA	150.90	APO	353.92
RC	77.098	GL	-.91	GP	-5.45	ZAL	111.04	ZAP	171.97	ETS	224.33	ZAE	165.80	ETE	338.28	ZAC	78.68	ETC	283.19

V1	29.308	V2	25.127	LVI	-12.72														

PLANETOCENTRIC CONIC

C3	35.394	VHL	5.949	DLA	16.37	RAL	45.98	RAD	6649.0	VEL	12.462	PTH	7.36	VHP	8.002	DPA	9.02	RAP	38.50
ECC	1.5825																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 28 42	3604.79	-47.36	137.98	293.40	95.17	14 28 47	2604.8	-39.86	105.98
60.00	13 49 34	3549.26	-40.29	133.52	293.94	91.15	14 48 43	2549.3	-35.42	103.54
70.00	14 20 17	3458.82	-34.10	126.14	293.88	88.00	15 17 56	2458.8	-31.36	97.75
80.00	15 8 8	3308.85	-29.59	114.48	293.60	85.83	16 3 17	2308.9	-28.31	87.13
90.00	16 20 20	3075.82	-27.87	97.20	293.44	85.02	17 11 36	2075.8	-27.14	70.22
100.00	17 51 0	2783.32	-29.59	75.85	293.60	85.83	18 37 24	1783.3	-28.31	48.50
110.00	19 19 43	2505.64	-34.10	55.06	293.88	88.00	20 1 29	1505.6	-31.36	26.67

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4095	TRA	-1.3759	TC3	.2066	BAU	.1070	SGT	1457.2	SGR	613.3	SG3	189.9	ST	28.6	SR	27.6	SS	20.3
RDE	-.5685	RRA	.2531	RC3	-.0917	FAU	.05912	RRT	-.1810	RRF	.2055	RTF	-.7445	CRT	.5828	CRS	.6463	CST	.9936
FDE	.4546	FRA	1.2901	FC3	-1.4461	BSP	2322	SGB	1561.0	R23	-.0438	R13	.7467	LSA	40.3	MSA	19.2	SSA	1.3
BDE	.7006	BRA	1.3990	BC3	.2261	FSP	246	SG1	1462.3	SG2	601.1	THA	174.75	EL1	35.4	EL2	18.2	ALF	43.32

LAUNCH DATE JUL 20 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 341.448 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	34.818	GAL	-3.61	AZL	90.12	HCA	108.75	SMA	248.56	ECC	.39274	INC	.1168
RP	219.08	LAP	-.11	LOP	45.89	VP	26.032	GAP	22.15	AZP	89.96	TAL	347.15	TAP	95.01	RCA	150.94	APO	346.18
RC	78.631	GL	-.70	GP	-5.62	ZAL	110.81	ZAP	171.29	ETS	221.78	ZAE	165.14	ETE	338.24	ZAC	78.44	ETC	283.17

V1	29.308	V2	25.087	LVI	-12.45														

PLANETOCENTRIC CONIC

C3	33.866	VHL	5.819	DLA	16.51	RAL	45.70	RAD	6648.5	VEL	12.401	PTH	7.31	VHP	7.774	DPA	8.99	RAP	38.92
ECC	1.5573																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 27 0	3596.45	-47.31	137.18	292.14	95.78	14 26 57	2596.4	-39.59	105.37
60.00	13 47 41	3541.40	-40.27	132.85	292.77	91.60	14 46 42	2541.4	-35.23	102.96
70.00	14 18 11	3451.62	-34.12	125.58	292.76	88.33	15 15 42	2451.6	-31.23	97.23
80.00	15 5 48	3302.37	-29.62	114.01	292.50	86.08	16 0 51	2302.4	-28.23	86.67
90.00	16 17 53	3069.70	-27.91	96.76	292.36	85.24	17 9 3	2069.7	-27.08	69.78
100.00	17 48 40	2776.84	-29.62	75.37	292.50	86.08	18 34 57	1776.8	-28.23	48.03
110.00	19 17 37	2498.44	-34.12	54.50	292.76	88.33	19 59 15	1498.4	-31.23	26.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4104	TRA	-1.3697	TC3	.2336	BAU	.1155	SGT	1488.5	SGR	614.8	SG3	201.7	ST	29.2	SR	27.5	SS	21.1
RDE	-.5526	RRA	.2535	RC3	-.1022	FAU	.06148	RRT	-.1953	RRF	.2217	RTF	-.7530	CRT	.5818	CRS	.6492	CST	.9933
FDE	.4786	FRA	1.3351	FC3	-1.5717	BSP	2388	SGB	1610.5	R23	-.0469	R13	.7554	LSA	41.0	MSA	19.2	SSA	1.3
BDE	.6883	BRA	1.3930	BC3	.2550	FSP	265	SG1	1494.3	SG2	600.6	THA	174.50	EL1	35.7	EL2	18.3	ALF	42.01

LAUNCH DATE JUL 20 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 344.159 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 34.705 GAL -3.51 AZL 90.08 HCA 109.88 SMA 245.02 ECC .38380 INC .0785 V1 29.288
RP 219.45 LAP -.08 LOP 47.02 VP 25.844 GAP 21.80 AZP 89.97 TAL 347.29 TAP 97.17 RCA 150.98 APO 339.06 V2 23.843
RC 80.245 GL -.49 GP -5.79 ZAL 110.57 ZAP 170.59 ETS 219.61 ZAE 164.54 ETE 338.10 ZAC 78.19 ETC 283.14 LVI -12.18

PLANETOCENTRIC CONIC

C3 32.440 VHL 5.696 DLA 16.65 RAL 45.39 RAD 6647.9 VEL 12.343 PTH 7.27 VHP 7.553 DPA 8.98 RAP 39.33 ECC 1.8339

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 25 12	3588.53	-47.25	136.42	290.90	96.36	14 25 1	2588.5	-39.33	104.70
60.00	13 45 41	3533.99	-40.26	132.22	291.61	92.03	14 44 35	2534.0	-35.05	100.48
70.00	14 15 57	3444.90	-34.13	125.05	291.65	88.64	15 13 22	2444.9	-31.12	96.74
80.00	15 3 20	3296.41	-29.65	113.56	291.42	86.31	15 58 17	2296.4	-28.16	89.84
90.00	16 15 18	3064.13	-27.94	96.35	291.28	85.44	17 8 22	2064.1	-27.02	69.30
100.00	17 46 12	2770.88	-29.65	74.93	291.42	86.31	18 32 23	1770.9	-28.16	47.61
110.00	19 15 24	2491.72	-34.13	53.97	291.65	88.64	19 56 56	1491.7	-31.12	25.65

DIFFERENTIAL CORRECTIONS

TDE -.3984 TRA-1.3500 TC3 .2784 BAU .1304
RDE -.5366 RRA .2546 RC3 -.1133 FAU .06373
FDE .5098 FRA 1.3864 FC3-1.7009 BSP 2287
BDE .6683 BRA 1.3738 BC3 .3006 FSP 290

MID-COURSE EXECUTION ACCURACY

SGT 1506.8 SGR 616.0 SG3 214.0
RRT -.2193 RRF .2375 RTF -.7725
SGB 1627.9 R23 -.0372 R13 .7748
SG1 1514.0 SG2 598.2 THA 173.92

ORBIT DETERMINATION ACCURACY

ST 29.2 SR 27.3 SS 22.1
CRT .5712 CRS .6548 CST .9916
LSA 41.3 MSA 19.3 SSA 1.3
EL1 35.5 EL2 18.5 ALF 41.98

LAUNCH DATE JUL 20 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 346.966 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 34.600 GAL -3.42 AZL 90.04 HCA 111.00 SMA 241.77 ECC .37535 INC .0389 V1 29.308
RP 219.82 LAP -.04 LOP 48.14 VP 25.663 GAP 21.45 AZP 89.98 TAL 347.44 TAP 98.44 RCA 151.02 APO 332.52 V2 25.005
RC 81.936 GL -.26 GP -5.98 ZAL 110.33 ZAP 169.88 ETS 217.75 ZAE 164.00 ETE 337.86 ZAC 77.94 ETC 283.11 LVI -11.90

PLANETOCENTRIC CONIC

C3 31.116 VHL 5.578 DLA 16.80 RAL 45.08 RAD 6647.4 VEL 12.290 PTH 7.23 VHP 7.340 DPA 8.90 RAP 39.74 ECC 1.8181

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 23 20	3581.14	-47.19	135.72	289.69	96.90	14 23 1	2581.1	-39.08	104.28
60.00	13 43 37	3527.13	-40.24	131.64	290.48	92.42	14 42 24	2527.1	-34.88	101.02
70.00	14 13 38	3438.77	-34.14	124.58	290.57	88.93	15 10 57	2438.8	-31.01	96.89
80.00	15 0 45	3291.10	-29.67	113.17	290.36	86.52	15 55 36	2291.1	-28.10	85.86
90.00	16 12 35	3059.23	-27.97	96.00	290.22	85.62	17 3 34	2059.2	-26.97	69.04
100.00	17 43 37	2765.57	-29.67	74.54	290.36	86.52	18 29 42	1765.6	-28.10	47.23
110.00	19 13 4	2485.59	-34.14	53.49	290.57	88.93	19 54 30	1485.6	-31.01	25.21

DIFFERENTIAL CORRECTIONS

TDE -.4046 TRA-1.3483 TC3 .3027 BAU .1364
RDE -.5213 RRA .2555 RC3 -.1260 FAU .06646
FDE .5347 FRA 1.4318 FC3-1.8492 BSP 2414
BDE .6599 BRA 1.3723 BC3 .3279 FSP 308

MID-COURSE EXECUTION ACCURACY

SGT 1542.6 SGR 617.7 SG3 227.2
RRT -.2325 RRF .2568 RTF -.7757
SGB 1661.7 R23 -.0458 R13 .7784
SG1 1550.4 SG2 597.8 THA 173.75

ORBIT DETERMINATION ACCURACY

ST 30.0 SR 27.1 SS 22.0
CRT .5737 CRS .6564 CST .9917
LSA 42.2 MSA 19.3 SSA 1.3
EL1 36.0 EL2 18.5 ALF 39.86

LAUNCH DATE JUL 20 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 349.859 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 34.500 GAL -3.33 AZL 90.00 HCA 112.12 SMA 238.77 ECC .36735 INC .0000 V1 29.308
RP 220.19 LAP -.00 LOP 49.26 VP 25.488 GAP 21.11 AZP 90.00 TAL 347.59 TAP 99.71 RCA 151.06 APO 326.49 V2 24.984
RC 83.701 GL -.02 GP -6.17 ZAL 110.07 ZAP 169.14 ETS 216.14 ZAE 163.51 ETE 337.54 ZAC 77.68 ETC 283.08 LVI -11.62

PLANETOCENTRIC CONIC

C3 29.882 VHL 5.466 DLA 16.96 RAL 44.75 RAD 6647.0 VEL 12.240 PTH 7.19 VHP 7.134 DPA 8.83 RAP 40.13 ECC 1.4918

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 21 22	3574.23	-47.13	135.06	288.51	97.41	14 20 56	2574.2	-38.84	103.76
60.00	13 41 26	3520.79	-40.22	131.10	289.36	92.79	14 40 7	2520.8	-34.72	101.46
70.00	14 11 11	3433.20	-34.15	124.14	289.50	89.18	15 8 25	2433.2	-30.91	95.89
80.00	14 58 2	3286.40	-29.69	112.82	289.31	86.70	15 52 49	2286.4	-28.04	85.52
90.00	16 9 44	3054.96	-27.99	95.69	289.18	85.77	17 0 39	2055.0	-26.93	68.73
100.00	17 40 54	2760.87	-29.69	74.19	289.31	86.70	18 26 55	1760.9	-28.04	46.89
110.00	19 10 38	2480.02	-34.15	53.06	289.50	89.18	19 51 58	1480.0	-30.91	24.81

DIFFERENTIAL CORRECTIONS

TDE -.4097 TRA-1.3443 TC3 .3298 BAU .1431
RDE -.5061 RRA .2567 RC3 -.1398 FAU .06928
FDE .5629 FRA 1.4792 FC3-2.0070 BSP 2520
BDE .6511 BRA 1.3686 BC3 .3582 FSP 329

MID-COURSE EXECUTION ACCURACY

SGT 1576.1 SGR 619.5 SG3 241.1
RRT -.2475 RRF .2767 RTF -.7902
SGB 1693.5 R23 -.0528 R13 .7831
SG1 1584.8 SG2 597.0 THA 173.52

ORBIT DETERMINATION ACCURACY

ST 30.8 SR 26.9 SS 22.7
CRT .5753 CRS .6590 CST .9916
LSA 43.1 MSA 19.3 SSA 1.4
EL1 36.4 EL2 18.6 ALF 38.26

LAUNCH DATE JUL 20 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 352.830 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 34.406 GAL -3.24 AZL 89.96 HCA 113.24 SMA 236.00 ECC .35977 INC .0328 V1 29.308
RP 220.57 LAP .03 LOP 50.38 VP 25.319 GAP 20.76 AZP 90.01 TAL 347.74 TAP 100.98 RCA 151.10 APO 320.91 V2 24.983
RC 85.536 GL .23 GP -6.37 ZAL 109.80 ZAP 168.38 ETS 214.75 ZAE 163.08 ETE 337.13 ZAC 77.42 ETC 283.06 LVI -11.35

PLANETOCENTRIC CONIC

C3 28.732 VHL 5.360 DLA 17.12 RAL 44.41 RAD 6646.5 VEL 12.193 PTH 7.15 VHP 6.935 DPA 8.76 RAP 40.52 ECC 1.4729

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 19 19	3567.82	-47.08	134.45	287.36	97.87	14 18 47	2567.8	-38.63	103.38
60.00	13 39 10	3514.98	-40.20	130.61	288.28	93.12	14 37 45	2515.0	-34.57	101.03
70.00	14 8 38	3428.21	-34.15	123.75	288.45	89.41	15 5 46	2428.2	-30.82	95.53
80.00	14 55 11	3282.32	-29.71	112.52	288.28	86.86	15 49 54	2282.3	-27.99	85.23
90.00	16 6 45	3051.35	-28.01	95.43	288.15	85.90	16 57 36	2051.4	-26.89	68.47
100.00	17 38 3	2756.79	-29.71	73.89	288.28	86.86	18 24 0	1756.8	-27.99	46.80
110.00	19 8 5	2475.03	-34.15	52.67	288.45	89.41	19 49 20	1475.0	-30.82	24.45

DIFFERENTIAL CORRECTIONS

TDE -.4133 TRA-1.3386 TC3 .3596 BAU .1504
RDE -.4909 RRA .2582 RC3 -.1548 FAU .07222
FDE .5935 FRA 1.5286 FC3-2.1761 BSP 2606
BDE .6417 BRA 1.3633 BC3 .3915 FSP 352

MID-COURSE EXECUTION ACCURACY

SGT 1607.9 SGR 621.6 SG3 255.8
RRT -.2648 RRF .2978 RTF -.7854
SGB 1723.9 R23 -.0588 R13 .7887
SG1 1617.7 SG2 595.8 THA 173.23

ORBIT DETERMINATION ACCURACY

ST 31.5 SR 26.6 SS 24.5
CRT .5754 CRS .6615 CST .9913
LSA 43.9 MSA 19.3 SSA 1.4
EL1 36.8 EL2 18.6 ALF 36.76

LAUNCH DATE JUL 20 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC — DISTANCE 355.871 — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 34.316 GAL -3.15 AZL 89.92 HCA 114.35 SMA 233.44 ECC .35259 INC .0743 V1 29.308
RP 220.95 LAP .07 LOP 51.49 VP 25.156 GAP 20.43 AZP 90.03 TAL 347.90 TAP 102.25 RCA 151.13 APO 315.75 V2 24.882
RC 87.440 GL .49 GP -6.59 ZAL 109.53 ZAP 167.61 ETS 213.54 ZAE 162.72 ETE 336.64 ZAC 77.15 ETC 283.04 LVI -11.04

PLANETOCENTRIC CONIC

C3 27.659 VHL 5.259 DLA 17.29 RAL 44.05 RAD 6646.1 VEL 12.150 PTH 7.12 VHP 6.742 DPA 8.66 RAP 40.90 ECC 1.4552

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 17 11	3561.93	-47.02	133.89	286.25	98.30	14 16 33	2561.9	-38.42	102.88
60.00	13 36 47	3509.72	-40.18	130.16	287.21	93.43	14 35 17	2509.7	-34.43	100.65
70.00	14 5 58	3423.82	-34.15	123.41	287.42	89.62	15 3 2	2423.8	-30.74	95.21
80.00	14 52 13	3278.90	-29.72	112.27	287.26	86.99	15 46 51	2278.9	-27.94	84.98
90.00	16 3 36	3048.43	-28.02	95.21	287.14	86.01	16 54 25	2048.4	-26.86	68.27
100.00	17 35 4	2753.38	-29.72	73.64	287.26	86.99	18 20 58	1753.4	-27.94	46.35
110.00	19 5 25	2470.64	-34.15	52.33	287.42	89.62	19 46 35	1470.6	-30.74	24.13

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4167 TRA-1.3318 TC3 .3917 BAU .1581 — SGT 1638.6 SGR 623.9 SG3 271.4 — ST 32.2 SR 26.3 SS 25.5
RDE -.4759 RRA .2601 RC3 -.1711 FAU .07533 — RRT -.2835 RRF .3201 RTF -.7910 — CRT .5752 CRS .6641 CST .9910
FDE .6266 FRA 1.5799 FC3-2.3579 BSP 2682 — SGB 1753.4 R23 -.0646 R13 .7947 — LSA 44.8 MSA 19.2 SSA 1.4
BDE .6326 BRA 1.3569 BC3 .4273 FSP 375 — SG1 1649.6 SG2 594.4 THA 172.92 — EL1 37.1 EL2 18.6 ALF 35.29

LAUNCH DATE JUL 20 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC — DISTANCE 358.976 — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 34.231 GAL -3.06 AZL 89.88 HCA 115.46 SMA 231.07 ECC .34579 INC .1149 V1 29.308
RP 221.33 LAP .10 LOP 52.60 VP 24.998 GAP 20.09 AZP 90.05 TAL 348.06 TAP 103.51 RCA 151.17 APO 310.97 V2 24.840
RC 89.407 GL .77 GP -6.81 ZAL 109.24 ZAP 166.81 ETS 212.47 ZAE 162.40 ETE 336.06 ZAC 76.87 ETC 283.02 LVI -10.74

PLANETOCENTRIC CONIC

C3 26.659 VHL 5.163 DLA 17.48 RAL 43.69 RAD 6645.7 VEL 12.109 PTH 7.08 VHP 6.555 DPA 8.56 RAP 41.27 ECC 1.4387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 14 58	3556.56	-46.97	133.38	285.16	98.69	14 14 14	2556.6	-38.24	102.51
60.00	13 34 19	3505.02	-40.16	129.77	286.18	93.69	14 32 44	2505.0	-34.31	100.32
70.00	14 3 11	3420.04	-34.15	123.11	286.41	89.79	15 0 11	2420.0	-30.67	94.94
80.00	14 49 6	3276.17	-29.73	112.07	286.27	87.10	15 43 42	2276.2	-27.91	84.79
90.00	16 0 20	3046.23	-28.03	95.05	286.15	86.09	16 51 6	2046.2	-26.83	68.11
100.00	17 31 57	2750.64	-29.73	73.43	286.27	87.10	18 17 48	1750.6	-27.91	46.16
110.00	19 2 38	2466.86	-34.15	52.03	286.41	89.79	19 43 44	1466.9	-30.67	23.86

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4197 TRA-1.3238 TC3 .4253 BAU .1658 — SGT 1667.8 SGR 626.7 SG3 287.7 — ST 32.8 SR 26.0 SS 26.4
RDE -.4609 RRA .2623 RC3 -.1887 FAU .07857 — RRT -.3036 RRF .3436 RTF -.7965 — CRT .5744 CRS .6667 CST .9905
FDE .6623 FRA 1.6322 FC3-2.5517 BSP 2754 — SGB 1781.7 R23 -.0700 R13 .8006 — LSA 45.7 MSA 19.1 SSA 1.4
BDE .6234 BRA 1.3495 BC3 .4653 FSP 402 — SG1 1680.2 SG2 592.7 THA 172.56 — EL1 37.5 EL2 18.6 ALF 33.86

LAUNCH DATE JUL 20 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC — DISTANCE 362.139 — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 34.150 GAL -2.98 AZL 89.84 HCA 116.56 SMA 228.87 ECC .33934 INC .1562 V1 29.308
RP 221.71 LAP .14 LOP 53.70 VP 24.846 GAP 19.76 AZP 90.07 TAL 348.22 TAP 104.78 RCA 151.20 APO 306.53 V2 24.799
RC 91.436 GL 1.06 GP -7.04 ZAL 108.96 ZAP 166.00 ETS 211.54 ZAE 162.14 ETE 335.39 ZAC 76.59 ETC 283.00 LVI -10.44

PLANETOCENTRIC CONIC

C3 25.725 VHL 5.072 DLA 17.67 RAL 43.31 RAD 6645.3 VEL 12.070 PTH 7.05 VHP 6.374 DPA 8.44 RAP 41.63 ECC 1.4234

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 12 40	3551.72	-46.91	132.93	284.11	99.03	14 11 52	2551.7	-38.07	102.17
60.00	13 31 45	3500.89	-40.14	129.42	285.17	93.93	14 30 6	2500.9	-34.20	100.02
70.00	14 0 17	3416.89	-34.15	122.87	285.42	89.94	14 57 14	2416.9	-30.61	94.71
80.00	14 45 50	3274.13	-29.74	111.91	285.29	87.18	15 40 24	2274.1	-27.88	84.64
90.00	15 56 54	3044.77	-28.04	94.95	285.18	86.14	16 47 38	2044.8	-26.81	68.01
100.00	17 28 42	2748.60	-29.74	73.28	285.29	87.18	18 14 31	1748.6	-27.88	46.01
110.00	18 59 44	2463.71	-34.15	51.79	285.42	89.94	19 40 47	1463.7	-30.61	23.63

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4224 TRA-1.3158 TC3 .4600 BAU .1736 — SGT 1696.5 SGR 630.0 SG3 305.0 — ST 33.4 SR 25.6 SS 27.4
RDE -.4460 RRA .2648 RC3 -.2079 FAU .08199 — RRT -.3253 RRF .3685 RTF -.8021 — CRT .5727 CRS .6687 CST .9900
FDE .7005 FRA 1.6872 FC3-2.7594 BSP 2825 — SGB 1809.7 R23 -.0756 R13 .8066 — LSA 46.5 MSA 19.0 SSA 1.3
BDE .6143 BRA 1.3420 BC3 .5048 FSP 430 — SG1 1710.6 SG2 590.9 THA 172.17 — EL1 37.8 EL2 18.6 ALF 32.44

LAUNCH DATE JUL 20 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC — DISTANCE 365.355 — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 34.073 GAL -2.90 AZL 89.80 HCA 117.66 SMA 226.82 ECC .33323 INC .1978 V1 29.308
RP 222.09 LAP .18 LOP 54.80 VP 24.699 GAP 19.43 AZP 90.09 TAL 348.38 TAP 106.05 RCA 151.24 APO 302.40 V2 24.757
RC 93.523 GL 1.36 GP -7.28 ZAL 108.66 ZAP 165.17 ETS 210.72 ZAE 161.94 ETE 334.63 ZAC 76.30 ETC 282.98 LVI -10.12

PLANETOCENTRIC CONIC

C3 24.854 VHL 4.985 DLA 17.87 RAL 42.93 RAD 6644.9 VEL 12.034 PTH 7.02 VHP 6.199 DPA 8.30 RAP 41.97 ECC 1.4090

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 10 17	3547.43	-46.87	132.52	283.09	99.34	14 9 24	2547.4	-37.92	101.87
60.00	13 29 5	3497.35	-40.12	129.12	284.19	94.13	14 27 23	2497.4	-34.11	99.77
70.00	13 57 16	3414.40	-34.15	122.67	284.46	90.05	14 54 11	2414.4	-30.56	94.53
80.00	14 42 26	3272.82	-29.74	111.82	284.34	87.23	15 36 59	2272.8	-27.86	84.55
90.00	15 53 18	3044.07	-28.04	94.90	284.22	86.17	16 44 2	2044.1	-26.81	67.96
100.00	17 25 18	2747.30	-29.74	73.19	284.34	87.23	18 11 6	1747.3	-27.86	45.92
110.00	18 56 43	2461.22	-34.15	51.59	284.46	90.05	19 37 44	1461.2	-30.56	23.45

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4250 TRA-1.3062 TC3 .4959 BAU .1815 — SGT 1723.6 SGR 634.0 SG3 323.2 — ST 34.0 SR 25.2 SS 28.5
RDE -.4312 RRA .2676 RC3 -.2286 FAU .08559 — RRT -.3481 RRF .3944 RTF -.8075 — CRT .5708 CRS .6707 CST .9894
FDE .7416 FRA 1.7431 FC3-2.9811 BSP 2883 — SGB 1836.5 R23 -.0812 R13 .8124 — LSA 47.4 MSA 18.8 SSA 1.5
BDE .6054 BRA 1.3333 BC3 .5461 FSP 459 — SG1 1739.5 SG2 588.9 THA 171.75 — EL1 38.1 EL2 18.5 ALF 31.04

LAUNCH DATE JUL 20 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 368.620 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	34.000	GAL	-2.82	AZL	89.76	HCA	118.76	SMA	224.91	ECC	.32744	INC	.2403	V1	29.308
RP	222.48	LAP	.21	LOP	55.90	VP	24.556	GAP	19.10	AZP	90.12	TAL	348.55	TAP	107.31	RCA	151.27	APO	298.56	V2	24.715
RC	95.665	GL	1.67	GP	-7.54	ZAL	108.37	ZAP	164.33	ETS	209.99	ZAE	161.78	ETE	333.78	ZAC	75.99	ETC	282.96	LVI	-9.80

PLANETOCENTRIC CONIC

C3	24.042	VHL	4.903	DLA	18.08	RAL	42.54	RAD	6644.6	VEL	12.001	PTH	6.99	VHP	6.030	DPA	8.14	RAP	42.31	ECC	1.3957

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 7 49	3543.70	-46.83	132.17	282.10	99.61	14 6 53	2543.7	-37.78	101.61
60.00	13 26 20	3494.42	-40.11	128.87	283.23	94.30	14 24 34	2494.4	-34.03	99.56
70.00	13 54 8	3412.57	-34.15	122.53	283.52	90.14	14 51 0	2412.6	-30.53	94.40
80.00	14 38 54	3272.27	-29.74	111.78	283.40	87.25	15 33 26	2272.3	-27.86	84.51
90.00	15 49 33	3044.18	-28.04	94.90	283.29	86.16	16 40 18	2044.2	-26.81	67.96
100.00	17 21 46	2746.74	-29.74	73.14	283.40	87.25	18 7 32	1746.7	-27.86	45.88
110.00	18 53 34	2459.39	-34.15	51.45	283.52	90.14	19 34 34	1459.4	-30.53	23.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4281	TRA	-1.2963	TC3	.5320	BAU	.1890	SGT	1749.7	SGR	638.6	SG3	342.3	ST	34.6	SR	24.8	SS	29.6
RDE	-.4162	RRA	.2708	RC3	-.2509	FAU	.08933	RRT	-.3718	RRF	.4214	RTF	-.8126	CRT	.5687	CRS	.6724	CST	.9889
FDE	.7862	FRA	1.8007	FC3	-3.2166	BSP	2949	SGB	1862.6	R23	-.0872	R13	.8180	LSA	48.4	MSA	18.6	SSA	1.5
BDE	.5971	BRA	1.3242	BC3	.5882	FSP	491	SG1	1767.7	SG2	586.8	THA	171.31	EL1	38.4	EL2	18.4	ALF	29.63

LAUNCH DATE JUL 20 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 371.928 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.931	GAL	-2.74	AZL	89.72	HCA	119.85	SMA	223.14	ECC	.32195	INC	.2833	V1	29.308
RP	222.86	LAP	.25	LOP	56.99	VP	24.418	GAP	18.78	AZP	90.14	TAL	348.72	TAP	108.57	RCA	151.30	APO	294.98	V2	24.673
RC	97.860	GL	1.99	GP	-7.80	ZAL	108.07	ZAP	163.46	ETS	209.35	ZAE	161.66	ETE	332.82	ZAC	75.69	ETC	282.95	LVI	-9.48

PLANETOCENTRIC CONIC

C3	23.284	VHL	4.825	DLA	18.31	RAL	42.14	RAD	6644.3	VEL	11.969	PTH	6.97	VHP	5.866	DPA	7.97	RAP	42.64	ECC	1.3832

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 5 17	3540.54	-46.79	131.88	281.16	99.84	14 4 17	2540.5	-37.67	101.39
60.00	13 23 28	3492.10	-40.10	128.67	282.31	94.43	14 21 40	2492.1	-33.97	99.38
70.00	13 50 52	3411.43	-34.15	122.44	282.61	90.19	14 47 44	2411.4	-30.51	94.32
80.00	14 35 12	3272.49	-29.74	111.79	282.49	87.24	15 29 44	2272.5	-27.86	84.53
90.00	15 45 38	3045.11	-28.04	94.97	282.38	86.13	16 36 23	2045.1	-26.82	68.03
100.00	17 18 4	2746.96	-29.74	73.16	282.49	87.24	18 3 51	1747.0	-27.86	45.89
110.00	18 50 19	2458.25	-34.15	51.36	282.61	90.19	19 31 17	1458.2	-30.51	23.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4312	TRA	-1.2861	TC3	.5693	BAU	.1968	SGT	1775.2	SGR	644.3	SG3	362.5	ST	35.2	SR	24.4	SS	30.4
RDE	-.4012	RRA	.2743	RC3	-.2751	FAU	.09330	RRT	-.3967	RRF	.4495	RTF	-.8175	CRT	.5659	CRS	.6737	CST	.9882
FDE	.8343	FRA	1.8601	FC3	-3.4690	BSP	3006	SGB	1888.5	R23	-.0933	R13	.8236	LSA	49.4	MSA	18.4	SSA	1.5
BDE	.5890	BRA	1.3150	BC3	.6323	FSP	524	SG1	1795.8	SG2	584.7	THA	170.83	EL1	38.7	EL2	18.3	ALF	28.21

LAUNCH DATE JUL 20 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 375.277 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.866	GAL	-2.67	AZL	89.67	HCA	120.94	SMA	221.48	ECC	.31675	INC	.3271	V1	29.308
RP	223.25	LAP	.28	LOP	58.08	VP	24.284	GAP	18.46	AZP	90.17	TAL	348.89	TAP	109.83	RCA	151.33	APO	291.64	V2	24.631
RC	100.104	GL	2.33	GP	-8.08	ZAL	107.76	ZAP	162.58	ETS	208.77	ZAE	161.59	ETE	331.76	ZAC	75.37	ETC	282.94	LVI	-9.14

PLANETOCENTRIC CONIC

C3	22.576	VHL	4.751	DLA	18.54	RAL	41.73	RAD	6644.0	VEL	11.940	PTH	6.94	VHP	5.708	DPA	7.79	RAP	42.95	ECC	1.3715

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 2 40	3537.95	-46.76	131.63	280.25	100.02	14 1 38	2537.9	-37.58	101.21
60.00	13 20 31	3490.41	-40.09	128.53	281.42	94.53	14 18 41	2490.4	-33.92	99.27
70.00	13 47 29	3411.00	-34.15	122.41	281.73	90.21	14 44 20	2411.0	-30.50	94.29
80.00	14 31 21	3273.51	-29.74	111.87	281.61	87.20	15 25 54	2273.5	-27.87	84.60
90.00	15 41 33	3046.90	-28.03	95.10	281.49	86.06	16 32 20	2046.9	-26.84	68.16
100.00	17 14 13	2747.99	-29.74	73.24	281.61	87.20	18 0 1	1748.0	-27.87	45.97
110.00	18 46 55	2457.81	-34.15	51.33	281.73	90.21	19 27 53	1457.8	-30.50	23.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4334	TRA	-1.2748	TC3	.6074	BAU	.2047	SGT	1798.7	SGR	651.2	SG3	383.7	ST	35.7	SR	23.9	SS	32.0
RDE	-.3862	RRA	.2781	RC3	-.3014	FAU	.09749	RRT	-.4230	RRF	.4789	RTF	-.8223	CRT	.5617	CRS	.6737	CST	.9875
FDE	.8641	FRA	1.9208	FC3	-3.7383	BSP	3057	SGB	1912.9	R23	-.0996	R13	.8290	LSA	50.4	MSA	18.2	SSA	1.6
BDE	.5805	BRA	1.3048	BC3	.6781	FSP	559	SG1	1822.1	SG2	582.3	THA	170.29	EL1	39.0	EL2	18.1	ALF	26.84

LAUNCH DATE JUL 20 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 378.663 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.803	GAL	-2.60	AZL	89.63	HCA	122.03	SMA	219.94	ECC	.31182	INC	.3717	V1	29.308
RP	223.64	LAP	.32	LOP	59.17	VP	24.155	GAP	18.14	AZP	90.20	TAL	349.05	TAP	111.08	RCA	151.36	APO	288.52	V2	24.590
RC	102.397	GL	2.68	GP	-8.38	ZAL	107.46	ZAP	161.68	ETS	208.26	ZAE	161.56	ETE	330.59	ZAC	75.04	ETC	282.93	LVI	-8.80

PLANETOCENTRIC CONIC

C3	21.916	VHL	4.681	DLA	18.79	RAL	41.32	RAD	6643.7	VEL	11.913	PTH	6.92	VHP	5.555	DPA	7.58	RAP	43.25	ECC	1.3607

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 59 58	3535.95	-46.74	131.45	279.37	100.16	13 58 54	2535.9	-37.51	101.07
60.00	13 17 27	3489.35	-40.08	128.44	280.56	94.59	14 15 37	2489.4	-33.90	99.19
70.00	13 43 58	3411.29	-34.15	122.43	280.87	90.20	14 40 50	2411.3	-30.50	94.31
80.00	14 27 20	3275.37	-29.73	112.01	280.75	87.13	15 21 55	2275.4	-27.90	84.73
90.00	15 37 17	3049.59	-28.01	95.30	280.63	85.97	16 28 6	2049.6	-26.87	68.35
100.00	17 10 12	2749.84	-29.73	73.37	280.75	87.13	17 56 2	1749.8	-27.90	46.10
110.00	18 43 25	2458.10	-34.15	51.35	280.87	90.20	19 24 23	1458.1	-30.50	23.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4366	TRA	-1.2636	TC3	.6440	BAU	.2120	SGT	1821.4	SGR	659.3	SG3	406.0	ST	36.3	SR	23.4	SS	33.3
RDE	-.3710	RRA	.2824	RC3	-.3295	FAU	.10184	RRT	-.4494	RRF	.5089	RTF	-.8265	CRT	.5572	CRS	.6732	CST	.9869
FDE	.9385	FRA	1.9838	FC3	-4.0229	BSP	3114	SGB	1937.0	R23	-.1067	R13	.8339	LSA	51.4	MSA	18.0	SSA	1.6
BDE	.5729	BRA	1.2948	BC3	.7234	FSP	596	SG1	1848.0	SG2	580.5	THA	169.74	EL1	39.2	EL2	17.9	ALF	25.41

LAUNCH DATE JUL 20 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 15 1975

HELIOCENTRIC CONIC DISTANCE 382.083 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.744	GAL	-2.53	AZL	89.58	HCA	123.11	SMA	218.49	ECC	.30715	INC	.4174	V1	29.308
RP	224.03	LAP	.35	LOP	60.25	VP	24.029	GAP	17.83	AZP	90.23	TAL	349.22	TAP	112.33	RCA	151.38	APO	285.60	V2	24.548
RC	104.735	GL	3.05	GP	-8.68	ZAL	107.16	ZAP	160.76	ETS	207.81	ZAE	161.56	ETE	329.30	ZAC	74.70	ETC	282.93	LVI	-8.45

PLANETOCENTRIC CONIC

C3	21.301	VHL	4.615	DLA	19.05	RAL	40.90	RAD	6643.4	VEL	11.887	PTH	6.90	VHP	5.406	DPA	7.35	RAP	43.54	ECC	1.3506

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 57 11	3534.54	-46.72	131.31	278.54	100.26	13 56 5	2534.5	-37.46	100.98
60.00	13 14 18	3488.96	-40.08	128.41	279.73	94.61	14 12 27	2489.0	-33.89	99.17
70.00	13 40 19	3412.32	-34.15	122.51	280.04	90.15	14 37 12	2412.3	-30.52	94.38
80.00	14 23 9	3278.09	-29.72	112.21	279.91	87.02	15 17 47	2278.1	-27.93	84.93
90.00	15 32 49	3053.20	-28.00	95.56	279.79	85.84	16 23 42	2053.2	-26.91	68.61
100.00	17 6 1	2752.56	-29.72	73.58	279.91	87.02	17 51 53	1752.6	-27.93	46.29
110.00	18 39 46	2459.14	-34.15	51.43	280.04	90.15	19 20 45	1459.1	-30.52	23.30

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4401	TRA	-1.2518	TC3	.6807	BAU	.2193	SGT	1842.9	SGR	668.8	SG3	429.5	ST	36.8	SR	22.8	SS	34.6
RDE	-.3556	RRA	.2870	RC3	-.3599	FAU	.10641	RRT	-.4764	RRF	.5394	RTF	-.8305	CRT	.5520	CRS	.6722	CST	.9862
FDE	.9979	FRA	2.0480	FC3	-4.3249	BSP	3164	SGB	1960.5	R23	-.1141	R13	.8387	LSA	52.5	MSA	17.7	SSA	1.6
BDE	.5658	BRA	1.2843	BC3	.7699	FSP	635	SG1	1873.2	SG2	578.5	THA	169.14	EL1	39.5	EL2	17.7	ALF	23.96

LAUNCH DATE JUL 20 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 385.534 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.688	GAL	-2.46	AZL	89.54	HCA	124.19	SMA	217.14	ECC	.30272	INC	.4639	V1	29.308
RP	224.42	LAP	.38	LOP	61.33	VP	23.908	GAP	17.52	AZP	90.26	TAL	349.39	TAP	113.57	RCA	151.41	APO	282.88	V2	24.506
RC	107.119	GL	3.43	GP	-9.00	ZAL	106.85	ZAP	159.82	ETS	207.41	ZAE	161.60	ETE	327.88	ZAC	74.35	ETC	282.93	LVI	-8.09

PLANETOCENTRIC CONIC

C3	20.727	VHL	4.553	DLA	19.32	RAL	40.48	RAD	6643.2	VEL	11.863	PTH	6.88	VHP	5.263	DPA	7.10	RAP	43.81	ECC	1.3411

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 54 19	3533.73	-46.71	131.24	277.74	100.32	13 53 13	2533.7	-37.43	100.92
60.00	13 11 2	3489.22	-40.08	128.43	278.94	94.60	14 9 11	2489.2	-33.89	99.19
70.00	13 36 32	3414.12	-34.15	122.65	279.24	90.07	14 33 27	2414.1	-30.56	94.51
80.00	14 18 47	3281.70	-29.71	112.48	279.10	86.88	15 13 29	2281.7	-27.98	85.18
90.00	15 28 9	3057.79	-27.97	95.89	278.97	85.67	16 19 7	2057.8	-26.96	68.93
100.00	17 1 39	2756.17	-29.71	73.84	279.10	86.88	17 47 35	1756.2	-27.98	46.55
110.00	18 35 59	2460.93	-34.15	51.57	279.24	90.07	19 17 0	1460.9	-30.56	23.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4432	TRA	-1.2390	TC3	.7182	BAU	.2268	SGT	1862.6	SGR	680.0	SG3	454.1	ST	37.3	SR	22.2	SS	36.0
RDE	-.3399	RRA	.2919	RC3	-.3927	FAU	.11125	RRT	-.5041	RRF	.5704	RTF	-.8344	CRT	.5451	CRS	.6698	CST	.9855
FDE	1.0609	FRA	2.1134	FC3	-4.6466	BSP	3211	SGB	1982.8	R23	-.1216	R13	.8435	LSA	53.6	MSA	17.5	SSA	1.6
BDE	.5585	BRA	1.2730	BC3	.8185	FSP	675	SG1	1897.2	SG2	576.6	THA	168.49	EL1	39.8	EL2	17.5	ALF	22.52

LAUNCH DATE JUL 20 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 389.013 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.635	GAL	-2.40	AZL	89.49	HCA	125.26	SMA	215.88	ECC	.29852	INC	.5115	V1	29.308
RP	224.81	LAP	.42	LOP	62.40	VP	23.790	GAP	17.21	AZP	90.30	TAL	349.55	TAP	114.81	RCA	151.44	APO	280.33	V2	24.464
RC	109.544	GL	3.83	GP	-9.34	ZAL	106.55	ZAP	158.86	ETS	207.04	ZAE	161.66	ETE	326.32	ZAC	73.99	ETC	282.93	LVI	-7.73

PLANETOCENTRIC CONIC

C3	20.192	VHL	4.494	DLA	19.61	RAL	40.06	RAD	6642.9	VEL	11.841	PTH	6.86	VHP	5.124	DPA	6.84	RAP	44.07	ECC	1.3323

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 51 23	3533.54	-46.71	131.22	276.99	100.33	13 50 16	2533.5	-37.42	100.91
60.00	13 7 40	3490.17	-40.09	128.51	278.18	94.54	14 3 50	2490.2	-33.92	99.25
70.00	13 32 37	3416.70	-34.15	122.85	278.47	89.95	14 29 34	2416.7	-30.61	94.70
80.00	14 14 14	3286.24	-29.69	112.81	278.31	86.71	15 9 0	2286.2	-28.04	85.51
90.00	15 23 16	3063.39	-27.94	96.30	278.18	85.47	16 14 19	2063.4	-27.01	69.33
100.00	16 57 6	2760.71	-29.69	74.18	278.31	86.71	17 43 6	1760.7	-28.04	46.88
110.00	18 32 3	2463.52	-34.15	51.77	278.47	89.95	19 13 7	1463.5	-30.61	23.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4469	TRA	-1.2261	TC3	.7535	BAU	.2339	SGT	1880.9	SGR	693.1	SG3	479.9	ST	37.8	SR	21.5	SS	37.5
RDE	-.3240	RRA	.2973	RC3	-.4278	FAU	.11626	RRT	-.5314	RRF	.6014	RTF	-.8477	CRT	.5372	CRS	.6661	CST	.9848
FDE	1.1286	FRA	2.1804	FC3	-4.9847	BSP	3262	SGB	2004.5	R23	-.1300	R13	.8479	LSA	54.8	MSA	17.2	SSA	1.7
BDE	.5520	BRA	1.2616	BC3	.8664	FSP	719	SG1	1920.2	SG2	575.1	THA	167.81	EL1	40.0	EL2	17.2	ALF	21.04

LAUNCH DATE JUL 20 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 392.520 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.585	GAL	-2.33	AZL	89.44	HCA	126.33	SMA	214.69	ECC	.29454	INC	.5602	V1	29.308
RP	225.20	LAP	.45	LOP	63.47	VP	23.675	GAP	16.91	AZP	90.33	TAL	349.72	TAP	116.05	RCA	151.46	APO	277.93	V2	24.422
RC	112.011	GL	4.24	GP	-9.69	ZAL	106.25	ZAP	157.88	ETS	206.72	ZAE	161.75	ETE	324.61	ZAC	73.62	ETC	282.93	LVI	-7.35

PLANETOCENTRIC CONIC

C3	19.693	VHL	4.438	DLA	19.92	RAL	39.63	RAD	6642.7	VEL	11.820	PTH	6.84	VHP	4.990	DPA	6.55	RAP	44.31	ECC	1.3241

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 48 21	3533.94	-46.71	131.26	276.27	100.31	13 47 15	2533.9	-37.44	100.93
60.00	13 4 11	3491.78	-40.10	128.65	277.45	94.45	14 2 22	2491.8	-33.96	99.37
70.00	13 28 32	3420.05	-34.15	123.11	277.72	89.79	14 25 32	2420.1	-30.67	94.94
80.00	14 9 29	3291.71	-29.67	113.22	277.55	86.49	15 4 20	2291.7	-28.10	85.90
90.00	15 18 9	3070.01	-27.91	96.78	277.40	85.23	16 9 19	2070.0	-27.08	69.80
100.00	16 52 20	2766.18	-29.67	74.58	277.55	86.49	17 38 27	1766.2	-28.10	47.27
110.00	18 27 58	2466.87	-34.15	52.03	277.72	89.79	19 9 5	1466.9	-30.67	23.86

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4351	TRA	-1.1970	TC3	.8187	BAU	.2480	SGT	1882.9	SGR	708.5	SG3	507.0	ST	37.4	SR	20.8	SS	39.0
RDE	-.3079	RRA	.3028	RC3	-.4660	FAU	.12161	RRT	-.5702	RRF	.6326	RTF	-.8498	CRT	.5182	CRS	.6606	CST	.9824
FDE	1.1991	FRA	2.2467	FC3	-5.3465	BSP	3119	SGB	2011.8	R23	-.1209	R13	.8602	LSA	55.3	MSA	17.0	SSA	1.6
BDE	.5330	BRA	1.2347	BC3	.9420	FSP	763	SG1	1930.0	SG2	567.8	THA	166.72	EL1	39.3	EL2	17.0	ALF	19.98

LAUNCH DATE JUL 20 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 396.050 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.837 GAL -2.28 AZL 89.39 HCA 127.40 SMA 213.89 ECC .29076 INC .6099 V1 29.308
RP 225.59 LAP .48 LOP 64.54 VP 23.564 GAP 16.60 AZP 90.37 TAL 349.88 TAP 117.27 RCA 151.48 APO 275.69 V2 24.380
RC 114.516 GL 4.67 GP -10.06 ZAL 105.96 ZAP 156.88 ETS 206.43 ZAE 161.85 ETE 322.74 ZAC 73.23 ETC 282.94 LVI -6.96

PLANETOCENTRIC CONIC

C3 19.229 VHL 4.385 DLA 20.23 RAL 39.20 RAD 6642.5 VEL 11.800 PTH 6.82 VHP 4.861 DPA 6.23 RAP 44.55 ECC 1.3166

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 45 15	3535.03	-46.72	131.36	275.59	100.23	13 44 10	2535.0	-37.47	101.01
60.00	13 0 35	3494.16	-40.11	128.85	276.76	94.32	13 58 49	2494.2	-34.02	99.54
70.00	13 24 19	3424.30	-34.15	123.45	277.01	89.60	14 21 23	2424.3	-30.75	95.25
80.00	14 4 31	3298.25	-29.64	113.70	276.82	86.24	14 59 29	2298.2	-28.18	86.37
90.00	15 12 48	3077.82	-27.86	97.35	276.66	84.95	16 4 6	2077.8	-27.16	70.36
100.00	16 47 23	2772.72	-29.64	75.07	276.82	86.24	17 33 36	1772.7	-28.18	47.74
110.00	18 23 45	2471.12	-34.15	52.36	277.01	89.60	19 4 56	1471.1	-30.75	24.16

DIFFERENTIAL CORRECTIONS

TDE -.4444 TRA-1.1895 TC3 .8406 BAU .2523
RDE -.2912 RRA .3091 RC3 -.5067 FAU .12717
FDE 1.2760 FRA 2.3176 FC3-5.7252 BSP 3243
BDE .5313 BRA 1.2290 BC3 .9815 FSP 811

MID-COURSE EXECUTION ACCURACY

SGT 1903.7 SGR 726.3 SG3 535.4
RRT -.5928 RRF .6634 RTF -.8489
SGB 2037.6 R23 -.1372 R13 .8610
SG1 1956.5 SG2 569.2 THA 166.05

ORBIT DETERMINATION ACCURACY

ST 38.2 SR 20.1 SS 40.6
CRT .5090 CRS .6525 CST .9824
LSA 56.9 MSA 16.6 SSA 1.7
EL1 39.9 EL2 16.6 ALF 18.25

LAUNCH DATE JUL 20 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 399.602 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.492 GAL -2.22 AZL 89.34 HCA 128.46 SMA 212.55 ECC .28721 INC .6610 V1 29.308
RP 225.98 LAP .52 LOP 65.60 VP 23.456 GAP 16.30 AZP 90.41 TAL 350.03 TAP 118.49 RCA 151.50 APO 273.59 V2 24.338
RC 117.057 GL 5.11 GP -10.45 ZAL 105.67 ZAP 155.85 ETS 206.17 ZAE 161.96 ETE 320.70 ZAC 72.83 ETC 282.96 LVI -6.56

PLANETOCENTRIC CONIC

C3 18.798 VHL 4.336 DLA 20.57 RAL 38.77 RAD 6642.3 VEL 11.782 PTH 6.81 VHP 4.736 DPA 5.90 RAP 44.76 ECC 1.3094

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 42 3	3536.75	-46.75	131.52	274.96	100.11	13 41 0	2536.8	-37.54	101.13
60.00	12 56 53	3497.26	-40.12	129.11	276.10	94.14	13 55 10	2497.3	-34.11	99.76
70.00	13 19 55	3429.41	-34.15	123.85	276.33	89.36	14 17 4	2429.4	-30.84	95.61
80.00	13 59 20	3305.85	-29.61	114.26	276.11	85.95	14 54 26	2305.8	-28.28	86.92
90.00	15 7 11	3086.81	-27.81	98.00	275.94	84.63	15 58 37	2086.8	-27.24	71.01
100.00	16 42 12	2780.32	-29.61	75.63	276.11	85.95	17 28 32	1780.3	-28.28	48.28
110.00	18 19 21	2476.23	-34.15	52.76	276.33	89.36	19 0 38	1476.2	-30.84	24.53

DIFFERENTIAL CORRECTIONS

TDE -.4518 TRA-1.1786 TC3 .8631 BAU .2572
RDE -.2739 RRA .3158 RC3 -.5498 FAU .13283
FDE 1.3599 FRA 2.3887 FC3-6.1172 BSP 3331
BDE .5284 BRA 1.2201 BC3 1.0234 FSP 861

MID-COURSE EXECUTION ACCURACY

SGT 1919.4 SGR 746.3 SG3 564.8
RRT -.6158 RRF .6930 RTF -.8489
SGB 2059.4 R23 -.1514 R13 .8628
SG1 1978.8 SG2 570.4 THA 165.28

ORBIT DETERMINATION ACCURACY

ST 38.9 SR 19.3 SS 42.3
CRT .4960 CRS .6423 CST .9821
LSA 58.4 MSA 16.3 SSA 1.7
EL1 40.3 EL2 16.2 ALF 16.56

LAUNCH DATE JUL 20 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 403.175 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.449 GAL -2.17 AZL 89.29 HCA 129.52 SMA 211.57 ECC .28383 INC .7135 V1 29.308
RP 226.37 LAP .55 LOP 66.66 VP 23.351 GAP 16.01 AZP 90.45 TAL 350.19 TAP 119.70 RCA 151.52 APO 271.63 V2 24.297
RC 119.633 GL 5.57 GP -10.86 ZAL 105.38 ZAP 154.81 ETS 205.94 ZAE 162.07 ETE 318.49 ZAC 72.42 ETC 282.98 LVI -6.15

PLANETOCENTRIC CONIC

C3 18.398 VHL 4.289 DLA 20.92 RAL 38.34 RAD 6642.1 VEL 11.765 PTH 6.79 VHP 4.616 DPA 5.53 RAP 44.97 ECC 1.3028

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 38 46	3539.13	-46.77	131.74	274.37	99.94	13 37 45	2539.1	-37.62	101.29
60.00	12 53 3	3501.10	-40.14	129.43	275.48	93.92	13 51 24	2501.1	-34.21	100.03
70.00	13 15 21	3435.41	-34.14	124.31	275.68	89.08	14 12 37	2435.4	-30.95	96.05
80.00	13 53 54	3314.56	-29.56	114.91	275.43	85.61	14 49 8	2314.6	-28.38	87.54
90.00	15 1 16	3097.06	-27.74	98.74	275.25	84.26	15 52 53	2097.1	-27.34	71.74
100.00	16 36 46	2789.03	-29.56	76.27	275.43	85.61	17 23 15	1789.0	-28.38	48.91
110.00	18 14 48	2482.23	-34.14	53.23	275.68	89.08	18 56 10	1482.2	-30.95	24.97

DIFFERENTIAL CORRECTIONS

TDE -.4577 TRA-1.1660 TC3 .8864 BAU .2627
RDE -.2561 RRA .3229 RC3 -.5962 FAU .13878
FDE 1.4493 FRA 2.4618 FC3-6.5306 BSP 3400
BDE .5245 BRA 1.2099 BC3 1.0682 FSP 914

MID-COURSE EXECUTION ACCURACY

SGT 1931.9 SGR 769.4 SG3 595.6
RRT -.6390 RRF .7219 RTF -.8495
SGB 2079.4 R23 -.1645 R13 .8653
SG1 1999.2 SG2 571.8 THA 164.41

ORBIT DETERMINATION ACCURACY

ST 39.5 SR 18.5 SS 44.1
CRT .4779 CRS .6264 CST .9816
LSA 59.9 MSA 15.9 SSA 1.8
EL1 40.7 EL2 15.8 ALF 14.88

LAUNCH DATE JUL 20 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 406.767 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.408 GAL -2.11 AZL 89.23 HCA 130.57 SMA 210.66 ECC .28063 INC .7674 V1 29.308
RP 226.76 LAP .58 LOP 67.72 VP 23.250 GAP 15.71 AZP 90.50 TAL 350.34 TAP 120.91 RCA 151.54 APO 269.78 V2 24.255
RC 122.240 GL 6.05 GP -11.28 ZAL 105.10 ZAP 153.73 ETS 205.73 ZAE 162.19 ETE 316.08 ZAC 71.99 ETC 283.00 LVI -5.72

PLANETOCENTRIC CONIC

C3 18.026 VHL 4.246 DLA 21.29 RAL 37.90 RAD 6641.9 VEL 11.750 PTH 6.78 VHP 4.500 DPA 5.15 RAP 45.15 ECC 1.2967

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 35 24	3542.19	-46.81	132.03	273.83	99.72	13 34 26	2542.2	-37.73	101.50
60.00	12 49 5	3505.71	-40.16	129.82	274.90	93.65	13 47 31	2505.7	-34.33	100.37
70.00	13 10 36	3442.34	-34.13	124.85	275.06	88.76	14 7 59	2442.3	-31.07	96.55
80.00	13 48 12	3324.45	-29.51	115.64	274.77	85.23	14 43 37	2324.4	-28.49	88.26
90.00	14 55 2	3108.66	-27.66	99.58	274.57	83.85	15 46 51	2108.7	-27.44	72.58
100.00	16 31 4	2798.92	-29.51	77.00	274.77	85.23	17 17 43	1798.9	-28.49	49.63
110.00	18 10 3	2489.16	-34.13	53.77	275.06	88.76	18 51 32	1489.2	-31.07	25.47

DIFFERENTIAL CORRECTIONS

TDE -.4629 TRA-1.1515 TC3 .9106 BAU .2691
RDE -.2375 RRA .3306 RC3 -.6460 FAU .14501
FDE 1.5468 FRA 2.5360 FC3-6.9642 BSP 3462
BDE .5203 BRA 1.1980 BC3 1.1165 FSP 972

MID-COURSE EXECUTION ACCURACY

SGT 1941.5 SGR 795.5 SG3 627.9
RRT -.6620 RRF .7495 RTF -.8506
SGB 2098.2 R23 -.1763 R13 .8685
SG1 2018.3 SG2 573.6 THA 163.45

ORBIT DETERMINATION ACCURACY

ST 40.0 SR 17.6 SS 46.0
CRT .4545 CRS .6101 CST .9811
LSA 61.5 MSA 15.6 SSA 1.8
EL1 41.0 EL2 15.3 ALF 13.16

LAUNCH DATE JUL 20 1973 FLIGHT TIME 164.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 410.376 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.369 GAL -2.06 AZL 89.18 HCA 131.63 SMA 209.80 ECC .27761 INC .8228 V1 29.308
RP 227.15 LAP .62 LOP 68.77 VP 23.151 GAP 15.42 AZP 90.55 TAL 350.48 TAP 122.11 RCA 151.56 APO 268.04 V2 24.214
RC 124.878 GL 6.54 GP -11.73 ZAL 104.82 ZAP 152.64 ETS 205.54 ZAE 162.29 ETE 313.48 ZAC 71.54 ETC 283.03 LVI -5.29

PLANETOCENTRIC CONIC

C3 17.682 VHL 4.205 DLA 21.67 RAL 37.47 RAD 6641.8 VEL 11.735 PTH 6.76 VHP 4.387 DPA 4.73 RAP 45.32 ECC 1.2910

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 31 55	3545.93	-46.85	132.38	273.32	99.45	13 31 1	2545.9	-37.86	101.76
60.00	12 44 59	3511.12	-40.19	130.28	274.35	93.34	13 43 31	2511.1	-34.47	100.76
70.00	13 5 39	3450.25	-34.12	125.47	274.47	88.40	14 3 10	2450.2	-31.21	97.13
80.00	13 42 13	3335.60	-29.44	116.46	274.14	84.80	14 37 49	2335.6	-28.61	89.06
90.00	14 48 28	3121.72	-27.56	100.52	273.92	83.39	15 40 30	2121.7	-27.55	73.52
100.00	16 25 5	2810.07	-29.44	77.83	274.14	84.80	17 11 55	1810.1	-28.61	50.43
110.00	18 5 6	2497.07	-34.12	54.39	274.47	88.40	18 46 43	1497.1	-31.21	26.04

DIFFERENTIAL CORRECTIONS

TDE -.4671 TRA-1.1361 TC3 .9328 BAU .2756
RDE -.2182 RRA .3388 RC3 -.6992 FAU .15148
FDE 1.6500 FRA 2.6113 FC3-7.4164 BSP 3501
BDE .5155 BRA 1.1856 BC3 1.1657 FSP 1029

MID-COURSE EXECUTION ACCURACY

SGT 1948.2 SGR 825.1 SG3 661.5
RRT -.6840 RRF .7758 RTF -.8516
SGB 2115.7 R23 -.1878 R13 .8719
SG1 2035.8 SG2 576.0 THA 162.39

ORBIT DETERMINATION ACCURACY

ST 40.5 SR 16.6 SS 48.0
CRT .4240 CRS .5858 CST .9804
LSA 63.1 MSA 15.2 SSA 1.8
EL1 41.2 EL2 14.8 ALF 11.39

LAUNCH DATE JUL 20 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 414.002 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.333 GAL -2.02 AZL 89.12 HCA 132.67 SMA 209.00 ECC .27474 INC .8798 V1 29.308
RP 227.54 LAP .65 LOP 69.82 VP 23.055 GAP 15.13 AZP 90.60 TAL 350.62 TAP 123.30 RCA 151.58 APO 266.42 V2 24.172
RC 127.544 GL 7.05 GP -12.20 ZAL 104.56 ZAP 151.51 ETS 205.37 ZAE 162.37 ETE 310.69 ZAC 71.08 ETC 283.06 LVI -4.84

PLANETOCENTRIC CONIC

C3 17.364 VHL 4.167 DLA 22.08 RAL 37.04 RAD 6641.6 VEL 11.722 PTH 6.75 VHP 4.280 DPA 4.29 RAP 45.48 ECC 1.2858

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 28 21	3550.37	-46.90	132.80	272.86	99.13	13 27 31	2550.4	-38.02	102.07
60.00	12 40 45	3517.34	-40.21	130.81	273.84	92.99	13 39 22	2517.3	-34.63	101.21
70.00	13 0 30	3459.17	-34.10	126.17	273.91	87.99	13 58 9	2459.2	-31.36	97.78
80.00	13 35 55	3348.09	-29.36	117.38	273.53	84.33	14 31 43	2348.1	-28.74	89.97
90.00	14 41 30	3136.35	-27.44	101.58	273.29	82.87	15 33 46	2136.4	-27.66	74.57
100.00	16 18 47	2822.56	-29.36	78.75	273.53	84.33	17 5 50	1822.6	-28.74	51.34
110.00	17 59 56	2505.99	-34.10	55.09	273.91	87.99	18 41 42	1506.0	-31.36	26.69

DIFFERENTIAL CORRECTIONS

TDE -.4701 TRA-1.1194 TC3 .9533 BAU .2824
RDE -.1981 RRA .3474 RC3 -.7560 FAU .15821
FDE 1.7588 FRA 2.6865 FC3-7.8879 BSP 3541
BDE .5102 BRA 1.1720 BC3 1.2167 FSP 1089

MID-COURSE EXECUTION ACCURACY

SGT 1951.3 SGR 858.4 SG3 696.3
RRT -.7048 RRF .8005 RTF -.8525
SGB 2131.8 R23 -.1987 R13 .8755
SG1 2051.6 SG2 579.2 THA 161.22

ORBIT DETERMINATION ACCURACY

ST 40.8 SR 15.7 SS 50.0
CRT .3847 CRS .5538 CST .9797
LSA 64.7 MSA 14.9 SSA 1.8
EL1 41.3 EL2 14.3 ALF 9.57

LAUNCH DATE JUL 20 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 417.642 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.298 GAL -1.97 AZL 89.06 HCA 133.72 SMA 208.24 ECC .27203 INC .9385 V1 29.308
RP 227.93 LAP .68 LOP 70.86 VP 22.961 GAP 14.85 AZP 90.65 TAL 350.76 TAP 124.48 RCA 151.59 APO 264.89 V2 24.131
RC 130.237 GL 7.58 GP -12.69 ZAL 104.29 ZAP 150.36 ETS 205.22 ZAE 162.42 ETE 307.70 ZAC 70.60 ETC 283.10 LVI -4.37

PLANETOCENTRIC CONIC

C3 17.070 VHL 4.132 DLA 22.50 RAL 36.60 RAD 6641.5 VEL 11.709 PTH 6.74 VHP 4.176 DPA 3.81 RAP 45.62 ECC 1.2809

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 24 40	3555.54	-46.95	133.29	272.45	98.76	13 23 56	2555.5	-38.20	102.43
60.00	12 36 21	3524.40	-40.23	131.41	273.37	92.58	13 35 6	2524.4	-34.81	101.72
70.00	12 55 6	3469.16	-34.07	126.95	273.38	87.53	13 52 56	2469.2	-31.53	98.51
80.00	13 29 16	3362.03	-29.26	118.40	272.95	83.80	14 25 18	2362.0	-28.87	90.98
90.00	14 34 6	3152.73	-27.30	102.75	272.68	82.30	15 26 38	2152.7	-27.77	75.76
100.00	16 12 8	2836.50	-29.26	79.77	272.95	83.80	16 59 24	1836.5	-28.87	52.35
110.00	17 54 33	2515.98	-34.07	55.86	273.38	87.53	18 36 29	1516.0	-31.53	27.43

DIFFERENTIAL CORRECTIONS

TDE -.4731 TRA-1.1014 TC3 .9714 BAU .2896
RDE -.1770 RRA .3584 RC3 -.8168 FAU .16519
FDE 1.8759 FRA 2.7606 FC3-8.3777 BSP 3564
BDE .5051 BRA 1.1576 BC3 1.2691 FSP 1149

MID-COURSE EXECUTION ACCURACY

SGT 1951.4 SGR 895.5 SG3 732.4
RRT -.7240 RRF .8234 RTF -.8532
SGB 2147.0 R23 -.2092 R13 .8793
SG1 2066.2 SG2 583.4 THA 159.96

ORBIT DETERMINATION ACCURACY

ST 41.1 SR 14.7 SS 52.1
CRT .3347 CRS .5117 CST .9789
LSA 66.4 MSA 14.6 SSA 1.8
EL1 41.5 EL2 13.7 ALF 7.66

LAUNCH DATE JUL 20 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 421.296 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.265 GAL -1.93 AZL 89.00 HCA 134.76 SMA 207.53 ECC .26946 INC .9992 V1 29.308
RP 228.32 LAP .71 LOP 71.90 VP 22.870 GAP 14.56 AZP 90.70 TAL 350.89 TAP 125.65 RCA 151.81 APO 263.45 V2 24.090
RC 132.954 GL 8.13 GP -13.21 ZAL 104.04 ZAP 149.19 ETS 205.07 ZAE 162.43 ETE 304.53 ZAC 70.10 ETC 283.15 LVI -3.89

PLANETOCENTRIC CONIC

C3 16.801 VHL 4.099 DLA 22.95 RAL 36.17 RAD 6641.4 VEL 11.698 PTH 6.73 VHP 4.076 DPA 3.31 RAP 45.74 ECC 1.2765

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 52	3561.45	-47.01	133.85	272.08	98.33	13 20 14	2561.4	-38.41	102.85
60.00	12 31 48	3532.35	-40.25	132.08	272.94	92.12	13 30 40	2532.4	-35.01	102.30
70.00	12 49 28	3480.29	-34.04	127.81	272.88	87.02	13 47 28	2480.3	-31.71	99.33
80.00	13 22 14	3377.55	-29.15	119.54	272.39	83.21	14 18 31	2377.6	-29.01	92.12
90.00	14 26 11	3171.03	-27.12	104.06	272.08	81.67	15 19 2	2171.0	-27.88	77.08
100.00	16 5 5	2852.02	-29.15	80.91	272.39	83.21	16 52 37	1852.0	-29.01	53.48
110.00	17 48 55	2527.11	-34.04	56.73	272.88	87.02	18 31 2	1527.1	-31.71	28.24

DIFFERENTIAL CORRECTIONS

TDE -.4763 TRA-1.0835 TC3 .9842 BAU .2967
RDE -.1546 RRA .3661 RC3 -.8811 FAU .17234
FDE 2.0030 FRA 2.8368 FC3-8.8806 BSP 3602
BDE .5007 BRA 1.1437 BC3 1.3210 FSP 1216

MID-COURSE EXECUTION ACCURACY

SGT 1949.1 SGR 936.6 SG3 769.8
RRT -.7411 RRF .8444 RTF -.8534
SGB 2162.5 R23 -.2197 R13 .8830
SG1 2080.7 SG2 589.1 THA 158.60

ORBIT DETERMINATION ACCURACY

ST 41.5 SR 13.7 SS 54.4
CRT .2691 CRS .4548 CST .9782
LSA 68.3 MSA 14.2 SSA 1.8
EL1 41.6 EL2 13.1 ALF 5.64

LAUNCH DATE JUL 20 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 424.962 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.234	GAL	-1.89	AZL	88.94	HCA	135.80	SMA	206.86	ECC	.26704	INC	1.0619	V1	29.308
RP	228.70	LAP	.74	LOP	72.94	VP	22.782	GAP	14.28	AZP	90.76	TAL	351.02	TAP	126.81	RCA	151.62	APO	262.10	V2	24.049
RC	135.694	GL	8.70	GP	-13.75	ZAL	103.79	ZAP	147.98	ETS	204.94	ZAE	162.39	ETE	301.18	ZAC	69.59	ETC	283.20	LVI	-3.39

PLANETOCENTRIC CONIC

C3	18.534	VHL	4.069	DLA	23.41	RAL	35.73	RAD	6641.3	VEL	11.687	PTH	6.72	VHP	3.980	DPA	2.77	RAP	45.85	ECC	1.2724

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 16 58	3568.13	-47.08	134.48	271.76	97.85	13 16 26	2568.1	-38.64	103.32
60.00	12 27 4	3541.21	-40.27	132.84	272.54	91.61	13 26 5	2541.2	-35.23	102.95
70.00	12 43 33	3492.61	-33.99	128.77	272.41	86.45	13 41 46	2492.6	-31.90	100.24
80.00	13 14 44	3394.80	-29.00	120.80	271.84	82.56	14 11 19	2394.8	-29.16	93.38
90.00	14 17 42	3191.50	-26.91	105.52	271.50	80.96	15 10 54	2191.5	-27.99	78.57
100.00	15 57 36	2869.27	-29.00	82.17	271.84	82.56	16 45 26	1869.3	-29.16	54.75
110.00	17 43 0	2539.43	-33.99	57.69	272.41	86.45	18 25 19	1539.4	-31.90	29.15

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4781	TRA	-1.0643	TC3	.9938	BAU	.3042	SGT	1942.9	SGR	982.2	SG3	808.3	ST	41.7	SR	12.7	SS	56.7
RDE	-.1312	RRA	.3762	RC3	-.9498	FAU	.17976	RRT	-.7564	RRF	.8636	RTF	-.8531	CRT	.1841	CRS	.3792	CST	.9773
FDE	2.1351	FRA	2.9107	FC3	-9.4013	BSP	3637	SGB	2177.1	R23	-.2296	R13	.8869	LSA	70.1	MSA	13.9	SSA	1.9
BDE	.4958	BRA	1.1288	BC3	1.3747	FSP	1284	SG1	2093.8	SG2	596.2	THA	157.11	EL1	41.7	EL2	12.5	ALF	3.53

LAUNCH DATE JUL 20 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 428.640 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.205	GAL	-1.85	AZL	88.87	HCA	136.83	SMA	206.23	ECC	.26475	INC	1.1268	V1	29.308
RP	229.09	LAP	.77	LOP	73.98	VP	22.696	GAP	14.00	AZP	90.82	TAL	351.14	TAP	127.97	RCA	151.63	APO	260.83	V2	24.008
RC	138.457	GL	9.30	GP	-14.32	ZAL	103.56	ZAP	146.75	ETS	204.82	ZAE	162.29	ETE	297.68	ZAC	69.05	ETC	283.25	LVI	-2.87

PLANETOCENTRIC CONIC

C3	16.328	VHL	4.041	DLA	23.90	RAL	35.30	RAD	6641.2	VEL	11.678	PTH	6.71	VHP	3.888	DPA	2.21	RAP	45.94	ECC	1.2687

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 12 55	3575.60	-47.15	135.19	271.49	97.31	13 12 30	2575.6	-38.89	103.86
60.00	12 22 8	3551.03	-40.29	133.67	272.18	91.05	13 21 19	2551.0	-35.46	103.68
70.00	12 37 21	3506.21	-33.93	129.83	271.96	85.83	13 35 47	2506.2	-32.10	101.24
80.00	13 6 45	3413.96	-28.82	122.20	271.32	81.85	14 3 39	2414.0	-29.30	94.78
90.00	14 8 32	3214.45	-26.66	107.16	270.93	80.19	15 2 6	2214.5	-28.10	80.24
100.00	15 49 37	2888.44	-28.82	83.57	271.32	81.85	16 37 45	1888.4	-29.30	56.15
110.00	17 36 47	2553.03	-33.93	58.75	271.96	85.83	18 19 20	1553.0	-32.10	30.16

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4805	TRA	-1.0453	TC3	.9974	BAU	.3118	SGT	1934.5	SGR	1032.3	SG3	848.0	ST	41.9	SR	11.8	SS	59.3
RDE	-.1061	RRA	.3872	RC3	-1.0222	FAU	.18728	RRT	-.7696	RRF	.8810	RTF	-.8524	CRT	.0721	CRS	.2761	CST	.9765
FDE	2.2804	FRA	2.9878	FC3	-9.9296	BSP	3667	SGB	2192.7	R23	-.2389	R13	.8909	LSA	72.2	MSA	13.6	SSA	1.9
BDE	.4921	BRA	1.1147	BC3	1.4282	FSP	1355	SG1	2107.6	SG2	605.0	THA	155.52	EL1	41.9	EL2	11.8	ALF	1.26

LAUNCH DATE JUL 20 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 432.329 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.177	GAL	-1.82	AZL	88.81	HCA	137.86	SMA	205.64	ECC	.26258	INC	1.1939	V1	29.308
RP	229.48	LAP	.80	LOP	75.01	VP	22.612	GAP	13.72	AZP	90.89	TAL	351.25	TAP	129.11	RCA	151.65	APO	259.64	V2	23.967
RC	141.241	GL	9.91	GP	-14.92	ZAL	103.33	ZAP	145.49	ETS	204.70	ZAE	162.13	ETE	294.05	ZAC	68.49	ETC	283.32	LVI	-2.34

PLANETOCENTRIC CONIC

C3	16.124	VHL	4.015	DLA	24.41	RAL	34.86	RAD	6641.1	VEL	11.669	PTH	6.71	VHP	3.800	DPA	1.60	RAP	46.01	ECC	1.2654

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 8 43	3583.68	-47.21	135.98	271.26	96.70	13 8 27	2583.9	-39.17	104.45
60.00	12 17 0	3561.85	-40.30	134.59	271.86	90.42	13 16 21	2561.8	-35.72	104.48
70.00	12 30 48	3521.17	-33.85	130.99	271.54	85.15	13 29 29	2521.2	-32.31	102.36
80.00	12 58 10	3435.27	-28.61	123.74	270.80	81.06	13 55 26	2435.3	-29.44	96.35
90.00	13 58 33	3240.30	-26.34	108.98	270.36	79.32	14 52 33	2240.3	-28.19	82.13
100.00	15 41 2	2909.74	-28.61	85.11	270.80	81.06	16 29 32	1909.7	-29.44	57.72
110.00	17 30 14	2567.99	-33.85	59.91	271.54	85.13	18 13 2	1568.0	-32.31	31.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4777	TRA	-1.0203	TC3	1.0093	BAU	.3219	SGT	1917.7	SGR	1087.7	SG3	888.9	ST	41.7	SR	11.0	SS	61.7
RDE	-.0798	RRA	.3980	RC3	-1.1006	FAU	.19527	RRT	-.7842	RRF	.8966	RTF	-.8537	CRT	-.0691	CRS	.1440	CST	.9752
FDE	2.4296	FRA	3.0558	FC	-10.4843	BSP	3641	SGB	2204.7	R23	-.2417	R13	.8969	LSA	74.1	MSA	13.3	SSA	1.8
BDE	.4844	BRA	1.0951	BC3	1.4933	FSP	1421	SG1	2118.3	SG2	611.0	THA	153.66	EL1	41.7	EL2	11.0	ALF	178.87

LAUNCH DATE JUL 20 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 436.027 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.151	GAL	-1.78	AZL	88.74	HCA	138.89	SMA	205.09	ECC	.26054	INC	1.2635	V1	29.308
RP	229.86	LAP	.83	LOP	76.03	VP	22.531	GAP	13.45	AZP	90.95	TAL	351.36	TAP	130.25	RCA	151.66	APO	258.53	V2	23.927
RC	144.046	GL	10.55	GP	-15.54	ZAL	103.11	ZAP	144.19	ETS	204.59	ZAE	161.88	ETE	290.33	ZAC	67.90	ETC	283.39	LVI	-1.78

PLANETOCENTRIC CONIC

C3	15.941	VHL	3.993	DLA	24.95	RAL	34.43	RAD	6641.0	VEL	11.661	PTH	6.70	VHP	3.717	DPA	.98	RAP	46.07	ECC	1.2623

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 23	3593.04	-47.28	136.85	271.09	96.03	13 4 16	2593.0	-39.48	105.12
60.00	12 11 38	3573.74	-40.30	135.60	271.57	89.74	13 11 12	2573.7	-35.99	105.37
70.00	12 23 53	3537.65	-33.75	132.28	271.15	84.40	13 22 50	2537.6	-32.53	103.59
80.00	12 48 55	3459.08	-28.34	125.46	270.30	80.20	13 46 34	2459.1	-29.58	98.11
90.00	13 47 33	3269.69	-25.96	111.05	269.79	78.36	14 42 3	2269.7	-28.25	84.27
100.00	15 31 47	2933.55	-28.34	86.83	270.30	80.20	16 20 40	1933.5	-29.58	59.48
110.00	17 23 19	2584.46	-33.75	61.18	271.15	84.40	18 6 23	1584.5	-32.53	32.51

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4820	TRA	-1.0033	TC3	.9943	BAU	.3291	SGT	1905.4	SGR	1147.6	SG3	930.4	ST	42.0	SR	10.5	SS	64.5
RDE	-.0514	RRA	.4102	RC3	-1.1815	FAU	.20307	RRT	-.7907	RRF	.9104	RTF	-.8497	CRT	-.2402	CRS	-.0266	CST	.9746
FDE	2.5928	FRA	3.1307	FC	-11.0266	BSP	3716	SGB	2224.3	R23	-.2531	R13	.8999	LSA	76.5	MSA	13.0	SSA	1.9
BDE	.4847	BRA	1.0839	BC3	1.5442	FSP	1499	SG1	2134.0	SG2	627.3	THA	151.89	EL1	42.1	EL2	10.2	ALF	176.35

LAUNCH DATE JUL 20 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 16 1974

DISTANCE 439.735

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.126 GAL -1.75 AZL 88.66 HCA 139.91 SMA 204.57 ECC .25861 INC 1.3358 V1 29.308
RP 230.25 LAP .86 LOP 77.06 VP 22.451 GAP 13.17 AZP 91.02 TAL 351.46 TAP 131.37 RCA 151.67 APO 257.48 V2 23.887
RC 146.870 GL 11.21 GP -16.20 ZAL 102.69 ZAP 142.87 ETS 204.48 ZAE 161.54 ETE 286.56 ZAC 67.30 ETC 283.47 LVI -1.20

PLANETOCENTRIC CONIC

C3 15.777 VHL 3.972 DLA 25.51 RAL 34.00 RAD 6640.9 VEL 11.654 PTH 6.69 VHP 3.636 DPA .29 RAP 46.11 ECC 1.2596

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 59 53	3603.09	-47.35	137.81	270.96	95.29	12 59 56	2603.1	-39.81	105.85
60.00	12 6 1	3586.74	-40.29	136.71	271.33	88.99	13 5 48	2586.7	-36.28	106.35
70.00	12 16 32	3555.73	-33.62	133.66	270.78	83.58	13 15 48	2555.7	-32.76	104.95
80.00	12 38 50	3485.76	-28.02	127.38	269.80	79.24	13 36 55	2485.8	-29.70	100.08
90.00	13 35 16	3303.46	-25.47	113.40	269.21	77.28	14 30 20	2303.5	-28.28	86.74
100.00	15 21 42	2960.23	-28.02	88.75	269.80	79.24	16 11 2	1960.2	-29.70	61.45
110.00	17 15 58	2602.55	-33.62	62.58	270.78	83.58	17 59 21	1602.5	-32.76	33.87

DIFFERENTIAL CORRECTIONS

TDE -.4831 TRA -.9826 TC3 .9824 BAU .3383
RDE -.0209 RRA .4228 RC3-1.2677 FAU .21114
FDE 2.7668 FRA 3.2012 FC-11.5857 BSP 3755
BDE .4835 BRA 1.0696 BC3 1.6038 FSP 1575

MID-COURSE EXECUTION ACCURACY

SGT 1867.0 SGR 1213.1 SG3 973.0
RRT -.7977 RRF .9227 RTF -.8470
SGB 2243.3 R23 -.2590 R13 .9045
SG1 2149.4 SG2 642.3 THA 149.89

ORBIT DETERMINATION ACCURACY

ST 42.1 SR 10.4 SS 67.3
CRT -.4311 CRS -.2241 CST .9737
LSA 79.0 MSA 12.7 SSA 1.9
EL1 42.3 EL2 9.3 ALF 173.63

LAUNCH DATE JUL 20 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 18 1974

DISTANCE 443.451

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.103 GAL -1.72 AZL 88.59 HCA 140.93 SMA 204.08 ECC .25679 INC 1.4110 V1 29.308
RP 230.63 LAP .89 LOP 78.08 VP 22.374 GAP 12.90 AZP 91.10 TAL 351.56 TAP 132.49 RCA 151.68 APO 256.49 V2 23.847
RC 149.713 GL 11.89 GP -16.88 ZAL 102.69 ZAP 141.52 ETS 204.37 ZAE 161.11 ETE 282.77 ZAC 66.66 ETC 283.56 LVI -.60

PLANETOCENTRIC CONIC

C3 15.633 VHL 3.954 DLA 26.10 RAL 33.56 RAD 6640.8 VEL 11.648 PTH 6.69 VHP 3.560 DPA -.43 RAP 46.14 ECC 1.2573

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 55 12	3614.06	-47.41	138.87	270.89	94.49	12 55 26	2614.1	-40.16	106.67
60.00	12 0 7	3600.93	-40.27	137.92	271.12	88.17	13 0 8	2600.9	-36.59	107.43
70.00	12 8 43	3575.60	-33.46	135.19	270.44	82.69	13 8 18	2575.6	-32.99	106.46
80.00	12 27 44	3515.90	-27.62	129.53	269.29	78.18	13 26 20	2515.9	-29.79	102.32
90.00	13 21 14	3343.04	-24.85	116.13	268.59	76.04	14 16 57	2343.0	-28.25	89.64
100.00	15 10 35	2990.37	-27.62	90.90	269.29	78.18	16 0 26	1990.4	-29.79	63.68
110.00	17 8 9	2622.42	-33.46	64.11	270.44	82.69	17 51 51	1622.4	-32.99	35.38

DIFFERENTIAL CORRECTIONS

TDE -.4827 TRA -.9601 TC3 .9644 BAU .3482
RDE .0116 RRA .4357 RC3-1.3583 FAU .21924
FDE 2.9497 FRA 3.2667 FC-12.1412 BSP 3780
BDE .4828 BRA 1.0543 BC3 1.6659 FSP 1650

MID-COURSE EXECUTION ACCURACY

SGT 1863.0 SGR 1283.8 SG3 1015.8
RRT -.8027 RRF .9335 RTF -.8436
SGB 2262.5 R23 -.2625 R13 .9096
SG1 2164.4 SG2 659.0 THA 147.70

ORBIT DETERMINATION ACCURACY

ST 42.0 SR 10.7 SS 70.2
CRT -.6146 CRS -.4242 CST .9726
LSA 81.6 MSA 12.5 SSA 1.8
EL1 42.5 EL2 8.3 ALF 170.74

LAUNCH DATE JUL 20 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 20 1974

DISTANCE 447.174

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.081 GAL -1.69 AZL 88.51 HCA 141.95 SMA 203.63 ECC .25507 INC 1.4893 V1 29.308
RP 231.01 LAP .92 LOP 79.10 VP 22.299 GAP 12.63 AZP 91.17 TAL 351.65 TAP 133.60 RCA 151.69 APO 255.56 V2 23.807
RC 152.572 GL 12.61 GP -17.60 ZAL 102.50 ZAP 140.13 ETS 204.26 ZAE 160.58 ETE 279.01 ZAC 66.01 ETC 283.66 LVI .02

PLANETOCENTRIC CONIC

C3 15.508 VHL 3.938 DLA 26.71 RAL 33.12 RAD 6640.8 VEL 11.643 PTH 6.68 VHP 3.488 DPA -1.19 RAP 46.15 ECC 1.2552

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 50 18	3626.02	-47.47	140.02	270.86	93.60	12 50 44	2626.0	-40.54	107.56
60.00	11 53 55	3616.38	-40.22	139.23	270.94	87.28	12 54 11	2616.4	-36.91	108.61
70.00	12 0 20	3597.46	-33.25	136.86	270.10	81.72	13 0 18	2597.5	-33.22	108.12
80.00	12 15 20	3550.36	-27.11	131.97	268.77	76.99	13 14 30	2550.4	-29.85	104.88
90.00	13 4 39	3391.03	-24.02	119.40	267.90	74.61	14 1 10	2391.0	-28.12	93.14
100.00	14 58 12	3024.84	-27.11	93.33	268.77	76.99	15 48 37	2024.8	-29.85	66.24
110.00	16 59 46	2644.28	-33.25	65.78	270.10	81.72	17 43 51	1644.3	-33.22	37.04

DIFFERENTIAL CORRECTIONS

TDE -.4802 TRA -.9363 TC3 .9444 BAU .3595
RDE .0464 RRA .4490 RC3-1.4543 FAU .22752
FDE 3.1416 FRA 3.3278 FC-12.7012 BSP 3809
BDE .4824 BRA 1.0384 BC3 1.7341 FSP 1728

MID-COURSE EXECUTION ACCURACY

SGT 1834.9 SGR 1360.7 SG3 1059.4
RRT -.8068 RRF .9429 RTF -.8400
SGB 2284.4 R23 -.2626 R13 .9155
SG1 2182.1 SG2 676.0 THA 145.31

ORBIT DETERMINATION ACCURACY

ST 41.8 SR 11.6 SS 73.2
CRT -.7648 CRS -.5988 CST .9713
LSA 84.2 MSA 12.3 SSA 1.8
EL1 42.7 EL2 7.3 ALF 167.64

LAUNCH DATE JUL 20 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 22 1974

DISTANCE 450.905

HELIOCENTRIC CONIC — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 33.060 GAL -1.67 AZL 88.43 HCA 142.96 SMA 203.20 ECC .25345 INC 1.5709 V1 29.308
RP 231.39 LAP .95 LOP 80.11 VP 22.226 GAP 12.37 AZP 91.25 TAL 351.73 TAP 134.69 RCA 151.69 APO 254.70 V2 23.767
RC 155.447 GL 13.35 GP -18.36 ZAL 102.31 ZAP 138.71 ETS 204.14 ZAE 159.94 ETE 275.32 ZAC 65.32 ETC 283.77 LVI .67

PLANETOCENTRIC CONIC

C3 15.403 VHL 3.925 DLA 27.36 RAL 32.68 RAD 6640.7 VEL 11.638 PTH 6.68 VHP 3.420 DPA -1.98 RAP 46.15 ECC 1.2535

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 45 11	3638.99	-47.52	141.27	270.88	92.64	12 45 50	2639.0	-40.94	108.55
60.00	11 47 22	3633.20	-40.16	140.66	270.79	86.31	12 47 55	2633.2	-37.25	109.92
70.00	11 51 19	3621.56	-33.00	138.70	269.77	80.66	12 51 40	2621.6	-33.45	109.97
80.00	12 1 12	3590.48	-26.47	134.77	268.20	75.65	13 1 3	2590.5	-29.85	107.86
90.00	12 43 40	3453.24	-22.83	123.57	267.07	72.85	13 41 13	2453.2	-27.81	97.66
100.00	14 44 4	3064.95	-26.47	96.14	268.20	75.65	15 35 9	2064.9	-29.85	69.22
110.00	16 50 45	2668.38	-33.00	67.62	269.77	80.66	17 35 13	1668.4	-33.45	38.88

DIFFERENTIAL CORRECTIONS

TDE -.4709 TRA -.9051 TC3 .9334 BAU .3739
RDE .0829 RRA .4616 RC3-1.5577 FAU .23622
FDE 3.3359 FRA 3.3721 FC-13.2772 BSP 3774
BDE .4781 BRA 1.0160 BC3 1.8160 FSP 1796

MID-COURSE EXECUTION ACCURACY

SGT 1795.3 SGR 1444.0 SG3 1103.3
RRT -.8131 RRF .9511 RTF -.8389
SGB 2304.0 R23 -.2545 R13 .9233
SG1 2199.4 SG2 686.2 THA 142.55

ORBIT DETERMINATION ACCURACY

ST 41.0 SR 13.0 SS 76.2
CRT -.8694 CRS -.7297 CST .9692
LSA 86.6 MSA 12.1 SSA 1.8
EL1 42.6 EL2 6.2 ALF 164.22

LAUNCH DATE JUL 20 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 454.641 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.040	GAL	-1.65	AZL	88.34	HCA	143.97	SMA	202.79	ECC	.25193	INC	1.6862	V1	29.308
RP	231.77	LAP	.97	LOP	81.12	VP	22.154	GAP	12.10	AZP	91.34	TAL	351.81	TAP	135.78	RCA	151.70	APO	253.88	V2	23.728
RC	156.336	GL	14.12	GP	-19.15	ZAL	102.14	ZAP	137.26	ETS	204.02	ZAE	159.20	ETE	271.73	ZAC	64.61	ETC	283.88	LVI	1.38

PLANETOCENTRIC CONIC

C3	15.317	VHL	3.914	DLA	28.04	RAL	32.24	RAD	6640.7	VEL	11.635	PTH	6.67	VHP	3.356	DPA	-2.82	RAP	46.13	ECC	1.2521

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 39 50	3653.10	-47.56	142.63	270.97	91.59	12 40 44	2653.1	-41.37	109.63
60.00	11 40 26	3651.53	-40.07	142.21	270.68	85.26	12 41 17	2651.5	-37.60	111.35
70.00	11 41 32	3648.28	-32.69	140.72	269.46	79.51	12 42 20	2648.3	-33.66	112.02
80.00	11 44 34	3638.76	-25.61	138.10	267.56	74.10	12 45 12	2638.8	-29.74	111.44
90.00	12 11 9	3552.73	-20.69	130.08	265.84	70.28	13 10 21	2552.7	-26.97	104.82
100.00	14 27 25	3113.23	-25.61	99.47	267.56	74.10	15 19 19	2113.2	-29.74	72.81
110.00	16 40 58	2695.10	-32.69	69.64	269.46	79.51	17 25 53	1695.1	-33.66	40.94

DIFFERENTIAL CORRECTIONS

TDE	-.4755	TRA	-.8895	TC3	.8760	BAU	.3841												
RDE	.1252	RRA	.4778	RC3	-1.6588	FAU	.24379												
FDE	3.5642	FRA	3.4401	FC	-13.7793	BSP	3908												
BDE	.4917	BRA	1.0097	BC3	1.8759	FSP	1887												

MID-COURSE EXECUTION ACCURACY

SGT	1769.6	SGR	1532.1	SG3	1146.6						
RRT	-.8067	RRF	.9582	RTF	-.8281						
SGB	2340.7	R23	-.2580	R13	.9275						
SG1	2227.4	SG2	719.3	THA	140.08						

ORBIT DETERMINATION ACCURACY

ST	41.3	SR	15.1	SS	79.7						
CRT	-.9352	CRS	-.8262	CST	.9686						
LSA	90.3	MSA	11.9	SSA	1.7						
EL1	43.7	EL2	5.1	ALF	160.80						

LAUNCH DATE JUL 20 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 458.384 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.022	GAL	-1.62	AZL	88.25	HCA	144.98	SMA	202.41	ECC	.25050	INC	1.7454	V1	29.308
RP	232.14	LAP	1.00	LOP	82.13	VP	22.085	GAP	11.84	AZP	91.43	TAL	351.88	TAP	136.85	RCA	151.71	APO	253.12	V2	23.689
RC	161.238	GL	14.92	GP	-19.97	ZAL	101.97	ZAP	135.78	ETS	203.88	ZAE	158.35	ETE	268.28	ZAC	63.87	ETC	284.01	LVI	2.09

PLANETOCENTRIC CONIC

C3	15.250	VHL	3.905	DLA	28.75	RAL	31.79	RAD	6640.6	VEL	11.632	PTH	6.67	VHP	3.295	DPA	-3.70	RAP	46.11	ECC	1.2510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 34 13	3668.36	-47.57	144.11	271.09	90.45	12 35 21	2668.4	-41.82	110.82
60.00	11 33 3	3671.45	-39.94	143.89	270.59	84.13	12 34 15	2671.5	-37.95	112.92
70.00	11 30 49	3678.03	-32.30	142.95	269.13	78.24	12 32 7	2678.0	-33.85	114.32
80.00	11 23 43	3700.37	-24.39	142.27	266.76	72.23	12 25 24	2700.4	-29.46	116.00
84.62	10 51 59	3802.63	-18.43	147.46	264.42	67.54	11 55 22	2802.6	-26.08	122.93
100.00	14 6 35	3174.84	-24.39	103.64	266.76	72.23	14 59 30	2174.8	-29.46	77.36
110.00	16 30 16	2724.85	-32.30	71.87	269.13	78.24	17 15 41	1724.8	-33.85	43.24

DIFFERENTIAL CORRECTIONS

TDE	-.4695	TRA	-.8639	TC3	.8341	BAU	.3987												
RDE	.1687	RRA	.4924	RC3	-1.7688	FAU	.25195												
FDE	3.7855	FRA	3.4824	FC	-14.3029	BSP	3956												
BDE	.4989	BRA	.9944	BC3	1.9556	FSP	1963												

MID-COURSE EXECUTION ACCURACY

SGT	1728.8	SGR	1627.5	SG3	1189.7						
RRT	-.8038	RRF	.9643	RTF	-.8203						
SGB	2374.4	R23	-.2507	R13	.9342						
SG1	2255.4	SG2	742.1	THA	137.15						

ORBIT DETERMINATION ACCURACY

ST	40.7	SR	17.6	SS	83.0						
CRT	-.9711	CRS	-.8663	CST	.9667						
LSA	93.4	MSA	11.8	SSA	1.7						
EL1	44.2	EL2	3.9	ALF	157.02						

LAUNCH DATE JUL 20 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 462.131 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	33.004	GAL	-1.61	AZL	88.16	HCA	145.98	SMA	202.06	ECC	.24916	INC	1.8388	V1	29.308
RP	232.51	LAP	1.03	LOP	83.13	VP	22.017	GAP	11.58	AZP	91.52	TAL	351.94	TAP	137.92	RCA	151.71	APO	252.41	V2	23.650
RC	164.150	GL	15.75	GP	-20.83	ZAL	101.82	ZAP	134.27	ETS	203.74	ZAE	157.39	ETE	264.98	ZAC	63.10	ETC	284.15	LVI	2.78

PLANETOCENTRIC CONIC

C3	15.203	VHL	3.899	DLA	29.49	RAL	31.34	RAD	6640.6	VEL	11.630	PTH	6.67	VHP	3.239	DPA	-4.63	RAP	46.07	ECC	1.2502

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 28 17	3684.86	-47.57	145.70	271.27	89.22	12 29 42	2684.9	-42.29	112.12
60.00	11 25 10	3693.17	-39.78	145.71	270.53	82.90	12 26 43	2693.2	-38.31	114.65
70.00	11 18 58	3711.45	-31.81	145.43	268.78	76.85	12 20 50	2711.4	-34.01	116.92
80.00	10 52 55	3793.60	-22.32	148.42	265.57	69.63	11 56 8	2793.6	-28.70	122.82
81.27	10 23 23	3868.15	-18.89	153.97	264.12	66.93	11 28 11	2868.2	-26.75	129.41
100.00	13 35 47	3268.07	-22.32	109.79	265.57	69.63	14 30 15	2268.1	-28.70	84.19
110.00	16 18 25	2758.27	-31.81	74.35	268.78	76.85	17 4 23	1758.3	-34.01	45.84

DIFFERENTIAL CORRECTIONS

TDE	-.4634	TRA	-.8379	TC3	.7848	BAU	.4147												
RDE	.2165	RRA	.5071	RC3	-1.8832	FAU	.25993												
FDE	4.0217	FRA	3.5159	FC	-14.8012	BSP	4011												
BDE	.5115	BRA	.9794	BC3	2.0402	FSP	2037												

MID-COURSE EXECUTION ACCURACY

SGT	1684.9	SGR	1729.4	SG3	1232.2						
RRT	-.7984	RRF	.9695	RTF	-.[illegible]08						
SGB	2414.5	R23	-.2407	R13	.9412						
SG1	2289.7	SG2	766.4	THA	134.07						

ORBIT DETERMINATION ACCURACY

ST	40.1	SR	20.6	SS	86.5						
CRT	-.9890	CRS	-.9254	CST	.9647						
LSA	96.8	MSA	11.7	SSA	1.7						
EL1	45.0	EL2	2.7	ALF	153.02						

LAUNCH DATE JUL 20 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 465.884 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.988	GAL	-1.59	AZL	88.06	HCA	146.98	SMA	201.73	ECC	.24790	INC	1.9369	V1	29.308
RP	232.89	LAP	1.06	LOP	84.13	VP	21.951	GAP	11.32	AZP	91.62	TAL	352.00	TAP	138.98	RCA	151.72	APO	251.74	V2	23.612
RC	167.073	GL	16.63	GP	-21.74	ZAL	101.67	ZAP	132.73	ETS	203.58	ZAE	156.32	ETE	261.84	ZAC	62.29	ETC	284.30	LVI	3.55

PLANETOCENTRIC CONIC

C3	15.177	VHL	3.896	DLA	30.27	RAL	30.88	RAD	6640.6	VEL	11.629	PTH	6.67	VHP	3.187	DPA	-5.60	RAP	46.02	ECC	1.2498

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 22 0	3702.71	-47.54	147.43	271.50	87.90	12 23 43	2702.7	-42.77	113.56
60.00	11 16 42	3716.86	-39.56	147.69	270.48	81.58	12 18 39	2716.9	-38.68	116.56
70.00	11 5 39	3749.47	-31.18	148.22	268.39	75.31	12 8 9	2749.5	-34.12	119.88
78.73	10 2 11	3949.63	-19.37	158.76	263.85	66.28	11 8 0	2949.6	-27.46	134.16
78.73	10 2 11	3949.63	-19.37	158.76	263.85	66.28	11 8 0	2949.6	-27.46	134.16
78.73	10 2 11	3949.63	-19.37	158.76	263.85	66.28	11 8 0	2949.6	-27.46	134.16
110.00	16 5 6	2796.29	-31.18	77.14	268.39	75.31	16 51 42	1796.3	-34.12	48.80

DIFFERENTIAL CORRECTIONS

TDE	-.4547	TRA	-.8119	TC3	.7279	BAU	.4320												
RDE	.2681	RRA	.5227	RC3	-2.0008	FAU	.26752												
FDE	4.2659	FRA	3.5453	FC	-15.2604	BSP	4078												
BDE	.5278	BRA	.9656	BC3	2.1291	FSP	2110												

MID-COURSE EXECUTION ACCURACY

SGT	1637.1	SGR	1838.0	SG3	1273.3						
RRT	-.7904	RRF	.9741	RTF	-.7993						
SGB	2461.4	R23	-.2279	R13	.9482						
SG1	2330.9	SG2	790.7	THA	130.83						

ORBIT DETERMINATION ACCURACY

ST	39.4	SR	23.9	SS	90.1						
CRT	-.9963	CRS	-.9504	CST	.9622						
LSA	100.5	MSA	11.6	SSA	1.6						
EL1	46.0	EL2	1.8	ALF	148.75						

LAUNCH DATE JUL 20 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 469.641 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.972 GAL -1.57 AZL 87.96 HCA 147.98 SMA 201.42 ECC .24671 INC 2.0401 V1 29.308
RP 233.25 LAP 1.08 LOP 85.13 VP 21.887 GAP 11.06 AZP 91.73 TAL 352.04 TAP 140.02 RCA 151.72 APO 251.11 V2 23.573
RC 170.003 GL 17.53 GP -22.68 ZAL 101.53 ZAP 131.16 ETS 203.41 ZAE 155.15 ETE 258.89 ZAC 61.46 ETC 284.47 LVI 4.35

PLANETOCENTRIC CONIC

C3 15.171 VHL 3.895 DLA 31.09 RAL 30.41 RAD 6640.6 VEL 11.628 PTH 6.67 VHP 3.140 DPA -6.62 RAP 45.96 ECC 1.2497

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 15 20	3722.00	-47.48	149.29	271.77	86.46	12 17 22	2722.0	-43.28	115.14
60.00	11 7 33	3742.79	-39.28	149.83	270.45	80.14	12 9 55	2742.8	-39.03	118.67
70.00	10 50 21	3793.59	-30.38	151.40	267.92	73.59	11 53 35	2793.6	-34.15	123.33
76.52	9 44 15	4000.41	-19.87	162.80	263.61	65.59	10 50 55	3000.4	-28.18	138.17
76.52	9 44 15	4000.41	-19.87	162.80	263.61	65.59	10 50 55	3000.4	-28.18	138.17
76.52	9 44 15	4000.41	-19.87	162.80	263.61	65.59	10 50 55	3000.4	-28.18	138.17
110.00	15 49 48	2840.41	-30.38	80.32	267.92	73.59	16 37 8	1840.4	-34.15	52.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4433 TRA -.7838 TC3 .6663 BAU .4513 SGT 1583.4 SGR 1953.4 SG3 1312.8 ST 38.4 SR 27.7 SS 93.7
RDE .3242 RRA .5379 RC3-2.1228 FAU .27487 RRT -.7802 RRF .9779 RTF -.7860 CRT -.9972 CRS -.9666 CST .9591
FDE 4.5192 FRA 3.5603 FC-15.6848 BSP 4157 SGB 2514.5 R23 -.2118 R13 .9554 LSA 104.3 MSA 11.6 SSA 1.5
BDE .5492 BRA .9506 BC3 2.2249 FSP 2183 SG1 2379.5 SG2 813.1 THA 127.42 EL1 47.3 EL2 1.7 ALF 144.20

LAUNCH DATE JUL 20 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 473.402 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.958 GAL -1.56 AZL 87.85 HCA 148.97 SMA 201.13 ECC .24561 INC 2.1490 V1 29.308
RP 233.62 LAP 1.11 LOP 86.13 VP 21.824 GAP 10.80 AZP 91.84 TAL 352.09 TAP 141.06 RCA 151.73 APO 250.52 V2 23.536
RC 172.941 GL 18.48 GP -23.66 ZAL 101.40 ZAP 129.55 ETS 203.22 ZAE 153.89 ETE 256.11 ZAC 60.59 ETC 284.65 LVI 5.18

PLANETOCENTRIC CONIC

C3 15.188 VHL 3.897 DLA 31.95 RAL 29.93 RAD 6640.6 VEL 11.629 PTH 6.67 VHP 3.097 DPA -7.69 RAP 45.89 ECC 1.2500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 8 13	3742.88	-47.37	151.30	272.08	84.92	12 10 36	2742.9	-43.80	116.87
60.00	10 57 35	3771.26	-38.82	152.17	270.40	78.60	12 0 26	2771.3	-39.37	121.02
70.00	10 32 9	3846.51	-29.30	155.15	267.32	71.61	11 36 15	2846.5	-34.04	127.45
74.48	9 28 14	4044.93	-20.37	166.42	263.39	64.85	10 35 39	3044.9	-28.94	141.75
74.48	9 28 14	4044.93	-20.37	166.42	263.39	64.85	10 35 39	3044.9	-28.94	141.75
74.48	9 28 14	4044.93	-20.37	166.42	263.39	64.85	10 35 39	3044.9	-28.94	141.75
110.00	15 31 35	2893.33	-29.30	84.06	267.32	71.61	16 19 48	1893.3	-34.04	56.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4273 TRA -.7525 TC3 .6039 BAU .4730 SGT 1521.9 SGR 2075.8 SG3 1350.1 ST 37.0 SR 31.8 SS 97.2
RDE .3842 RRA .5519 RC3-2.2500 FAU .28204 RRT -.7682 RRF .9812 RTF -.7710 CRT -.9942 CRS -.9771 CST .9550
FDE 4.7729 FRA 3.5549 FC-16.0767 BSP 4228 SGB 2573.9 R23 -.1923 R13 .9626 LSA 108.1 MSA 11.5 SSA 1.5
BDE .5746 BRA .9332 BC3 2.3296 FSP 2245 SG1 2436.4 SG2 830.0 THA 123.84 EL1 48.7 EL2 2.6 ALF 139.37

LAUNCH DATE JUL 20 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 477.167 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.944 GAL -1.55 AZL 87.74 HCA 149.96 SMA 200.86 ECC .24457 INC 2.2638 V1 29.308
RP 233.99 LAP 1.13 LOP 87.12 VP 21.763 GAP 10.55 AZP 91.96 TAL 352.12 TAP 142.08 RCA 151.73 APO 249.98 V2 23.498
RC 175.886 GL 19.47 GP -24.69 ZAL 101.27 ZAP 127.92 ETS 203.00 ZAE 152.52 ETE 253.51 ZAC 59.69 ETC 284.84 LVI 6.04

PLANETOCENTRIC CONIC

C3 15.228 VHL 3.902 DLA 32.85 RAL 29.44 RAD 6640.6 VEL 11.631 PTH 6.67 VHP 3.058 DPA -8.81 RAP 45.81 ECC 1.2508

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 0 35	3765.48	-47.21	153.46	272.42	83.26	12 3 21	2765.5	-44.33	118.79
60.00	10 46 39	3802.70	-38.47	154.72	270.34	76.92	11 50 2	2802.7	-39.69	123.63
70.00	10 8 59	3914.27	-27.76	159.81	266.46	69.25	11 14 14	2914.3	-33.68	132.71
72.55	9 13 32	4085.10	-20.89	169.75	263.21	64.06	10 21 37	3085.1	-29.73	145.05
72.55	9 13 32	4085.10	-20.89	169.75	263.21	64.06	10 21 37	3085.1	-29.73	145.05
72.55	9 13 32	4085.10	-20.89	169.75	263.21	64.06	10 21 37	3085.1	-29.73	145.05
110.00	15 8 26	2961.09	-27.76	88.73	266.46	69.25	15 57 47	1961.1	-33.68	61.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4046 TRA -.7171 TC3 .5459 BAU .4980 SGT 1450.8 SGR 2206.4 SG3 1385.3 ST 35.2 SR 36.2 SS 100.8
RDE .4480 RRA .5644 RC3-2.3843 FAU .28923 RRT -.7559 RRF .9840 RTF -.7855 CRT -.9883 CRS -.9841 CST .9493
FDE 5.0229 FRA 3.5274 FC-16.4433 BSP 4260 SGB 2640.7 R23 -.1698 R13 .9694 LSA 111.9 MSA 11.5 SSA 1.4
BDE .6037 BRA .9125 BC3 2.4460 FSP 2286 SG1 2504.6 SG2 836.8 THA 120.14 EL1 50.3 EL2 3.9 ALF 134.18

LAUNCH DATE JUL 20 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 480.933 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.932 GAL -1.54 AZL 87.61 HCA 150.95 SMA 200.60 ECC .24360 INC 2.3854 V1 29.308
RP 234.35 LAP 1.16 LOP 88.11 VP 21.704 GAP 10.30 AZP 92.09 TAL 352.15 TAP 143.10 RCA 151.74 APO 249.47 V2 23.461
RC 178.836 GL 20.51 GP -25.76 ZAL 101.15 ZAP 126.27 ETS 202.76 ZAE 151.07 ETE 251.09 ZAC 58.75 ETC 285.05 LVI 6.95

PLANETOCENTRIC CONIC

C3 15.294 VHL 3.911 DLA 33.79 RAL 28.93 RAD 6640.7 VEL 11.634 PTH 6.67 VHP 3.024 DPA -9.97 RAP 45.74 ECC 1.2517

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 52 23	3790.03	-46.99	155.79	272.80	81.48	11 55 33	2790.0	-44.86	120.91
60.00	10 34 32	3837.75	-37.89	157.52	270.25	75.10	11 38 29	2837.7	-39.97	126.57
70.00	9 33 8	4020.30	-25.00	166.82	264.92	65.93	10 40 8	3020.3	-32.63	140.80
70.68	8 59 48	4122.13	-21.42	172.90	263.07	63.22	10 8 30	3122.1	-30.55	148.17
70.68	8 59 48	4122.13	-21.42	172.90	263.07	63.22	10 8 30	3122.1	-30.55	148.17
70.68	8 59 48	4122.13	-21.42	172.90	263.07	63.22	10 8 30	3122.1	-30.55	148.17
110.00	14 32 34	3067.12	-25.00	95.74	264.92	65.93	15 23 41	2067.1	-32.63	69.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3986 TRA -.7017 TC3 .4286 BAU .5190 SGT 1408.4 SGR 2341.4 SG3 1416.5 ST 34.6 SR 41.6 SS 105.0
RDE .5251 RRA .5844 RC3-2.5018 FAU .29347 RRT -.7216 RRF .9864 RTF -.7206 CRT -.9816 CRS -.9891 CST .9453
FDE 5.3294 FRA 3.5415 FC-16.6123 BSP 4521 SGB 2732.4 R23 -.1554 R13 .9742 LSA 117.5 MSA 11.6 SSA 1.3
BDE .6593 BRA .9131 BC3 2.5382 FSP 2380 SG1 2585.8 SG2 682.9 THA 116.84 EL1 53.8 EL2 5.1 ALF 129.68

LAUNCH DATE JUL 20 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 484.703 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.920	GAL	-1.53	AZL	87.49	HCA	151.93	SMA	200.37	ECC	.24270	INC	2.5142	V1	29.308
RP	234.71	LAP	1.18	LOP	89.09	VP	21.646	GAP	10.04	AZP	92.22	TAL	352.17	TAP	144.10	RCA	151.74	APO	249.00	V2	23.424
RC	181.791	GL	21.59	GP	-26.87	ZAL	101.04	ZAP	124.59	ETS	202.50	ZAE	149.53	ETE	248.83	ZAC	57.78	ETC	285.28	LVI	7.89

PLANETOCENTRIC CONIC

C3	15.387	VHL	3.923	DLA	34.79	RAL	28.41	RAD	6640.7	VEL	11.638	PTH	6.68	VHP	2.995	DPA	-11.19	RAP	45.66	ECC	1.2532

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 43 30	3816.71	-46.69	158.30	273.19	79.57	11 47 6	2816.7	-45.39	123.26
60.00	10 20 53	3877.14	-37.16	160.60	270.08	73.12	11 25 30	2877.1	-40.18	129.90
68.84	8 46 44	4156.87	-21.96	175.91	262.95	62.31	9 56 1	3156.9	-31.40	151.16
68.84	8 46 44	4156.87	-21.96	175.91	262.95	62.31	9 56 1	3156.9	-31.40	151.16
68.84	8 46 44	4156.87	-21.96	175.91	262.95	62.31	9 56 1	3156.9	-31.40	151.16
68.84	8 46 44	4156.87	-21.96	175.91	262.95	62.31	9 56 1	3156.9	-31.40	151.16
68.84	8 46 44	4156.87	-21.96	175.91	262.95	62.31	9 56 1	3156.9	-31.40	151.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3775	TRA	-.6724	TC3	.3375	BAU	.5458	SGT	1343.3	SGR	2484.4	SG3	1443.8	ST	32.9	SR	47.0	SS	108.8
RDE	.6042	RRA	.5978	RC3	-2.6318	FAU	.29841	RRT	-.6906	RRF	.9884	RTF	-.6879	CRT	-.9723	CRS	-.9923	CST	.9379
FDE	5.6062	FRA	3.4973	FC	-16.7904	BSP	4672	SGB	2824.3	R23	-.1346	R13	.9793	LSA	122.4	MSA	11.7	SSA	1.2
BDE	.7124	BRA	.8997	BC3	2.6534	FSP	2431	SG1	2676.5	SG2	901.8	THA	113.27	EL1	57.0	EL2	6.3	ALF	124.71

LAUNCH DATE JUL 20 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 488.476 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.909	GAL	-1.52	AZL	87.35	HCA	152.91	SMA	200.15	ECC	.24186	INC	2.6513	V1	29.308
RP	235.06	LAP	1.21	LOP	90.08	VP	21.589	GAP	9.79	AZP	92.36	TAL	352.19	TAP	145.10	RCA	151.74	APO	248.55	V2	23.387
RC	184.750	GL	22.73	GP	-28.03	ZAL	100.93	ZAP	122.89	ETS	202.20	ZAE	147.91	ETE	246.72	ZAC	56.77	ETC	285.52	LVI	8.88

PLANETOCENTRIC CONIC

C3	15.509	VHL	3.938	DLA	35.84	RAL	27.86	RAD	6640.8	VEL	11.643	PTH	6.68	VHP	2.971	DPA	-12.45	RAP	45.58	ECC	1.2552

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 33 47	3845.79	-46.30	161.00	273.58	77.53	11 37 53	2845.8	-45.91	125.87
60.00	10 5 14	3922.16	-36.21	164.05	269.79	70.95	11 10 37	2922.2	-40.29	133.72
67.01	8 34 12	4189.71	-22.50	178.83	262.87	61.35	9 44 2	3189.7	-32.28	154.06
67.01	8 34 12	4189.71	-22.50	178.83	262.87	61.35	9 44 2	3189.7	-32.28	154.06
67.01	8 34 12	4189.71	-22.50	178.83	262.87	61.35	9 44 2	3189.7	-32.28	154.06
67.01	8 34 12	4189.71	-22.50	178.83	262.87	61.35	9 44 2	3189.7	-32.28	154.06
67.01	8 34 12	4189.71	-22.50	178.83	262.87	61.35	9 44 2	3189.7	-32.28	154.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3525	TRA	-.6435	TC3	.2424	BAU	.5749	SGT	1277.9	SGR	2635.8	SG3	1467.5	ST	30.9	SR	53.0	SS	112.6
RDE	.6911	RRA	.6113	RC3	-2.7622	FAU	.30254	RRT	-.6525	RRF	.9902	RTF	-.6482	CRT	-.9604	CRS	-.9946	CST	.9277
FDE	5.8876	FRA	3.4434	FC	-16.8884	BSP	4848	SGB	2929.3	R23	-.1141	R13	.9836	LSA	127.7	MSA	11.8	SSA	1.2
BDE	.7758	BRA	.8876	BC3	2.7728	FSP	2478	SG1	2781.9	SG2	917.5	THA	109.80	EL1	60.9	EL2	7.5	ALF	119.78

LAUNCH DATE JUL 20 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 492.251 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.899	GAL	-1.51	AZL	87.20	HCA	153.89	SMA	199.94	ECC	.24108	INC	2.7973	V1	29.308
RP	235.42	LAP	1.23	LOP	91.06	VP	21.534	GAP	9.55	AZP	92.51	TAL	352.19	TAP	146.08	RCA	151.74	APO	248.14	V2	23.351
RC	187.714	GL	23.93	GP	-29.23	ZAL	100.83	ZAP	121.17	ETS	201.87	ZAE	146.21	ETE	244.75	ZAC	55.72	ETC	285.78	LVI	9.90

PLANETOCENTRIC CONIC

C3	15.663	VHL	3.958	DLA	36.93	RAL	27.28	RAD	6640.8	VEL	11.649	PTH	6.69	VHP	2.952	DPA	-13.76	RAP	45.51	ECC	1.2578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 23 7	3877.64	-45.79	163.90	273.94	75.34	11 27 45	2877.6	-46.40	128.79
60.00	9 46 47	3974.96	-34.96	167.98	269.31	68.53	10 53 2	2975.0	-40.25	136.21
65.18	8 22 4	4221.12	-23.06	181.69	262.81	60.31	9 32 25	3221.1	-33.20	156.92
65.18	8 22 4	4221.12	-23.06	181.69	262.81	60.31	9 32 25	3221.1	-33.20	156.92
65.18	8 22 4	4221.12	-23.06	181.69	262.81	60.31	9 32 25	3221.1	-33.20	156.92
65.18	8 22 4	4221.12	-23.06	181.69	262.81	60.31	9 32 25	3221.1	-33.20	156.92
65.18	8 22 4	4221.12	-23.06	181.69	262.81	60.31	9 32 25	3221.1	-33.20	156.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3231	TRA	-.6138	TC3	.1400	BAU	.6059	SGT	1211.2	SGR	2792.6	SG3	1485.2	ST	28.7	SR	59.4	SS	116.3
RDE	.7854	RRA	.6228	RC3	-2.8902	FAU	.30557	RRT	-.6029	RRF	.9917	RTF	-.5971	CRT	-.9447	CRS	-.9961	CST	.9136
FDE	6.1633	FRA	3.3653	FC	-16.8892	BSP	5031	SGB	3044.0	R23	-.0944	R13	.9872	LSA	133.2	MSA	11.9	SSA	1.1
BDE	.8492	BRA	.8744	BC3	2.8936	FSP	2510	SG1	2898.0	SG2	931.2	THA	106.39	EL1	65.4	EL2	8.5	ALF	115.01

LAUNCH DATE JUL 20 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 496.028 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.889	GAL	-1.51	AZL	87.05	HCA	154.86	SMA	199.75	ECC	.24035	INC	2.9535	V1	29.308
RP	235.77	LAP	1.25	LOP	92.03	VP	21.480	GAP	9.30	AZP	92.67	TAL	352.19	TAP	147.06	RCA	151.74	APO	247.76	V2	23.315
RC	190.680	GL	25.18	GP	-30.49	ZAL	100.72	ZAP	119.44	ETS	201.51	ZAE	144.44	ETE	242.91	ZAC	54.64	ETC	286.07	LVI	10.97

PLANETOCENTRIC CONIC

C3	15.854	VHL	3.982	DLA	38.09	RAL	26.67	RAD	6640.9	VEL	11.658	PTH	6.69	VHP	2.940	DPA	-15.13	RAP	45.44	ECC	1.2609

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 11 16	3912.71	-45.14	167.03	274.24	73.00	11 16 29	2912.7	-46.85	132.06
60.00	9 23 52	4039.86	-33.25	172.63	268.49	65.77	10 31 12	3039.9	-39.93	143.71
63.34	8 10 16	4251.27	-23.61	184.50	262.79	59.20	9 21 7	3251.3	-34.15	159.74
63.34	8 10 16	4251.27	-23.61	184.50	262.79	59.20	9 21 7	3251.3	-34.15	159.74
63.34	8 10 16	4251.27	-23.61	184.50	262.79	59.20	9 21 7	3251.3	-34.15	159.74
63.34	8 10 16	4251.27	-23.61	184.50	262.79	59.20	9 21 7	3251.3	-34.15	159.74
63.34	8 10 16	4251.27	-23.61	184.50	262.79	59.20	9 21 7	3251.3	-34.15	159.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2878	TRA	-.5831	TC3	.0387	BAU	.6395	SGT	1144.2	SGR	2957.4	SG3	1497.7	ST	26.2	SR	66.4	SS	119.9
RDE	.8887	RRA	.6328	RC3	-3.0170	FAU	.30766	RRT	-.5430	RRF	.9929	RTF	-.5355	CRT	-.9227	CRS	-.9972	CST	.8925
FDE	6.4359	FRA	3.2694	FC	-16.8002	BSP	5223	SGB	3171.1	R23	-.0759	R13	.9900	LSA	139.0	MSA	12.0	SSA	1.0
BDE	.9341	BRA	.8605	BC3	3.0172	FSP	2529	SG1	3029.1	SG2	938.1	THA	103.15	EL1	70.7	EL2	9.5	ALF	110.38

LAUNCH DATE JUL 20 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 499.805 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.880 GAL -1.51 AZL 86.68 HCA 156.83 SMA 199.58 ECC .23969 INC 3.1208 V1 29.308
RP 236.12 LAP 1.28 LOP 93.01 VP 21.428 GAP 9.05 AZP 92.85 TAL 352.19 TAP 148.02 RCA 151.74 APO 247.41 V2 23.279
RC 193.649 GL 26.50 GP -31.78 ZAL 100.62 ZAP 117.69 ETS 201.11 ZAE 142.60 ETE 241.18 ZAC 53.51 ETC 286.38 LVI 12.08

PLANETOCENTRIC CONIC

C3 16.087 VHL 4.011 DLA 39.31 RAL 26.03 RAD 6641.0 VEL 11.667 PTH 6.70 VHP 2.933 DPA -16.54 RAP 45.38 ECC 1.2647

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 57 59	3951.63	-44.31	170.41	274.45	70.51	11 3 51	2951.6	-47.22	135.75
60.00	8 52 2	4129.12	-30.59	178.69	266.95	62.37	10 0 51	3129.1	-39.04	151.12
61.47	7 58 39	4280.54	-24.17	187.30	262.81	58.00	9 10 0	3280.5	-35.13	162.57
61.47	7 58 39	4280.54	-24.17	187.30	262.81	58.00	9 10 0	3280.5	-35.13	162.57
61.47	7 58 39	4280.54	-24.17	187.30	262.81	58.00	9 10 0	3280.5	-35.13	162.57
61.47	7 58 39	4280.54	-24.17	187.30	262.81	58.00	9 10 0	3280.5	-35.13	162.57
61.47	7 58 39	4280.54	-24.17	187.30	262.81	58.00	9 10 0	3280.5	-35.13	162.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2516 TRA -.5562 TC3 -.0784 BAU .6742 SGT 1089.9 SGR 3127.0 SG3 1503.1 ST 23.7 SR 73.9 SS 123.5
RDE 1.0035 RRA .6415 RC3-3.1341 FAU .30802 RRT -.4617 RRF .9940 RTF -.4533 CRT -.8921 CRS -.9980 CST .8628
FDE 6.7094 FRA 3.1571 FC-16.5767 BSP 5483 SGB 3311.5 R23 -.0593 R13 .9922 LSA 145.4 MSA 12.2 SSA .9
BDE 1.0346 BRA .8491 BC3 3.1351 FSP 2551 SG1 3171.4 SG2 953.3 THA 100.06 EL1 77.0 EL2 10.3 ALF 106.24

LAUNCH DATE JUL 20 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 503.585 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.872 GAL -1.51 AZL 86.70 HCA 156.80 SMA 199.42 ECC .23907 INC 3.3008 V1 29.308
RP 236.46 LAP 1.30 LOP 93.98 VP 21.377 GAP 8.81 AZP 93.03 TAL 352.18 TAP 148.98 RCA 151.74 APO 247.09 V2 23.244
RC 196.619 GL 27.89 GP -33.13 ZAL 100.52 ZAP 115.94 ETS 200.66 ZAE 140.70 ETE 239.55 ZAC 52.35 ETC 286.71 LVI 13.23

PLANETOCENTRIC CONIC

C3 16.365 VHL 4.045 DLA 40.59 RAL 25.34 RAD 6641.2 VEL 11.679 PTH 6.71 VHP 2.933 DPA -18.01 RAP 45.34 ECC 1.2693

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 42 50	3995.25	-43.25	174.07	274.50	67.85	10 49 26	2995.3	-47.48	139.93
59.57	7 47 10	4309.11	-24.72	190.11	262.85	56.72	8 58 59	3309.1	-36.13	165.42
59.57	7 47 10	4309.11	-24.72	190.11	262.85	56.72	8 58 59	3309.1	-36.13	165.42
59.57	7 47 10	4309.11	-24.72	190.11	262.85	56.72	8 58 59	3309.1	-36.13	165.42
59.57	7 47 10	4309.11	-24.72	190.11	262.85	56.72	8 58 59	3309.1	-36.13	165.42
59.57	7 47 10	4309.11	-24.72	190.11	262.85	56.72	8 58 59	3309.1	-36.13	165.42
59.57	7 47 10	4309.11	-24.72	190.11	262.85	56.72	8 58 59	3309.1	-36.13	165.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2071 TRA -.5284 TC3 -.1902 BAU .7120 SGT 1039.7 SGR 3304.6 SG3 1502.1 ST 20.8 SR 82.0 SS 126.9
RDE 1.1280 RRA .6478 RC3-3.2487 FAU .30744 RRT -.3653 RRF .9949 RTF -.3556 CRT -.8424 CRS -.9986 CST .8132
FDE 6.9642 FRA 3.0242 FC-16.2639 BSP 5737 SGB 3464.3 R23 -.0444 R13 .9939 LSA 152.0 MSA 12.3 SSA .9
BDE 1.1468 BRA .8359 BC3 3.2542 FSP 2552 SG1 3328.4 SG2 960.9 THA 97.16 EL1 83.9 EL2 11.0 ALF 102.29

LAUNCH DATE JUL 20 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 507.366 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.864 GAL -1.51 AZL 86.51 HCA 157.77 SMA 199.27 ECC .23850 INC 3.4948 V1 29.308
RP 236.81 LAP 1.32 LOP 94.95 VP 21.327 GAP 8.56 AZP 93.24 TAL 352.16 TAP 149.93 RCA 151.74 APO 246.79 V2 23.209
RC 199.589 GL 29.35 GP -34.52 ZAL 100.42 ZAP 114.18 ETS 200.18 ZAE 138.75 ETE 238.00 ZAC 51.16 ETC 287.08 LVI 14.44

PLANETOCENTRIC CONIC

C3 16.697 VHL 4.086 DLA 41.94 RAL 24.59 RAD 6641.3 VEL 11.693 PTH 6.73 VHP 2.939 DPA -19.52 RAP 45.32 ECC 1.2748

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 25 14	4044.93	-41.90	178.07	274.30	65.00	10 32 39	3044.9	-47.58	144.73
57.63	7 35 45	4337.04	-25.26	192.93	262.93	55.33	8 48 2	3337.0	-37.17	168.32
57.63	7 35 45	4337.04	-25.26	192.93	262.93	55.33	8 48 2	3337.0	-37.17	168.32
57.63	7 35 45	4337.04	-25.26	192.93	262.93	55.33	8 48 2	3337.0	-37.17	168.32
57.63	7 35 45	4337.04	-25.26	192.93	262.93	55.33	8 48 2	3337.0	-37.17	168.32
57.63	7 35 45	4337.04	-25.26	192.93	262.93	55.33	8 48 2	3337.0	-37.17	168.32
57.63	7 35 45	4337.04	-25.26	192.93	262.93	55.33	8 48 2	3337.0	-37.17	168.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1505 TRA -.4948 TC3 -.2915 BAU .7536 SGT 985.6 SGR 3486.0 SG3 1492.4 ST 17.5 SR 90.3 SS 129.5
RDE 1.2594 RRA .6450 RC3-3.3634 FAU .30623 RRT -.2480 RRF .9957 RTF -.2467 CRT -.7493 CRS -.9989 CST .7190
FDE 7.1781 FRA 2.8414 FC-15.8779 BSP 5941 SGB 3622.7 R23 -.0311 R13 .9952 LSA 158.3 MSA 12.4 SSA .8
BDE 1.2684 BRA .8130 BC3 3.3760 FSP 2513 SG1 3495.3 SG2 952.3 THA 94.33 EL1 91.2 EL2 11.5 ALF 98.41

LAUNCH DATE JUL 20 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 511.148 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.857 GAL -1.51 AZL 86.29 HCA 158.73 SMA 199.13 ECC .23798 INC 3.7049 V1 29.308
RP 237.14 LAP 1.34 LOP 95.91 VP 21.278 GAP 8.32 AZP 93.45 TAL 352.13 TAP 150.88 RCA 151.74 APO 246.52 V2 23.174
RC 202.557 GL 30.89 GP -35.96 ZAL 100.31 ZAP 112.43 ETS 199.64 ZAE 136.75 ETE 236.54 ZAC 49.92 ETC 287.47 LVI 15.68

PLANETOCENTRIC CONIC

C3 17.092 VHL 4.134 DLA 43.37 RAL 23.78 RAD 6641.5 VEL 11.710 PTH 6.74 VHP 2.954 DPA -21.08 RAP 45.32 ECC 1.2813

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 4 9	4102.99	-40.13	182.52	273.70	61.92	10 12 32	3103.0	-47.41	150.34
55.64	7 24 18	4364.69	-25.79	195.78	263.03	53.84	8 37 3	3364.7	-38.23	171.29
55.64	7 24 18	4364.69	-25.79	195.78	263.03	53.84	8 37 3	3364.7	-38.23	171.29
55.64	7 24 18	4364.69	-25.79	195.78	263.03	53.84	8 37 3	3364.7	-38.23	171.29
55.64	7 24 18	4364.69	-25.79	195.78	263.03	53.84	8 37 3	3364.7	-38.23	171.29
55.64	7 24 18	4364.69	-25.79	195.78	263.03	53.84	8 37 3	3364.7	-38.23	171.29
55.64	7 24 18	4364.69	-25.79	195.78	263.03	53.84	8 37 3	3364.7	-38.23	171.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0977 TRA -.4740 TC3 -.4199 BAU .7939 SGT 977.4 SGR 3672.3 SG3 1474.7 ST 15.2 SR 99.7 SS 132.6
RDE 1.4125 RRA .6471 RC3-3.4488 FAU .30176 RRT -.1086 RRF .9963 RTF -.0971 CRT -.6028 CRS -.9992 CST .5719
FDE 7.4116 FRA 2.6802 FC-15.2848 BSP 6295 SGB 3800.2 R23 -.0193 R13 .9962 LSA 166.1 MSA 12.7 SSA .7
BDE 1.4159 BRA .8021 BC3 3.4743 FSP 2508 SG1 3674.0 SG2 971.2 THA 91.78 EL1 100.1 EL2 12.0 ALF 95.31

LAUNCH DATE JUL 20 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 514.928 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.851	GAL	-1.51	AZL	86.07	HCA	159.69	SMA	199.00	ECC	.23751	INC	3.9335	V1	29.308
RP	237.48	LAP	1.36	LOP	96.87	VP	21.232	GAP	8.08	AZP	93.69	TAL	352.10	TAP	151.79	RCA	151.74	APO	246.27	V2	23.140
RC	205.523	GL	32.52	GP	-37.45	ZAL	100.20	ZAP	110.68	ETS	199.06	ZAE	134.70	ETE	235.15	ZAC	48.64	ETC	287.90	LVI	16.98

PLANETOCENTRIC CONIC

C3	17.559	VHL	4.190	DLA	44.87	RAL	22.89	RAD	6641.7	VEL	11.730	PTH	6.78	VHP	2.976	DPA	-22.68	RAP	45.34	ECC	1.2890

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 37 31	4174.11	-37.72	187.62	272.43	58.53	9 47 5	3174.1	-46.81	157.10
53.59	7 12 47	4392.04	-26.29	198.68	263.16	52.23	8 25 59	3392.0	-39.31	174.36
53.59	7 12 47	4392.04	-26.29	198.68	263.16	52.23	8 25 59	3392.0	-39.31	174.36
53.59	7 12 47	4392.04	-26.29	198.68	263.16	52.23	8 25 59	3392.0	-39.31	174.36
53.59	7 12 47	4392.04	-26.29	198.68	263.16	52.23	8 25 59	3392.0	-39.31	174.36
53.59	7 12 47	4392.04	-26.29	198.68	263.16	52.23	8 25 59	3392.0	-39.31	174.36
53.59	7 12 47	4392.04	-26.29	198.68	263.16	52.23	8 25 59	3392.0	-39.31	174.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0323	TRA	-.4494	TC3	-.5344	BAU	.8373	SGT	976.9	SGR	3864.0	SG3	1448.6	ST	13.2	SR	109.6	SS	135.2
RDE	1.5793	RRA	.6416	RC3	-3.5266	FAU	.29623	RRT	.0411	RRF	.9969	RTF	.0529	CRT	-.3292	CRS	-.9994	CST	.2983
FDE	7.6115	FRA	2.4842	FC	-14.6051	BSP	6608	SGB	3985.6	R23	-.0092	R13	.9969	LSA	174.1	MSA	12.9	SSA	.6
BDE	1.5797	BRA	.7833	BC3	3.5668	FSP	2466	SG1	3864.3	SG2	976.0	THA	89.36	EL1	109.7	EL2	12.5	ALF	92.30

LAUNCH DATE JUL 20 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC DISTANCE 518.710 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.845	GAL	-1.52	AZL	85.82	HCA	160.65	SMA	198.89	ECC	.23708	INC	4.1829	V1	29.308
RP	237.81	LAP	1.39	LOP	97.83	VP	21.186	GAP	7.84	AZP	93.95	TAL	352.06	TAP	152.71	RCA	151.74	APO	246.04	V2	23.106
RC	208.485	GL	34.24	GP	-38.98	ZAL	100.08	ZAP	108.95	ETS	198.43	ZAE	132.62	ETE	233.81	ZAC	47.33	ETC	288.36	LVI	18.33

PLANETOCENTRIC CONIC

C3	18.113	VHL	4.256	DLA	46.45	RAL	21.91	RAD	6642.0	VEL	11.753	PTH	6.78	VHP	3.008	DPA	-24.33	RAP	45.40	ECC	1.2981

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 59 24	4272.32	-34.03	194.09	269.75	54.49	9 10 37	3272.3	-45.29	166.08
51.47	7 1 2	4419.41	-26.76	201.65	263.29	50.49	8 14 42	3419.4	-40.40	177.55
51.47	7 1 2	4419.41	-26.76	201.65	263.29	50.49	8 14 42	3419.4	-40.40	177.55
51.47	7 1 2	4419.41	-26.76	201.65	263.29	50.49	8 14 42	3419.4	-40.40	177.55
51.47	7 1 2	4419.41	-26.76	201.65	263.29	50.49	8 14 42	3419.4	-40.40	177.55
51.47	7 1 2	4419.41	-26.76	201.65	263.29	50.49	8 14 42	3419.4	-40.40	177.55
51.47	7 1 2	4419.41	-26.76	201.65	263.29	50.49	8 14 42	3419.4	-40.40	177.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0424	TRA	-.4266	TC3	-.6448	BAU	.8828	SGT	999.7	SGR	4060.0	SG3	1413.5	ST	12.9	SR	120.2	SS	137.3
RDE	1.7635	RRA	.6307	RC3	-3.5882	FAU	.28904	RRT	.1932	RRF	.9974	RTF	.2051	CRT	.0719	CRS	-.9996	CST	-.0996
FDE	7.7810	FRA	2.2688	FC	-13.8147	BSP	6965	SGB	4181.3	R23	-.0005	R13	.9974	LSA	182.5	MSA	13.0	SSA	.6
BDE	1.7640	BRA	.7614	BC3	3.6457	FSP	2418	SG1	4064.9	SG2	979.7	THA	87.11	EL1	120.2	EL2	12.8	ALF	89.55

LAUNCH DATE JUL 20 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC DISTANCE 522.491 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.840	GAL	-1.53	AZL	85.54	HCA	161.60	SMA	198.78	ECC	.23669	INC	4.4564	V1	29.308
RP	238.14	LAP	1.41	LOP	98.79	VP	21.141	GAP	7.60	AZP	94.23	TAL	352.02	TAP	153.62	RCA	151.73	APO	245.83	V2	23.073
RC	211.443	GL	36.07	GP	-40.57	ZAL	99.94	ZAP	107.23	ETS	197.74	ZAE	130.51	ETE	232.52	ZAC	45.98	ETC	288.67	LVI	19.72

PLANETOCENTRIC CONIC

C3	18.771	VHL	4.333	DLA	48.12	RAL	20.82	RAD	6642.3	VEL	11.781	PTH	6.81	VHP	3.051	DPA	-26.01	RAP	45.50	ECC	1.3089

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.29	6 49 2	4446.85	-27.17	204.69	263.43	48.62	8 3 9	3446.9	-41.48	180.90
49.29	6 49 2	4446.85	-27.17	204.69	263.43	48.62	8 3 9	3446.9	-41.48	180.90
49.29	6 49 2	4446.85	-27.17	204.69	263.43	48.62	8 3 9	3446.9	-41.48	180.90
49.29	6 49 2	4446.85	-27.17	204.69	263.43	48.62	8 3 9	3446.9	-41.48	180.90
49.29	6 49 2	4446.85	-27.17	204.69	263.43	48.62	8 3 9	3446.9	-41.48	180.90
49.29	6 49 2	4446.85	-27.17	204.69	263.43	48.62	8 3 9	3446.9	-41.48	180.90
49.29	6 49 2	4446.85	-27.17	204.69	263.43	48.62	8 3 9	3446.9	-41.48	180.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1276	TRA	-.4063	TC3	-.7504	BAU	.9306	SGT	1048.4	SGR	4258.0	SG3	1368.7	ST	14.8	SR	131.3	SS	138.8
RDE	1.9655	RRA	.6125	RC3	-3.6315	FAU	.28020	RRT	.3377	RRF	.9978	RTF	.4194	CRT	.4545	CRS	-.9997	CST	-.4756
FDE	7.9074	FRA	2.0329	FC	-12.9231	BSP	7309	SGB	4385.2	R23	.0070	R13	.9978	LSA	191.2	MSA	13.3	SSA	.5
BDE	1.9696	BRA	.7351	BC3	3.7083	FSP	2344	SG1	4273.5	SG2	983.2	THA	84.98	EL1	131.5	EL2	13.1	ALF	87.05

LAUNCH DATE JUL 20 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC DISTANCE 526.273 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.835	GAL	-1.53	AZL	85.24	HCA	162.55	SMA	198.69	ECC	.23634	INC	4.7577	V1	29.308
RP	238.47	LAP	1.43	LOP	99.75	VP	21.098	GAP	7.36	AZP	94.54	TAL	351.97	TAP	154.52	RCA	151.73	APO	245.64	V2	23.040
RC	214.394	GL	38.00	GP	-42.19	ZAL	99.79	ZAP	105.55	ETS	197.00	ZAE	128.37	ETE	231.27	ZAC	44.60	ETC	289.43	LVI	21.16

PLANETOCENTRIC CONIC

C3	19.554	VHL	4.422	DLA	49.88	RAL	19.58	RAD	6642.6	VEL	11.814	PTH	6.83	VHP	3.104	DPA	-27.74	RAP	45.65	ECC	1.3218

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.03	6 36 37	4474.62	-27.52	207.81	263.56	46.60	7 51 12	3474.6	-42.55	184.43
47.03	6 36 37	4474.62	-27.52	207.81	263.56	46.60	7 51 12	3474.6	-42.55	184.43
47.03	6 36 37	4474.62	-27.52	207.81	263.56	46.60	7 51 12	3474.6	-42.55	184.43
47.03	6 36 37	4474.62	-27.52	207.81	263.56	46.60	7 51 12	3474.6	-42.55	184.43
47.03	6 36 37	4474.62	-27.52	207.81	263.56	46.60	7 51 12	3474.6	-42.55	184.43
47.03	6 36 37	4474.62	-27.52	207.81	263.56	46.60	7 51 12	3474.6	-42.55	184.43
47.03	6 36 37	4474.62	-27.52	207.81	263.56	46.60	7 51 12	3474.6	-42.55	184.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2246	TRA	-.3880	TC3	-.8478	BAU	.9808	SGT	1120.5	SGR	4456.6	SG3	1314.2	ST	18.7	SR	142.9	SS	139.6
RDE	2.1881	RRA	.5834	RC3	-3.6547	FAU	.26977	RRT	.4673	RRF	.9981	RTF	.4785	CRT	.6966	CRS	-.9998	CST	-.7111
FDE	7.9871	FRA	1.7708	FC	-11.9437	BSP	7664	SGB	4595.3	R23	.0134	R13	.9981	LSA	200.2	MSA	13.4	SSA	.5
BDE	2.1996	BRA	.7007	BC3	3.7517	FSP	2253	SG1	4488.8	SG2	983.5	THA	82.96	EL1	143.5	EL2	13.4	ALF	84.74

LAUNCH DATE JUL 20 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC — DISTANCE 530.054 — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.830 GAL -1.54 AZL 84.91 HCA 163.50 SMA 198.60 ECC .23603 INC 5.0917 V1 29.308
RP 238.79 LAP 1.44 LOP 100.70 VP 21.055 GAP 7.13 AZP 94.68 TAL 351.91 TAP 155.41 RCA 151.73 APO 245.48 V2 23.008
RC 217.340 GL 40.05 GP -43.86 ZAL 99.63 ZAP 103.90 ETS 196.20 ZAE 126.22 ETE 230.05 ZAC 43.17 ETC 290.04 LVI 22.65

PLANETOCENTRIC CONIC

C3 20.492 VHL 4.527 DLA 51.73 RAL 18.18 RAD 6643.1 VEL 11.853 PTH 6.87 VHP 3.172 DPA -29.50 RAP 45.85 ECC 1.3372

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.69	6 23 39	4502.90	-27.78	211.02	263.64	44.43	7 38 42	3502.9	-43.58	188.17
44.69	6 23 39	4502.90	-27.78	211.02	263.64	44.43	7 38 42	3502.9	-43.58	188.17
44.69	6 23 39	4502.90	-27.78	211.02	263.64	44.43	7 38 42	3502.9	-43.58	188.17
44.69	6 23 39	4502.90	-27.78	211.02	263.64	44.43	7 38 42	3502.9	-43.58	188.17
44.69	6 23 39	4502.90	-27.78	211.02	263.64	44.43	7 38 42	3502.9	-43.58	188.17
44.69	6 23 39	4502.90	-27.78	211.02	263.64	44.43	7 38 42	3502.9	-43.58	188.17
44.69	6 23 39	4502.90	-27.78	211.02	263.64	44.43	7 38 42	3502.9	-43.58	188.17

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .3345 TRA -.3743 TC3 -.9370 BAU 1.0320 — SGT 1218.2 SGR 4655.4 SG3 1250.1 — ST 24.1 SR 155.2 SS 139.7
RDE 2.4365 RRA .5472 RC3-3.6486 FAU .25730 — RRT .5735 RRF .9984 RTF .5841 — CRT .8226 CRS -.9998 CST -.8325
FDE 8.0200 FRA 1.5048 FC-10.8703 BSP 8030 — SGB 4812.1 R23 .0189 R13 .9983 — LSA 209.8 NSA 13.6 SSA .4
BDE 2.4593 BRA .6630 BC3 3.7670 FSP 2146 — SG1 4710.0 SG2 986.4 THA 81.07 — EL1 156.5 EL2 13.6 ALF 82.66

LAUNCH DATE JUL 20 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC — DISTANCE 533.834 — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.827 GAL -1.55 AZL 84.54 HCA 164.44 SMA 198.52 ECC .23575 INC 5.4641 V1 29.308
RP 239.10 LAP 1.46 LOP 101.65 VP 21.014 GAP 6.89 AZP 95.27 TAL 351.85 TAP 156.29 RCA 151.72 APO 245.33 V2 22.975
RC 220.278 GL 42.22 GP -45.58 ZAL 99.44 ZAP 102.29 ETS 195.35 ZAE 124.07 ETE 228.85 ZAC 41.72 ETC 290.70 LVI 24.18

PLANETOCENTRIC CONIC

C3 21.621 VHL 4.650 DLA 53.67 RAL 16.56 RAD 6643.6 VEL 11.900 PTH 6.91 VHP 3.254 DPA -31.29 RAP 46.11 ECC 1.3558

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.27	6 9 58	4531.93	-27.92	214.33	263.64	42.10	7 25 30	3531.9	-44.54	192.16
42.27	6 9 58	4531.93	-27.92	214.33	263.64	42.10	7 25 30	3531.9	-44.54	192.16
42.27	6 9 58	4531.93	-27.92	214.33	263.64	42.10	7 25 30	3531.9	-44.54	192.16
42.27	6 9 58	4531.93	-27.92	214.33	263.64	42.10	7 25 30	3531.9	-44.54	192.16
42.27	6 9 58	4531.93	-27.92	214.33	263.64	42.10	7 25 30	3531.9	-44.54	192.16
42.27	6 9 58	4531.93	-27.92	214.33	263.64	42.10	7 25 30	3531.9	-44.54	192.16
42.27	6 9 58	4531.93	-27.92	214.33	263.64	42.10	7 25 30	3531.9	-44.54	192.16

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .4588 TRA -.3647 TC3-1.0136 BAU 1.0862 — SGT 1335.6 SGR 4855.2 SG3 1177.5 — ST 30.5 SR 168.0 SS 139.0
RDE 2.7135 RRA .4969 RC3-3.6187 FAU .24344 — RRT .6597 RRF .9987 RTF .6695 — CRT .8092 CRS -.9999 CST -.8960
FDE 7.9969 FRA 1.2220 FC3-9.7476 BSP 8401 — SGB 5035.6 R23 .0236 R13 .9985 — LSA 219.7 NSA 13.8 SSA .3
BDE 2.7521 BRA .6164 BC3 3.7580 FSP 2022 — SG1 4937.9 SG2 986.9 THA 79.28 — EL1 170.2 EL2 13.8 ALF 80.77

LAUNCH DATE JUL 20 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC — DISTANCE 537.613 — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.823 GAL -1.56 AZL 84.12 HCA 165.38 SMA 198.46 ECC .23551 INC 5.8821 V1 29.308
RP 239.42 LAP 1.48 LOP 102.60 VP 20.974 GAP 6.66 AZP 95.69 TAL 351.79 TAP 157.17 RCA 151.72 APO 245.20 V2 22.944
RC 223.209 GL 44.53 GP -47.33 ZAL 99.23 ZAP 100.73 ETS 194.45 ZAE 121.91 ETE 227.68 ZAC 40.24 ETC 291.44 LVI 25.76

PLANETOCENTRIC CONIC

C3 22.991 VHL 4.795 DLA 55.71 RAL 14.67 RAD 6644.1 VEL 11.957 PTH 6.96 VHP 3.355 DPA -33.11 RAP 46.44 ECC 1.3784

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.77	5 55 19	4561.99	-27.92	217.74	263.51	39.61	7 11 21	3562.0	-45.40	196.43
39.77	5 55 19	4561.99	-27.92	217.74	263.51	39.61	7 11 21	3562.0	-45.40	196.43
39.77	5 55 19	4561.99	-27.92	217.74	263.51	39.61	7 11 21	3562.0	-45.40	196.43
39.77	5 55 19	4561.99	-27.92	217.74	263.51	39.61	7 11 21	3562.0	-45.40	196.43
39.77	5 55 19	4561.99	-27.92	217.74	263.51	39.61	7 11 21	3562.0	-45.40	196.43
39.77	5 55 19	4561.99	-27.92	217.74	263.51	39.61	7 11 21	3562.0	-45.40	196.43
39.77	5 55 19	4561.99	-27.92	217.74	263.51	39.61	7 11 21	3562.0	-45.40	196.43

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .5995 TRA -.3612 TC3-1.0762 BAU 1.1426 — SGT 1471.5 SGR 5052.4 SG3 1096.1 — ST 37.6 SR 181.2 SS 137.2
RDE 3.0220 RRA .4327 RC3-3.5583 FAU .22796 — RRT .7270 RRF .9989 RTF .6062 — CRT .9262 CRS -.9999 CST -.9311
FDE 7.9060 FRA .9352 FC3-8.5840 BSP 8793 — SGB 5262.3 R23 .0275 R13 .9986 — LSA 229.9 NSA 13.9 SSA .3
BDE 3.0809 BRA .5636 BC3 3.7175 FSP 1888 — SG1 5168.8 SG2 987.6 THA 77.58 — EL1 184.5 EL2 13.9 ALF 79.04

LAUNCH DATE JUL 20 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC — DISTANCE 541.390 — EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.820 GAL -1.57 AZL 83.64 HCA 166.32 SMA 198.40 ECC .23531 INC 6.3550 V1 29.308
RP 239.73 LAP 1.50 LOP 103.54 VP 20.935 GAP 6.42 AZP 96.18 TAL 351.72 TAP 158.04 RCA 151.71 APO 245.08 V2 22.912
RC 226.132 GL 46.98 GP -49.12 ZAL 98.99 ZAP 99.23 ETS 193.49 ZAE 119.77 ETE 226.52 ZAC 38.72 ETC 292.25 LVI 27.38

PLANETOCENTRIC CONIC

C3 24.670 VHL 4.967 DLA 57.85 RAL 12.44 RAD 6644.9 VEL 12.027 PTH 7.02 VHP 3.477 DPA -34.95 RAP 46.85 ECC 1.4060

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.18	5 39 25	4593.34	-27.73	221.24	263.15	36.96	6 55 58	3593.3	-46.11	201.00
37.18	5 39 25	4593.34	-27.73	221.24	263.15	36.96	6 55 58	3593.3	-46.11	201.00
37.18	5 39 25	4593.34	-27.73	221.24	263.15	36.96	6 55 58	3593.3	-46.11	201.00
37.18	5 39 25	4593.34	-27.73	221.24	263.15	36.96	6 55 58	3593.3	-46.11	201.00
37.18	5 39 25	4593.34	-27.73	221.24	263.15	36.96	6 55 58	3593.3	-46.11	201.00
37.18	5 39 25	4593.34	-27.73	221.24	263.15	36.96	6 55 58	3593.3	-46.11	201.00
37.18	5 39 25	4593.34	-27.73	221.24	263.15	36.96	6 55 58	3593.3	-46.11	201.00

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .7587 TRA -.3638 TC3-1.1220 BAU 1.2003 — SGT 1621.8 SGR 5244.8 SG3 1006.7 — ST 45.4 SR 194.7 SS 134.3
RDE 3.3684 RRA .3517 RC3-3.4623 FAU .21078 — RRT .7798 RRF .9991 RTF .7884 — CRT .9484 CRS -.9999 CST -.9519
FDE 7.7433 FRA .6494 FC3-7.3970 BSP 9202 — SGB 5489.8 R23 .0307 R13 .9987 — LSA 240.4 NSA 14.1 SSA .3
BDE 3.4528 BRA .5060 BC3 3.6395 FSP 1743 — SG1 5400.6 SG2 986.0 THA 75.97 — EL1 199.4 EL2 14.0 ALF 77.48

LAUNCH DATE JUL 20 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 13 1974

HELIOCENTRIC CONIC DISTANCE 545.166 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.817	GAL	-1.59	AZL	83.11	HCA	167.25	SMA	198.34	ECC	.23513	INC	8.8946	V1	29.308
RP	240.03	LAP	1.52	LOP	104.48	VP	20.897	GAP	6.19	AZP	96.73	TAL	351.64	TAP	158.90	RCA	151.71	APO	244.98	V2	22.882
RC	229.048	GL	49.59	GP	-50.94	ZAL	98.71	ZAP	97.81	ETS	192.48	ZAE	117.64	ETE	225.36	ZAC	37.19	ETC	293.14	LVI	29.04

PLANETOCENTRIC CONIC

C3	26.749	VHL	5.172	DLA	60.06	RAL	9.76	RAD	6645.7	VEL	12.112	PTH	7.09	VHP	3.624	DPA	-36.80	RAP	47.34	ECC	1.4402

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.52	5 21 51	4626.38	-27.32	224.82	262.46	34.17	6 38 58	3626.4	-46.60	205.86
34.52	5 21 51	4626.38	-27.32	224.82	262.46	34.17	6 38 58	3626.4	-46.60	205.86
34.52	5 21 51	4626.38	-27.32	224.82	262.46	34.17	6 38 58	3626.4	-46.60	205.86
34.52	5 21 51	4626.38	-27.32	224.82	262.46	34.17	6 38 58	3626.4	-46.60	205.86
34.52	5 21 51	4626.38	-27.32	224.82	262.46	34.17	6 38 58	3626.4	-46.60	205.86
34.52	5 21 51	4626.38	-27.32	224.82	262.46	34.17	6 38 58	3626.4	-46.60	205.86
34.52	5 21 51	4626.38	-27.32	224.82	262.46	34.17	6 38 58	3626.4	-46.60	205.86

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	.9368	TRA	-.3752	TC3	-1.1488	BAU	1.2617	SGT	1784.1	SGR	5433.3	SG3	910.8			ST	53.4	SR	208.2	SS	130.1
RDE	3.7552	RRA	.2496	RC3	-3.3359	FAU	.19251	RRT	.8208	RRF	.9992	RTF	.8290			CRT	.9621	CRS	-.9999	CST	-.9648
FDE	7.4936	FRA	.3695	FC3	-6.2306	BSP	9584	SGB	5718.7	R23	.0330	R13	.9988			LSA	250.9	MSA	14.2	SSA	.2
BDE	3.8703	BRA	.4507	BC3	3.5282	FSP	1581	SG1	5633.6	SG2	983.0	THA	74.43			EL1	214.5	EL2	14.1	ALF	76.08

LAUNCH DATE JUL 20 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 15 1974

HELIOCENTRIC CONIC DISTANCE 548.939 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.815	GAL	-1.60	AZL	82.48	HCA	168.18	SMA	198.30	ECC	.23499	INC	7.5162	V1	29.308
RP	240.34	LAP	1.54	LOP	105.42	VP	20.860	GAP	5.96	AZP	97.36	TAL	351.56	TAP	159.75	RCA	151.70	APO	244.90	V2	22.851
RC	231.955	GL	52.36	GP	-52.78	ZAL	98.40	ZAP	96.46	ETS	191.43	ZAE	115.55	ETE	224.21	ZAC	35.64	ETC	294.13	LVI	30.73

PLANETOCENTRIC CONIC

C3	29.359	VHL	5.418	DLA	62.36	RAL	6.48	RAD	6646.8	VEL	12.219	PTH	7.17	VHP	3.802	DPA	-36.65	RAP	47.93	ECC	1.4832

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.79	5 2 6	4661.49	-26.63	228.43	261.27	31.27	6 19 47	3661.5	-46.82	210.99
31.79	5 2 6	4661.49	-26.63	228.43	261.27	31.27	6 19 47	3661.5	-46.82	210.99
31.79	5 2 6	4661.49	-26.63	228.43	261.27	31.27	6 19 47	3661.5	-46.82	210.99
31.79	5 2 6	4661.49	-26.63	228.43	261.27	31.27	6 19 47	3661.5	-46.82	210.99
31.79	5 2 6	4661.49	-26.63	228.43	261.27	31.27	6 19 47	3661.5	-46.82	210.99
31.79	5 2 6	4661.49	-26.63	228.43	261.27	31.27	6 19 47	3661.5	-46.82	210.99
31.79	5 2 6	4661.49	-26.63	228.43	261.27	31.27	6 19 47	3661.5	-46.82	210.99

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	1.1332	TRA	-.3966	TC3	-1.1555	BAU	1.3266	SGT	1954.7	SGR	5614.9	SG3	809.5			ST	61.5	SR	221.5	SS	124.2
RDE	4.1873	RRA	.1194	RC3	-3.1762	FAU	.17316	RRT	.8537	RRF	.9993	RTF	.8617			CRT	.9711	CRS	-1.0000	CST	-.9733
FDE	7.1468	FRA	.0987	FC3	-5.1060	BSP	9985	SGB	5945.4	R23	.0343	R13	.9988			LSA	260.9	MSA	14.2	SSA	.2
BDE	4.3379	BRA	.4142	BC3	3.3799	FSP	1412	SG1	5865.0	SG2	974.5	THA	72.96			EL1	229.4	EL2	14.2	ALF	74.86

LAUNCH DATE JUL 20 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 17 1974

HELIOCENTRIC CONIC DISTANCE 552.709 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.813	GAL	-1.62	AZL	81.76	HCA	169.11	SMA	198.26	ECC	.23488	INC	8.2403	V1	29.308
RP	240.63	LAP	1.55	LOP	106.36	VP	20.825	GAP	5.73	AZP	98.09	TAL	351.48	TAP	160.39	RCA	151.70	APO	244.83	V2	22.821
RC	234.852	GL	55.31	GP	-54.64	ZAL	98.04	ZAP	95.20	ETS	190.34	ZAE	113.51	ETE	223.07	ZAC	34.08	ETC	295.22	LVI	32.44

PLANETOCENTRIC CONIC

C3	32.687	VHL	5.717	DLA	64.69	RAL	2.41	RAD	6648.0	VEL	12.353	PTH	7.28	VHP	4.019	DPA	-40.49	RAP	48.62	ECC	1.5379

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.04	4 39 21	4699.15	-25.61	232.03	259.32	28.30	5 57 40	3699.2	-46.66	216.31
29.04	4 39 21	4699.15	-25.61	232.03	259.32	28.30	5 57 40	3699.2	-46.66	216.31
29.04	4 39 21	4699.15	-25.61	232.03	259.32	28.30	5 57 40	3699.2	-46.66	216.31
29.04	4 39 21	4699.15	-25.61	232.03	259.32	28.30	5 57 40	3699.2	-46.66	216.31
29.04	4 39 21	4699.15	-25.61	232.03	259.32	28.30	5 57 40	3699.2	-46.66	216.31
29.04	4 39 21	4699.15	-25.61	232.03	259.32	28.30	5 57 40	3699.2	-46.66	216.31
29.04	4 39 21	4699.15	-25.61	232.03	259.32	28.30	5 57 40	3699.2	-46.66	216.31

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	1.3426	TRA	-.4318	TC3	-1.1421	BAU	1.3961	SGT	2130.8	SGR	5788.6	SG3	704.5			ST	69.0	SR	233.8	SS	116.4
RDE	4.6652	RRA	-.0444	RC3	-2.9837	FAU	.15293	RRT	.8797	RRF	.9993	RTF	.8678			CRT	.9769	CRS	-1.0000	CST	-.9788
FDE	6.6875	FRA	-.1519	FC3	-4.0505	BSP	10369	SGB	6168.4	R23	.0343	R13	.9989			LSA	269.8	MSA	14.2	SSA	.2
BDE	4.8548	BRA	.4340	BC3	3.1948	FSP	1234	SG1	6092.8	SG2	962.5	THA	71.58			EL1	243.4	EL2	14.2	ALF	73.86

LAUNCH DATE JUL 20 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 19 1974

HELIOCENTRIC CONIC DISTANCE 556.476 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.812	GAL	-1.63	AZL	80.90	HCA	170.03	SMA	198.23	ECC	.23479	INC	9.0949	V1	29.308
RP	240.93	LAP	1.57	LOP	107.30	VP	20.790	GAP	5.49	AZP	98.96	TAL	351.40	TAP	161.43	RCA	151.69	APO	244.78	V2	22.792
RC	237.739	GL	58.45	GP	-56.50	ZAL	97.64	ZAP	94.03	ETS	189.22	ZAE	111.54	ETE	221.94	ZAC	32.54	ETC	296.43	LVI	34.17

PLANETOCENTRIC CONIC

C3	37.009	VHL	6.084	DLA	67.04	RAL	357.25	RAD	6649.6	VEL	12.526	PTH	7.41	VHP	4.285	DPA	-42.30	RAP	49.41	ECC	1.6091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.29	4 12 31	4739.89	-24.19	235.55	256.28	25.32	5 31 31	3739.9	-46.04	221.71
26.29	4 12 31	4739.89	-24.19	235.55	256.28	25.32	5 31 31	3739.9	-46.04	221.71
26.29	4 12 31	4739.89	-24.19	235.55	256.28	25.32	5 31 31	3739.9	-46.04	221.71
26.29	4 12 31	4739.89	-24.19	235.55	256.28	25.32	5 31 31	3739.9	-46.04	221.71
26.29	4 12 31	4739.89	-24.19	235.55	256.28	25.32	5 31 31	3739.9	-46.04	221.71
26.29	4 12 31	4739.89	-24.19	235.55	256.28	25.32	5 31 31	3739.9	-46.04	221.71
26.29	4 12 31	4739.89	-24.19	235.55	256.28	25.32	5 31 31	3739.9	-46.04	221.71

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	1.5521	TRA	-.4833	TC3	-1.1071	BAU	1.4734	SGT	2305.0	SGR	5954.4	SG3	598.1			ST	75.2	SR	244.0	SS	106.3
RDE	5.1759	RRA	-.2549	RC3	-2.7644	FAU	.13230	RRT	.9016	RRF	.9993	RTF	.9101			CRT	.9806	CRS	-1.0000	CST	-.9825
FDE	6.0908	FRA	-.3773	FC3	-3.0949	BSP	10719	SGB	6385.0	R23	.0323	R13	.9990			LSA	276.2	MSA	14.1	SSA	.1
BDE	5.4036	BRA	.5464	BC3	2.9779	FSP	1049	SG1	6315.4	SG2	940.0	THA	70.31			EL1	254.9	EL2	14.1	ALF	73.13

LAUNCH DATE JUL 20 1973 FLIGHT TIME 288.00 ARRIVAL DATE MAY 4 1974

HELIOCENTRIC CONIC DISTANCE 643.745 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.843	GAL	-2.47	AZL	99.32	HCA	191.28	SMA	198.85	ECC	.23922	INC	9.3204
RP	246.39	LAP	1.82	LOP	128.27	VP	20.245	GAP	.49	AZP	80.86	TAL	347.18	TAP	178.45	RCA	151.28	APO	246.42
RC	299.628	GL	-57.92	GP	52.40	ZAL	101.84	ZAP	77.17	ETS	199.70	ZAE	95.42	ETE	175.60	ZAC	139.29	ETC	292.04

V1	29.308																		
V2	22.249																		
LVI	-73.48																		

PLANETOCENTRIC CONIC

C3	39.334	VHL	6.272	DLA	-38.01	RAL	64.25	RAD	6650.4	VEL	12.618	PTH	7.47	VHP	3.904	DPA	51.35	RAP	344.88
ECC	1.6473																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 45 34	2471.14	-5.96	65.20	295.31	137.29	19 26 45	1471.1	12.41	49.38
60.00	20 51 15	2135.77	4.90	45.41	305.63	130.05	21 26 51	1135.8	20.38	26.47
63.46	22 38 38	1827.69	15.30	27.89	313.75	125.24	23 9 6	827.7	28.31	6.06
63.46	22 38 38	1827.69	15.30	27.89	313.75	125.24	23 9 6	827.7	28.31	6.06
63.46	22 38 38	1827.69	15.30	27.89	313.75	125.24	23 9 6	827.7	28.31	6.06
63.46	22 38 38	1827.69	15.30	27.89	313.75	125.24	23 9 6	827.7	28.31	6.06
63.46	22 38 38	1827.69	15.30	27.89	313.75	125.24	23 9 6	827.7	28.31	6.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.3530	TRA	3.9059	TC3	-3.1127	BAU	2.0347	SGT	6718.6	SGR	5390.9	SG3	716.7	ST	167.7	SR	107.9	SS	51.1
RDE	1.9146	RRA	-3.6275	RC3	2.2982	FAU	.17363	RRT	-.9846	RRF	-.9981	RTF	.9809	CRT	-.9786	CRS	.9984	CST	-.9654
FDE	-2.5709	FRA	5.4755	FC3	-3.8214	BSP	14842	SGB	8614.1	R23	.1173	R13	-.9913	LSA	204.7	MSA	21.3	SSA	.3
BDE	3.8611	BRA	5.3305	BC3	3.8692	FSP	1282	SG1	8582.5	SG2	736.7	THA	141.35	EL1	198.5	EL2	18.8	ALF	147.46

LAUNCH DATE JUL 20 1973 FLIGHT TIME 290.00 ARRIVAL DATE MAY 6 1974

HELIOCENTRIC CONIC DISTANCE 647.488 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.847	GAL	-2.51	AZL	98.67	HCA	192.16	SMA	198.92	ECC	.23959	INC	8.6731
RP	246.57	LAP	1.82	LOP	129.17	VP	20.232	GAP	.27	AZP	81.52	TAL	346.98	TAP	179.14	RCA	151.26	APO	246.58
RC	302.065	GL	-55.54	GP	50.51	ZAL	102.61	ZAP	75.82	ETS	200.24	ZAE	94.59	ETE	176.91	ZAC	137.58	ETC	291.28

V1	29.308																		
V2	22.232																		
LVI	-71.88																		

PLANETOCENTRIC CONIC

C3	36.017	VHL	6.001	DLA	-35.77	RAL	63.28	RAD	6649.3	VEL	12.486	PTH	7.38	VHP	3.718	DPA	49.72	RAP	346.47
ECC	1.5927																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 24 3	2510.45	-7.92	66.86	291.75	137.07	19 5 53	1510.5	10.46	51.10
60.00	20 11 19	2224.68	.99	49.67	300.25	130.29	20 48 24	1224.7	16.79	31.24
67.13	22 54 3	1748.64	15.32	21.52	310.91	122.72	23 23 11	748.6	27.37	359.17
67.13	22 54 3	1748.64	15.32	21.52	310.91	122.72	23 23 11	748.6	27.37	359.17
67.13	22 54 3	1748.64	15.32	21.52	310.91	122.72	23 23 11	748.6	27.37	359.17
67.13	22 54 3	1748.64	15.32	21.52	310.91	122.72	23 23 11	748.6	27.37	359.17
67.13	22 54 3	1748.64	15.32	21.52	310.91	122.72	23 23 11	748.6	27.37	359.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.2242	TRA	3.8910	TC3	-3.4497	BAU	2.0189	SGT	6897.8	SGR	5210.9	SG3	809.4	ST	168.6	SR	103.0	SS	53.9
RDE	1.7462	RRA	-3.4201	RC3	2.3830	FAU	.19196	RRT	-.9848	RRF	-.9980	RTF	.9810	CRT	-.9787	CRS	.9980	CST	-.9640
FDE	-2.7086	FRA	6.0334	FC3	-4.6140	BSP	14872	SGB	8644.8	R23	.1214	R13	-.9907	LSA	203.7	MSA	21.2	SSA	.3
BDE	3.6667	BRA	5.1804	BC3	4.1927	FSP	1446	SG1	8614.4	SG2	724.5	THA	143.05	EL1	196.8	EL2	18.1	ALF	148.84

LAUNCH DATE JUL 20 1973 FLIGHT TIME 292.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 651.233 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.850	GAL	-2.55	AZL	98.11	HCA	193.04	SMA	198.99	ECC	.23998	INC	8.1130
RP	246.74	LAP	1.83	LOP	130.06	VP	20.219	GAP	.06	AZP	82.09	TAL	346.77	TAP	179.81	RCA	151.23	APO	246.74
RC	304.476	GL	-53.31	GP	48.66	ZAL	103.36	ZAP	74.47	ETS	200.70	ZAE	93.71	ETE	178.13	ZAC	135.91	ETC	290.60

V1	29.308																		
V2	22.215																		
LVI	-70.27																		

PLANETOCENTRIC CONIC

C3	33.356	VHL	5.775	DLA	-33.64	RAL	62.47	RAD	6648.3	VEL	12.380	PTH	7.30	VHP	3.565	DPA	48.12	RAP	347.93
ECC	1.5490																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 5 59	2545.81	-9.68	68.38	288.89	136.82	18 48 25	1545.8	8.71	52.62
60.00	19 42 19	2289.36	-1.86	52.75	296.34	130.27	20 20 29	1289.4	14.10	34.59
70.00	22 22 28	1016.77	10.45	23.67	305.43	122.70	22 52 44	816.8	22.88	2.22
70.98	23 13 19	1661.16	15.17	14.55	308.40	120.39	23 41 1	661.2	26.33	351.80
70.98	23 13 19	1661.16	15.17	14.55	308.40	120.39	23 41 1	661.2	26.33	351.80
70.98	23 13 19	1661.16	15.17	14.55	308.40	120.39	23 41 1	661.2	26.33	351.80
110.00	3 25 50	6151.63	10.45	290.50	305.43	122.70	5 8 21	5151.6	22.88	269.04

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.1009	TRA	3.8894	TC3	-3.7821	BAU	2.0085	SGT	7073.1	SGR	5030.1	SG3	897.2	ST	168.9	SR	97.9	SS	55.9
RDE	1.5902	RRA	-3.2323	RC3	2.4456	FAU	.20906	RRT	-.9850	RRF	-.9979	RTF	.9612	CRT	-.9785	CRS	.9976	CST	-.9619
FDE	-2.7937	FRA	6.5471	FC3	-5.4260	BSP	14943	SGB	8679.3	R23	.1251	R13	-.9901	LSA	202.0	MSA	21.2	SSA	.3
BDE	3.4849	BRA	5.0572	BC3	4.5039	FSP	1602	SG1	8650.2	SG2	710.4	THA	144.72	EL1	194.4	EL2	17.5	ALF	150.18

LAUNCH DATE JUL 20 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 654.976 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.854	GAL	-2.59	AZL	97.62	HCA	193.93	SMA	199.06	ECC	.24038	INC	7.6235
RP	246.90	LAP	1.83	LOP	130.95	VP	20.207	GAP	-.15	AZP	82.60	TAL	346.56	TAP	180.49	RCA	151.21	APO	246.91
RC	306.863	GL	-51.22	GP	46.86	ZAL	104.10	ZAP	73.13	ETS	201.09	ZAE	92.78	ETE	179.25	ZAC	134.26	ETC	289.99

V1	29.308																		
V2	22.199																		
LVI	-68.66																		

PLANETOCENTRIC CONIC

C3	31.193	VHL	5.585	DLA	-31.62	RAL	61.80	RAD	6647.5	VEL	12.293	PTH	7.23	VHP	3.438	DPA	46.56	RAP	349.27
ECC	1.5134																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 50 32	2578.38	-11.29	69.79	286.56	136.53	18 33 30	1578.4	7.08	54.01
60.00	19 19 13	2342.37	-4.19	55.29	293.31	130.12	19 58 16	1342.4	11.85	37.26
70.00	21 25 45	1969.94	4.71	31.82	300.00	123.87	21 58 34	969.9	18.01	11.42
75.22	23 38 19	1558.46	14.89	6.51	306.20	118.22	24 4 17	558.5	25.22	343.46
75.22	23 38 19	1558.46	14.89	6.51	306.20	118.22	24 4 17	558.5	25.22	343.46
75.22	23 38 19	1558.46	14.89	6.51	306.20	118.22	24 4 17	558.5	25.22	343.46
110.00	2 29 7	1016.76	4.71	320.74	300.00	123.87	2 46 4	16.8	18.01	300.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.9833	TRA	3.8980	TC3	-4.1084	BAU	2.0029	SGT	7244.3	SGR	4849.6	SG3	979.2	ST	168.6	SR	92.6	SS	57.3
RDE	1.4469	RRA	-3.0604	RC3	2.4877	FAU	.22486	RRT	-.9851	RRF	-.9978	RTF	.9813	CRT	-.9783	CRS	.9970	CST	-.9593
FDE	-2.8303	FRA	7.0143	FC3	-6.2410	BSP	15030	SGB	8717.7	R23	.1285	R13	-.9895	LSA	199.6	MSA	21.3	SSA	.4
BDE	3.3157	BRA	4.9558	BC3	4.8028	FSP	1749	SG1	8690.0	SG2	694.8	THA	146.35	EL1	191.6	EL2	16.9	ALF	151.50

LAUNCH DATE JUL 20 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 650.721 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.857	GAL	-2.64	AZL	97.19	HCA	194.81	SMA	199.13	ECC	.24080	INC	7.1918	V1	29.308
RP	247.06	LAP	1.83	LOP	131.84	VP	20.196	GAP	-.37	AZP	83.04	TAL	346.34	TAP	181.15	RCA	151.18	APO	247.08	V2	22.183
RC	309.224	GL	-49.26	GP	45.12	ZAL	104.81	ZAP	71.81	ETS	201.42	ZAE	91.81	ETE	180.29	ZAC	132.66	ETC	289.44	LVI	-67.07

PLANETOCENTRIC CONIC

C3	29.414	VHL	5.423	DLA	-29.71	RAL	61.24	RAD	6646.8	VEL	12.221	PTH	7.17	VHP	3.331	DPA	45.05	RAP	350.51	ECC	1.4841

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 37 7	2608.85	-12.79	71.13	284.66	136.23	18 20 36	1608.9	5.56	55.30
60.00	19 0 0	2388.33	-6.20	57.51	290.90	129.90	19 39 48	1388.3	9.88	39.55
70.00	20 51 59	2058.93	1.32	36.48	296.57	124.13	21 26 18	1058.9	14.95	16.51
80.00	23 46 10	1512.53	12.14	1.58	303.05	117.49	24 11 23	512.5	22.42	338.91
80.48	0 18 22	1422.18	14.50	356.10	304.27	116.22	0 42 4	422.2	24.06	332.82
100.00	2 32 58	6275.04	12.14	300.85	303.05	117.49	4 17 33	5275.0	22.42	278.18
110.00	1 55 21	1105.75	1.32	325.40	296.57	124.13	2 13 47	105.8	14.95	305.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.8741	TRA	3.9137	TC3	-4.4289	BAU	2.0019	SGT	7413.5	SGR	4671.7	SG3	1055.1	ST	167.9	SR	87.6	SS	58.2
RDE	1.3185	RRA	-2.9033	RC3	2.5101	FAU	.23921	RRT	-.9852	RRF	-.9976	RTF	.9813	CRT	-.9779	CRS	.9962	CST	-.9561
FDE	-2.8309	FRA	7.4385	FC3	-7.0406	BSP	15126	SGB	8762.7	R23	.1316	R13	-.9889	LSA	197.0	MSA	21.4	SSA	.4
BDE	3.1621	BRA	4.8730	BC3	5.0908	FSP	1886	SG1	8736.3	SG2	679.6	THA	147.95	EL1	188.7	EL2	16.3	ALF	152.75

LAUNCH DATE JUL 20 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 662.465 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.861	GAL	-2.68	AZL	96.81	HCA	195.69	SMA	199.21	ECC	.24122	INC	6.8080	V1	29.308
RP	247.22	LAP	1.84	LOP	132.73	VP	20.185	GAP	-.58	AZP	83.44	TAL	346.12	TAP	181.82	RCA	151.15	APO	247.26	V2	22.168
RC	311.559	GL	-47.41	GP	43.45	ZAL	105.50	ZAP	70.50	ETS	201.68	ZAE	90.81	ETE	181.24	ZAC	131.11	ETC	288.96	LVI	-65.52

PLANETOCENTRIC CONIC

C3	27.937	VHL	5.286	DLA	-27.90	RAL	60.78	RAD	6646.2	VEL	12.161	PTH	7.13	VHP	3.242	DPA	43.58	RAP	351.66	ECC	1.4598

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 25 20	2637.64	-14.20	72.40	283.10	135.90	18 9 17	1637.6	4.12	56.51
60.00	18 43 35	2429.47	-7.99	59.51	288.95	129.63	19 24 5	1429.5	8.10	41.57
70.00	20 26 23	2127.17	-1.29	40.04	293.99	124.13	21 1 50	1127.2	12.52	20.30
80.00	22 38 26	1713.75	5.60	12.92	298.25	119.38	23 6 59	713.8	17.14	351.51
90.00	0 53 51	1289.68	10.35	344.27	300.79	116.47	1 15 21	289.7	20.37	321.72
100.00	1 25 13	1188.22	5.60	334.29	298.25	119.38	1 45 2	188.2	17.14	312.68
110.00	1 29 45	1173.99	-1.29	328.96	293.99	124.13	1 49 19	174.0	12.52	309.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.7730	TRA	3.9332	TC3	-4.7453	BAU	2.0067	SGT	7581.3	SGR	4497.5	SG3	1124.7	ST	167.0	SR	82.7	SS	58.7
RDE	1.2041	RRA	-2.7562	RC3	2.5195	FAU	.25251	RRT	-.9853	RRF	-.9973	RTF	.9814	CRT	-.9777	CRS	.9952	CST	-.9526
FDE	-2.8011	FRA	7.8120	FC3	-7.8248	BSP	15186	SGB	8815.0	R23	.1342	R13	-.9883	LSA	194.2	MSA	21.6	SSA	.4
BDE	3.0232	BRA	4.8028	BC3	5.3727	FSP	2005	SG1	8790.0	SG2	663.0	THA	149.50	EL1	185.7	EL2	15.6	ALF	153.95

LAUNCH DATE JUL 20 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC DISTANCE 666.208 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.865	GAL	-2.73	AZL	96.46	HCA	196.57	SMA	199.28	ECC	.24166	INC	6.4647	V1	29.308
RP	247.37	LAP	1.84	LOP	133.61	VP	20.176	GAP	-.79	AZP	83.80	TAL	345.90	TAP	182.47	RCA	151.12	APO	247.44	V2	22.154
RC	313.869	GL	-45.67	GP	41.85	ZAL	106.18	ZAP	69.22	ETS	201.89	ZAE	89.78	ETE	182.11	ZAC	129.61	ETC	288.52	LVI	-64.02

PLANETOCENTRIC CONIC

C3	26.701	VHL	5.167	DLA	-26.19	RAL	60.40	RAD	6645.7	VEL	12.110	PTH	7.08	VHP	3.168	DPA	42.17	RAP	352.73	ECC	1.4394

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 14 53	2665.01	-15.54	73.64	281.83	135.56	17 59 18	1665.0	2.75	57.66
60.00	18 29 19	2467.06	-9.62	61.35	287.37	129.33	19 10 26	1467.1	6.47	43.39
70.00	20 5 30	2184.23	-3.46	43.02	291.98	124.00	20 41 54	1184.2	10.44	23.41
80.00	22 3 36	1814.56	2.21	18.48	295.50	119.78	22 33 51	814.6	14.16	357.51
90.00	23 53 29	1460.20	5.03	353.98	297.06	117.87	24 17 50	460.2	16.04	332.35
100.00	0 50 24	1289.04	2.21	339.85	295.50	119.78	1 11 53	289.0	14.16	318.88
110.00	1 8 52	1231.05	-3.46	331.94	291.98	124.00	1 29 23	231.1	10.44	312.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6734	TRA	3.9628	TC3	-5.0470	BAU	2.0120	SGT	7744.0	SGR	4325.3	SG3	1187.2	ST	165.6	SR	78.0	SS	58.7
RDE	1.0989	RRA	-2.6225	RC3	2.5089	FAU	.26392	RRT	-.9853	RRF	-.9970	RTF	.9814	CRT	-.9774	CRS	.9939	CST	-.9482
FDE	-2.7355	FRA	8.1491	FC3	-8.3573	BSP	15320	SGB	8870.0	R23	.1363	R13	-.9877	LSA	191.0	MSA	21.7	SSA	.4
BDE	2.8904	BRA	4.7519	BC3	5.6362	FSP	2120	SG1	8846.4	SG2	646.5	THA	151.01	EL1	182.5	EL2	15.0	ALF	155.09

LAUNCH DATE JUL 20 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 669.951 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.869	GAL	-2.78	AZL	96.16	HCA	197.45	SMA	199.36	ECC	.24211	INC	6.1554	V1	29.308
RP	247.51	LAP	1.84	LOP	134.50	VP	20.167	GAP	-1.00	AZP	84.13	TAL	345.67	TAP	183.12	RCA	151.09	APO	247.63	V2	22.140
RC	316.151	GL	-44.02	GP	40.31	ZAL	106.84	ZAP	67.96	ETS	202.06	ZAE	88.72	ETE	182.91	ZAC	128.17	ETC	288.14	LVI	-62.56

PLANETOCENTRIC CONIC

C3	25.660	VHL	5.066	DLA	-24.56	RAL	60.09	RAD	6645.3	VEL	12.068	PTH	7.05	VHP	3.105	DPA	40.83	RAP	353.73	ECC	1.4223

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 5 34	2691.17	-16.81	74.83	280.80	135.19	17 50 25	1691.2	1.43	58.75
60.00	18 16 44	2501.89	-11.12	63.07	286.09	128.99	18 58 26	1501.9	4.94	45.07
70.00	19 47 49	2234.10	-5.36	45.64	290.37	123.78	20 25 3	1234.1	8.59	26.09
80.00	21 37 38	1890.42	-.36	22.65	293.47	119.86	22 9 8	890.4	11.81	1.91
90.00	23 20 34	1558.44	1.89	359.48	294.72	118.22	23 46 32	558.4	13.27	338.24
100.00	0 24 26	1364.90	-.36	344.02	293.47	119.86	0 47 10	364.9	11.81	323.28
110.00	0 51 12	1280.92	-5.36	334.56	290.37	123.78	1 12 32	280.9	8.59	315.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.5805	TRA	3.9953	TC3	-5.3418	BAU	2.0213	SGT	7905.3	SGR	4157.9	SG3	1243.1	ST	164.1	SR	73.6	SS	58.4
RDE	1.0054	RRA	-2.4975	RC3	2.4870	FAU	.27412	RRT	-.9853	RRF	-.9967	RTF	.9814	CRT	-.9772	CRS	.9923	CST	-.9434
FDE	-2.6485	FRA	8.4428	FC3	-9.2486	BSP	15436	SGB	8932.0	R23	.1379	R13	-.9871	LSA	187.8	MSA	21.9	SSA	.5
BDE	2.7695	BRA	4.7117	BC3	5.8923	FSP	2220	SG1	8909.8	SG2	630.0	THA	152.46	EL1	179.3	EL2	14.3	ALF	156.17

LAUNCH DATE JUL 20 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC DISTANCE 673.694 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.873	GAL	-2.83	AZL	95.88	HCA	198.33	SMA	199.44	ECC	.24258	INC	5.8752	V1	29.308
RP	247.65	LAP	1.85	LOP	135.38	VP	20.159	GAP	-1.21	AZP	84.42	TAL	345.44	TAP	183.77	RCA	151.06	APO	247.82	V2	22.126
RC	318.406	GL	-42.47	GP	38.84	ZAL	107.49	ZAP	66.73	ETS	202.18	ZAE	87.65	ETE	183.64	ZAC	126.78	ETC	287.79	LVI	-61.16

PLANETOCENTRIC CONIC

C3	24.777	VHL	4.978	DLA	-23.01	RAL	59.84	RAD	6644.9	VEL	12.031	PTH	7.02	VHP	3.053	DPA	39.54	RAP	354.66	ECC	1.4078

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 57 12	2716.25	-18.01	75.99	279.96	134.82	17 42 28	1716.2	.17	59.80
60.00	18 5 33	2534.48	-12.51	64.70	285.05	128.63	18 47 47	1534.5	3.52	46.64
70.00	19 32 30	2278.85	-7.04	48.00	289.08	123.51	20 10 29	1278.9	6.92	28.47
80.00	21 16 31	1953.30	-2.49	26.10	291.90	119.76	21 49 4	953.3	9.80	5.50
90.00	22 55 33	1633.89	-.55	3.69	292.98	118.28	23 22 47	633.9	11.04	342.66
100.00	0 3 19	1427.77	-2.49	347.47	291.90	119.76	0 27 7	427.8	9.80	326.87
110.00	0 35 52	1325.67	-7.04	336.92	289.08	123.51	0 57 58	325.7	6.92	317.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.4933	TRA	4.0319	TC3	-5.6276	BAU	2.0339	SGT	8065.2	SGR	3996.4	SG3	1292.8	ST	162.4	SR	69.5	SS	58.0
RDE	.9235	RRA	-2.3807	RC3	2.4560	FAU	.28320	RRT	-.9854	RRF	-.9963	RTF	.9814	CRT	-.9773	CRS	.9902	CST	-.9384
FDE	2.5490	FRA	8.6950	FC3	-9.8951	BSP	15550	SGB	9001.0	R23	.1386	R13	-.9866	LSA	184.6	MSA	22.1	SSA	.5
BDE	2.6588	BRA	4.6823	BC3	6.1402	FSP	2305	SG1	8980.2	SG2	611.9	THA	153.84	EL1	176.2	EL2	13.6	ALF	157.16

LAUNCH DATE JUL 20 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 677.435 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.877	GAL	-2.88	AZL	95.62	HCA	199.21	SMA	199.52	ECC	.24305	INC	5.6202	V1	29.308
RP	247.78	LAP	1.85	LOP	136.27	VP	20.151	GAP	-1.41	AZP	84.69	TAL	345.20	TAP	184.42	RCA	151.03	APO	248.02	V2	22.113
RC	320.632	GL	-41.00	GP	37.43	ZAL	108.12	ZAP	65.54	ETS	202.27	ZAE	86.57	ETE	184.31	ZAC	125.44	ETC	287.48	LVI	-59.81

PLANETOCENTRIC CONIC

C3	24.026	VHL	4.902	DLA	-21.53	RAL	59.65	RAD	6644.6	VEL	12.000	PTH	6.99	VHP	3.009	DPA	38.31	RAP	355.54	ECC	1.3954

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 49 39	2740.36	-19.17	77.12	279.30	134.42	17 35 19	1740.4	-1.04	60.80
60.00	17 55 31	2565.20	-13.81	66.25	284.22	128.25	18 38 16	1565.2	2.16	48.11
70.00	19 19 0	2319.74	-8.57	50.18	288.05	123.19	19 57 40	1319.7	5.37	30.63
80.00	20 58 38	2007.94	-4.33	29.11	290.65	119.57	21 32 6	1007.9	8.02	8.57
90.00	22 35 2	1697.00	-2.58	7.21	291.62	118.17	23 3 19	697.0	9.12	348.30
100.00	23 41 30	1482.41	-4.33	350.48	290.65	119.57	24 6 12	482.4	8.02	329.94
110.00	0 22 23	1366.56	-8.57	339.10	288.05	123.19	0 45 9	366.6	5.37	319.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.4065	TRA	4.0761	TC3	-5.8979	BAU	2.0466	SGT	8220.6	SGR	3838.3	SG3	1335.5	ST	160.5	SR	65.6	SS	57.3
RDE	.8474	RRA	-2.2740	RC3	2.4108	FAU	.29044	RRT	-.9853	RRF	-.9959	RTF	.9814	CRT	-.9774	CRS	.9875	CST	-.9321
FDE	2.4224	FRA	8.9201	FC	-10.4658	BSP	15723	SGB	9072.5	R23	.1393	R13	-.9861	LSA	181.2	MSA	22.3	SSA	.5
BDE	2.5514	BRA	4.6675	BC3	6.3716	FSP	2387	SG1	9052.9	SG2	596.3	THA	155.18	EL1	172.9	EL2	12.9	ALF	158.10

LAUNCH DATE JUL 20 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 24 1974

HELIOCENTRIC CONIC DISTANCE 681.176 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.882	GAL	-2.93	AZL	95.39	HCA	200.09	SMA	199.61	ECC	.24353	INC	5.3869	V1	29.308
RP	247.91	LAP	1.85	LOP	137.15	VP	20.145	GAP	-1.62	AZP	84.94	TAL	344.96	TAP	185.05	RCA	150.99	APO	248.22	V2	22.101
RC	322.829	GL	-39.61	GP	36.09	ZAL	108.74	ZAP	64.37	ETS	202.33	ZAE	85.48	ETE	184.92	ZAC	124.16	ETC	287.20	LVI	-58.51

PLANETOCENTRIC CONIC

C3	23.385	VHL	4.836	DLA	-20.13	RAL	59.50	RAD	6644.3	VEL	11.974	PTH	6.97	VHP	2.973	DPA	37.14	RAP	356.38	ECC	1.3849

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 42 48	2763.59	-20.27	78.23	278.79	134.02	17 28 52	1763.6	-2.21	61.77
60.00	17 46 27	2594.32	-15.03	67.74	283.56	127.85	18 29 41	1594.3	.88	49.50
70.00	19 6 59	2357.57	-9.98	52.21	287.22	122.83	19 46 17	1357.6	3.94	32.61
80.00	20 43 6	2056.76	-5.97	31.81	289.66	119.31	21 17 23	1056.8	6.40	11.30
90.00	22 17 33	1752.10	-4.35	10.30	290.55	117.97	22 46 45	752.1	7.41	349.44
100.00	23 25 58	1531.24	-5.97	353.18	289.66	119.31	23 51 29	531.2	6.40	332.67
110.00	0 10 21	1404.39	-9.98	341.13	287.22	122.83	0 33 46	404.4	3.94	321.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.3275	TRA	4.1196	TC3	-6.1641	BAU	2.0638	SGT	8376.7	SGR	3686.9	SG3	1372.6	ST	158.7	SR	62.0	SS	56.9
RDE	.7822	RRA	-2.1722	RC3	2.3625	FAU	.29700	RRT	-.9852	RRF	-.9953	RTF	.9814	CRT	-.9779	CRS	.9843	CST	-.9259
FDE	2.2952	FRA	9.1021	FC	-10.9950	BSP	15846	SGB	9152.2	R23	.1390	R13	-.9856	LSA	178.1	MSA	22.5	SSA	.6
BDE	2.4354	BRA	4.6572	BC3	6.6013	FSP	2448	SG1	9133.8	SG2	579.7	THA	156.46	EL1	169.9	EL2	12.1	ALF	158.96

LAUNCH DATE JUL 20 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 26 1974

HELIOCENTRIC CONIC DISTANCE 684.915 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	297.14	VL	32.886	GAL	-2.98	AZL	95.17	HCA	200.97	SMA	199.69	ECC	.24403	INC	5.1727	V1	29.308
RP	248.03	LAP	1.85	LOP	138.03	VP	20.139	GAP	-1.83	AZP	85.17	TAL	344.72	TAP	185.69	RCA	150.96	APO	248.42	V2	22.089
RC	324.997	GL	-38.29	GP	34.81	ZAL	109.36	ZAP	63.23	ETS	202.36	ZAE	84.39	ETE	185.48	ZAC	122.93	ETC	286.95	LVI	-57.26

PLANETOCENTRIC CONIC

C3	22.837	VHL	4.779	DLA	-18.78	RAL	59.40	RAD	6644.1	VEL	11.951	PTH	6.95	VHP	2.943	DPA	36.03	RAP	357.17	ECC	1.3758

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 34	2786.01	-21.33	79.31	278.41	133.60	17 23 0	1786.0	-3.33	62.71
60.00	17 38 14	2622.05	-16.18	69.18	283.05	127.43	18 21 56	1622.1	-.34	50.82
70.00	18 56 10	2392.91	-11.28	54.12	286.57	122.45	19 36 3	1392.9	2.59	34.46
80.00	20 29 22	2101.22	-7.44	34.29	288.88	119.00	21 4 24	1101.2	4.92	13.76
90.00	22 2 17	1801.49	-5.92	13.08	289.71	117.70	22 32 19	801.5	5.86	352.24
100.00	23 12 14	1575.69	-7.44	355.66	288.88	119.00	23 38 30	575.7	4.92	335.13
110.00	23 55 37	1439.73	-11.28	343.04	286.57	122.45	24 19 36	439.7	2.59	323.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.2468	TRA	4.1713	TC3	-6.4118	BAU	2.0801	SGT	8527.4	SGR	3539.8	SG3	1403.6	ST	156.5	SR	58.7	SS	55.6
RDE	.7218	RRA	-2.0792	RC3	2.3036	FAU	.30189	RRT	-.9850	RRF	-.9948	RTF	.9813	CRT	-.9785	CRS	.9802	CST	-.9185
FDE	2.1490	FRA	9.2630	FC	-11.4447	BSP	16049	SGB	9232.9	R23	.1383	R13	-.9851	LSA	174.7	MSA	22.8	SSA	.6
BDE	2.3599	BRA	4.6608	BC3	6.8130	FSP	2512	SG1	9215.6	SG2	564.4	THA	157.67	EL1	166.8	EL2	11.4	ALF	159.76

LAUNCH DATE JUL 20 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 28 1974

HELIOCENTRIC CONIC DISTANCE 688.654 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.890 GAL -3.03 AZL 94.98 HCA 201.85 SMA 199.78 ECC .24454 INC 4.9750 V1 29.308
RP 248.14 LAP 1.85 LOP 138.91 VP 20.133 GAP -2.04 AZP 85.38 TAL 344.47 TAP 186.32 RCA 150.92 APO 248.63 V2 22.078
RC 327.134 GL -37.03 GP 33.59 ZAL 109.96 ZAP 62.13 ETS 202.37 ZAE 83.29 ETE 185.98 ZAC 121.75 ETC 286.73 LVI -56.07

PLANETOCENTRIC CONIC

C3 22.367 VHL 4.729 DLA -17.50 RAL 59.33 RAD 6643.9 VEL 11.931 PTH 6.94 VHP 2.919 DPA 34.98 RAP 357.93 ECC 1.3681

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 30 53	2807.69	-22.34	80.38	278.14	133.17	17 17 41	1807.7	-4.42	63.62
60.00	17 30 43	2648.56	-17.27	70.57	282.67	127.00	18 14 52	1648.6	-1.50	52.09
70.00	18 46 23	2426.16	-12.48	55.94	286.07	122.05	19 26 49	1426.2	1.32	36.20
80.00	20 17 6	2142.23	-8.79	36.59	288.27	118.65	20 52 48	1142.2	3.54	16.03
90.00	21 48 45	1846.56	-7.33	15.63	289.06	117.39	22 19 31	846.6	4.42	354.77
100.00	22 59 58	1616.70	-8.79	357.96	288.27	118.65	23 26 54	616.7	3.54	337.40
110.00	23 45 49	1472.98	-12.48	344.86	286.07	122.05	24 10 22	473.0	1.32	325.12

DIFFERENTIAL CORRECTIONS

TDE-2.1749 TRA 4.2205 TC3-6.6584 BAU 2.1011
RDE .6708 RRA-1.9900 RC3 2.2445 FAU .30631
FDE-2.0100 FRA 9.3853 FC-11.8557 BSP 16180
BDE 2.2760 BRA 4.6661 BC3 7.0265 FSP 2553

MID-COURSE EXECUTION ACCURACY

SGT 8680.5 SGR 3399.6 SG3 1429.7
RRT -.9849 RRF -.9941 RTF .9813
SGB 9322.5 R23 .1368 R13 -.9847
SG1 9306.3 SG2 549.3 THA 158.83

ORBIT DETERMINATION ACCURACY

ST 154.6 SR 55.7 SS 54.7
CRT -.9796 CRS .9753 CST -.9113
LSA 171.7 MSA 23.0 SSA .7
EL1 164.0 EL2 10.6 ALF 160.49

LAUNCH DATE JUL 20 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 30 1974

HELIOCENTRIC CONIC DISTANCE 692.392 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.895 GAL -3.09 AZL 94.79 HCA 202.73 SMA 199.86 ECC .24506 INC 4.7921 V1 29.308
RP 248.25 LAP 1.85 LOP 139.79 VP 20.129 GAP -2.24 AZP 85.58 TAL 344.22 TAP 186.95 RCA 150.89 APO 248.84 V2 22.067
RC 329.241 GL -35.84 GP 32.44 ZAL 110.55 ZAP 61.06 ETS 202.36 ZAE 82.20 ETE 186.45 ZAC 120.62 ETC 286.52 LVI -54.93

PLANETOCENTRIC CONIC

C3 21.965 VHL 4.687 DLA -16.28 RAL 59.30 RAD 6643.7 VEL 11.915 PTH 6.92 VHP 2.900 DPA 33.99 RAP 358.66 ECC 1.3615

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 25 41	2828.68	-23.31	81.42	277.97	132.73	17 12 49	1828.7	-5.47	64.51
60.00	17 23 31	2673.97	-18.31	71.92	282.40	126.55	18 8 25	1674.0	-2.62	53.30
70.00	18 37 27	2457.62	-13.61	57.68	285.70	121.63	19 18 25	1457.6	.12	37.84
80.00	20 6 0	2180.44	-10.03	38.75	287.81	118.27	20 42 21	1180.4	2.25	18.13
90.00	21 36 36	1888.19	-8.63	18.00	288.56	117.03	22 8 4	888.2	3.09	357.11
100.00	22 48 52	1654.91	-10.03	.11	287.81	118.27	23 16 27	654.9	2.25	339.50
110.00	23 36 53	1504.44	-13.61	346.60	285.70	121.63	24 1 58	504.4	.12	326.76

DIFFERENTIAL CORRECTIONS

TDE-2.1031 TRA 4.2751 TC3-6.8902 BAU 2.1222
RDE .6248 RRA-1.9071 RC3 2.1800 FAU .30957
FDE-1.8632 FRA 9.4857 FC-12.2012 BSP 16351
BDE 2.1940 BRA 4.6812 BC3 7.2269 FSP 2589

MID-COURSE EXECUTION ACCURACY

SGT 8829.8 SGR 3264.7 SG3 1450.7
RRT -.9847 RRF -.9933 RTF .9813
SGB 9414.1 R23 .1346 R13 -.9844
SG1 9398.9 SG2 534.7 THA 159.93

ORBIT DETERMINATION ACCURACY

ST 152.6 SR 52.9 SS 53.8
CRT -.9809 CRS .9694 CST -.9035
LSA 168.6 MSA 23.2 SSA .7
EL1 161.2 EL2 9.7 ALF 161.16

LAUNCH DATE JUL 20 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 1 1974

HELIOCENTRIC CONIC DISTANCE 696.129 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.899 GAL -3.14 AZL 94.62 HCA 203.60 SMA 199.95 ECC .24558 INC 4.6223 V1 29.308
RP 248.35 LAP 1.85 LOP 140.67 VP 20.125 GAP -2.45 AZP 85.76 TAL 343.96 TAP 187.57 RCA 150.85 APO 249.06 V2 22.057
RC 331.317 GL -34.70 GP 31.33 ZAL 111.14 ZAP 60.01 ETS 202.33 ZAE 81.11 ETE 186.87 ZAC 119.54 ETC 286.34 LVI -53.84

PLANETOCENTRIC CONIC

C3 21.622 VHL 4.650 DLA -15.10 RAL 59.30 RAD 6643.6 VEL 11.900 PTH 6.91 VHP 2.885 DPA 33.05 RAP 359.36 ECC 1.3558

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 20 54	2849.02	-24.25	82.46	277.89	132.28	17 8 23	1849.0	-6.49	65.37
60.00	17 17 32	2698.39	-19.29	73.23	282.23	126.10	18 2 31	1698.4	-3.70	54.47
70.00	18 29 16	2487.53	-14.67	59.35	285.44	121.19	19 10 44	1487.5	-1.02	39.40
80.00	19 55 55	2216.32	-11.18	40.79	287.48	117.87	20 32 51	1216.3	1.04	20.10
90.00	21 25 35	1927.04	-9.83	20.23	288.19	116.65	21 57 42	927.0	1.84	359.28
100.00	22 38 47	1690.79	-11.18	2.16	287.48	117.87	23 6 58	690.8	1.04	341.47
110.00	23 28 42	1534.35	-14.67	348.26	285.44	121.19	23 54 17	534.3	-1.02	328.32

DIFFERENTIAL CORRECTIONS

TDE-2.0324 TRA 4.3341 TC3-7.1080 BAU 2.1433
RDE .5833 RRA-1.8301 RC3 2.1102 FAU .31158
FDE-1.7108 FRA 9.5666 FC-12.4754 BSP 16553
BDE 2.1144 BRA 4.7046 BC3 7.4146 FSP 2622

MID-COURSE EXECUTION ACCURACY

SGT 8975.8 SGR 3134.3 SG3 1466.6
RRT -.9844 RRF -.9925 RTF .9813
SGB 9507.3 R23 .1320 R13 -.9840
SG1 9492.9 SG2 522.0 THA 160.97

ORBIT DETERMINATION ACCURACY

ST 150.5 SR 50.3 SS 52.9
CRT -.9825 CRS .9621 CST -.8950
LSA 165.6 MSA 23.5 SSA .7
EL1 158.5 EL2 8.9 ALF 161.77

LAUNCH DATE JUL 20 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 3 1974

HELIOCENTRIC CONIC DISTANCE 699.865 EARTH TO MARS

RL 152.01 LAL -.00 LOL 297.14 VL 32.904 GAL -3.20 AZL 94.46 HCA 204.48 SMA 200.04 ECC .24612 INC 4.4640 V1 29.308
RP 248.45 LAP 1.85 LOP 141.55 VP 20.122 GAP -2.65 AZP 85.94 TAL 343.71 TAP 188.19 RCA 150.81 APO 249.28 V2 22.048
RC 333.364 GL -33.62 GP 30.28 ZAL 111.72 ZAP 59.00 ETS 202.28 ZAE 80.03 ETE 187.26 ZAC 118.51 ETC 286.17 LVI -52.78

PLANETOCENTRIC CONIC

C3 21.329 VHL 4.618 DLA -13.98 RAL 59.32 RAD 6643.4 VEL 11.888 PTH 6.90 VHP 2.874 DPA 32.17 RAP .03 ECC 1.3510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 16 30	2868.76	-25.15	83.47	277.88	131.82	17 4 19	1868.8	-7.47	66.20
60.00	17 11 43	2721.92	-20.23	74.51	282.15	125.63	17 57 5	1721.9	-4.73	55.60
70.00	18 21 44	2516.08	-15.67	60.95	285.28	120.74	19 3 40	1516.1	-2.11	40.89
80.00	19 46 40	2250.22	-12.25	42.73	287.25	117.44	20 24 11	1250.2	-.11	21.96
90.00	21 15 32	1963.54	-10.93	22.34	287.93	116.24	21 48 16	963.5	.67	1.31
100.00	22 29 32	1724.70	-12.25	4.10	287.25	117.44	22 58 17	724.7	-.11	343.33
110.00	23 21 11	1562.90	-15.67	349.87	285.28	120.74	23 47 14	562.9	-2.11	329.81

DIFFERENTIAL CORRECTIONS

TDE-1.9659 TRA 4.3936 TC3-7.3202 BAU 2.1670
RDE .5472 RRA-1.7573 RC3 2.0404 FAU .31301
FDE-1.5614 FRA 9.6237 FC-12.7046 BSP 16726
BDE 2.0406 BRA 4.7320 BC3 7.5993 FSP 2642

MID-COURSE EXECUTION ACCURACY

SGT 9122.4 SGR 3010.0 SG3 1478.5
RRT -.9840 RRF -.9915 RTF .9813
SGB 9606.1 R23 .1288 R13 -.9836
SG1 9592.6 SG2 510.4 THA 161.96

ORBIT DETERMINATION ACCURACY

ST 148.6 SR 47.9 SS 51.9
CRT -.9844 CRS .9536 CST -.8862
LSA 162.8 MSA 23.7 SSA .8
EL1 155.9 EL2 8.0 ALF 162.34

LAUNCH DATE JUL 20 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 5 1974

HELIOCENTRIC CONIC DISTANCE 703.600 EARTH TO MARS

RL	152.01	LAL	-.00	LOL	207.14	VL	32.908	GAL	-3.25	AZL	94.32	HCA	205.36	SMA	200.14	ECC	.24667	INC	4.3162	VI	29.308
RP	248.54	LAP	1.85	LOP	142.43	VP	20.120	GAP	-2.86	AZP	86.10	TAL	343.45	TAP	188.80	RCA	150.77	APO	249.50	V2	22.039
RC	335.380	GL	-32.58	GP	29.28	ZAL	112.29	ZAP	58.02	ETS	202.23	ZAE	78.96	ETE	187.61	ZAC	117.52	ETC	286.02	LVI	-51.80

PLANETOCENTRIC CONIC

C3	21.081	VHL	4.591	DLA	-12.90	RAL	59.38	RAD	6643.3	VEL	11.878	PTH	6.89	VHP	2.867	DPA	31.33	RAP	.69	ECC	1.3469

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 12 27	2887.95	-26.02	84.47	277.95	131.35	17 0 35	1887.9	-8.43	67.02
60.00	17 6 20	2744.64	-21.13	75.77	282.15	125.15	17 52 5	1744.6	-5.72	56.70
70.00	18 14 47	2543.42	-16.62	62.51	285.21	120.28	18 57 11	1543.4	-3.16	42.32
80.00	19 38 10	2282.42	-13.25	44.60	287.11	117.00	20 16 13	1282.4	-1.20	23.73
90.00	21 6 19	1998.06	-11.96	24.35	287.77	115.82	21 39 37	998.1	-.45	3.24
100.00	22 21 2	1756.89	-13.25	5.97	287.11	117.00	22 50 19	756.9	-1.20	345.09
110.00	23 14 14	1590.24	-16.62	351.43	285.21	120.28	23 40 44	590.2	-3.16	331.24

DIFFERENTIAL CORRECTIONS

TDE	-1.9015	TRA	4.4554	TC3	-7.5213	BAU	2.1912
RDE	.5157	RRA	-1.6887	RC3	1.9690	FAU	.31365
FDE	-1.4147	FRA	9.6613	FC	-12.8804	BSP	16912
BDE	1.9702	BRA	4.7647	BC3	7.7748	FSP	2655

MID-COURSE EXECUTION ACCURACY

SGT	9266.4	SGR	2890.8	SG3	1486.5		
RRT	-.9835	RRF	-.9905	RTF	.9812		
SGB	9706.9	R23	.1250	R13	-.9833		
SG1	9694.0	SG2	499.8	THA	162.90		

ORBIT DETERMINATION ACCURACY

ST	146.6	SR	45.8	SS	51.1
CRT	-.9865	CRS	.9436	CST	-.8773
LSA	160.1	MSA	24.0	SSA	.8
EL1	153.4	EL2	7.2	ALF	162.85

LAUNCH DATE

LAUNCH DATE JUL 21 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 12 1973

HELIOCENTRIC CONIC DISTANCE 330.569 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	35.295	GAL	-3.81	AZL	90.25	HCA	103.82	SMA	265.17	ECC	.43097	INC	.2464
RP	217.81	LAP	-.24	LOP	41.92	VP	26.799	GAP	23.49	AZP	89.94	TAL	347.33	TAP	91.15	RCA	150.89	APO	379.45
RC	73.631	GL	-1.38	GP	-5.04	ZAL	110.51	ZAP	173.67	ETS	234.52	ZAE	167.48	ETE	338.38	ZAC	79.23	ETC	283.25

V1	29.310																		
V2	25.227																		
LVI	-13.31																		

PLANETOCENTRIC CONIC

C3	39.798	VHL	6.309	DLA	16.04	RAL	46.54	RAD	6650.6	VEL	12.636	PTH	7.49	VHP	8.663	DPA	9.14	RAP	37.64
ECC	1.6550																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 28 21	3627.58	-47.48	140.17	296.58	93.49	14 28 49	2627.6	-40.59	107.68
60.00	13 49 39	3570.88	-40.30	135.36	296.88	89.90	14 49 10	2570.9	-35.93	105.15
70.00	14 20 55	3478.85	-34.04	127.70	296.67	87.08	15 18 54	2478.9	-31.68	99.22
80.00	15 9 20	3327.14	-29.49	115.83	296.31	85.13	16 4 47	2327.1	-28.52	88.45
90.00	16 21 48	3093.24	-27.76	98.47	296.13	84.40	17 13 21	2093.2	-27.30	71.47
100.00	17 52 12	2801.61	-29.49	77.20	296.31	85.13	18 38 53	1801.6	-28.52	49.82
110.00	19 20 21	2525.67	-34.04	56.62	296.67	87.08	20 2 27	1525.7	-31.68	28.14

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4017	TRA	-1.3667	TC3	.1480	BAU	.0868	SGT	1355.0	SGR	610.8	SG3	159.8	ST	26.6	SR	28.0	SS	18.0
RDE	-.6122	RRA	.2515	RC3	-.0686	FAU	.05327	RRT	-.1453	RRF	.1651	RTF	-.7154	CRT	.5873	CRS	.6420	CST	.9941
FDE	.3882	FRA	1.1403	FC3	-1.1587	BSP	2112	SGB	1486.3	R23	-.0359	R13	.7172	LSA	38.3	MSA	18.7	SSA	1.2
BDE	.7322	BRA	1.3896	BC3	.1632	FSP	200	SG1	1358.6	SG2	602.7	THA	175.33	EL1	34.4	EL2	17.5	ALF	47.52

LAUNCH DATE JUL 21 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 332.814 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	35.159	GAL	-3.70	AZL	90.21	HCA	104.96	SMA	260.20	ECC	.41996	INC	.2097
RP	218.16	LAP	-.20	LOP	43.06	VP	26.582	GAP	23.13	AZP	89.95	TAL	347.45	TAP	92.41	RCA	150.93	APO	369.48
RC	74.953	GL	-1.20	GP	-5.19	ZAL	110.30	ZAP	173.09	ETS	230.39	ZAE	166.68	ETE	338.62	ZAC	79.00	ETC	283.22

V1	29.310																		
V2	25.188																		
LVI	-13.06																		

PLANETOCENTRIC CONIC

C3	37.947	VHL	6.160	DLA	16.16	RAL	46.29	RAD	6649.9	VEL	12.563	PTH	7.43	VHP	8.412	DPA	9.14	RAP	38.07
ECC	1.6245																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 26 51	3617.98	-47.44	139.25	295.24	94.20	14 27 9	2618.0	-40.29	106.96
60.00	13 48 0	3561.70	-40.30	134.58	295.64	90.43	14 47 22	2561.7	-35.71	104.47
70.00	14 19 4	3470.24	-34.07	127.03	295.50	87.48	15 16 55	2470.2	-31.54	98.59
80.00	15 7 17	3319.14	-29.54	115.24	295.17	85.44	16 2 36	2319.1	-28.43	87.87
90.00	16 19 39	3085.55	-27.81	97.91	295.00	84.67	17 11 5	2085.5	-27.23	70.92
100.00	17 50 9	2793.61	-29.54	76.61	295.17	85.44	18 36 43	1793.6	-28.43	49.24
110.00	19 18 31	2517.05	-34.07	55.95	295.50	87.48	20 0 28	1517.1	-31.54	27.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4018	TRA	-1.3612	TC3	.1726	BAU	.0959	SGT	1386.4	SGR	612.6	SG3	169.9	ST	27.2	SR	27.9	SS	18.7
RDE	-.5958	RRA	.2511	RC3	-.0769	FAU	.05532	RRT	-.1572	RRF	.1782	RTF	-.7256	CRT	.5860	CRS	.6454	CST	.9937
FDE	.4083	FRA	1.1799	FC3	-1.2622	BSP	2182	SGB	1515.7	R23	-.0380	R13	.7275	LSA	38.9	MSA	18.9	SSA	1.3
BDE	.7186	BRA	1.3841	BC3	.1890	FSP	216	SG1	1390.6	SG2	603.1	THA	175.10	EL1	34.7	EL2	17.7	ALF	46.32

LAUNCH DATE JUL 21 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 335.205 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	35.031	GAL	-3.60	AZL	90.17	HCA	106.10	SMA	255.68	ECC	.40954	INC	.1726
RP	218.53	LAP	-.17	LOP	44.19	VP	26.374	GAP	22.77	AZP	89.95	TAL	347.57	TAP	93.67	RCA	150.97	APO	360.40
RC	76.362	GL	-1.01	GP	-5.35	ZAL	110.09	ZAP	172.47	ETS	226.92	ZAE	165.94	ETE	338.73	ZAC	78.77	ETC	283.19

V1	29.310																		
V2	25.148																		
LVI	-12.80																		

PLANETOCENTRIC CONIC

C3	36.227	VHL	6.019	DLA	16.28	RAL	46.02	RAD	6649.3	VEL	12.495	PTH	7.38	VHP	8.170	DPA	9.13	RAP	38.50
ECC	1.5962																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 25 16	3608.80	-47.39	138.36	293.93	94.87	14 25 25	2608.8	-39.99	106.28
60.00	13 46 15	3552.95	-40.29	133.84	294.42	90.94	14 45 28	2553.0	-35.51	103.82
70.00	14 17 7	3462.08	-34.09	126.39	294.34	87.85	15 14 49	2462.1	-31.41	97.99
80.00	15 5 8	3311.63	-29.58	114.69	294.04	85.72	16 0 19	2311.6	-28.34	87.33
90.00	16 17 24	3078.37	-27.86	97.39	293.88	84.93	17 8 42	2078.4	-27.16	70.40
100.00	17 47 59	2786.11	-29.58	76.06	294.04	85.72	18 34 26	1786.1	-28.34	48.70
110.00	19 16 33	2508.90	-34.09	55.31	294.34	87.85	19 58 22	1508.9	-31.41	26.91

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4026	TRA	-1.3555	TC3	.1966	BAU	.1040	SGT	1417.7	SGR	614.2	SG3	180.6	ST	27.8	SR	27.8	SS	19.4
RDE	-.5798	RRA	.2510	RC3	-.0861	FAU	.05750	RRT	-.1695	RRF	.1925	RTF	-.7542	CRT	.5853	CRS	.6485	CST	.9934
FDE	.4293	FRA	1.2209	FC3	-1.3741	BSP	2247	SGB	1545.1	R23	-.0411	R13	.7363	LSA	39.5	MSA	19.0	SSA	1.3
BDE	.7058	BRA	1.3785	BC3	.2146	FSP	232	SG1	1422.4	SG2	603.4	THA	174.88	EL1	35.0	EL2	17.9	ALF	45.05

LAUNCH DATE JUL 21 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 337.725 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	34.909	GAL	-3.50	AZL	90.14	HCA	107.23	SMA	251.58	ECC	.39969	INC	.1353
RP	218.89	LAP	-.13	LOP	45.33	VP	26.173	GAP	22.41	AZP	89.96	TAL	347.70	TAP	94.94	RCA	151.01	APO	352.09
RC	77.855	GL	-.80	GP	-5.51	ZAL	109.86	ZAP	171.82	ETS	223.99	ZAE	165.25	ETE	338.73	ZAC	78.53	ETC	283.16

V1	29.310																		
V2	25.107																		
LVI	-12.54																		

PLANETOCENTRIC CONIC

C3	34.627	VHL	5.884	DLA	16.41	RAL	45.73	RAD	6648.8	VEL	12.431	PTH	7.34	VHP	7.936	DPA	9.11	RAP	38.93
ECC	1.5699																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 23 35	3600.06	-47.33	137.52	292.63	95.52	14 23 35	2600.1	-39.71	105.63
60.00	13 44 24	3544.67	-40.28	133.13	293.22	91.41	14 43 28	2544.7	-35.31	103.20
70.00	14 15 3	3454.42	-34.11	125.80	293.19	88.21	15 12 38	2454.4	-31.28	97.43
80.00	15 2 51	3304.65	-29.61	114.17	292.93	85.99	15 57 55	2304.7	-28.26	86.63
90.00	16 15 0	3071.73	-27.90	96.91	292.78	85.17	17 6 12	2071.7	-27.10	69.93
100.00	17 45 43	2779.13	-29.61	75.54	292.93	85.99	18 32 2	1779.1	-28.26	48.20
110.00	19 14 30	2501.24	-34.11	54.71	293.19	88.21	19 56 11	1501.2	-31.28	26.35

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4034	TRA	-1.3493	TC3	.2238	BAU	.1127	SGT	1449.0	SGR	615.8	SG3	191.9	ST	28.4	SR	27.7	SS	20.1
RDE	-.5639	RRA	.2511	RC3	-.0961	FAU	.05978	RRT	-.1829	RRF	.2077	RTF	-.7434	CRT	.5846	CRS	.6518	CST	.9931
FDE	.4520	FRA	1.2629	FC3	-1.4947	BSP	2308	SGB	1574.4	R23	-.0440	R13	.7456	LSA	40.2	MSA	19.1	SSA	1.3
BDE	.6934	BRA	1.3725	BC3	.2435	FSP	249	SG1	1454.3	SG2	603.2	THA	174.63	EL1	35.3	EL2	18.1	ALF	43.77

LAUNCH DATE JUL 21 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 340.360 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	34.793	GAL	-3.41	AZL	90.10	HCA	108.36	SMA	247.77	ECC	.39037	INC	.0974	V1	29.310
RP	219.26	LAP	-.09	LOP	46.46	VP	25.979	GAP	22.06	AZP	89.97	TAL	347.84	TAP	96.20	RCA	151.05	APO	344.49	V2	25.067
RC	79.428	GL	-.39	GP	-5.68	ZAL	109.62	ZAP	171.14	ETS	221.50	ZAE	164.63	ETE	338.63	ZAC	78.29	ETC	283.13	LVI	-12.27

PLANETOCENTRIC CONIC

C3	33.139	VHL	5.757	DLA	16.55	RAL	45.42	RAD	6648.2	VEL	12.371	PTH	7.29	VHP	7.710	DPA	9.07	RAP	39.34	ECC	1.5454

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 21 49	3591.77	-47.27	136.73	291.36	96.13	14 21 41	2591.8	-39.43	105.02
60.00	13 42 27	3536.86	-40.27	132.47	292.03	91.86	14 41 24	2536.9	-35.12	102.63
70.00	14 12 53	3447.26	-34.13	125.24	292.06	88.54	15 10 20	2447.3	-31.16	96.91
80.00	15 0 26	3298.22	-29.64	113.70	291.82	86.24	15 55 25	2298.2	-28.18	86.37
90.00	16 12 29	3065.66	-27.93	96.47	291.68	85.39	17 3 35	2065.7	-27.04	69.49
100.00	17 43 18	2772.69	-29.64	75.07	291.82	86.24	18 29 31	1772.7	-28.18	47.74
110.00	19 12 19	2494.08	-34.13	54.16	292.06	88.54	19 53 53	1494.1	-31.16	25.83

DIFFERENTIAL CORRECTIONS

TDE	-.4047	TRA	-1.3433	TC3	.2514	BAU	.1210
RDE	-.5483	RRA	.2515	RC3	-.1070	FAU	.06217
FDE	.4764	FRA	1.3065	FC3	-1.6241	BSP	2372
BDE	.6815	BRA	1.3666	BC3	.2732	FSP	268

MID-COURSE EXECUTION ACCURACY

SGT	1480.3	SGR	617.4	SG3	203.8		
RRT	-.1971	RRF	.2239	RTF	-.7517		
SGB	1603.9	R23	-.0471	R13	.7542		
SG1	1486.3	SG2	602.8	THA	174.37		

ORBIT DETERMINATION ACCURACY

ST	29.0	SR	27.6	SS	20.9
CRT	.5839	CRS	.6583	CST	.9927
LSA	40.9	MSA	19.2	SSA	1.3
EL1	35.7	EL2	18.2	ALF	42.44

LAUNCH DATE JUL 21 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 343.098 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	34.683	GAL	-3.31	AZL	90.06	HCA	109.49	SMA	244.29	ECC	.38154	INC	.0593	V1	29.310
RP	219.63	LAP	-.06	LOP	47.58	VP	25.793	GAP	21.71	AZP	89.98	TAL	347.99	TAP	97.48	RCA	151.08	APO	337.50	V2	25.026
RC	81.081	GL	-.37	GP	-5.86	ZAL	109.36	ZAP	170.44	ETS	219.37	ZAE	164.06	ETE	338.43	ZAC	78.05	ETC	283.10	LVI	-12.00

PLANETOCENTRIC CONIC

C3	31.752	VHL	5.635	DLA	16.69	RAL	45.10	RAD	6647.7	VEL	12.316	PTH	7.25	VHP	7.491	DPA	9.03	RAP	39.75	ECC	1.5226

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 19 57	3583.91	-47.21	135.98	290.11	96.70	14 19 41	2583.9	-39.17	104.45
60.00	13 40 23	3529.51	-40.25	131.84	290.86	92.29	14 39 13	2529.5	-34.94	102.09
70.00	14 10 36	3440.60	-34.14	124.72	290.94	88.84	15 7 56	2440.6	-31.04	96.42
80.00	14 57 55	3292.32	-29.67	113.26	290.72	86.47	15 52 47	2292.3	-28.11	85.94
90.00	16 9 50	3060.14	-27.96	96.06	290.59	85.59	17 0 50	2060.1	-26.98	69.10
100.00	17 40 46	2766.79	-29.67	74.63	290.72	86.47	18 26 53	1766.8	-28.11	47.31
110.00	19 10 2	2487.41	-34.14	53.64	290.94	88.84	19 51 29	1487.4	-31.04	25.34

DIFFERENTIAL CORRECTIONS

TDE	-.3938	TRA	-1.3238	TC3	.2967	BAU	.1356
RDE	-.5325	RRA	.2525	RC3	-.1186	FAU	.06452
FDE	.5069	FRA	1.3552	FC3	-1.7592	BSP	2281
BDE	.6623	BRA	1.3476	BC3	.3195	FSP	293

MID-COURSE EXECUTION ACCURACY

SGT	1498.9	SGR	618.8	SG3	216.3		
RRT	-.2206	RRF	.2399	RTF	-.7705		
SGB	1621.6	R23	-.0384	R13	.7728		
SG1	1506.3	SG2	600.6	THA	173.81		

ORBIT DETERMINATION ACCURACY

ST	29.1	SR	27.4	SS	21.8
CRT	.5744	CRS	.6608	CST	.9910
LSA	41.2	MSA	19.2	SSA	1.3
EL1	35.5	EL2	18.4	ALF	42.00

LAUNCH DATE JUL 21 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 345.930 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	34.580	GAL	-3.22	AZL	90.02	HCA	110.61	SMA	241.10	ECC	.37319	INC	.0156	V1	29.310
RP	220.00	LAP	-.02	LOP	48.70	VP	25.613	GAP	21.36	AZP	89.99	TAL	348.14	TAP	98.75	RCA	151.12	APO	331.07	V2	24.985
RC	82.809	GL	-.14	GP	-6.04	ZAL	109.10	ZAP	169.72	ETS	217.55	ZAE	163.54	ETE	338.15	ZAC	77.80	ETC	283.07	LVI	-11.73

PLANETOCENTRIC CONIC

C3	30.463	VHL	5.519	DLA	16.84	RAL	44.77	RAD	6647.2	VEL	12.264	PTH	7.21	VHP	7.279	DPA	8.97	RAP	40.15	ECC	1.5013

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 18 1	3576.58	-47.15	135.28	288.89	97.24	14 17 37	2576.6	-38.92	103.93
60.00	13 38 15	3522.71	-40.23	131.27	289.72	92.68	14 36 57	2522.7	-34.77	101.60
70.00	14 8 12	3434.53	-34.14	124.24	289.84	89.12	15 5 27	2434.5	-30.93	95.98
80.00	14 55 15	3287.06	-29.69	112.87	289.65	86.67	15 50 2	2287.1	-28.05	85.57
90.00	16 7 4	3055.30	-27.99	95.71	289.52	85.76	16 57 59	2055.3	-26.93	68.75
100.00	17 38 7	2761.54	-29.69	74.24	289.65	86.67	18 24 9	1761.5	-28.05	46.94
110.00	19 7 38	2481.35	-34.14	53.16	289.84	89.12	19 49 0	1481.3	-30.93	24.90

DIFFERENTIAL CORRECTIONS

TDE	-.3999	TRA	-1.3212	TC3	.3222	BAU	.1418
RDE	-.5174	RRA	.2534	RC3	-.1318	FAU	.06727
FDE	.5325	FRA	1.3988	FC3	-1.9118	BSP	2405
BDE	.6539	BRA	1.3452	BC3	.3481	FSP	312

MID-COURSE EXECUTION ACCURACY

SGT	1533.6	SGR	620.6	SG3	229.6		
RRT	-.2338	RRF	.2589	RTF	-.7739		
SGB	1654.4	R23	-.0465	R13	.7767		
SG1	1541.7	SG2	600.2	THA	173.63		

ORBIT DETERMINATION ACCURACY

ST	29.9	SR	27.2	SS	22.6
CRT	.5772	CRS	.6633	CST	.9911
LSA	42.1	MSA	19.2	SSA	1.4
EL1	35.9	EL2	18.5	ALF	40.31

LAUNCH DATE JUL 21 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 348.845 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	34.481	GAL	-3.12	AZL	89.98	HCA	111.73	SMA	238.15	ECC	.36528	INC	.0121	V1	29.310
RP	220.38	LAP	.02	LOP	49.82	VP	25.439	GAP	21.01	AZP	90.01	TAL	348.29	TAP	100.02	RCA	151.16	APO	325.14	V2	24.944
RC	84.610	GL	.10	GP	-6.24	ZAL	108.83	ZAP	168.97	ETS	215.97	ZAE	163.09	ETE	337.79	ZAC	77.54	ETC	283.05	LVI	-11.44

PLANETOCENTRIC CONIC

C3	29.263	VHL	5.410	DLA	16.99	RAL	44.42	RAD	6646.7	VEL	12.215	PTH	7.17	VHP	7.075	DPA	8.90	RAP	40.54	ECC	1.4816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 15 59	3569.74	-47.09	134.63	287.70	97.73	14 15 29	2569.7	-38.69	103.44
60.00	13 36 0	3516.44	-40.21	130.73	288.60	93.04	14 34 37	2516.4	-34.61	101.14
70.00	14 5 42	3429.03	-34.15	123.82	288.76	89.38	15 2 51	2429.0	-30.83	95.59
80.00	14 52 29	3282.42	-29.71	112.53	288.59	86.85	15 47 11	2282.4	-27.99	85.24
90.00	16 4 9	3051.09	-28.01	95.41	288.47	85.91	16 55 0	2051.1	-26.88	68.46
100.00	17 35 20	2756.89	-29.71	73.90	288.59	86.85	18 21 17	1756.9	-27.99	46.60
110.00	19 5 8	2475.85	-34.15	52.73	288.76	89.38	19 46 24	1475.8	-30.83	24.50

DIFFERENTIAL CORRECTIONS

TDE	-.4046	TRA	-1.3166	TC3	.3505	BAU	.1485
RDE	-.5024	RRA	.2545	RC3	-.1461	FAU	.07015
FDE	.5606	FRA	1.4444	FC3	-2.0754	BSP	2503
BDE	.6450	BRA	1.3410	BC3	.3797	FSP	333

MID-COURSE EXECUTION ACCURACY

SGT	1566.4	SGR	622.5	SG3	243.7		
RRT	-.2491	RRF	.2790	RTF	-.7784		
SGB	1685.6	R23	-.0535	R13	.7815		
SG1	1575.4	SG2	599.5	THA	173.38		

ORBIT DETERMINATION ACCURACY

ST	30.6	SR	26.9	SS	23.4
CRT	.5787	CRS	.6660	CST	.9909
LSA	42.9	MSA	19.2	SSA	1.4
EL1	36.3	EL2	18.5	ALF	38.74

LAUNCH DATE JUL 21 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 351.837 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	34.387	GAL	-3.04	AZL	89.94	HCA	112.84	SMA	235.43	ECC	.35780	INC	.0542	V1	29.310
RP	220.76	LAP	.05	LOP	50.93	VP	25.272	GAP	20.67	AZP	90.02	TAL	348.45	TAP	101.29	RCA	151.19	APO	319.66	V2	24.902
RC	86.480	GL	.36	GP	-6.44	ZAL	108.54	ZAP	168.21	ETS	214.60	ZAE	162.70	ETE	337.34	ZAC	77.27	ETC	283.02	LVI	-11.16

PLANETOCENTRIC CONIC

C3	28.144	VHL	5.305	DLA	17.16	RAL	44.06	RAD	6648.3	VEL	12.169	PTH	7.13	VHP	6.877	DPA	8.82	RAP	40.92	ECC	1.4632

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 13 52	3563.41	-47.03	134.03	286.55	98.19	14 13 15	2563.4	-38.47	102.99
60.00	13 33 40	3510.70	-40.18	130.25	287.50	93.37	14 32 11	2510.7	-34.46	100.73
70.00	14 3 5	3424.11	-34.15	123.43	287.70	89.60	15 0 9	2424.1	-30.74	95.23
80.00	14 49 34	3278.42	-29.72	112.23	287.55	87.01	15 44 12	2278.4	-27.94	84.95
90.00	16 1 5	3047.55	-28.02	95.15	287.43	86.04	16 51 53	2047.6	-26.85	68.20
100.00	17 32 26	2752.89	-29.72	73.60	287.55	87.01	18 18 19	1752.9	-27.94	46.32
110.00	19 2 31	2470.93	-34.15	52.35	287.70	89.60	19 43 42	1470.9	-30.74	24.15

DIFFERENTIAL CORRECTIONS

TDE	-.4083	TRA	-1.3109	TC3	.3818	BAU	.1560
RDE	-.4875	RRA	.2560	RC3	-.1616	FAU	.07315
FDE	.5913	FRA	1.4922	FC3	-2.2503	BSP	2590
BDE	.6359	BRA	1.3357	BC3	.4145	FSP	356

MID-COURSE EXECUTION ACCURACY

SGT	1598.2	SGR	624.7	SG3	258.5
RRT	-.2664	RRF	.3002	RTF	-.7838
SGB	1715.9	R23	-.0594	R13	.7872
SG1	1608.2	SG2	598.4	THA	173.09

ORBIT DETERMINATION ACCURACY

ST	31.3	SR	26.7	SS	24.3
CRT	.5791	CRS	.6689	CST	.9906
LSA	43.7	MSA	19.2	SSA	1.4
EL1	36.7	EL2	18.5	ALF	37.24

LAUNCH DATE JUL 21 1973 FLIGHT TIME 132.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 354.896 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	34.299	GAL	-2.95	AZL	89.90	HCA	113.95	SMA	232.91	ECC	.35070	INC	.0941	V1	29.310
RP	221.14	LAP	.09	LOP	52.04	VP	25.110	GAP	20.33	AZP	90.04	TAL	348.61	TAP	102.57	RCA	151.23	APO	314.59	V2	24.861
RC	88.416	GL	.63	GP	-6.66	ZAL	108.25	ZAP	167.43	ETS	213.41	ZAE	162.36	ETE	336.81	ZAC	77.00	ETC	283.00	LVI	-10.86

PLANETOCENTRIC CONIC

C3	27.101	VHL	5.206	DLA	17.33	RAL	43.69	RAD	6645.9	VEL	12.127	PTH	7.10	VHP	6.685	DPA	8.73	RAP	41.30	ECC	1.4460

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 11 40	3557.59	-46.98	133.48	285.42	98.61	14 10 58	2557.6	-38.27	102.58
60.00	13 31 14	3505.51	-40.16	129.81	286.43	93.67	14 29 39	2505.5	-34.32	100.35
70.00	14 0 21	3419.79	-34.15	123.09	286.66	89.80	14 57 21	2419.8	-30.66	94.92
80.00	14 46 31	3275.08	-29.73	111.98	286.52	87.14	15 41 6	2275.1	-27.89	84.71
90.00	15 57 53	3044.71	-28.04	94.94	286.41	86.14	16 48 38	2044.7	-26.81	68.00
100.00	17 29 23	2749.55	-29.73	73.35	286.52	87.14	18 15 13	1749.5	-27.89	46.08
110.00	18 59 47	2466.61	-34.15	52.01	286.66	89.80	19 40 54	1466.6	-30.66	23.84

DIFFERENTIAL CORRECTIONS

TDE	-.4115	TRA	-1.3035	TC3	.4148	BAU	.1636
RDE	-.4727	RRA	.2578	RC3	-.1785	FAU	.07631
FDE	.6247	FRA	1.5411	FC3	-2.4378	BSP	2666
BDE	.6267	BRA	1.3287	BC3	.4516	FSP	380

MID-COURSE EXECUTION ACCURACY

SGT	1627.9	SGR	627.2	SG3	274.2
RRT	-.2852	RRF	.3225	RTF	-.7893
SGB	1744.6	R23	-.0650	R13	.7932
SG1	1639.3	SG2	597.0	THA	172.76

ORBIT DETERMINATION ACCURACY

ST	32.0	SR	26.4	SS	25.2
CRT	.5790	CRS	.6719	CST	.9902
LSA	44.6	MSA	19.1	SSA	1.4
EL1	37.1	EL2	18.6	ALF	35.80

LAUNCH DATE JUL 21 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 358.018 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	34.214	GAL	-2.86	AZL	89.86	HCA	115.06	SMA	230.57	ECC	.34398	INC	.1345	V1	29.310
RP	221.52	LAP	.12	LOP	53.15	VP	24.953	GAP	20.00	AZP	90.06	TAL	348.78	TAP	103.84	RCA	151.26	APO	309.89	V2	24.819
RC	90.414	GL	.90	GP	-6.88	ZAL	107.96	ZAP	166.63	ETS	212.36	ZAE	162.07	ETE	336.20	ZAC	76.73	ETC	282.98	LVI	-10.56

PLANETOCENTRIC CONIC

C3	26.129	VHL	5.112	DLA	17.51	RAL	43.31	RAD	6645.5	VEL	12.087	PTH	7.07	VHP	6.500	DPA	8.62	RAP	41.66	ECC	1.4300

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 9 23	3552.30	-46.92	132.98	284.33	98.99	14 8 36	2552.3	-38.09	102.21
60.00	13 28 42	3500.89	-40.14	129.42	285.39	93.93	14 27 3	2500.9	-34.20	100.02
70.00	13 57 30	3416.09	-34.15	122.80	285.64	89.97	14 54 26	2416.1	-30.60	94.65
80.00	14 43 21	3272.42	-29.74	111.79	285.52	87.24	15 37 53	2272.4	-27.86	84.52
90.00	15 54 33	3042.58	-28.05	94.79	285.41	86.22	16 45 16	2042.6	-26.79	67.85
100.00	17 26 13	2746.89	-29.74	73.16	285.52	87.24	18 12 0	1746.9	-27.86	45.89
110.00	18 56 57	2462.91	-34.15	51.72	285.64	89.97	19 38 0	1462.9	-30.60	23.57

DIFFERENTIAL CORRECTIONS

TDE	-.4147	TRA	-1.2956	TC3	.4494	BAU	.1714
RDE	-.4579	RRA	.2599	RC3	-.1967	FAU	.07962
FDE	.6605	FRA	1.5924	FC3	-2.6381	BSP	2736
BDE	.6178	BRA	1.3214	BC3	.4906	FSP	407

MID-COURSE EXECUTION ACCURACY

SGT	1657.1	SGR	630.2	SG3	290.8
RRT	-.3054	RRF	.3461	RTF	-.8050
SGB	1772.9	R23	-.0706	R13	.7992
SG1	1669.9	SG2	595.5	THA	172.40

ORBIT DETERMINATION ACCURACY

ST	32.6	SR	26.1	SS	26.2
CRT	.5785	CRS	.6746	CST	.9897
LSA	45.4	MSA	19.0	SSA	1.5
EL1	37.4	EL2	18.5	ALF	34.37

LAUNCH DATE JUL 21 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 361.197 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	34.134	GAL	-2.78	AZL	89.82	HCA	116.16	SMA	228.41	ECC	.33762	INC	.1756	V1	29.310
RP	221.90	LAP	.16	LOP	54.25	VP	24.802	GAP	19.67	AZP	90.08	TAL	348.95	TAP	105.11	RCA	151.29	APO	305.32	V2	24.778
RC	92.473	GL	1.20	GP	-7.11	ZAL	107.65	ZAP	165.82	ETS	211.44	ZAE	161.84	ETE	335.50	ZAC	76.44	ETC	282.96	LVI	-10.28

PLANETOCENTRIC CONIC

C3	25.222	VHL	5.022	DLA	17.70	RAL	42.92	RAD	6645.1	VEL	12.050	PTH	7.03	VHP	6.321	DPA	8.49	RAP	42.01	ECC	1.4151

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 7 2	3547.55	-46.87	132.54	283.27	99.33	14 6 9	2547.6	-37.92	101.88
60.00	13 26 5	3496.85	-40.12	129.07	284.37	94.16	14 24 21	2496.8	-34.10	99.73
70.00	13 54 33	3413.02	-34.15	122.57	284.65	90.12	14 51 26	2413.0	-30.54	94.43
80.00	14 40 2	3270.46	-29.75	111.64	284.53	87.32	15 34 33	2270.5	-27.83	84.38
90.00	15 51 4	3041.20	-28.05	94.69	284.43	86.27	16 41 45	2041.2	-26.78	67.75
100.00	17 22 54	2744.93	-29.75	73.01	284.53	87.32	18 8 39	1744.9	-27.83	45.75
110.00	18 53 59	2459.84	-34.15	51.48	284.65	90.12	19 34 59	1459.8	-30.54	23.35

DIFFERENTIAL CORRECTIONS

TDE	-.4173	TRA	-1.2865	TC3	.4856	BAU	.1793
RDE	-.4432	RRA	.2622	RC3	-.2165	FAU	.08311
FDE	.6988	FRA	1.6443	FC3	-2.8527	BSP	2801
BDE	.6088	BRA	1.3130	BC3	.5317	FSP	435

MID-COURSE EXECUTION ACCURACY

SGT	1684.7	SGR	633.7	SG3	308.2
RRT	-.3270	RRF	.3709	RTF	-.8006
SGB	1800.0	R23	-.0760	R13	.8053
SG1	1699.2	SG2	593.8	THA	172.00

ORBIT DETERMINATION ACCURACY

ST	33.2	SR	25.7	SS	27.2
CRT	.5773	CRS	.6771	CST	.9892
LSA	46.3	MSA	18.9	SSA	1.5
EL1	37.7	EL2	18.5	ALF	32.98

LAUNCH DATE JUL 21 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 364.427 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	34.059	GAL	-2.70	AZL	89.78	HCA	117.26	SMA	226.30	ECC	.33158	INC	.2173
RP	222.28	LAP	.19	LOP	55.35	VP	24.655	GAP	19.34	AZP	90.10	TAL	349.12	TAP	106.38	RCA	151.32	APO	301.46
RC	94.587	GL	1.50	GP	-7.36	ZAL	107.35	ZAP	164.98	ETS	210.63	ZAE	161.66	ETE	334.71	ZAC	76.15	ETC	282.94

V1	29.310																		
V2	24.736																		
LVI	-9.95																		

PLANETOCENTRIC CONIC

C3	24.376	VHL	4.937	DLA	17.90	RAL	42.52	RAD	6644.7	VEL	12.015	PTH	7.01	VHP	6.147	DPA	8.35	RAP	42.35

ECC	1.4012																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 4 36	3543.35	-46.82	132.14	282.25	99.63	14 3 39	2543.4	-37.77	101.58
60.00	13 23 21	3493.39	-40.10	128.78	283.38	94.36	14 21 35	2493.4	-34.00	99.48
70.00	13 51 28	3410.61	-34.15	122.38	283.68	90.23	14 48 19	2410.6	-30.49	94.26
80.00	14 36 35	3269.23	-29.75	111.55	283.57	87.37	15 31 4	2269.2	-27.81	84.29
90.00	15 47 25	3040.59	-28.06	94.64	283.46	86.29	16 38 6	2040.6	-26.77	67.71
100.00	17 19 27	2743.71	-29.75	72.92	283.57	87.37	18 5 10	1743.7	-27.81	45.66
110.00	18 50 55	2457.43	-34.15	51.29	283.68	90.23	19 31 52	1457.4	-30.49	23.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4207	TRA	-1.2772	TC3	.5214	BAU	.1868	SGT	1711.6	SGR	637.8	SG3	326.5	ST	33.8	SR	25.3	SS	28.3
RDE	-.4285	RRA	.2649	RC3	-.2378	FAU	.08673	RRT	-.3493	RRF	.3966	RTF	-.8057	CRT	.5763	CRS	.6797	CST	.9886
FDE	.7409	FRA	1.6981	FC3	-3.0804	BSP	2867	SGB	1826.6	R23	-.0819	R13	.8109	LSA	47.2	MSA	18.7	SSA	1.5
BDE	.6005	BRA	1.3044	BC3	.5731	FSP	465	SG1	1728.0	SG2	591.9	THA	171.59	EL1	38.0	EL2	18.4	ALF	31.55

LAUNCH DATE JUL 21 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 367.705 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	33.987	GAL	-2.63	AZL	89.74	HCA	118.35	SMA	224.52	ECC	.32587	INC	.2593
RP	222.67	LAP	.23	LOP	56.45	VP	24.514	GAP	19.01	AZP	90.12	TAL	349.29	TAP	107.65	RCA	151.35	APO	297.68
RC	96.756	GL	1.82	GP	-7.61	ZAL	107.04	ZAP	164.13	ETS	209.91	ZAE	161.53	ETE	333.83	ZAC	75.85	ETC	282.93

V1	29.310																		
V2	24.694																		
LVI	-9.63																		

PLANETOCENTRIC CONIC

C3	23.588	VHL	4.857	DLA	18.12	RAL	42.12	RAD	6644.4	VEL	11.982	PTH	6.98	VHP	5.979	DPA	8.19	RAP	42.68

ECC	1.3862																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 2 5	3539.71	-46.78	131.80	281.26	99.89	14 1 4	2539.7	-37.64	101.33
60.00	13 20 32	3490.55	-40.09	128.54	282.42	94.52	14 18 43	2490.5	-33.93	99.28
70.00	13 48 17	3408.87	-34.15	122.24	282.74	90.31	14 45 6	2408.9	-30.46	94.14
80.00	14 32 59	3268.76	-29.75	111.52	282.63	87.38	15 27 28	2268.8	-27.81	84.26
90.00	15 43 37	3040.77	-28.05	94.66	282.53	86.29	16 34 18	2040.8	-26.77	67.72
100.00	17 15 51	2743.23	-29.75	72.88	282.63	87.38	18 1 34	1743.2	-27.81	45.63
110.00	18 47 43	2455.69	-34.15	51.16	282.74	90.31	19 28 39	1455.7	-30.46	23.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4231	TRA	-1.2669	TC3	.5590	BAU	.1945	SGT	1736.8	SGR	642.8	SG3	345.9	ST	34.3	SR	24.9	SS	29.4
RDE	-.4138	RRA	.2679	RC3	-.2610	FAU	.09060	RRT	-.3734	RRF	.4238	RTF	-.8109	CRT	.5739	CRS	.6814	CST	.9879
FDE	.7847	FRA	1.7532	FC3	-3.3252	BSP	2921	SGB	1852.0	R23	-.0878	R13	.8166	LSA	48.1	MSA	18.5	SSA	1.5
BDE	.5918	BRA	1.2949	BC3	.6169	FSP	496	SG1	1755.5	SG2	590.0	THA	171.12	EL1	38.3	EL2	18.3	ALF	30.18

LAUNCH DATE JUL 21 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 371.025 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	33.918	GAL	-2.55	AZL	89.70	HCA	119.44	SMA	222.77	ECC	.32045	INC	.3023
RP	223.06	LAP	.26	LOP	57.54	VP	24.377	GAP	18.69	AZP	90.15	TAL	349.46	TAP	108.91	RCA	151.38	APO	294.15
RC	98.976	GL	2.15	GP	-7.88	ZAL	106.72	ZAP	163.26	ETS	209.27	ZAE	161.44	ETE	332.85	ZAC	75.54	ETC	282.92

V1	29.310																		
V2	24.652																		
LVI	-9.30																		

PLANETOCENTRIC CONIC

C3	22.852	VHL	4.780	DLA	18.34	RAL	41.70	RAD	6644.1	VEL	11.952	PTH	6.95	VHP	5.817	DPA	8.02	RAP	43.00

ECC	1.3761																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 59 29	3536.63	-46.74	131.51	280.31	100.11	13 58 26	2536.6	-37.53	101.12
60.00	13 17 38	3488.31	-40.08	128.35	281.50	94.65	14 15 46	2488.3	-33.87	99.12
70.00	13 44 58	3407.81	-34.15	122.16	281.82	90.36	14 41 46	2407.8	-30.44	94.06
80.00	14 29 14	3269.06	-29.75	111.54	281.72	87.37	15 23 43	2269.1	-27.81	84.28
90.00	15 39 39	3041.78	-28.05	94.73	281.61	86.25	16 30 21	2041.8	-26.78	67.79
100.00	17 12 6	2743.53	-29.75	72.91	281.72	87.37	17 57 50	1743.5	-27.81	45.65
110.00	18 44 25	2454.63	-34.15	51.08	281.82	90.36	19 25 19	1454.6	-30.44	22.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4257	TRA	-1.2563	TC3	.5977	BAU	.2024	SGT	1761.6	SGR	648.7	SG3	366.2	ST	34.9	SR	24.5	SS	30.3
RDE	-.3990	RRA	.2712	RC3	-.2859	FAU	.09463	RRT	-.3986	RRF	.4519	RTF	-.8160	CRT	.5711	CRS	.6829	CST	.9872
FDE	.8324	FRA	1.8099	FC3	-3.5850	BSP	2975	SGB	1877.3	R23	-.0936	R13	.8223	LSA	49.1	MSA	18.3	SSA	1.6
BDE	.5835	BRA	1.2852	BC3	.6626	FSP	529	SG1	1782.8	SG2	587.8	THA	170.62	EL1	38.5	EL2	18.2	ALF	28.79

LAUNCH DATE JUL 21 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 374.385 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	33.854	GAL	-2.48	AZL	89.65	HCA	120.53	SMA	221.14	ECC	.31532	INC	.3460
RP	223.44	LAP	.30	LOP	58.63	VP	24.244	GAP	18.37	AZP	90.18	TAL	349.64	TAP	110.17	RCA	151.41	APO	290.87
RC	101.244	GL	2.49	GP	-8.16	ZAL	106.41	ZAP	162.38	ETS	208.70	ZAE	161.40	ETE	331.76	ZAC	75.22	ETC	282.91

V1	29.310																		
V2	24.611																		
LVI	-8.97																		

PLANETOCENTRIC CONIC

C3	22.166	VHL	4.708	DLA	18.57	RAL	41.28	RAD	6643.8	VEL	11.923	PTH	6.93	VHP	5.660	DPA	7.82	RAP	43.31

ECC	1.3648																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 56 49	3534.13	-46.71	131.28	279.39	100.29	13 55 43	2534.1	-37.44	100.95
60.00	13 14 37	3486.71	-40.07	128.22	280.60	94.74	14 12 44	2486.7	-33.82	99.01
70.00	13 41 32	3407.46	-34.15	122.13	280.93	90.37	14 38 20	2407.5	-30.43	94.04
80.00	14 25 20	3270.17	-29.75	111.62	280.83	87.33	15 19 50	2270.2	-27.83	84.36
90.00	15 35 31	3043.65	-28.04	94.87	280.72	86.18	16 26 14	2043.7	-26.80	67.93
100.00	17 8 12	2744.64	-29.75	72.99	280.83	87.33	17 53 57	1744.6	-27.83	45.73
110.00	18 40 59	2454.28	-34.15	51.05	280.93	90.37	19 21 53	1454.3	-30.43	22.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4289	TRA	-1.2448	TC3	.6355	BAU	.2099	SGT	1784.5	SGR	655.7	SG3	387.6	ST	35.4	SR	24.0	SS	31.7
RDE	-.3842	RRA	.2748	RC3	-.3129	FAU	.09889	RRT	-.4240	RRF	.4810	RTF	-.8205	CRT	.5682	CRS	.6837	CST	.9866
FDE	.8834	FRA	1.8676	FC3	-3.8621	BSP	3034	SGB	1901.2	R23	-.1004	R13	.8275	LSA	50.1	MSA	18.1	SSA	1.6
BDE	.5758	BRA	1.2748	BC3	.7084	FSP	566	SG1	1808.6	SG2	585.9	THA	170.10	EL1	38.8	EL2	18.0	ALF	27.39

LAUNCH DATE JUL 21 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 377.781 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	33.792	GAL	-2.41	AZL	89.61	HCA	121.61	SMA	219.62	ECC	.31045	INC	.3904
RP	223.83	LAP	.33	LOP	59.71	VP	24.115	GAP	18.05	AZP	90.20	TAL	349.81	TAP	111.42	RCA	151.44	APO	287.80
RC	103.560	GL	2.84	GP	-8.46	ZAL	106.10	ZAP	161.47	ETS	208.19	ZAE	161.39	ETE	330.55	ZAC	74.89	ETC	282.90

V1 29.310
V2 24.569
LVI -8.63

PLANETOCENTRIC CONIC

C3	21.527	VHL	4.640	DLA	18.82	RAL	40.86	RAD	6643.5	VEL	11.896	PTH	6.91	VHP	5.508	DPA	7.61	RAP	43.60	ECC	1.3543

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 54 4	3532.22	-46.69	131.10	278.52	100.43	13 52 56	2532.2	-37.37	100.82
60.00	13 11 31	3485.74	-40.06	128.13	279.74	94.80	14 9 37	2485.7	-33.80	98.94
70.00	13 37 59	3407.83	-34.15	122.16	280.07	90.36	14 34 47	2407.8	-30.44	94.06
80.00	14 21 17	3272.10	-29.74	111.76	279.96	87.25	15 15 49	2272.1	-27.85	84.50
90.00	15 31 12	3046.41	-28.03	95.07	279.85	86.08	16 21 58	2046.4	-26.83	68.12
100.00	17 4 9	2746.57	-29.74	73.13	279.96	87.25	17 49 55	1746.6	-27.85	45.87
110.00	18 37 25	2454.65	-34.15	51.08	280.07	90.36	19 18 20	1454.6	-30.44	22.98

DIFFERENTIAL CORRECTIONS

TDE	-.4323	TRA	-1.2334	TC3	.6733	BAU	.2173
RDE	-.3691	RRA	.2788	RC3	-.3420	FAU	.10334
FDE	.9388	FRA	1.9273	FC3	-4.1559	BSP	3081
BDE	.5685	BRA	1.2646	BC3	.7551	FSP	602

MID-COURSE EXECUTION ACCURACY

SGT	1806.9	SGR	663.9	SG3	410.2
RRT	-.4503	RRF	.5108	RTF	-.8247
SGB	1925.0	R23	-.1074	R13	.8325
SG1	1834.3	SG2	584.0	THA	169.53

ORBIT DETERMINATION ACCURACY

ST	36.0	SR	23.4	SS	33.0
CRT	.5644	CRS	.6839	CST	.9889
LSA	51.1	MSA	17.9	SSA	1.6
EL1	39.1	EL2	17.8	ALF	25.96

LAUNCH DATE JUL 21 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 381.210 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	33.734	GAL	-2.34	AZL	89.56	HCA	122.69	SMA	218.19	ECC	.30584	INC	.4358
RP	224.22	LAP	.37	LOP	60.79	VP	23.991	GAP	17.74	AZP	90.24	TAL	349.98	TAP	112.67	RCA	151.46	APO	284.93
RC	105.921	GL	3.21	GP	-8.76	ZAL	105.78	ZAP	160.55	ETS	207.74	ZAE	161.42	ETE	329.23	ZAC	74.56	ETC	282.90

V1 29.310
V2 24.527
LVI -8.28

PLANETOCENTRIC CONIC

C3	20.930	VHL	4.575	DLA	19.08	RAL	40.43	RAD	6643.2	VEL	11.872	PTH	6.88	VHP	5.361	DPA	7.38	RAP	43.88	ECC	1.3445

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 51 14	3530.90	-46.67	130.97	277.68	100.52	13 50 5	2530.9	-37.33	100.73
60.00	13 8 19	3485.42	-40.06	128.11	278.90	94.82	14 6 24	2485.4	-33.79	98.82
70.00	13 34 17	3408.94	-34.15	122.25	279.24	90.30	14 31 6	2408.9	-30.46	94.14
80.00	14 17 3	3274.89	-29.73	111.97	279.12	87.15	15 11 38	2274.9	-27.89	84.70
90.00	15 26 41	3050.10	-28.01	95.33	279.00	85.95	16 17 31	2050.1	-26.87	68.39
100.00	16 59 55	2749.36	-29.73	73.34	279.12	87.15	17 45 44	1749.4	-27.89	46.07
110.00	18 33 44	2455.76	-34.15	51.16	279.24	90.30	19 14 39	1455.8	-30.46	23.06

DIFFERENTIAL CORRECTIONS

TDE	-.4357	TRA	-1.2214	TC3	.7109	BAU	.2247
RDE	-.3539	RRA	.2832	RC3	-.3732	FAU	.10800
FDE	.9981	FRA	1.9887	FC3	-4.4673	BSP	3137
BDE	.5613	BRA	1.2538	BC3	.8029	FSP	642

MID-COURSE EXECUTION ACCURACY

SGT	1827.8	SGR	673.7	SG3	433.9
RRT	-.4773	RRF	.5411	RTF	-.8287
SGB	1948.0	R23	-.1147	R13	.8373
SG1	1859.0	SG2	582.1	THA	168.92

ORBIT DETERMINATION ACCURACY

ST	36.5	SR	22.9	SS	34.4
CRT	.5594	CRS	.6832	CST	.9852
LSA	52.2	MSA	17.6	SSA	1.6
EL1	39.3	EL2	17.6	ALF	24.52

LAUNCH DATE JUL 21 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 384.669 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	33.678	GAL	-2.28	AZL	89.52	HCA	123.77	SMA	216.86	ECC	.30147	INC	.4820
RP	224.61	LAP	.40	LOP	61.86	VP	23.870	GAP	17.43	AZP	90.27	TAL	350.15	TAP	113.92	RCA	151.49	APO	282.24
RC	108.326	GL	3.60	GP	-9.09	ZAL	105.47	ZAP	159.60	ETS	207.34	ZAE	161.47	ETE	327.78	ZAC	74.21	ETC	282.89

V1 29.310
V2 24.485
LVI -7.92

PLANETOCENTRIC CONIC

C3	20.375	VHL	4.514	DLA	19.35	RAL	40.00	RAD	6643.0	VEL	11.848	PTH	6.86	VHP	5.219	DPA	7.13	RAP	44.15	ECC	1.3383

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 48 20	3530.18	-46.66	130.91	276.88	100.57	13 47 10	2530.2	-37.30	100.68
60.00	13 5 1	3485.77	-40.06	128.14	278.11	94.80	14 3 6	2485.8	-33.80	98.94
70.00	13 30 28	3410.81	-34.15	122.39	278.43	90.22	14 27 19	2410.8	-30.50	94.28
80.00	14 12 39	3278.57	-29.72	112.24	278.30	87.00	15 7 18	2278.6	-27.94	84.96
90.00	15 21 59	3054.75	-27.99	95.67	278.18	85.78	16 12 54	2054.8	-26.92	68.72
100.00	16 55 31	2753.04	-29.72	73.61	278.30	87.00	17 41 24	1753.0	-27.94	46.33
110.00	18 29 54	2457.63	-34.15	51.31	278.43	90.22	19 10 52	1457.6	-30.50	23.19

DIFFERENTIAL CORRECTIONS

TDE	-.4392	TRA	-1.2091	TC3	.7479	BAU	.2319
RDE	-.3385	RRA	.2879	RC3	-.4069	FAU	.11293
FDE	1.0610	FRA	2.0516	FC3	-4.7984	BSP	3184
BDE	.5545	BRA	1.2429	BC3	.8515	FSP	683

MID-COURSE EXECUTION ACCURACY

SGT	1847.4	SGR	685.3	SG3	456.8
RRT	-.5044	RRF	.5721	RTF	-.8524
SGB	1970.4	R23	-.1228	R13	.8420
SG1	1882.9	SG2	580.5	THA	168.27

ORBIT DETERMINATION ACCURACY

ST	37.1	SR	22.3	SS	35.8
CRT	.5533	CRS	.6810	CST	.9845
LSA	53.3	MSA	17.4	SSA	1.7
EL1	39.6	EL2	17.4	ALF	23.06

LAUNCH DATE JUL 21 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 386.157 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	33.626	GAL	-2.21	AZL	89.47	HCA	124.84	SMA	215.62	ECC	.29734	INC	.5293
RP	225.00	LAP	.43	LOP	62.94	VP	23.753	GAP	17.12	AZP	90.30	TAL	350.32	TAP	115.16	RCA	151.51	APO	279.73
RC	110.773	GL	4.00	GP	-9.42	ZAL	105.16	ZAP	158.64	ETS	206.97	ZAE	161.55	ETE	326.18	ZAC	73.85	ETC	282.90

V1 29.310
V2 24.443
LVI -7.55

PLANETOCENTRIC CONIC

C3	19.857	VHL	4.456	DLA	19.64	RAL	39.56	RAD	6642.8	VEL	11.827	PTH	6.85	VHP	5.082	DPA	6.86	RAP	44.40	ECC	1.3268

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 45 21	3530.07	-46.66	130.90	276.12	100.58	13 44 11	2530.1	-37.30	100.67
60.00	13 1 36	3486.80	-40.07	128.22	277.34	94.74	13 59 43	2486.8	-33.83	99.01
70.00	13 26 30	3413.46	-34.15	122.60	277.66	90.10	14 23 24	2413.5	-30.55	94.47
80.00	14 8 4	3283.17	-29.70	112.58	277.52	86.82	15 2 47	2283.2	-28.00	85.29
90.00	15 17 4	3060.41	-27.96	96.08	277.38	85.58	16 8 5	2060.4	-26.98	69.12
100.00	16 50 56	2757.64	-29.70	73.95	277.52	86.82	17 36 54	1757.6	-28.00	46.66
110.00	18 25 57	2460.28	-34.15	51.52	277.66	90.10	19 6 57	1460.3	-30.55	23.38

DIFFERENTIAL CORRECTIONS

TDE	-.4428	TRA	-1.1963	TC3	.7839	BAU	.2390
RDE	-.3227	RRA	.2930	RC3	-.4430	FAU	.11804
FDE	1.1295	FRA	2.1157	FC3	-5.1466	BSP	3234
BDE	.5479	BRA	1.2317	BC3	.9004	FSP	727

MID-COURSE EXECUTION ACCURACY

SGT	1865.4	SGR	698.6	SG3	484.8
RRT	-.5317	RRF	.6030	RTF	-.8358
SGB	1991.9	R23	-.1310	R13	.8464
SG1	1905.9	SG2	579.1	THA	167.57

ORBIT DETERMINATION ACCURACY

ST	37.6	SR	21.6	SS	37.2
CRT	.5457	CRS	.6779	CST	.9838
LSA	54.5	MSA	17.1	SSA	1.7
EL1	39.8	EL2	17.1	ALF	21.57

LAUNCH DATE JUL 21 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 391.670 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.576 GAL -2.15 AZL 89.42 HCA 125.91 SMA 214.45 ECC .29341 INC .5778 V1 29.310
RP 225.39 LAP .47 LOP 64.01 VP 23.639 GAP 16.82 AZP 90.34 TAL 350.49 TAP 116.40 RCA 151.53 APO 277.37 V2 24.401
RC 113.259 GL 4.41 GP -9.78 ZAL 104.85 ZAP 157.65 ETS 206.65 ZAE 161.66 ETE 324.43 ZAC 73.47 ETC 282.90 LVI -7.18

PLANETOCENTRIC CONIC

C3 19.373 VHL 4.402 DLA 19.94 RAL 39.12 RAD 6642.6 VEL 11.806 PTH 6.83 VHP 4.949 DPA 6.56 RAP 44.64 ECC 1.3188

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 42 17	3530.55	-46.67	130.94	275.40	100.55	13 41 8	2530.5	-37.31	100.70
60.00	12 58 5	3488.48	-40.08	128.37	276.61	94.64	13 56 13	2488.5	-33.87	99.13
70.00	13 22 24	3416.88	-34.15	122.67	276.91	89.94	14 19 21	2416.9	-30.61	94.71
80.00	14 3 17	3288.69	-29.68	112.99	276.75	86.61	14 58 6	2288.7	-28.07	85.68
90.00	15 11 56	3067.08	-27.92	96.57	276.61	85.34	16 3 3	2067.1	-27.05	69.60
100.00	16 46 9	2763.16	-29.68	74.36	276.75	86.61	17 32 12	1763.2	-28.07	47.05
110.00	18 21 50	2463.70	-34.15	51.78	276.91	89.94	19 2 54	1463.7	-30.61	23.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4311 TRA-1.1675 TC3 .8490 BAU .2529 SGT 1867.3 SGR 714.3 SG3 512.1 ST 37.1 SR 20.9 SS 38.7
RDE -.3068 RRA .2982 RC3 -.4822 FAU .12350 RRT -.5702 RRF .6339 RTF -.8476 CRT .5276 CRS .6729 CST .9813
FDE 1.1991 FRA 2.1777 FC3-5.5186 BSP 3101 SGB 1999.3 R23 -.1221 R13 .8586 LSA 55.0 MSA 16.9 SSA 1.7
BDE .5292 BRA 1.2049 BC3 .9764 FSP 772 SG1 1915.7 SG2 572.0 THA 166.47 EL1 39.1 EL2 16.9 ALF 20.56

LAUNCH DATE JUL 21 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 395.207 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.529 GAL -2.10 AZL 89.37 HCA 126.97 SMA 213.36 ECC .28970 INC .6273 V1 29.310
RP 225.78 LAP .50 LOP 65.07 VP 23.528 GAP 16.52 AZP 90.38 TAL 350.65 TAP 117.62 RCA 151.55 APO 275.17 V2 24.359
RC 115.782 GL 4.84 GP -10.15 ZAL 104.55 ZAP 156.64 ETS 206.36 ZAE 161.78 ETE 322.52 ZAC 73.09 ETC 282.92 LVI -6.79

PLANETOCENTRIC CONIC

C3 18.926 VHL 4.350 DLA 20.25 RAL 38.68 RAD 6642.4 VEL 11.787 PTH 6.81 VHP 4.821 DPA 6.25 RAP 44.86 ECC 1.3115

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 39 9	3531.70	-46.68	131.05	274.73	100.46	13 38 1	2531.7	-37.35	100.78
60.00	12 54 28	3490.92	-40.09	128.57	275.92	94.50	13 52 39	2490.9	-33.94	99.31
70.00	13 18 9	3421.18	-34.15	123.20	276.19	89.74	14 15 10	2421.2	-30.69	95.02
80.00	13 58 18	3295.28	-29.65	113.48	276.01	86.36	14 53 13	2295.3	-28.15	86.16
90.00	15 6 33	3074.93	-27.88	97.14	275.86	85.05	15 57 48	2074.9	-27.13	70.16
100.00	16 41 10	2769.75	-29.65	74.85	276.01	86.36	17 27 20	1769.7	-28.15	47.53
110.00	18 17 35	2468.00	-34.15	52.12	276.19	89.74	18 58 43	1468.0	-30.69	23.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4407 TRA-1.1592 TC3 .8696 BAU .2568 SGT 1886.1 SGR 732.0 SG3 540.6 ST 37.9 SR 20.2 SS 40.3
RDE -.2902 RRA .3040 RC3 -.5237 FAU .12908 RRT -.5920 RRF .6642 RTF -.8465 CRT .5197 CRS .6660 CST .9813
FDE 1.2779 FRA 2.2441 FC3-5.9045 BSP 3223 SGB 2023.2 R23 -.1385 R13 .8593 LSA 56.5 MSA 16.5 SSA 1.7
BDE .5277 BRA 1.1984 BC3 1.0151 FSP 821 SG1 1940.2 SG2 573.5 THA 165.79 EL1 39.7 EL2 16.5 ALF 18.80

LAUNCH DATE JUL 21 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 398.765 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.484 GAL -2.04 AZL 89.32 HCA 128.04 SMA 212.34 ECC .28619 INC .6780 V1 29.310
RP 226.17 LAP .53 LOP 66.13 VP 23.421 GAP 16.22 AZP 90.42 TAL 350.81 TAP 118.84 RCA 151.57 APO 273.11 V2 24.318
RC 118.341 GL 5.28 GP -10.54 ZAL 104.25 ZAP 155.61 ETS 206.10 ZAE 161.90 ETE 320.44 ZAC 72.69 ETC 282.93 LVI -6.39

PLANETOCENTRIC CONIC

C3 18.509 VHL 4.302 DLA 20.59 RAL 38.24 RAD 6642.2 VEL 11.770 PTH 6.80 VHP 4.697 DPA 5.91 RAP 45.07 ECC 1.3046

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 35 56	3533.49	-46.71	131.22	274.10	100.34	13 34 49	2533.5	-37.42	100.90
60.00	12 50 44	3494.07	-40.11	128.84	275.26	94.32	13 48 58	2494.1	-34.02	99.53
70.00	13 13 44	3426.34	-34.15	123.61	275.51	89.50	14 10 50	2426.3	-30.78	95.39
80.00	13 53 6	3302.91	-29.62	114.05	275.31	86.06	14 48 9	2302.9	-28.24	86.71
90.00	15 0 55	3083.95	-27.82	97.79	275.14	84.73	15 52 19	2084.0	-27.22	70.80
100.00	16 35 58	2777.38	-29.62	75.41	275.31	86.06	17 22 15	1777.4	-28.24	48.07
110.00	18 13 10	2473.15	-34.15	52.52	275.51	89.50	18 54 23	1473.2	-30.78	24.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4484 TRA-1.1487 TC3 .8916 BAU .2616 SGT 1901.5 SGR 752.4 SG3 570.4 ST 38.6 SR 19.4 SS 42.0
RDE -.2731 RRA .3104 RC3 -.5680 FAU .13487 RRT -.6146 RRF .6937 RTF -.8484 CRT .5074 CRS .6563 CST .9810
FDE 1.3621 FRA 2.3129 FC3-6.3084 BSP 3313 SGB 2044.9 R23 -.1531 R13 .8610 LSA 58.1 MSA 16.2 SSA 1.8
BDE .5250 BRA 1.1899 BC3 1.0572 FSP 873 SG1 1962.4 SG2 575.1 THA 165.01 EL1 40.1 EL2 16.1 ALF 17.09

LAUNCH DATE JUL 21 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 402.343 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.442 GAL -1.99 AZL 89.27 HCA 129.09 SMA 211.38 ECC .28286 INC .7301 V1 29.310
RP 226.56 LAP .57 LOP 67.19 VP 23.317 GAP 15.92 AZP 90.46 TAL 350.96 TAP 120.06 RCA 151.59 APO 271.17 V2 24.276
RC 120.933 GL 5.74 GP -10.94 ZAL 103.96 ZAP 154.56 ETS 205.86 ZAE 162.03 ETE 318.18 ZAC 72.28 ETC 282.95 LVI -5.98

PLANETOCENTRIC CONIC

C3 18.122 VHL 4.257 DLA 20.93 RAL 37.80 RAD 6642.0 VEL 11.754 PTH 6.78 VHP 4.578 DPA 5.54 RAP 45.26 ECC 1.2982

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 37	3535.93	-46.74	131.45	273.50	100.16	13 31 33	2535.9	-37.51	101.07
60.00	12 46 53	3497.96	-40.13	129.17	274.64	94.10	13 45 11	2498.0	-34.13	99.81
70.00	13 9 9	3432.37	-34.15	124.08	274.86	89.22	14 6 21	2432.4	-30.89	95.83
80.00	13 47 39	3311.64	-29.58	114.69	274.62	85.72	14 42 51	2311.6	-28.34	87.33
90.00	14 55 0	3094.22	-27.76	98.54	274.44	84.36	15 46 34	2094.2	-27.31	71.54
100.00	16 30 31	2786.11	-29.58	76.06	274.62	85.72	17 16 57	1786.1	-28.34	48.70
110.00	18 8 35	2479.19	-34.15	52.99	274.86	89.22	18 49 54	1479.2	-30.89	24.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4544 TRA-1.1356 TC3 .9160 BAU .2674 SGT 1913.1 SGR 775.6 SG3 601.5 ST 39.2 SR 18.5 SS 43.8
RDE -.2554 RRA .3171 RC3 -.6156 FAU .14095 RRT -.6377 RRF .7223 RTF -.8471 CRT .4905 CRS .6435 CST .9806
FDE 1.4531 FRA 2.3815 FC3-6.7335 BSP 3373 SGB 2064.4 R23 -.1658 R13 .8637 LSA 59.6 MSA 15.8 SSA 1.8
BDE .5212 BRA 1.1790 BC3 1.1036 FSP 925 SG1 1982.2 SG2 576.6 THA 164.13 EL1 40.5 EL2 15.6 ALF 15.39

LAUNCH DATE JUL 21 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 409.940 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.402 GAL -1.94 AZL 89.22 HCA 138.15 SMA 210.48 ECC .27971 INC .7037 V1 29.310
RP 226.95 LAP .60 LOP 68.24 VP 23.216 GAP 15.63 AZP 90.51 TAL 351.11 TAP 121.26 RCA 151.61 APO 269.35 V2 24.234
RC 123.556 GL 6.22 GP -11.37 ZAL 103.67 ZAP 153.48 ETS 205.65 ZAE 162.16 ETE 315.73 ZAC 71.85 ETC 282.97 LVI -5.56

PLANETOCENTRIC CONIC

C3 17.763 VHL 4.215 DLA 21.30 RAL 37.36 RAD 6641.8 VEL 11.738 PTH 6.77 VHP 4.462 DPA 5.15 RAP 45.44 ECC 1.2923

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 13	3539.03	-46.77	131.74	272.96	98.94	13 28 13	2539.0	-37.62	101.29
60.00	12 42 54	3502.62	-40.15	129.56	274.06	93.83	13 41 16	2502.6	-34.25	100.14
70.00	13 4 23	3439.33	-34.14	124.62	274.24	88.90	14 1 42	2439.3	-31.02	96.33
80.00	13 41 57	3321.54	-29.53	115.42	273.97	83.34	14 37 19	2321.5	-28.46	88.05
90.00	14 48 46	3105.81	-27.68	99.37	273.77	83.95	15 40 32	2105.8	-27.41	72.37
100.00	16 24 49	2796.01	-29.53	76.79	273.97	85.34	17 11 25	1796.0	-28.46	49.42
110.00	18 3 49	2486.15	-34.14	53.54	274.24	88.90	18 45 16	1486.1	-31.02	25.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4586 TRA-1.1219 TC3 .9399 BAU .2736 SGT 1922.5 SGR 802.2 SG3 634.1 ST 39.7 SR 17.6 SS 45.7
RDE -.2371 RRA .3244 RC3 -.6665 FAU .14729 RRT -.6607 RRF .7499 RTF -.8481 CRT .4673 CRS .6259 CST .9799
FDE 1.5488 FRA 2.4528 FC3-7.1787 BSP 3426 SGB 2083.1 R23 -.1776 R13 .8669 LSA 61.1 MSA 15.5 SSA 1.8
BDE .5163 BRA 1.1678 BC3 1.1523 FSP 981 SG1 2001.2 SG2 578.5 THA 163.14 EL1 40.7 EL2 15.2 ALF 13.67

LAUNCH DATE JUL 21 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 409.554 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.363 GAL -1.89 AZL 89.16 HCA 131.20 SMA 209.63 ECC .27672 INC .8385 V1 29.310
RP 227.34 LAP .63 LOP 69.29 VP 23.118 GAP 15.33 AZP 90.55 TAL 351.26 TAP 122.46 RCA 151.62 APO 267.64 V2 24.193
RC 126.208 GL 6.71 GP -11.82 ZAL 103.39 ZAP 152.38 ETS 205.45 ZAE 162.27 ETE 313.08 ZAC 71.41 ETC 283.00 LVI -5.13

PLANETOCENTRIC CONIC

C3 17.431 VHL 4.175 DLA 21.68 RAL 36.92 RAD 6641.7 VEL 11.724 PTH 6.76 VHP 4.351 DPA 4.73 RAP 45.61 ECC 1.2869

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 25 44	3542.82	-46.82	132.09	272.45	98.67	13 24 47	2542.8	-37.75	101.55
60.00	12 38 47	3508.05	-40.17	130.02	273.51	93.52	13 37 15	2508.0	-34.39	100.38
70.00	12 59 26	3447.24	-34.13	125.24	273.65	88.54	13 56 53	2447.2	-31.16	96.91
80.00	13 35 58	3332.67	-29.46	116.24	273.33	84.92	14 31 31	2332.7	-28.58	88.85
90.00	14 42 12	3118.84	-27.58	100.32	273.12	83.49	15 34 11	2118.8	-27.52	73.31
100.00	16 18 50	2807.15	-29.46	77.61	273.33	84.92	17 5 37	1807.1	-28.58	50.22
110.00	17 58 52	2494.06	-34.13	54.16	273.65	88.54	18 40 26	1494.1	-31.16	25.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4627 TRA-1.1054 TC3 .9627 BAU .2803 SGT 1927.2 SGR 831.8 SG3 667.8 ST 40.1 SR 16.7 SS 47.7
RDE -.2179 RRA .3318 RC3 -.7209 FAU .15389 RRT -.6824 RRF .7759 RTF -.8491 CRT .4387 CRS .6034 CST .9792
FDE 1.6524 FRA 2.5214 FC3-7.6433 BSP 3462 SGB 2099.1 R23 -.1687 R13 .8704 LSA 62.7 MSA 15.1 SSA 1.8
BDE .5114 BRA 1.1541 BC3 1.2027 FSP 1039 SG1 2017.1 SG2 581.0 THA 162.05 EL1 40.9 EL2 14.7 ALF 11.91

LAUNCH DATE JUL 21 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 413.184 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.327 GAL -1.84 AZL 89.10 HCA 132.24 SMA 208.84 ECC .27390 INC .8951 V1 29.310
RP 227.73 LAP .66 LOP 70.34 VP 23.023 GAP 15.05 AZP 90.60 TAL 351.41 TAP 123.65 RCA 151.64 APO 266.04 V2 24.152
RC 128.887 GL 7.22 GP -12.29 ZAL 103.11 ZAP 151.25 ETS 205.28 ZAE 162.36 ETE 310.24 ZAC 70.95 ETC 283.04 LVI -4.68

PLANETOCENTRIC CONIC

C3 17.124 VHL 4.138 DLA 22.08 RAL 36.47 RAD 6641.5 VEL 11.711 PTH 6.74 VHP 4.245 DPA 4.29 RAP 45.75 ECC 1.2818

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 22 9	3547.29	-46.87	132.51	271.99	99.35	13 21 16	2547.3	-37.91	101.88
60.00	12 34 32	3514.29	-40.20	130.55	273.00	93.16	13 33 7	2514.3	-34.55	100.98
70.00	12 54 16	3456.16	-34.11	125.93	273.09	88.13	13 51 53	2456.2	-31.31	97.56
80.00	13 29 41	3345.14	-29.38	117.16	272.73	84.44	14 25 26	2345.1	-28.71	89.76
90.00	14 35 15	3133.43	-27.46	101.37	272.49	82.98	15 27 28	2133.4	-27.63	74.36
100.00	16 12 32	2819.61	-29.38	78.53	272.73	84.44	16 59 32	1819.6	-28.71	51.12
110.00	17 53 43	2502.98	-34.11	54.85	273.09	88.13	18 35 26	1503.0	-31.31	26.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4662 TRA-1.0890 TC3 .9814 BAU .2868 SGT 1929.8 SGR 865.0 SG3 702.8 ST 40.5 SR 15.7 SS 49.7
RDE -.1979 RRA .3399 RC3 -.7786 FAU .16067 RRT -.7027 RRF .8003 RTF -.8498 CRT .4011 CRS .5729 CST .9785
FDE 1.7634 FRA 2.5927 FC3-8.1226 BSP 3507 SGB 2114.8 R23 -.1997 R13 .8740 LSA 64.3 MSA 14.8 SSA 1.9
BDE .5064 BRA 1.1408 BC3 1.2528 FSP 1101 SG1 2032.4 SG2 584.4 THA 160.87 EL1 41.0 EL2 14.2 ALF 10.06

LAUNCH DATE JUL 21 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 416.828 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.293 GAL -1.80 AZL 89.05 HCA 133.29 SMA 208.09 ECC .27123 INC .9534 V1 29.310
RP 228.12 LAP .69 LOP 71.38 VP 22.930 GAP 14.76 AZP 90.65 TAL 351.54 TAP 124.83 RCA 151.65 APO 264.53 V2 24.110
RC 131.592 GL 7.75 GP -12.78 ZAL 102.85 ZAP 150.09 ETS 205.12 ZAE 162.42 ETE 307.19 ZAC 70.47 ETC 283.08 LVI -4.21

PLANETOCENTRIC CONIC

C3 16.842 VHL 4.104 DLA 22.50 RAL 36.03 RAD 6641.4 VEL 11.699 PTH 6.73 VHP 4.142 DPA 3.81 RAP 45.88 ECC 1.2772

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 18 28	3552.48	-46.92	133.00	271.58	98.98	13 17 40	2552.5	-38.09	102.22
60.00	12 30 9	3521.36	-40.22	131.15	272.53	92.76	13 28 50	2521.4	-34.73	101.50
70.00	12 48 53	3466.14	-34.08	126.71	272.56	87.67	13 46 40	2466.1	-31.48	98.29
80.00	13 23 3	3359.03	-29.29	118.18	272.14	83.91	14 19 2	2359.0	-28.85	90.77
90.00	14 27 52	3149.73	-27.32	102.54	271.87	82.41	15 20 22	2149.7	-27.75	75.54
100.00	16 5 54	2833.50	-29.29	79.55	272.14	83.91	16 53 8	1833.5	-28.85	52.13
110.00	17 48 20	2512.95	-34.08	55.63	272.56	87.67	18 30 13	1513.0	-31.48	27.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4686 TRA-1.0715 TC3 .9991 BAU .2940 SGT 1929.3 SGR 902.5 SG3 739.3 ST 40.8 SR 14.7 SS 51.8
RDE -.1771 RRA .3483 RC3 -.8408 FAU .16783 RRT -.7216 RRF .8231 RTF -.8503 CRT .3526 CRS .5327 CST .9777
FDE 1.8794 FRA 2.6623 FC3-8.6274 BSP 3538 SGB 2130.0 R23 -.2103 R13 .8777 LSA 66.0 MSA 14.5 SSA 1.9
BDE .5009 BRA 1.1267 BC3 1.3058 FSP 1164 SG1 2046.9 SG2 588.9 THA 159.58 EL1 41.1 EL2 13.6 ALF 8.15

LAUNCH DATE JUL 21 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 420.485 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.261 GAL -1.76 AZL 88.99 HCA 134.32 SMA 207.39 ECC .26871 INC 1.0135 V1 29.310
RP 228.51 LAP .73 LOP 72.42 VP 22.840 GAP 14.48 AZP 90.71 TAL 351.68 TAP 126.00 RCA 151.66 APO 263.12 V2 24.069
RC 134.321 GL 8.30 GP -13.30 ZAL 102.59 ZAP 148.91 ETS 204.97 ZAE 162.43 ETE 303.97 ZAC 69.97 ETC 283.12 LVI -3.74

PLANETOCENTRIC CONIC

C3 16.582 VHL 4.072 DLA 22.94 RAL 35.59 RAD 6641.3 VEL 11.688 PTH 6.72 VHP 4.043 DPA 3.31 RAP 46.00 ECC 1.2729

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 40	3558.40	-46.98	133.56	271.21	98.35	13 13 58	2558.4	-38.30	102.64
60.00	12 25 35	3529.30	-40.25	131.83	272.09	92.30	13 24 25	2529.3	-34.93	102.08
70.00	12 43 16	3477.22	-34.05	127.57	272.06	87.16	13 41 13	2477.2	-31.66	99.10
80.00	13 16 2	3374.46	-29.17	119.31	271.58	83.33	14 12 16	2374.5	-28.99	91.89
90.00	14 20 0	3167.92	-27.15	103.84	271.28	81.77	15 12 48	2167.9	-27.87	78.86
100.00	15 58 54	2848.93	-29.17	80.68	271.58	83.33	16 46 22	1848.9	-28.99	53.26
110.00	17 42 42	2524.04	-34.05	56.49	272.06	87.16	18 24 46	1524.0	-31.66	28.02

DIFFERENTIAL CORRECTIONS

TDE -.4714 TRA-1.0536 TC3 1.0099 BAU .3008
RDE -.1549 RRA .3574 RC3 -.9061 FAU .17503
FDE 2.0065 FRA 2.7341 FC3-9.1382 BSP 3568
BDE .4962 BRA 1.1126 BC3 1.3567 FSP 1230

MID-COURSE EXECUTION ACCURACY

SGT 1925.6 SGR 943.5 SG3 776.7
RRT -.7383 RRF .8439 RTF -.8503
SGB 2144.3 R23 -.2208 R13 .8814
SG1 2060.2 SG2 594.8 THA 158.20

ORBIT DETERMINATION ACCURACY

ST 41.0 SR 13.7 SS 54.1
CRT .2890 CRS .4781 CST .9769
LSA 67.8 MSA 14.1 SSA 1.9
EL1 41.3 EL2 13.0 ALF 6.11

LAUNCH DATE JUL 21 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 424.155 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.230 GAL -1.72 AZL 88.92 HCA 135.36 SMA 206.74 ECC .26632 INC 1.0755 V1 29.310
RP 228.90 LAP .76 LOP 73.46 VP 22.752 GAP 14.19 AZP 90.77 TAL 351.80 TAP 127.16 RCA 151.68 APO 261.79 V2 24.028
RC 137.073 GL 8.87 GP -13.84 ZAL 102.34 ZAP 147.70 ETS 204.83 ZAE 162.40 ETE 300.56 ZAC 69.46 ETC 283.18 LVI -3.24

PLANETOCENTRIC CONIC

C3 16.345 VHL 4.043 DLA 23.40 RAL 35.15 RAD 6641.2 VEL 11.678 PTH 6.71 VHP 3.948 DPA 2.77 RAP 46.09 ECC 1.2690

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 45	3565.08	-47.05	134.19	270.89	98.07	13 10 10	2565.1	-38.53	103.11
60.00	12 20 52	3538.13	-40.27	132.58	271.70	91.79	13 19 50	2538.1	-35.15	102.72
70.00	12 37 23	3489.48	-34.00	128.53	271.59	86.59	13 35 32	2489.5	-31.85	100.00
80.00	13 8 35	3391.60	-29.03	120.57	271.04	82.68	14 5 6	2391.6	-29.13	93.14
90.00	14 11 33	3188.25	-26.95	105.29	270.70	81.08	15 4 42	2188.2	-27.98	78.33
100.00	15 51 27	2866.07	-29.03	81.94	271.04	82.68	16 39 13	1866.1	-29.13	54.51
110.00	17 36 49	2536.30	-34.00	57.45	271.59	86.59	18 19 5	1536.3	-31.85	28.92

DIFFERENTIAL CORRECTIONS

TDE -.4738 TRA-1.0351 TC3 1.0189 BAU .3083
RDE -.1316 RRA .3669 RC3 -.9761 FAU .18260
FDE 2.1410 FRA 2.8049 FC3-9.6719 BSP 3602
BDE .4917 BRA 1.0982 BC3 1.4110 FSP 1299

MID-COURSE EXECUTION ACCURACY

SGT 1919.6 SGR 989.3 SG3 815.7
RRT -.7534 RRF .8631 RTF -.8500
SGB 2159.5 R23 -.2303 R13 .8855
SG1 2073.9 SG2 602.1 THA 156.70

ORBIT DETERMINATION ACCURACY

ST 41.3 SR 12.7 SS 56.4
CRT .2060 CRS .4045 CST .9761
LSA 69.7 MSA 13.8 SSA 1.9
EL1 41.4 EL2 12.4 ALF 3.97

LAUNCH DATE JUL 21 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 427.836 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.201 GAL -1.68 AZL 88.86 HCA 136.39 SMA 206.12 ECC .26407 INC 1.1396 V1 29.310
RP 229.28 LAP .79 LOP 74.49 VP 22.666 GAP 13.91 AZP 90.83 TAL 351.92 TAP 128.32 RCA 151.69 APO 260.55 V2 23.988
RC 139.847 GL 9.46 GP -14.40 ZAL 102.10 ZAP 146.46 ETS 204.70 ZAE 162.30 ETE 297.01 ZAC 68.92 ETC 283.24 LVI -2.73

PLANETOCENTRIC CONIC

C3 16.128 VHL 4.016 DLA 23.89 RAL 34.72 RAD 6641.1 VEL 11.669 PTH 6.71 VHP 3.857 DPA 2.20 RAP 46.17 ECC 1.2654

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 6 42	3572.53	-47.12	134.90	270.61	97.53	13 6 15	2572.5	-38.79	103.64
60.00	12 15 57	3547.91	-40.29	133.41	271.34	91.23	13 15 5	2547.9	-35.39	103.44
70.00	12 31 12	3502.99	-33.94	129.58	271.14	85.97	13 29 35	2503.0	-32.05	101.01
80.00	13 0 39	3410.61	-28.85	121.95	270.51	81.97	13 57 29	2410.6	-29.28	94.54
90.00	14 2 27	3211.00	-26.70	106.91	270.13	80.30	14 55 58	2211.0	-28.08	79.99
100.00	15 43 30	2885.08	-28.85	83.32	270.51	81.97	16 31 36	1885.1	-29.28	55.90
110.00	17 30 38	2549.81	-33.94	58.50	271.14	85.97	18 13 8	1549.8	-32.05	29.92

DIFFERENTIAL CORRECTIONS

TDE -.4762 TRA-1.0159 TC3 1.0211 BAU .3158
RDE -.1066 RRA .3769 RC3-1.0498 FAU .19026
FDE 2.2862 FRA 2.8742 FC-10.2126 BSP 3631
BDE .4879 BRA 1.0836 BC3 1.4645 FSP 1369

MID-COURSE EXECUTION ACCURACY

SGT 1909.7 SGR 1039.3 SG3 855.5
RRT -.7661 RRF .8803 RTF -.8490
SGB 2174.2 R23 -.2399 R13 .8894
SG1 2086.4 SG2 611.3 THA 155.08

ORBIT DETERMINATION ACCURACY

ST 41.5 SR 11.7 SS 58.9
CRT .0968 CRS .3047 CST .9753
LSA 71.7 MSA 13.8 SSA 1.9
EL1 41.5 EL2 11.7 ALF 1.70

LAUNCH DATE JUL 21 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 431.528 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.174 GAL -1.65 AZL 88.79 HCA 137.42 SMA 205.54 ECC .26194 INC 1.2061 V1 29.310
RP 229.67 LAP .82 LOP 75.52 VP 22.583 GAP 13.64 AZP 90.89 TAL 352.04 TAP 129.46 RCA 151.70 APO 259.38 V2 23.947
RC 142.641 GL 10.07 GP -15.00 ZAL 101.87 ZAP 145.19 ETS 204.58 ZAE 162.12 ETE 293.34 ZAC 68.37 ETC 283.30 LVI -2.20

PLANETOCENTRIC CONIC

C3 15.932 VHL 3.992 DLA 24.39 RAL 34.28 RAD 6641.0 VEL 11.661 PTH 6.70 VHP 3.770 DPA 1.59 RAP 46.24 ECC 1.2622

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 2 32	3580.76	-47.19	135.68	270.39	96.93	13 2 13	2580.8	-39.07	104.23
60.00	12 10 50	3558.66	-40.30	134.32	271.01	90.61	13 10 9	2558.7	-35.64	104.24
70.00	12 24 41	3517.84	-33.87	130.73	270.73	85.30	13 23 19	2517.8	-32.26	102.11
80.00	12 52 8	3431.71	-28.64	123.48	270.00	81.19	13 49 20	2431.7	-29.42	96.09
90.00	13 52 34	3236.58	-26.39	108.72	269.57	79.45	14 46 30	2236.6	-28.17	81.85
100.00	15 35 0	2906.19	-28.64	84.85	270.00	81.19	16 23 26	1906.2	-29.42	57.46
110.00	17 24 7	2564.66	-33.87	59.65	270.73	85.30	18 6 52	1564.7	-32.26	31.03

DIFFERENTIAL CORRECTIONS

TDE -.4733 TRA -.9913 TC3 1.0321 BAU .3259
RDE -.0807 RRA .3869 RC3-1.1296 FAU .19841
FDE 2.4354 FRA 2.9376 FC-10.7811 BSP 3599
BDE .4801 BRA 1.0642 BC3 1.5301 FSP 1435

MID-COURSE EXECUTION ACCURACY

SGT 1892.6 SGR 1094.8 SG3 896.8
RRT -.7805 RRF .8959 RTF -.8502
SGB 2186.4 R23 -.2424 R13 .8956
SG1 2097.4 SG2 617.5 THA 153.19

ORBIT DETERMINATION ACCURACY

ST 41.3 SR 10.9 SS 61.4
CRT -.0431 CRS .1746 CST .9740
LSA 73.6 MSA 13.2 SSA 1.9
EL1 41.3 EL2 10.9 ALF 179.30

LAUNCH DATE JUL 21 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 435.228 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.148 GAL -1.62 AZL 88.73 HCA 138.45 SMA 204.99 ECC .25993 INC 1.2748 V1 29.318
RP 230.05 LAP .85 LOP 76.55 VP 22.502 GAP 13.36 AZP 90.95 TAL 352.15 TAP 130.60 RCA 151.71 APO 258.26 V2 23.907
RC 145.456 GL 10.70 GP -15.62 ZAL 101.65 ZAP 143.89 ETS 204.45 ZAE 161.87 ETE 289.58 ZAC 67.79 ETC 283.38 LVI -1.65

PLANETOCENTRIC CONIC

C3 15.757 VHL 3.969 DLA 24.92 RAL 33.84 RAD 6640.9 VEL 11.653 PTH 6.69 VHP 3.687 DPA .95 RAP 46.29 ECC 1.2593

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 58 13	3589.89	-47.26	136.55	270.21	96.26	12 58 3	2589.9	-39.37	104.89
60.00	12 5 30	3570.46	-40.30	135.33	270.73	89.92	13 5 1	2570.5	-35.92	105.12
70.00	12 17 49	3534.16	-33.77	132.00	270.34	84.56	13 16 43	2534.2	-32.49	103.33
80.00	12 42 58	3455.26	-28.39	125.19	269.50	80.33	13 40 33	2455.3	-29.56	97.82
90.00	13 41 41	3265.60	-26.01	110.76	269.01	78.49	14 36 7	2265.6	-28.24	83.97
100.00	15 25 50	2929.73	-28.39	86.56	269.50	80.33	16 14 39	1929.7	-29.56	59.19
110.00	17 17 15	2580.98	-33.77	60.91	270.34	84.56	18 0 16	1581.0	-32.49	32.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4773 TRA -.9750 TC3 1.0139 BAU .3327 SGT 1879.1 SGR 1154.2 SG3 938.2 ST 41.6 SR 10.3 SS 64.2
RDE -.0524 RRA .3984 RC3-1.2111 FAU .20621 RRT -.7865 RRF .9096 RTF -.8457 CRT -.2162 CRS .0031 CST .9733
FDE 2.5999 FRA 3.0085 FC-11.3303 BSP 3679 SGB 2205.2 R23 -.2540 R13 .8986 LSA 76.0 MSA 12.9 SSA 1.9
BDE .4802 BRA 1.0533 BC3 1.5795 FSP 1515 SG1 2112.1 SG2 634.1 THA 151.40 EL1 41.7 EL2 10.1 ALF 176.73

LAUNCH DATE JUL 21 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 438.938 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.124 GAL -1.59 AZL 88.65 HCA 139.47 SMA 204.48 ECC .25803 INC 1.3462 V1 29.310
RP 230.44 LAP .87 LOP 77.57 VP 22.424 GAP 13.09 AZP 91.02 TAL 352.25 TAP 131.72 RCA 151.72 APO 257.24 V2 23.867
RC 148.289 GL 11.36 GP -16.27 ZAL 101.44 ZAP 142.57 ETS 204.33 ZAE 161.53 ETE 285.77 ZAC 67.18 ETC 283.46 LVI -1.08

PLANETOCENTRIC CONIC

C3 15.600 VHL 3.950 DLA 25.48 RAL 33.40 RAD 6640.8 VEL 11.647 PTH 6.69 VHP 3.608 DPA .28 RAP 46.32 ECC 1.2567

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 53 44	3599.86	-47.33	137.51	270.08	95.53	12 53 44	2599.9	-39.70	105.62
60.00	11 59 56	3583.35	-40.29	136.42	270.48	89.18	12 59 39	2583.3	-36.21	106.09
70.00	12 10 33	3552.06	-33.65	133.38	269.97	83.75	13 9 45	2552.1	-32.71	104.68
80.00	12 33 0	3481.59	-28.07	127.08	269.01	79.39	13 31 1	2481.6	-29.68	99.77
90.00	13 29 34	3298.87	-25.54	113.08	268.43	77.42	14 24 33	2298.9	-28.28	86.41
100.00	15 15 52	2956.06	-28.07	88.45	269.01	79.39	16 5 8	1956.1	-29.68	61.14
110.00	17 9 59	2598.88	-33.65	62.30	269.97	83.75	17 53 18	1598.9	-32.71	33.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4783 TRA -.9543 TC3 1.0005 BAU .3419 SGT 1859.4 SGR 1219.4 SG3 981.0 ST 41.6 SR 10.1 SS 67.0
RDE -.0221 RRA .4099 RC3-1.2985 FAU .21441 RRT -.7932 RRF .9219 RTF -.8427 CRT -.4114 CRS -.1980 CST .9724
FDE 2.7748 FRA 3.0727 FC-11.8986 BSP 3706 SGB 2223.6 R23 -.2595 R13 .9033 LSA 78.5 MSA 12.7 SSA 1.9
BDE .4789 BRA 1.0386 BC3 1.6392 FSP 1588 SG1 2126.7 SG2 649.3 THA 149.36 EL1 41.9 EL2 9.2 ALF 174.00

LAUNCH DATE JUL 21 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 442.656 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.101 GAL -1.56 AZL 88.58 HCA 140.49 SMA 204.00 ECC .25624 INC 1.4203 V1 29.310
RP 230.82 LAP .90 LOP 78.59 VP 22.347 GAP 12.82 AZP 91.10 TAL 352.35 TAP 132.83 RCA 151.73 APO 256.28 V2 23.827
RC 151.140 GL 12.04 GP -16.96 ZAL 101.24 ZAP 141.21 ETS 204.21 ZAE 161.09 ETE 281.95 ZAC 66.56 ETC 283.55 LVI -.48

PLANETOCENTRIC CONIC

C3 15.462 VHL 3.932 DLA 26.06 RAL 32.97 RAD 6640.7 VEL 11.641 PTH 6.68 VHP 3.533 DPA -.44 RAP 46.34 ECC 1.2545

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 49 5	3610.74	-47.40	138.54	270.00	94.73	12 49 15	2610.7	-40.05	106.42
60.00	11 54 5	3597.40	-40.27	137.62	270.27	88.37	12 54 2	2597.4	-36.52	107.16
70.00	12 2 48	3571.69	-33.49	134.89	269.62	82.87	13 2 20	2571.7	-32.95	106.16
80.00	12 22 3	3511.29	-27.68	129.20	268.51	78.34	13 20 34	2511.3	-29.78	101.97
90.00	13 15 46	3337.73	-24.93	115.77	267.82	76.21	14 11 24	2337.7	-28.26	89.25
100.00	15 4 55	2985.76	-27.68	90.57	268.51	78.34	15 54 40	1985.8	-29.78	63.34
110.00	17 2 15	2618.51	-33.49	63.81	269.62	82.87	17 45 53	1618.5	-32.95	35.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4775 TRA -.9329 TC3 .9819 BAU .3519 SGT 1835.8 SGR 1290.1 SG3 1024.3 ST 41.6 SR 10.4 SS 69.9
RDE .0101 RRA .4220 RC3-1.3905 FAU .22267 RRT -.7981 RRF .9326 RTF -.8491 CRT -.6014 CRS -.4043 CST .9712
FDE 2.9571 FRA 3.1344 FC-12.4670 BSP 3733 SGB 2243.8 R23 -.2627 R13 .9086 LSA 81.0 MSA 12.5 SSA 1.9
BDE .4776 BRA 1.0239 BC3 1.7022 FSP 1664 SG1 2142.7 SG2 666.0 THA 147.14 EL1 42.0 EL2 8.2 ALF 171.08

LAUNCH DATE JUL 21 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 446.381 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.079 GAL -1.53 AZL 88.50 HCA 141.50 SMA 203.55 ECC .25456 INC 1.4974 V1 29.310
RP 231.20 LAP .93 LOP 79.60 VP 22.272 GAP 12.55 AZP 91.17 TAL 352.44 TAP 133.94 RCA 151.74 APO 255.37 V2 23.787
RC 154.008 GL 12.74 GP -17.67 ZAL 101.05 ZAP 139.82 ETS 204.09 ZAE 160.55 ETE 278.17 ZAC 65.91 ETC 283.65 LVI .13

PLANETOCENTRIC CONIC

C3 15.344 VHL 3.917 DLA 26.67 RAL 32.53 RAD 6640.7 VEL 11.636 PTH 6.68 VHP 3.461 DPA -1.19 RAP 46.34 ECC 1.2525

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 44 14	3622.58	-47.46	139.69	269.98	93.86	12 44 36	2622.6	-40.43	107.30
60.00	11 47 57	3612.68	-40.24	138.92	270.10	87.49	12 48 9	2612.7	-36.84	108.33
70.00	11 54 32	3593.26	-33.29	136.54	269.29	81.91	12 54 25	2593.3	-33.18	107.80
80.00	12 9 51	3545.14	-27.19	131.60	267.99	77.17	13 8 56	2545.1	-29.84	104.49
90.00	12 59 32	3384.61	-24.14	118.97	267.14	74.80	13 55 57	2384.6	-28.15	92.67
100.00	14 52 43	3019.61	-27.19	92.97	267.99	77.17	15 43 3	2019.6	-29.84	65.86
110.00	16 53 58	2640.08	-33.29	65.46	269.29	81.91	17 37 58	1640.1	-33.18	36.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4747 TRA -.9089 TC3 .9603 BAU .3633 SGT 1805.9 SGR 1366.7 SG3 1068.1 ST 41.3 SR 11.3 SS 72.9
RDE .0444 RRA .4341 RC3-1.4880 FAU .23113 RRT -.8018 RRF .9421 RTF -.8353 CRT -.7574 CRS -.5657 CST .9699
FDE 3.1483 FRA 3.1883 FC-13.0412 BSP 3769 SGB 2264.8 R23 -.2622 R13 .9147 LSA 83.6 MSA 12.2 SSA 1.8
BDE .4767 BRA 1.0072 BC3 1.7709 FSP 1745 SG1 2159.3 SG2 683.0 THA 144.70 EL1 42.2 EL2 7.2 ALF 167.95

LAUNCH DATE JUL 21 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 450.114 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.058 GAL -1.51 AZL 88.42 HCA 142.51 SMA 203.13 ECC .25297 INC 1.9778 V1 29.310
RP 231.58 LAP .96 LOP 80.62 VP 22.200 GAP 12.28 AZP 91.25 TAL 352.52 TAP 135.03 RCA 151.74 APO 254.51 V2 23.748
RC 156.890 GL 13.48 GP -18.42 ZAL 100.86 ZAP 138.40 ETS 203.96 ZAE 159.90 ETE 274.46 ZAC 65.23 ETC 283.76 LVI .77

PLANETOCENTRIC CONIC

C3 15.243 VHL 3.904 DLA 27.30 RAL 32.09 RAD 6640.6 VEL 11.632 PTH 6.67 VHP 3.394 DPA -1.99 RAP 46.32 ECC 1.2509

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 39 10	3635.41	-47.51	140.92	270.00	92.90	12 39 45	2635.4	-40.83	108.27
60.00	11 41 28	3629.28	-40.18	140.32	269.95	86.54	12 41 57	2629.3	-37.17	109.61
70.00	11 45 38	3618.99	-33.05	138.35	268.97	80.86	12 45 55	2617.0	-33.41	109.62
80.00	11 56 0	3584.40	-26.57	134.35	267.43	75.85	12 55 45	2584.4	-29.85	107.40
90.00	12 39 13	3444.74	-23.00	123.01	266.34	73.08	13 36 38	2444.7	-27.86	97.05
100.00	14 38 52	3058.87	-26.57	95.72	267.43	75.85	15 29 51	2058.9	-29.85	68.77
110.00	16 45 4	2663.81	-33.05	67.27	268.97	80.86	17 29 28	1663.8	-33.41	38.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4645 TRA -.8791 TC3 .9463 BAU .3774 SGT 1765.8 SGR 1449.5 SG3 1112.0 ST 40.5 SR 12.7 SS 75.7
RDE .0803 RRA .4458 RC3-1.5920 FAU .23987 RRT -.8078 RRF .9503 RTF -.8336 CRT -.8660 CRS -.7213 CST .0677
FDE 3.3397 FRA 3.2304 FC-13.6231 BSP 3726 SGB 2284.6 R23 -.2539 R13 .9226 LSA 85.9 MSA 12.1 SSA 1.8
BDE .4714 BRA .9856 BC3 1.8520 FSP 1812 SG1 2176.9 SG2 693.1 THA 141.91 EL1 42.0 EL2 6.1 ALF 164.51

LAUNCH DATE JUL 21 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 453.851 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.039 GAL -1.49 AZL 88.34 HCA 143.52 SMA 202.73 ECC .25148 INC 1.6617 V1 29.310
RP 231.95 LAP .99 LOP 81.63 VP 22.129 GAP 12.02 AZP 91.34 TAL 352.60 TAP 136.12 RCA 151.75 APO 253.71 V2 23.708
RC 159.785 GL 14.24 GP -19.20 ZAL 100.69 ZAP 136.95 ETS 203.83 ZAE 159.15 ETE 270.87 ZAC 64.53 ETC 283.87 LVI 1.44

PLANETOCENTRIC CONIC

C3 15.162 VHL 3.894 DLA 27.97 RAL 31.64 RAD 6640.6 VEL 11.628 PTH 6.67 VHP 3.330 DPA -2.82 RAP 46.30 ECC 1.2495

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 33 53	3649.34	-47.55	142.27	270.08	91.87	12 34 42	2649.3	-41.25	109.34
60.00	11 34 37	3647.35	-40.09	141.65	269.84	85.50	12 35 25	2647.4	-37.52	111.02
70.00	11 36 0	3643.27	-32.75	140.34	268.66	79.72	12 36 44	2643.3	-33.62	111.64
80.00	11 39 47	3631.38	-25.74	137.59	266.81	74.33	12 40 19	2631.4	-29.77	110.89
90.00	12 8 56	3537.10	-21.04	129.07	265.19	70.66	13 7 53	2537.1	-27.13	103.70
100.00	14 22 39	3105.85	-25.74	98.96	266.81	74.33	15 14 25	2105.9	-29.77	72.26
110.00	16 35 27	2690.08	-32.75	69.26	268.66	79.72	17 20 17	1690.1	-33.62	40.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4694 TRA -.8631 TC3 .8880 BAU .3879 SGT 1738.7 SGR 1537.1 SG3 1155.7 ST 40.7 SR 14.7 SS 79.3
RDE .1223 RRA .4602 RC3-1.6950 FAU .24771 RRT -.8006 RRF .9574 RTF -.8222 CRT -.9344 CRS -.8224 CST .9671
FDE 3.5696 FRA 3.2883 FC-14.1436 BSP 3859 SGB 2320.8 R23 -.2568 R13 .9270 LSA 89.6 MSA 11.9 SSA 1.8
BDE .4850 BRA .9782 BC3 1.9135 FSP 1902 SG1 2204.1 SG2 726.6 THA 139.39 EL1 43.0 EL2 5.0 ALF 161.06

LAUNCH DATE JUL 21 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 457.595 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.021 GAL -1.47 AZL 88.25 HCA 144.53 SMA 202.36 ECC .25007 INC 1.7494 V1 29.310
RP 232.33 LAP 1.02 LOP 82.63 VP 22.060 GAP 11.76 AZP 91.42 TAL 352.67 TAP 137.19 RCA 151.76 APO 252.96 V2 23.670
RC 162.693 GL 15.03 GP -20.02 ZAL 100.53 ZAP 135.46 ETS 203.69 ZAE 158.29 ETE 267.41 ZAC 63.79 ETC 284.00 LVI 2.13

PLANETOCENTRIC CONIC

C3 15.100 VHL 3.886 DLA 28.67 RAL 31.20 RAD 6640.6 VEL 11.625 PTH 6.67 VHP 3.271 DPA -3.70 RAP 46.26 ECC 1.2485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 28 19	3664.39	-47.57	143.72	270.20	90.75	12 29 24	2664.4	-41.70	110.51
60.00	11 27 21	3666.97	-39.97	143.51	269.75	84.38	12 28 28	2667.8	-37.88	112.57
70.00	11 25 30	3672.44	-32.38	142.53	268.34	78.48	12 26 42	2672.4	-33.82	113.89
80.00	11 19 42	3690.68	-24.59	141.62	266.05	72.51	12 21 13	2690.7	-29.51	115.28
85.08	10 49 27	3788.21	-18.44	146.40	263.65	67.65	11 52 35	2788.2	-26.05	121.87
100.00	14 2 34	3165.15	-24.59	102.99	266.05	72.51	14 55 19	2165.1	-29.51	78.65
110.00	16 24 56	2719.26	-32.38	71.45	268.34	78.48	17 10 15	1719.3	-33.82	42.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4636 TRA -.8394 TC3 .8419 BAU .4022 SGT 1698.6 SGR 1631.7 SG3 1198.9 ST 40.2 SR 17.2 SS 82.6
RDE .1653 RRA .4736 RC3-1.8056 FAU .25591 RRT -.7966 RRF .9636 RTF -.8234 CRT -.9711 CRS -.8843 CST .9652
FDE 3.7906 FRA 3.3283 FC-14.6727 BSP 3921 SGB 2355.3 R23 -.2497 R13 .9337 LSA 92.7 MSA 11.8 SSA 1.7
BDE .4922 BRA .9639 BC3 1.9922 FSP 1982 SG1 2232.6 SG2 780.4 THA 136.44 EL1 43.6 EL2 3.8 ALF 167.87

LAUNCH DATE JUL 21 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 461.344 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 33.004 GAL -1.45 AZL 88.16 HCA 145.53 SMA 202.01 ECC .24875 INC 1.8412 V1 29.310
RP 232.70 LAP 1.04 LOP 83.63 VP 21.993 GAP 11.50 AZP 91.52 TAL 352.73 TAP 138.85 RCA 151.76 APO 252.26 V2 23.631
RC 165.610 GL 15.86 GP -20.87 ZAL 100.38 ZAP 133.95 ETS 203.53 ZAE 157.32 ETE 264.11 ZAC 63.03 ETC 284.14 LVI 2.86

PLANETOCENTRIC CONIC

C3 15.056 VHL 3.880 DLA 29.40 RAL 30.75 RAD 6640.6 VEL 11.624 PTH 6.66 VHP 3.215 DPA -4.62 RAP 46.21 ECC 1.2478

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 22 28	3680.64	-47.57	145.30	270.38	89.54	12 23 49	2680.6	-42.17	111.79
60.00	11 19 36	3688.31	-39.82	145.30	269.69	83.18	12 21 4	2688.3	-38.24	114.26
70.00	11 13 54	3705.13	-31.90	144.97	268.00	77.11	12 15 39	2705.1	-33.99	116.43
80.00	10 51 3	3777.12	-22.70	147.35	264.95	70.07	11 54 0	2777.1	-28.86	121.62
81.60	10 19 41	3877.63	-18.90	153.19	263.36	67.05	11 24 19	2877.6	-26.71	128.62
100.00	13 33 55	3251.59	-22.70	108.71	264.95	70.07	14 28 7	2251.6	-28.86	82.99
110.00	16 13 20	2751.94	-31.90	73.88	268.00	77.11	16 59 12	1751.9	-33.99	45.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4566 TRA -.8147 TC3 .7902 BAU .4180 SGT 1654.6 SGR 1732.8 SG3 1241.6 ST 39.6 SR 20.1 SS 86.1
RDE .2126 RRA .4878 RC3-1.9202 FAU .26391 RRT -.7907 RRF .9689 RTF -.8033 CRT -.9892 CRS -.9245 CST .9630
FDE 4.0270 FRA 3.3625 FC-15.1746 BSP 3976 SGB 2395.9 R23 -.2391 R13 .9409 LSA 96.1 MSA 11.7 SSA 1.7
BDE .5037 BRA .9496 BC3 2.0765 FSP 2058 SG1 2267.4 SG2 774.1 THA 133.33 EL1 44.3 EL2 2.6 ALF 153.19

LAUNCH DATE JUL 21 1973 FLIGHT TIME 194.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC — DISTANCE 465.098 — EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.988 GAL -1.43 AZL 88.06 HCA 146.52 SMA 201.69 ECC .24752 INC 1.9376 V1 29.310
RP 233.07 LAP 1.07 LOP 84.63 VP 21.927 GAP 11.24 AZP 91.62 TAL 352.78 TAP 139.31 RCA 151.77 APO 251.61 V2 23.593
RC 168.537 GL 16.71 GP -21.76 ZAL 100.24 ZAP 132.41 ETS 203.36 ZAE 156.23 ETE 260.99 ZAC 62.24 ETC 284.29 LVI 3.61

PLANETOCENTRIC CONIC

C3 15.032 VHL 3.877 DLA 30.17 RAL 30.29 RAD 6640.5 VEL 11.623 PTH 6.66 VHP 3.164 DPA -5.58 RAP 46.15 ECC 1.2474

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 16 18	3698.19	-47.55	146.99	270.60	88.23	12 17 56	2698.2	-42.65	113.19
60.00	11 11 17	3711.57	-39.61	147.25	269.65	81.87	12 13 8	2711.6	-38.60	116.13
70.00	11 0 55	3742.18	-31.31	147.69	267.62	75.60	12 3 17	2742.2	-34.11	119.31
79.03	9 58 8	3940.35	-19.37	158.06	263.09	66.41	11 3 48	2940.4	-27.40	133.45
79.03	9 58 8	3940.35	-19.37	158.06	263.09	66.41	11 3 48	2940.4	-27.40	133.45
79.03	9 58 8	3940.35	-19.37	158.06	263.09	66.41	11 3 48	2940.4	-27.40	133.45
110.00	16 0 21	2789.00	-31.31	76.61	267.62	75.60	16 46 50	1789.0	-34.11	48.23

DIFFERENTIAL CORRECTIONS

TDE -.4477 TRA -.7884 TC3 .7319 BAU .4354
RDE .2635 RRA .5012 RC3-2.0393 FAU .27171
FDE 4.2706 FRA 3.3822 FC-15.6480 BSP 4038
BDE .5195 BRA .9343 BC3 2.1667 FSP 2130

MID-COURSE EXECUTION ACCURACY

SGT 1605.0 SGR 1840.2 SG3 1282.9
RRT -.7820 RRF .9734 RTF -.7911
SGB 2441.8 R23 -.2254 R13 .9482
SG1 2307.8 SG2 797.6 THA 130.02

ORBIT DETERMINATION ACCURACY

ST 38.8 SR 23.4 SS 89.6
CRT -.9962 CRS -.9500 CST .9605
LSA 99.7 MSA 11.6 SSA 1.6
EL1 45.3 EL2 1.7 ALF 148.88

LAUNCH DATE JUL 21 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC — DISTANCE 468.855 — EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.972 GAL -1.42 AZL 87.96 HCA 147.52 SMA 201.38 ECC .24636 INC 2.0388 V1 29.310
RP 233.44 LAP 1.09 LOP 85.63 VP 21.864 GAP 10.98 AZP 91.72 TAL 352.83 TAP 140.35 RCA 151.77 APO 250.99 V2 23.554
RC 171.472 GL 17.61 GP -22.69 ZAL 100.11 ZAP 130.84 ETS 203.17 ZAE 155.07 ETE 258.04 ZAC 61.42 ETC 284.46 LVI 4.39

PLANETOCENTRIC CONIC

C3 15.029 VHL 3.877 DLA 30.97 RAL 29.83 RAD 6640.5 VEL 11.622 PTH 6.66 VHP 3.117 DPA -6.60 RAP 46.07 ECC 1.2473

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 9 44	3717.15	-47.50	148.82	270.86	86.82	12 11 42	2717.1	-43.15	114.74
60.00	11 2 19	3736.96	-39.34	149.35	269.62	80.46	12 4 36	2737.0	-38.96	118.20
70.00	10 46 4	3784.96	-30.54	150.79	267.18	73.92	11 49 9	2785.0	-34.15	122.65
76.81	9 40 3	3991.74	-19.86	162.14	262.85	65.73	10 46 35	2991.7	-28.12	137.49
76.81	9 40 3	3991.74	-19.86	162.14	262.85	65.73	10 46 35	2991.7	-28.12	137.49
76.81	9 40 3	3991.74	-19.86	162.14	262.85	65.73	10 46 35	2991.7	-28.12	137.49
110.00	15 45 31	2831.78	-30.54	79.70	267.18	73.92	16 32 42	1831.8	-34.15	51.57

DIFFERENTIAL CORRECTIONS

TDE -.4360 TRA -.7620 TC3 .6674 BAU .4546
RDE .3187 RRA .5152 RC3-2.1621 FAU .27917
FDE 4.5230 FRA 3.3956 FC-16.0816 BSP 4123
BDE .5401 BRA .9198 BC3 2.2627 FSP 2205

MID-COURSE EXECUTION ACCURACY

SGT 1551.8 SGR 1954.6 SG3 1322.8
RRT -.7706 RRF .9773 RTF -.7764
SGB 2495.7 R23 -.2090 R13 .9554
SG1 2357.1 SG2 820.1 THA 126.59

ORBIT DETERMINATION ACCURACY

ST 37.8 SR 27.2 SS 93.2
CRT -.9968 CRS -.9664 CST .9572
LSA 103.5 MSA 11.6 SSA 1.6
EL1 46.5 EL2 1.8 ALF 144.30

LAUNCH DATE JUL 21 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC — DISTANCE 472.617 — EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.958 GAL -1.40 AZL 87.85 HCA 148.51 SMA 201.09 ECC .24527 INC 2.1453 V1 29.310
RP 233.80 LAP 1.12 LOP 86.62 VP 21.801 GAP 10.72 AZP 91.83 TAL 352.87 TAP 141.38 RCA 151.77 APO 250.42 V2 23.517
RC 174.413 GL 18.54 GP -23.66 ZAL 99.98 ZAP 129.23 ETS 202.97 ZAE 153.80 ETE 255.27 ZAC 60.56 ETC 284.64 LVI 5.21

PLANETOCENTRIC CONIC

C3 15.047 VHL 3.879 DLA 31.82 RAL 29.35 RAD 6640.5 VEL 11.623 PTH 6.66 VHP 3.074 DPA -7.65 RAP 45.99 ECC 1.2476

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 2 46	3737.62	-47.40	150.79	271.17	85.31	12 5 3	2737.6	-43.67	116.43
60.00	10 52 35	3764.80	-39.01	151.64	269.58	78.95	11 55 20	2764.8	-39.30	120.48
70.00	10 28 34	3835.85	-29.53	154.40	266.61	72.00	11 32 29	2835.8	-34.08	126.62
74.78	9 24 0	4036.49	-20.36	165.77	262.64	65.01	10 31 17	3036.5	-28.86	141.08
74.78	9 24 0	4036.49	-20.36	165.77	262.64	65.01	10 31 17	3036.5	-28.86	141.08
74.78	9 24 0	4036.49	-20.36	165.77	262.64	65.01	10 31 17	3036.5	-28.86	141.08
110.00	15 28 0	2882.66	-29.53	83.32	266.61	72.00	16 16 3	1882.7	-34.08	55.54

DIFFERENTIAL CORRECTIONS

TDE -.4197 TRA -.7329 TC3 .6012 BAU .4762
RDE .3777 RRA .5283 RC3-2.2895 FAU .28641
FDE 4.7757 FRA 3.3925 FC-16.4789 BSP 4187
BDE .5646 BRA .9035 BC3 2.3671 FSP 2264

MID-COURSE EXECUTION ACCURACY

SGT 1491.6 SGR 2075.9 SG3 1360.6
RRT -.7571 RRF .9807 RTF -.7799
SGB 2556.2 R23 -.1896 R13 .9625
SG1 2415.1 SG2 837.6 THA 123.01

ORBIT DETERMINATION ACCURACY

ST 36.4 SR 31.2 SS 96.7
CRT -.9934 CRS -.9770 CST .9528
LSA 107.3 MSA 11.6 SSA 1.5
EL1 47.9 EL2 2.7 ALF 139.42

LAUNCH DATE JUL 21 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC — DISTANCE 476.383 — EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.945 GAL -1.39 AZL 87.74 HCA 149.50 SMA 200.83 ECC .24425 INC 2.2577 V1 29.310
RP 234.17 LAP 1.15 LOP 87.61 VP 21.741 GAP 10.47 AZP 91.95 TAL 352.91 TAP 142.41 RCA 151.78 APO 249.88 V2 23.478
RC 177.360 GL 19.51 GP -24.67 ZAL 99.86 ZAP 127.61 ETS 202.74 ZAE 152.43 ETE 252.68 ZAC 59.68 ETC 284.83 LVI 6.06

PLANETOCENTRIC CONIC

C3 15.087 VHL 3.884 DLA 32.70 RAL 28.86 RAD 6640.6 VEL 11.625 PTH 6.67 VHP 3.035 DPA -8.76 RAP 45.91 ECC 1.2483

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 55 18	3759.75	-47.26	152.91	271.51	83.68	11 57 58	2759.7	-44.20	118.30
60.00	10 41 56	3795.45	-38.58	154.13	269.53	77.30	11 45 11	2795.5	-39.62	123.03
70.00	10 6 40	3899.90	-28.10	158.83	265.82	69.73	11 11 40	2899.9	-33.78	131.60
72.86	9 9 18	4076.82	-20.87	169.10	262.45	64.24	10 17 15	3076.8	-29.64	144.39
72.86	9 9 18	4076.82	-20.87	169.10	262.45	64.24	10 17 15	3076.8	-29.64	144.39
72.86	9 9 18	4076.82	-20.87	169.10	262.45	64.24	10 17 15	3076.8	-29.64	144.39
110.00	15 6 6	2946.72	-28.10	87.75	265.82	69.73	15 55 13	1946.7	-33.78	60.52

DIFFERENTIAL CORRECTIONS

TDE -.3962 TRA -.6977 TC3 .5412 BAU .5010
RDE .4402 RRA .5387 RC3-2.4243 FAU .29370
FDE 5.0232 FRA 3.3584 FC-16.8532 BSP 4229
BDE .5923 BRA .8815 BC3 2.4840 FSP 2310

MID-COURSE EXECUTION ACCURACY

SGT 1419.3 SGR 2204.5 SG3 1395.7
RRT -.7435 RRF .9835 RTF -.7430
SGB 2621.9 R23 -.1665 R13 .9695
SG1 2482.7 SG2 842.8 THA 119.27

ORBIT DETERMINATION ACCURACY

ST 34.5 SR 35.5 SS 100.0
CRT -.9870 CRS -.9840 CST .9467
LSA 111.0 MSA 11.6 SSA 1.4
EL1 49.4 EL2 4.0 ALF 134.15

LAUNCH DATE JUL 21 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 480.150 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.933	GAL	-1.38	AZL	87.62	HCA	150.49	SMA	200.58	ECC	.24331	INC	2.3764	V1	29.310
RP	234.53	LAP	1.17	LOP	88.60	VP	21.682	GAP	10.22	AZP	92.07	TAL	352.93	TAP	143.42	RCA	151.78	APO	249.38	V2	23.442
RC	180.313	GL	20.53	GP	-25.73	ZAL	99.76	ZAP	125.96	ETS	202.49	ZAE	150.98	ETE	250.28	ZAC	58.76	ETC	285.03	LVI	6.95

PLANETOCENTRIC CONIC

C3	15.152	VHL	3.893	DLA	33.63	RAL	28.36	RAD	6640.6	VEL	11.628	PTH	6.67	VHP	3.002	DPA	-9.91	RAP	45.82	ECC	1.2494

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 47 17	3783.75	-47.05	155.20	271.89	81.93	11 50 21	2783.8	-44.73	120.36
60.00	10 30 9	3829.52	-38.03	156.86	269.45	75.52	11 33 59	2829.5	-39.91	125.88
70.00	9 34 47	3994.00	-25.72	165.11	264.50	66.71	10 41 21	2994.0	-32.94	138.81
71.00	8 55 33	4114.05	-21.39	172.25	262.31	63.41	10 4 7	3114.1	-30.44	147.50
71.00	8 55 33	4114.05	-21.39	172.25	262.31	63.41	10 4 7	3114.1	-30.44	147.50
71.00	8 55 33	4114.05	-21.39	172.25	262.31	63.41	10 4 7	3114.1	-30.44	147.50
110.00	14 34 13	3040.82	-25.72	94.03	264.50	66.71	15 24 54	2040.8	-32.94	67.73

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.3897	TRA	-.6827	TC3	.4216	BAU	.5222	SGT 1375.9 SGR 2337.3 SG3 1427.0	ST	33.9	SR	40.8 SS 104.4
RDE	.5155	RRA	.5561	RC3	-2.5434	FAU	.29818	RRT -.7064 RRF .9860 RTF -.7054	CRT	-.9799	CRS	-.9890 CST .9425
FDE	5.3262	FRA	3.3653	FC	-17.0372	BSP	4475	SGB 2712.2 R23 -.1513 R13 .9744	LSA	116.5	MSA	11.7 SSA 1.3
BDE	.6462	BRA	.8805	BC3	2.5781	FSP	2398	SG1 2562.6 SG2 888.3 THA 115.92	EL1	52.8	EL2	5.2 ALF 129.62

LAUNCH DATE JUL 21 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 483.921 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.921	GAL	-1.37	AZL	87.50	HCA	151.47	SMA	200.35	ECC	.24242	INC	2.5022	V1	29.310
RP	234.89	LAP	1.20	LOP	89.58	VP	21.624	GAP	9.96	AZP	92.20	TAL	352.95	TAP	144.42	RCA	151.78	APO	248.92	V2	23.405
RC	183.270	GL	21.60	GP	-26.82	ZAL	99.66	ZAP	124.28	ETS	202.21	ZAE	149.44	ETE	248.03	ZAC	57.80	ETC	285.26	LVI	7.87

PLANETOCENTRIC CONIC

C3	15.242	VHL	3.904	DLA	34.60	RAL	27.85	RAD	6640.6	VEL	11.632	PTH	6.67	VHP	2.973	DPA	-11.11	RAP	45.73	ECC	1.2509

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 38 37	3809.77	-46.77	157.65	272.28	80.06	11 42 7	2809.8	-45.26	122.65
60.00	10 16 58	3867.65	-37.34	159.87	269.31	73.59	11 21 26	2867.6	-40.14	129.10
69.18	8 42 31	4148.82	-21.92	175.25	262.19	62.53	9 51 40	3148.8	-31.27	150.48
69.18	8 42 31	4148.82	-21.92	175.25	262.19	62.53	9 51 40	3148.8	-31.27	150.48
69.18	8 42 31	4148.82	-21.92	175.25	262.19	62.53	9 51 40	3148.8	-31.27	150.48
69.18	8 42 31	4148.82	-21.92	175.25	262.19	62.53	9 51 40	3148.8	-31.27	150.48
69.18	8 42 31	4148.82	-21.92	175.25	262.19	62.53	9 51 40	3148.8	-31.27	150.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.3684	TRA	-.6551	TC3	.3284	BAU	.5490	SGT 1312.3 SGR 2479.1 SG3 1455.3	ST	32.2	SR	46.2 SS 108.2
RDE	.5935	RRA	.5684	RC3	-2.6742	FAU	.30328	RRT -.6731 RRF .9880 RTF -.6704	CRT	-.9700	CRS	-.9923 CST .9346
FDE	5.6053	FRA	3.3243	FC	-17.2259	BSP	4633	SGB 2805.0 R23 -.1303 R13 .9794	LSA	121.4	MSA	11.7 SSA 1.3
BDE	.6985	BRA	.8673	BC3	2.6943	FSP	2454	SG1 2654.5 SG2 906.3 THA 112.36	EL1	56.0	EL2	6.5 ALF 124.59

LAUNCH DATE JUL 21 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 487.694 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.910	GAL	-1.37	AZL	87.36	HCA	152.45	SMA	200.13	ECC	.24160	INC	2.6358	V1	29.310
RP	235.24	LAP	1.22	LOP	90.57	VP	21.568	GAP	9.71	AZP	92.34	TAL	352.97	TAP	145.41	RCA	151.78	APO	248.49	V2	23.369
RC	186.232	GL	22.71	GP	-27.96	ZAL	99.56	ZAP	122.59	ETS	201.90	ZAE	147.82	ETE	245.92	ZAC	56.81	ETC	285.50	LVI	8.03

PLANETOCENTRIC CONIC

C3	15.361	VHL	3.919	DLA	35.63	RAL	27.31	RAD	6640.7	VEL	11.637	PTH	6.68	VHP	2.949	DPA	-12.35	RAP	45.64	ECC	1.2528

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 29 12	3838.09	-46.41	160.29	272.67	78.06	11 33 10	2838.1	-45.78	125.18
60.00	10 1 56	3911.00	-36.45	163.21	269.06	71.48	11 7 7	2911.0	-40.28	132.77
67.37	8 30 3	4181.64	-22.45	178.15	262.10	61.58	9 39 45	3181.6	-32.14	153.37
67.37	8 30 3	4181.64	-22.45	178.15	262.10	61.58	9 39 45	3181.6	-32.14	153.37
67.37	8 30 3	4181.64	-22.45	178.15	262.10	61.58	9 39 45	3181.6	-32.14	153.37
67.37	8 30 3	4181.64	-22.45	178.15	262.10	61.58	9 39 45	3181.6	-32.14	153.37
67.37	8 30 3	4181.64	-22.45	178.15	262.10	61.58	9 39 45	3181.6	-32.14	153.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.3433	TRA	-.6261	TC3	.2281	BAU	.5776	SGT 1248.9 SGR 2627.2 SG3 1479.0	ST	30.3	SR	52.1 SS 112.0
RDE	.6784	RRA	.5806	RC3	-2.8034	FAU	.30734	RRT -.6308 RRF .9898 RTF -.6265	CRT	-.9574	CRS	-.9945 CST .9237
FDE	5.8849	FRA	3.2728	FC	-17.3215	BSP	4807	SGB 2909.0 R23 -.1099 R13 .9837	LSA	126.6	MSA	11.8 SSA 1.2
BDE	.7603	BRA	.8553	BC3	2.8126	FSP	2500	SG1 2758.7 SG2 922.9 THA 108.89	EL1	59.8	EL2	7.6 ALF 119.62

LAUNCH DATE JUL 21 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 491.469 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.900	GAL	-1.36	AZL	87.22	HCA	153.42	SMA	199.93	ECC	.24084	INC	2.7781	V1	29.310
RP	235.59	LAP	1.24	LOP	91.54	VP	21.514	GAP	9.47	AZP	92.48	TAL	352.97	TAP	146.40	RCA	151.78	APO	248.08	V2	23.332
RC	189.197	GL	23.88	GP	-29.14	ZAL	99.47	ZAP	120.88	ETS	201.56	ZAE	146.12	ETE	243.96	ZAC	55.79	ETC	285.76	LVI	9.83

PLANETOCENTRIC CONIC

C3	15.511	VHL	3.938	DLA	36.70	RAL	26.74	RAD	6640.8	VEL	11.643	PTH	6.68	VHP	2.930	DPA	-13.65	RAP	45.55	ECC	1.2553

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 18 52	3869.03	-45.93	163.12	273.04	75.92	11 23 21	2869.0	-46.26	128.00
60.00	9 44 21	3961.40	-35.30	166.98	268.64	69.14	10 50 23	2961.4	-40.28	137.06
65.57	8 18 0	4212.96	-23.00	180.99	262.05	60.57	9 28 13	3213.0	-33.04	156.20
65.57	8 18 0	4212.96	-23.00	180.99	262.05	60.57	9 28 13	3213.0	-33.04	156.20
65.57	8 18 0	4212.96	-23.00	180.99	262.05	60.57	9 28 13	3213.0	-33.04	156.20
65.57	8 18 0	4212.96	-23.00	180.99	262.05	60.57	9 28 13	3213.0	-33.04	156.20
65.57	8 18 0	4212.96	-23.00	180.99	262.05	60.57	9 28 13	3213.0	-33.04	156.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.3131	TRA	-.6002	TC3	.1244	BAU	.6085	SGT 1184.5 SGR 2782.0 SG3 1497.5	ST	28.0	SR	58.4 SS 115.7
RDE	.7706	RRA	.5911	RC3	-2.9317	FAU	.31049	RRT -.5781 RRF .9913 RTF -.5721	CRT	-.9405	CRS	-.9961 CST .9082
FDE	6.1611	FRA	3.2009	FC	-17.3303	BSP	4987	SGB 3023.7 R23 -.0902 R13 .9872	LSA	132.1	MSA	11.9 SSA 1.1
BDE	.8318	BRA	.8424	BC3	2.9343	FSP	2533	SG1 2875.4 SG2 935.2 THA 105.51	EL1	64.2	EL2	8.7 ALF 114.77

LAUNCH DATE JUL 21 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 495.246 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.891 GAL -1.36 AZL 87.07 HCA 154.40 SMA 199.75 ECC .24013 INC 2.9297 V1 29.310
RP 235.94 LAP 1.27 LOP 92.32 VP 21.461 GAP 9.22 AZP 92.64 TAL 352.97 TAP 147.37 RCA 151.78 APO 247.71 V2 23.297
RC 192.165 GL 25.10 GP -30.37 ZAL 99.39 ZAP 119.15 ETS 201.18 ZAE 144.36 ETE 242.12 ZAC 54.73 ETC 286.04 LVI 10.87

PLANETOCENTRIC CONIC

C3 15.695 VHL 3.962 DLA 37.83 RAL 26.15 RAD 6640.9 VEL 11.651 PTH 6.69 VHP 2.917 DPA -14.99 RAP 45.47 ECC 1.2583

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 7 26	3902.99	-45.33	166.17	273.37	73.64	11 12 29	2903.0	-46.73	131.15
60.00	9 22 54	4022.39	-33.73	171.39	267.93	66.49	10 29 56	3022.4	-40.05	142.23
63.75	8 6 17	4243.03	-23.55	183.78	262.03	59.49	9 17 0	3243.0	-33.97	158.99
63.75	8 6 17	4243.03	-23.55	183.78	262.03	59.49	9 17 0	3243.0	-33.97	158.99
63.75	8 6 17	4243.03	-23.55	183.78	262.03	59.49	9 17 0	3243.0	-33.97	158.99
63.75	8 6 17	4243.03	-23.55	183.78	262.03	59.49	9 17 0	3243.0	-33.97	158.99
63.75	8 6 17	4243.03	-23.55	183.78	262.03	59.49	9 17 0	3243.0	-33.97	158.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2774 TRA -.5704 TC3 .0184 BAU .6420 SGT 1119.0 SGR 2942.6 SG3 1510.1 ST 25.5 SR 65.1 SS 119.2
RDE .8701 RRA .5980 RC3-3.0595 FAU .31281 RRT -.5114 RRF .9926 RTF -.5039 CRT -.9167 CRS -.9972 CST .8853
FDE 6.4258 FRA 3.0989 FC-17.2546 BSP 5180 SGB 3148.2 R23 -.0716 R13 .9900 LSA 137.6 MSA 12.0 SSA 1.0
BDE .9133 BRA .8264 BC3 3.0595 FSP 2552 SG1 3003.9 SG2 942.0 THA 102.23 EL1 69.3 EL2 9.6 ALF 110.11

LAUNCH DATE JUL 21 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 499.024 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.882 GAL -1.36 AZL 86.91 HCA 155.37 SMA 199.58 ECC .23947 INC 3.0922 V1 29.310
RP 236.29 LAP 1.29 LOP 93.49 VP 21.409 GAP 8.97 AZP 92.81 TAL 352.96 TAP 148.33 RCA 151.78 APO 247.37 V2 23.261
RC 195.134 GL 26.39 GP -31.64 ZAL 99.30 ZAP 117.42 ETS 200.76 ZAE 142.53 ETE 240.40 ZAC 53.64 ETC 286.34 LVI 11.96

PLANETOCENTRIC CONIC

C3 15.918 VHL 3.990 DLA 39.02 RAL 25.52 RAD 6641.0 VEL 11.660 PTH 6.70 VHP 2.909 DPA -16.38 RAP 45.40 ECC 1.2620

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 54 40	3940.54	-44.55	169.46	273.61	71.21	11 0 20	2940.5	-47.13	134.69
60.00	8 54 17	4102.88	-31.40	176.95	266.64	63.32	10 2 40	3102.9	-39.36	148.96
61.91	7 54 46	4272.18	-24.09	186.55	262.04	58.33	9 5 59	3272.2	-34.93	161.78
61.91	7 54 46	4272.18	-24.09	186.55	262.04	58.33	9 5 59	3272.2	-34.93	161.78
61.91	7 54 46	4272.18	-24.09	186.55	262.04	58.33	9 5 59	3272.2	-34.93	161.78
61.91	7 54 46	4272.18	-24.09	186.55	262.04	58.33	9 5 59	3272.2	-34.93	161.78
61.91	7 54 46	4272.18	-24.09	186.55	262.04	58.33	9 5 59	3272.2	-34.93	161.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2405 TRA -.5463 TC3 -.1007 BAU .6765 SGT 1070.3 SGR 3109.8 SG3 1516.7 ST 23.0 SR 72.5 SS 122.8
RDE .9813 RRA .6066 RC3-3.1772 FAU .31333 RRT -.4253 RRF .9937 RTF -.4167 CRT -.8829 CRS -.9980 CST .8522
FDE 6.6969 FRA 2.9999 FC-17.0412 BSP 5436 SGB 3288.8 R23 -.0553 R13 .9922 LSA 143.9 MSA 12.2 SSA 1.0
BDE 1.0104 BRA .8164 BC3 3.1788 FSP 2575 SG1 3146.4 SG2 957.4 THA 99.18 EL1 75.4 EL2 10.4 ALF 105.93

LAUNCH DATE JUL 21 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 502.803 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.874 GAL -1.36 AZL 86.73 HCA 156.33 SMA 199.42 ECC .23887 INC 3.2665 V1 29.310
RP 236.63 LAP 1.31 LOP 94.46 VP 21.358 GAP 8.73 AZP 92.99 TAL 352.95 TAP 149.28 RCA 151.78 APO 247.05 V2 23.226
RC 198.104 GL 27.74 GP -32.95 ZAL 99.22 ZAP 115.67 ETS 200.31 ZAE 140.65 ETE 238.77 ZAC 52.51 ETC 286.67 LVI 13.08

PLANETOCENTRIC CONIC

C3 16.185 VHL 4.023 DLA 40.27 RAL 24.84 RAD 6641.1 VEL 11.672 PTH 6.71 VHP 2.908 DPA -17.82 RAP 45.34 ECC 1.2664

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 40 12	3982.44	-43.57	173.01	273.71	68.62	10 46 34	2982.4	-47.42	138.70
60.00	7 53 58	4270.92	-25.77	187.59	262.87	57.87	9 5 9	3270.9	-35.61	162.37
60.05	7 43 24	4300.59	-24.64	189.32	262.08	57.08	8 55 5	3300.6	-35.92	164.60
60.05	7 43 24	4300.59	-24.64	189.32	262.08	57.08	8 55 5	3300.6	-35.92	164.60
60.05	7 43 24	4300.59	-24.64	189.32	262.08	57.08	8 55 5	3300.6	-35.92	164.60
60.05	7 43 24	4300.59	-24.64	189.32	262.08	57.08	8 55 5	3300.6	-35.92	164.60
60.05	7 43 24	4300.59	-24.64	189.32	262.08	57.08	8 55 5	3300.6	-35.92	164.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1965 TRA -.5199 TC3 -.2166 BAU .7136 SGT 1024.9 SGR 3283.5 SG3 1516.6 ST 20.2 SR 80.5 SS 126.2
RDE 1.1030 RRA .6114 RC3-3.2909 FAU .31277 RRT -.3226 RRF .9946 RTF -.3329 CRT -.8288 CRS -.9985 CST .7983
FDE 6.9571 FRA 2.8727 FC-16.7303 BSP 5699 SGB 3439.8 R23 -.0404 R13 .9938 LSA 150.5 MSA 12.4 SSA .9
BDE 1.1204 BRA .8026 BC3 3.2981 FSP 2583 SG1 3301.7 SG2 964.8 THA 96.29 EL1 82.2 EL2 11.1 ALF 101.97

LAUNCH DATE JUL 21 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 506.585 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.866 GAL -1.36 AZL 86.55 HCA 157.30 SMA 199.27 ECC .23832 INC 3.4542 V1 29.310
RP 236.98 LAP 1.33 LOP 95.43 VP 21.309 GAP 8.49 AZP 93.19 TAL 352.93 TAP 150.23 RCA 151.78 APO 246.76 V2 23.191
RC 201.073 GL 29.17 GP -34.32 ZAL 99.14 ZAP 113.93 ETS 199.81 ZAE 138.71 ETE 237.23 ZAC 51.34 ETC 287.02 LVI 14.25

PLANETOCENTRIC CONIC

C3 16.502 VHL 4.062 DLA 41.58 RAL 24.12 RAD 6641.2 VEL 11.685 PTH 6.72 VHP 2.914 DPA -19.30 RAP 45.30 ECC 1.2716

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 23 31	4029.83	-42.33	176.88	273.59	65.85	10 30 41	3029.8	-47.57	143.27
58.14	7 32 8	4328.35	-25.18	192.10	262.15	55.74	8 44 16	3328.3	-36.93	167.45
58.14	7 32 8	4328.35	-25.18	192.10	262.15	55.74	8 44 16	3328.3	-36.93	167.45
58.14	7 32 8	4328.35	-25.18	192.10	262.15	55.74	8 44 16	3328.3	-36.93	167.45
58.14	7 32 8	4328.35	-25.18	192.10	262.15	55.74	8 44 16	3328.3	-36.93	167.45
58.14	7 32 8	4328.35	-25.18	192.10	262.15	55.74	8 44 16	3328.3	-36.93	167.45
58.14	7 32 8	4328.35	-25.18	192.10	262.15	55.74	8 44 16	3328.3	-36.93	167.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1395 TRA -.4877 TC3 -.3199 BAU .7549 SGT 975.7 SGR 3461.0 SG3 1508.1 ST 16.9 SR 88.5 SS 128.8
RDE 1.2295 RRA .6068 RC3-3.4071 FAU .31182 RRT -.1996 RRF .9954 RTF -.1883 CRT -.7255 CRS -.9989 CST .6938
FDE 7.1685 FRA 2.6938 FC-16.3593 BSP 5899 SGB 3595.9 R23 -.0273 R13 .9951 LSA 156.7 MSA 12.4 SSA .8
BDE 1.2374 BRA .7785 BC3 3.4221 FSP 2545 SG1 3466.9 SG2 954.4 THA 93.49 EL1 89.4 EL2 11.5 ALF 98.05

LAUNCH DATE JUL 21 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 510.365 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.860	GAL	-1.36	AZL	86.34	HCA	158.26	SMA	199.14	ECC	.23781	INC	3.6571
RP	237.31	LAP	1.35	LOP	96.39	VP	21.261	GAP	8.24	AZP	93.40	TAL	352.90	TAP	151.16	RCA	151.78	APO	246.49
RC	204.040	GL	30.67	GP	-35.72	ZAL	99.06	ZAP	112.19	ETS	199.27	ZAE	136.73	ETE	235.78	ZAC	50.14	ETC	287.41

PLANETOCENTRIC CONIC

C3	16.877	VHL	4.108	DLA	42.97	RAL	23.34	RAD	6641.4	VEL	11.701	PTH	6.73	VHP	2.927	DPA	-20.83	RAP	45.28

VL	32.860	GAL	-1.36	AZL	86.34	HCA	158.26	SMA	199.14	ECC	.23781	INC	3.6571	V1	29.310
VP	21.261	GAP	8.24	AZP	93.40	TAL	352.90	TAP	151.16	RCA	151.78	APO	246.49	V2	23.157
GP	-35.72	ZAL	99.06	ZAP	112.19	ETS	199.27	ZAE	136.73	ETE	235.78	ZAC	50.14	ETC	287.41	LVI	15.47

RAD	6641.4	VEL	11.701	PTH	6.73	VHP	2.927	DPA	-20.83	RAP	45.28	ECC	1.2778

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 3 46	4084.66	-40.71	181.14	273.14	62.87	10 11 51	3084.7	-47.49	148.57
56.19	7 20 50	4355.78	-25.70	194.92	262.24	54.30	8 33 26	3355.8	-37.97	170.36
56.19	7 20 50	4355.78	-25.70	194.92	262.24	54.30	8 33 26	3355.8	-37.97	170.36
56.19	7 20 50	4355.78	-25.70	194.92	262.24	54.30	8 33 26	3355.8	-37.97	170.36
56.19	7 20 50	4355.78	-25.70	194.92	262.24	54.30	8 33 26	3355.8	-37.97	170.36
56.19	7 20 50	4355.78	-25.70	194.92	262.24	54.30	8 33 26	3355.8	-37.97	170.36
56.19	7 20 50	4355.78	-25.70	194.92	262.24	54.30	8 33 26	3355.8	-37.97	170.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0875	TRA	-.4690	TC3	-.4508	BAU	.7943	SGT	975.4	SGR	3645.0	SG3	1492.6	ST	14.7	SR	97.9	SS	132.2
RDE	1.3801	RRA	.6101	RC3	-3.4913	FAU	.30733	RRT	-.0596	RRF	.9961	RTF	-.0483	CRT	-.5672	CRS	-.9992	CST	.5351
FDE	7.4168	FRA	2.5528	FC	-15.7649	BSP	6258	SGB	3773.2	R23	-.0156	R13	.9961	LSA	164.7	MSA	12.7	SSA	.7
BDE	1.3829	BRA	.7695	BC3	3.5203	FSP	2546	SG1	3645.5	SG2	973.5	THA	90.98	EL1	98.3	EL2	12.1	ALF	94.96

LAUNCH DATE JUL 21 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 514.147 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.853	GAL	-1.37	AZL	86.12	HCA	159.22	SMA	199.01	ECC	.23735	INC	3.6771
RP	237.65	LAP	1.38	LOP	97.35	VP	21.214	GAP	8.00	AZP	93.63	TAL	352.87	TAP	152.09	RCA	151.78	APO	246.25
RC	207.005	GL	32.25	GP	-37.17	ZAL	98.97	ZAP	110.45	ETS	198.68	ZAE	134.71	ETE	234.38	ZAC	48.90	ETC	287.82

PLANETOCENTRIC CONIC

C3	17.320	VHL	4.162	DLA	44.43	RAL	22.48	RAD	6641.6	VEL	11.720	PTH	6.75	VHP	2.948	DPA	-22.40	RAP	45.29

VL	32.853	GAL	-1.37	AZL	86.12	HCA	159.22	SMA	199.01	ECC	.23735	INC	3.6771	V1	29.310
VP	21.214	GAP	8.00	AZP	93.63	TAL	352.87	TAP	152.09	RCA	151.78	APO	246.25	V2	23.123
GP	-37.17	ZAL	98.97	ZAP	110.45	ETS	198.68	ZAE	134.71	ETE	234.38	ZAC	48.90	ETC	287.82	LVI	16.73

RAD	6641.6	VEL	11.720	PTH	6.75	VHP	2.948	DPA	-22.40	RAP	45.29	ECC	1.2851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 39 21	4150.49	-38.55	185.97	272.12	59.61	9 48 32	3150.5	-47.06	154.87
54.18	7 9 29	4382.91	-26.20	197.77	262.36	52.74	8 22 32	3382.9	-39.03	173.37
54.18	7 9 29	4382.91	-26.20	197.77	262.36	52.74	8 22 32	3382.9	-39.03	173.37
54.18	7 9 29	4382.91	-26.20	197.77	262.36	52.74	8 22 32	3382.9	-39.03	173.37
54.18	7 9 29	4382.91	-26.20	197.77	262.36	52.74	8 22 32	3382.9	-39.03	173.37
54.18	7 9 29	4382.91	-26.20	197.77	262.36	52.74	8 22 32	3382.9	-39.03	173.37
54.18	7 9 29	4382.91	-26.20	197.77	262.36	52.74	8 22 32	3382.9	-39.03	173.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0211	TRA	-.4458	TC3	-.5668	BAU	.8379	SGT	980.9	SGR	3831.7	SG3	1467.8	ST	13.0	SR	107.4	SS	134.6
RDE	1.5378	RRA	.6028	RC3	-3.5740	FAU	.30234	RRT	.0913	RRF	.9967	RTF	.1030	CRT	-.2690	CRS	-.9994	CST	.2370
FDE	7.6060	FRA	2.3618	FC	-15.1118	BSP	6570	SGB	3955.2	R23	-.0057	R13	.9968	LSA	172.2	MSA	12.9	SSA	.7
BDE	1.5379	BRA	.7497	BC3	3.6186	FSP	2507	SG1	3832.8	SG2	976.5	THA	88.57	EL1	107.4	EL2	12.5	ALF	91.89

LAUNCH DATE JUL 21 1973 FLIGHT TIME 222.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 517.928 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.848	GAL	-1.37	AZL	85.88	HCA	160.17	SMA	198.90	ECC	.23693	INC	4.1167
RP	237.98	LAP	1.40	LOP	98.31	VP	21.169	GAP	7.76	AZP	93.87	TAL	352.83	TAP	153.00	RCA	151.78	APO	246.03
RC	209.965	GL	33.92	GP	-38.67	ZAL	98.88	ZAP	108.74	ETS	198.03	ZAE	132.65	ETE	233.05	ZAC	47.62	ETC	288.27

PLANETOCENTRIC CONIC

C3	17.844	VHL	4.224	DLA	45.97	RAL	21.54	RAD	6641.9	VEL	11.742	PTH	6.77	VHP	2.977	DPA	-24.01	RAP	45.33

VL	32.848	GAL	-1.37	AZL	85.88	HCA	160.17	SMA	198.90	ECC	.23693	INC	4.1167	V1	29.310
VP	21.169	GAP	7.76	AZP	93.87	TAL	352.83	TAP	153.00	RCA	151.78	APO	246.03	V2	23.090
GP	-38.67	ZAL	98.88	ZAP	108.74	ETS	198.03	ZAE	132.65	ETE	233.05	ZAC	47.62	ETC	288.27	LVI	16.03

RAD	6641.9	VEL	11.742	PTH	6.77	VHP	2.977	DPA	-24.01	RAP	45.33	ECC	1.2937

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 6 21	4236.54	-35.42	191.81	270.05	55.88	9 16 57	3236.5	-45.93	162.87
52.12	6 57 58	4409.94	-26.67	200.68	262.50	51.06	8 11 28	3409.9	-40.10	176.48
52.12	6 57 58	4409.94	-26.67	200.68	262.50	51.06	8 11 28	3409.9	-40.10	176.48
52.12	6 57 58	4409.94	-26.67	200.68	262.50	51.06	8 11 28	3409.9	-40.10	176.48
52.12	6 57 58	4409.94	-26.67	200.68	262.50	51.06	8 11 28	3409.9	-40.10	176.48
52.12	6 57 58	4409.94	-26.67	200.68	262.50	51.06	8 11 28	3409.9	-40.10	176.48
52.12	6 57 58	4409.94	-26.67	200.68	262.50	51.06	8 11 28	3409.9	-40.10	176.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0525	TRA	-.4293	TC3	-.6811	BAU	.8832	SGT	1012.5	SGR	4023.7	SG3	1434.7	ST	13.0	SR	117.6	SS	136.7
RDE	1.7139	RRA	.5915	RC3	-3.6393	FAU	.29553	RRT	.2307	RRF	.9972	RTF	.2213	CRT	.1325	CRS	-.9996	CST	-.1605
FDE	7.7772	FRA	2.1582	FC	-14.3385	BSP	6899	SGB	4149.1	R23	.0029	R13	.9973	LSA	180.3	MSA	13.1	SSA	.6
BDE	1.7147	BRA	.7286	BC3	3.7025	FSP	2453	SG1	4031.5	SG2	981.0	THA	86.33	EL1	117.6	EL2	12.9	ALF	89.15

LAUNCH DATE JUL 21 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 521.710 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.842	GAL	-1.38	AZL	85.62	HCA	161.12	SMA	198.80	ECC	.23655	INC	4.3786
RP	238.30	LAP	1.42	LOP	99.27	VP	21.125	GAP	7.53	AZP	94.14	TAL	352.78	TAP	153.91	RCA	151.77	APO	245.83
RC	212.919	GL	35.69	GP	-40.21	ZAL	98.78	ZAP	107.04	ETS	197.34	ZAE	130.56	ETE	231.76	ZAC	46.31	ETC	288.76

PLANETOCENTRIC CONIC

C3	18.463	VHL	4.297	DLA	47.58	RAL	20.49	RAD	6642.1	VEL	11.768	PTH	6.79	VHP	3.016	DPA	-25.66	RAP	45.40

VL	32.842	GAL	-1.38	AZL	85.62	HCA	161.12	SMA	198.80	ECC	.23655	INC	4.3786	V1	29.310
VP	21.125	GAP	7.53	AZP	94.14	TAL	352.78	TAP	153.91	RCA	151.77	APO	245.83	V2	23.056
GP	-40.21	ZAL	98.78	ZAP	107.04	ETS	197.34	ZAE	130.56	ETE	231.76	ZAC	46.31	ETC	288.76	LVI	19.39

RAD	6642.1	VEL	11.768	PTH	6.79	VHP	3.016	DPA	-25.66	RAP	45.40	ECC	1.3038

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.99	6 46 12	4437.05	-27.09	203.66	262.64	49.26	8 0 9	3437.0	-41.17	179.74
49.99	6 46 12	4437.05	-27.09	203.66	262.64	49.26	8 0 9	3437.0	-41.17	179.74
49.99	6 46 12	4437.05	-27.09	203.66	262.64	49.26	8 0 9	3437.0	-41.17	179.74
49.99	6 46 12	4437.05	-27.09	203.66	262.64	49.26	8 0 9	3437.0	-41.17	179.74
49.99	6 46 12	4437.05	-27.09	203.66	262.64	49.26	8 0 9	3437.0	-41.17	179.74
49.99	6 46 12	4437.05	-27.09	203.66	262.64	49.26	8 0 9	3437.0	-41.17	179.74
49.99	6 46 12	4437.05	-27.09	203.66	262.64	49.26	8 0 9	3437.0	-41.17	179.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1368	TRA	-.4065	TC3	-.7899	BAU	.9311	SGT	1067.6	SGR	4216.0	SG3	1391.7	ST	15.1	SR	128.2	SS	136.2
RDE	1.9049	RRA	.5712	RC3	-3.6885	FAU	.28722	RRT	.3793	RRF	.9976	RTF	.3906	CRT	.4936	CRS	-.9997	CST	-.5146
FDE	7.9015	FRA	1.9262	FC	-13.4682	BSP	7225	SGB	4349.1	R23	.0103	R13	.9977	LSA	188.6	MSA	13.3	SSA	.5
BDE	1.9098	BRA	.7011	BC3	3.7721	FSP	2378	SG1	4236.5	SG2	983.0	THA	84.20	EL1	128.4	EL2	13.2	ALF	86.63

LAUNCH DATE JUL 21 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 525.492 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.838	GAL	-1.39	AZL	85.33	HCA	162.87	SMA	198.71	ECC	.23621	INC	4.6867
RP	238.63	LAP	1.44	LOP	100.22	VP	21.082	GAP	7.29	AZP	94.44	TAL	352.73	TAP	154.81	RCA	151.77	APO	245.65
RC	215.868	GL	37.56	GP	-41.79	ZAL	98.67	ZAP	105.37	ETS	196.60	ZAE	128.46	ETE	230.51	ZAC	44.96	ETC	289.29

V1	29.310																		
V2	23.024																		
LVI	20.78																		

PLANETOCENTRIC CONIC

C3	19.197	VHL	4.381	DLA	49.29	RAL	19.32	RAD	6642.5	VEL	11.799	PTH	6.82	VHP	3.067	DPA	-27.35	RAP	45.53

ECC	1.3159																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.79	6 34 5	4464.37	-27.46	206.71	262.77	47.31	7 48 30	3464.4	-42.23	183.16
47.79	6 34 5	4464.37	-27.46	206.71	262.77	47.31	7 48 30	3464.4	-42.23	183.16
47.79	6 34 5	4464.37	-27.46	206.71	262.77	47.31	7 48 30	3464.4	-42.23	183.16
47.79	6 34 5	4464.37	-27.46	206.71	262.77	47.31	7 48 30	3464.4	-42.23	183.16
47.79	6 34 5	4464.37	-27.46	206.71	262.77	47.31	7 48 30	3464.4	-42.23	183.16
47.79	6 34 5	4464.37	-27.46	206.71	262.77	47.31	7 48 30	3464.4	-42.23	183.16
47.79	6 34 5	4464.37	-27.46	206.71	262.77	47.31	7 48 30	3464.4	-42.23	183.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2325	TRA	-.3903	TC3	-.8908	BAU	.9796	SGT	1146.3	SGR	4411.0	SG3	1339.8	ST	19.2	SR	139.6	SS	139.3
RDE	2.1191	RRA	.5462	RC3	-3.7116	FAU	.27678	RRT	.4993	RRF	.9980	RTF	.5100	CRT	.7145	CRS	-.9998	CST	-.7289
FDE	7.9968	FRA	1.6900	FC	-12.4826	BSP	7599	SGB	4557.5	R23	.0166	R13	.9979	LSA	197.7	NSA	13.4	SSA	.5
BDE	2.1319	BRA	.6713	BC3	3.8170	FSP	2298	SG1	4449.9	SG2	984.5	THA	82.22	EL1	140.3	EL2	13.4	ALF	84.32

LAUNCH DATE JUL 21 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 529.273 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.834	GAL	-1.40	AZL	85.02	HCA	163.02	SMA	198.63	ECC	.23591	INC	4.9848
RP	238.95	LAP	1.45	LOP	101.17	VP	21.040	GAP	7.05	AZP	94.77	TAL	352.68	TAP	155.70	RCA	151.77	APO	245.48
RC	218.810	GL	39.54	GP	-43.42	ZAL	98.55	ZAP	103.73	ETS	195.80	ZAE	126.33	ETE	229.29	ZAC	43.58	ETC	289.87

V1	29.310																		
V2	22.991																		
LVI	22.23																		

PLANETOCENTRIC CONIC

C3	20.071	VHL	4.480	DLA	51.08	RAL	17.98	RAD	6642.9	VEL	11.836	PTH	6.85	VHP	3.129	DPA	-29.07	RAP	45.70

ECC	1.3303																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.51	6 21 29	4492.14	-27.74	209.85	262.87	45.22	7 36 21	3492.1	-43.26	186.78
45.51	6 21 29	4492.14	-27.74	209.85	262.87	45.22	7 36 21	3492.1	-43.26	186.78
45.51	6 21 29	4492.14	-27.74	209.85	262.87	45.22	7 36 21	3492.1	-43.26	186.78
45.51	6 21 29	4492.14	-27.74	209.85	262.87	45.22	7 36 21	3492.1	-43.26	186.78
45.51	6 21 29	4492.14	-27.74	209.85	262.87	45.22	7 36 21	3492.1	-43.26	186.78
45.51	6 21 29	4492.14	-27.74	209.85	262.87	45.22	7 36 21	3492.1	-43.26	186.78
45.51	6 21 29	4492.14	-27.74	209.85	262.87	45.22	7 36 21	3492.1	-43.26	186.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.3403	TRA	-.3781	TC3	-.9826	BAU	1.0314	SGT	1247.8	SGR	4607.0	SG3	1278.9	ST	24.7	SR	151.4	SS	139.5
RDE	2.3536	RRA	.5099	RC3	-3.7161	FAU	.26508	RRT	.5989	RRF	.9983	RTF	.6090	CRT	.8306	CRS	-.9998	CST	-.8404
FDE	8.0360	FRA	1.4332	FC	-11.4338	BSP	7954	SGB	4773.0	R23	.0219	R13	.9982	LSA	206.9	NSA	13.6	SSA	.4
BDE	2.3781	BRA	.6348	BC3	3.8439	FSP	2193	SG1	4670.1	SG2	985.7	THA	80.35	EL1	152.8	EL2	13.6	ALF	82.23

LAUNCH DATE JUL 21 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 533.053 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.830	GAL	-1.41	AZL	84.66	HCA	163.96	SMA	198.55	ECC	.23565	INC	5.3382
RP	239.26	LAP	1.47	LOP	102.12	VP	20.999	GAP	6.82	AZP	95.13	TAL	352.61	TAP	156.58	RCA	151.76	APO	245.34
RC	221.744	GL	41.64	GP	-45.09	ZAL	98.41	ZAP	102.14	ETS	194.95	ZAE	124.21	ETE	228.10	ZAC	42.17	ETC	290.51

V1	29.310																		
V2	22.960																		
LVI	23.72																		

PLANETOCENTRIC CONIC

C3	21.118	VHL	4.595	DLA	52.96	RAL	16.46	RAD	6643.3	VEL	11.879	PTH	6.89	VHP	3.206	DPA	-30.82	RAP	45.93

ECC	1.3476																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.16	6 8 13	4520.58	-27.92	213.09	262.90	42.98	7 23 33	3520.6	-44.23	190.63
43.16	6 8 13	4520.58	-27.92	213.09	262.90	42.98	7 23 33	3520.6	-44.23	190.63
43.16	6 8 13	4520.58	-27.92	213.09	262.90	42.98	7 23 33	3520.6	-44.23	190.63
43.16	6 8 13	4520.58	-27.92	213.09	262.90	42.98	7 23 33	3520.6	-44.23	190.63
43.16	6 8 13	4520.58	-27.92	213.09	262.90	42.98	7 23 33	3520.6	-44.23	190.63
43.16	6 8 13	4520.58	-27.92	213.09	262.90	42.98	7 23 33	3520.6	-44.23	190.63
43.16	6 8 13	4520.58	-27.92	213.09	262.90	42.98	7 23 33	3520.6	-44.23	190.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.4615	TRA	-.3704	TC3	-1.0637	BAU	1.0846	SGT	1369.2	SGR	4802.0	SG3	1208.8	ST	31.0	SR	163.7	SS	139.0
RDE	2.6151	RRA	.4632	RC3	-3.6912	FAU	.25148	RRT	.6780	RRF	.9986	RTF	.6674	CRT	.8924	CRS	-.9999	CST	-.8993
FDE	8.0251	FRA	1.1680	FC	-10.3094	BSP	8335	SGB	4993.4	R23	.0265	R13	.9983	LSA	216.6	NSA	13.8	SSA	.4
BDE	2.6555	BRA	.5931	BC3	3.8414	FSP	2079	SG1	4894.8	SG2	987.4	THA	78.59	EL1	166.1	EL2	13.8	ALF	80.34

LAUNCH DATE JUL 21 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 536.832 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.826	GAL	-1.42	AZL	84.27	HCA	164.90	SMA	198.49	ECC	.23542	INC	5.7337
RP	239.57	LAP	1.49	LOP	103.07	VP	20.959	GAP	6.58	AZP	95.54	TAL	352.55	TAP	157.45	RCA	151.76	APO	245.21
RC	224.672	GL	43.87	GP	-46.79	ZAL	98.25	ZAP	100.60	ETS	194.05	ZAE	122.08	ETE	226.93	ZAC	40.72	ETC	291.21

V1	29.310																		
V2	22.928																		
LVI	25.26																		

PLANETOCENTRIC CONIC

C3	22.382	VHL	4.731	DLA	54.93	RAL	14.69	RAD	6643.9	VEL	11.932	PTH	6.94	VHP	3.299	DPA	-32.60	RAP	46.23

ECC	1.3684																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.72	5 54 7	4549.85	-27.97	216.42	262.81	40.58	7 9 57	3549.9	-45.12	194.74
40.72	5 54 7	4549.85	-27.97	216.42	262.81	40.58	7 9 57	3549.9	-45.12	194.74
40.72	5 54 7	4549.85	-27.97	216.42	262.81	40.58	7 9 57	3549.9	-45.12	194.74
40.72	5 54 7	4549.85	-27.97	216.42	262.81	40.58	7 9 57	3549.9	-45.12	194.74
40.72	5 54 7	4549.85	-27.97	216.42	262.81	40.58	7 9 57	3549.9	-45.12	194.74
40.72	5 54 7	4549.85	-27.97	216.42	262.81	40.58	7 9 57	3549.9	-45.12	194.74
40.72	5 54 7	4549.85	-27.97	216.42	262.81	40.58	7 9 57	3549.9	-45.12	194.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.5995	TRA	-.3671	TC3	-1.1292	BAU	1.1393	SGT	1505.9	SGR	4994.0	SG3	1129.9	ST	38.1	SR	176.4	SS	137.5
RDE	2.9050	RRA	.4040	RC3	-3.6361	FAU	.23623	RRT	.7409	RRF	.9988	RTF	.7496	CRT	.9280	CRS	-.9999	CST	-.8329
FDE	7.9502	FRA	.8983	FC	-9.1371	BSP	8714	SGB	5216.1	R23	.0303	R13	.9984	LSA	226.5	NSA	13.9	SSA	.3
BDE	2.9662	BRA	.5458	BC3	3.8074	FSP	1947	SG1	5122.0	SG2	986.1	THA	76.91	EL1	180.0	EL2	13.9	ALF	78.59

LAUNCH DATE JUL 21 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 12 1974

HELIOCENTRIC CONIC DISTANCE 540.610 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.823 GAL -1.43 AZL 83.82 HCA 165.84 SMA 198.43 ECC .23522 INC 6.1791 V1 29.310
RP 239.88 LAP 1.51 LOP 104.01 VP 20.921 GAP 6.35 AZP 95.99 TAL 352.47 TAP 158.31 RCA 151.75 APO 245.10 V2 22.897
RC 227.591 GL 46.23 GP -48.53 ZAL 98.06 ZAP 99.11 ETS 193.09 ZAE 119.97 ETE 225.78 ZAC 39.25 ETC 291.98 LVI 26.83

PLANETOCENTRIC CONIC

C3 23.921 VHL 4.891 DLA 57.00 RAL 12.61 RAD 6644.5 VEL 11.996 PTH 6.99 VHP 3.412 DPA -34.40 RAP 46.60 ECC 1.3937

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.21	5 38 54	4580.35	-27.86	219.84	262.55	38.03	6 55 14	3580.3	-45.87	199.13
38.21	5 38 54	4580.35	-27.86	219.84	262.55	38.03	6 55 14	3580.3	-45.87	199.13
38.21	5 38 54	4580.35	-27.86	219.84	262.55	38.03	6 55 14	3580.3	-45.87	199.13
38.21	5 38 54	4580.35	-27.86	219.84	262.55	38.03	6 55 14	3580.3	-45.87	199.13
38.21	5 38 54	4580.35	-27.86	219.84	262.55	38.03	6 55 14	3580.3	-45.87	199.13
38.21	5 38 54	4580.35	-27.86	219.84	262.55	38.03	6 55 14	3580.3	-45.87	199.13
38.21	5 38 54	4580.35	-27.86	219.84	262.55	38.03	6 55 14	3580.3	-45.87	199.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .7543 TRA -.3703 TC3-1.1790 BAU 1.1960 SGT 1656.8 SGR 5183.3 SG3 1043.4 ST 45.8 SR 189.5 SS 135.0
RDE 3.2293 RRA .3295 RC3-3.5492 FAU .21945 RRT .7897 RRF .9990 RTF .7979 CRT .9492 CRS -.9999 CST -.9528
FDE 7.8080 FRA .6283 FC3-7.9423 BSP 9118 SGB 5441.7 R23 .0334 R13 .9985 LSA 236.7 MSA 14.1 SSA .3
BDE 3.3162 BRA .4957 BC3 3.7399 FSP 1806 SG1 5351.9 SG2 984.4 THA 75.32 EL1 194.5 EL2 14.1 ALF 77.01

LAUNCH DATE JUL 21 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC DISTANCE 544.386 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.821 GAL -1.45 AZL 83.32 HCA 166.77 SMA 198.38 ECC .23505 INC 6.6847 V1 29.310
RP 240.18 LAP 1.53 LOP 104.95 VP 20.883 GAP 6.11 AZP 96.51 TAL 352.40 TAP 159.17 RCA 151.75 APO 245.01 V2 22.866
RC 230.502 GL 48.74 GP -50.31 ZAL 97.85 ZAP 97.70 ETS 192.09 ZAE 117.88 ETE 224.64 ZAC 37.75 ETC 292.82 LVI 28.45

PLANETOCENTRIC CONIC

C3 25.813 VHL 5.081 DLA 59.15 RAL 10.13 RAD 6645.3 VEL 12.074 PTH 7.05 VHP 3.547 DPA -36.20 RAP 47.06 ECC 1.4248

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.62	5 22 14	4612.31	-27.54	223.33	262.00	35.34	6 39 6	3612.3	-46.44	203.81
35.62	5 22 14	4612.31	-27.54	223.33	262.00	35.34	6 39 6	3612.3	-46.44	203.81
35.62	5 22 14	4612.31	-27.54	223.33	262.00	35.34	6 39 6	3612.3	-46.44	203.81
35.62	5 22 14	4612.31	-27.54	223.33	262.00	35.34	6 39 6	3612.3	-46.44	203.81
35.62	5 22 14	4612.31	-27.54	223.33	262.00	35.34	6 39 6	3612.3	-46.44	203.81
35.62	5 22 14	4612.31	-27.54	223.33	262.00	35.34	6 39 6	3612.3	-46.44	203.81
35.62	5 22 14	4612.31	-27.54	223.33	262.00	35.34	6 39 6	3612.3	-46.44	203.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .9265 TRA -.3819 TC3-1.2112 BAU 1.2545 SGT 1819.8 SGR 5367.9 SG3 950.1 ST 53.8 SR 202.8 SS 131.2
RDE 3.5924 RRA .2367 RC3-3.4275 FAU .20122 RRT .8274 RRF .9991 RTF .8351 CRT .9624 CRS -.9999 CST -.9652
FDE 7.5893 FRA .3634 FC3-6.7487 BSP 9541 SGB 5667.9 R23 .0359 R13 .9986 LSA 247.1 MSA 14.2 SSA .2
BDE 3.7100 BRA .4494 BC3 3.6352 FSP 1656 SG1 5582.1 SG2 982.9 THA 73.82 EL1 209.3 EL2 14.2 ALF 75.62

LAUNCH DATE JUL 21 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 16 1974

HELIOCENTRIC CONIC DISTANCE 548.159 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.819 GAL -1.46 AZL 82.74 HCA 167.70 SMA 198.34 ECC .23492 INC 7.2639 V1 29.310
RP 240.48 LAP 1.54 LOP 105.89 VP 20.847 GAP 5.88 AZP 97.10 TAL 352.31 TAP 160.02 RCA 151.74 APO 244.93 V2 22.836
RC 233.405 GL 51.41 GP -52.11 ZAL 97.60 ZAP 96.36 ETS 191.05 ZAE 115.82 ETE 223.50 ZAC 36.24 ETC 293.76 LVI 30.10

PLANETOCENTRIC CONIC

C3 28.168 VHL 5.307 DLA 61.37 RAL 7.13 RAD 6646.3 VEL 12.170 PTH 7.13 VHP 3.711 DPA -38.02 RAP 47.61 ECC 1.4636

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.96	5 3 36	4646.18	-26.97	226.88	261.02	32.52	6 21 2	3646.2	-46.77	208.76
32.96	5 3 36	4646.18	-26.97	226.88	261.02	32.52	6 21 2	3646.2	-46.77	208.76
32.96	5 3 36	4646.18	-26.97	226.88	261.02	32.52	6 21 2	3646.2	-46.77	208.76
32.96	5 3 36	4646.18	-26.97	226.88	261.02	32.52	6 21 2	3646.2	-46.77	208.76
32.96	5 3 36	4646.18	-26.97	226.88	261.02	32.52	6 21 2	3646.2	-46.77	208.76
32.96	5 3 36	4646.18	-26.97	226.88	261.02	32.52	6 21 2	3646.2	-46.77	208.76
32.96	5 3 36	4646.18	-26.97	226.88	261.02	32.52	6 21 2	3646.2	-46.77	208.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.1149 TRA -.4043 TC3-1.2243 BAU 1.3190 SGT 1991.8 SGR 5547.9 SG3 851.4 ST 61.7 SR 215.6 SS 125.9
RDE 3.9925 RRA .1155 RC3-3.2817 FAU .18241 RRT .8577 RRF .9992 RTF .8651 CRT .9710 CRS-1.0000 CST -.9732
FDE 7.2720 FRA .0988 FC3-5.6063 BSP 9898 SGB 5894.6 R23 .0375 R13 .9986 LSA 256.8 MSA 14.2 SSA .2
BDE 4.1452 BRA .4205 BC3 3.5026 FSP 1484 SG1 5813.0 SG2 977.5 THA 72.37 EL1 223.8 EL2 14.2 ALF 74.40

LAUNCH DATE JUL 21 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 18 1974

HELIOCENTRIC CONIC DISTANCE 551.931 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.817 GAL -1.48 AZL 82.07 HCA 168.63 SMA 198.30 ECC .23481 INC 7.9345 V1 29.310
RP 240.78 LAP 1.56 LOP 106.83 VP 20.812 GAP 5.65 AZP 97.78 TAL 352.23 TAP 160.66 RCA 151.74 APO 244.87 V2 22.807
RC 236.297 GL 54.24 GP -53.93 ZAL 97.32 ZAP 95.11 ETS 189.97 ZAE 113.80 ETE 222.37 ZAC 34.71 ETC 294.79 LVI 31.77

PLANETOCENTRIC CONIC

C3 31.142 VHL 5.580 DLA 63.65 RAL 3.44 RAD 6647.4 VEL 12.291 PTH 7.23 VHP 3.909 DPA -39.83 RAP 48.25 ECC 1.5125

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.27	4 42 24	4682.36	-26.09	230.44	259.41	29.62	6 0 26	3682.4	-46.76	213.94
30.27	4 42 24	4682.36	-26.09	230.44	259.41	29.62	6 0 26	3682.4	-46.76	213.94
30.27	4 42 24	4682.36	-26.09	230.44	259.41	29.62	6 0 26	3682.4	-46.76	213.94
30.27	4 42 24	4682.36	-26.09	230.44	259.41	29.62	6 0 26	3682.4	-46.76	213.94
30.27	4 42 24	4682.36	-26.09	230.44	259.41	29.62	6 0 26	3682.4	-46.76	213.94
30.27	4 42 24	4682.36	-26.09	230.44	259.41	29.62	6 0 26	3682.4	-46.76	213.94
30.27	4 42 24	4682.36	-26.09	230.44	259.41	29.62	6 0 26	3682.4	-46.76	213.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.3196 TRA -.4368 TC3-1.2137 BAU 1.3875 SGT 2165.9 SGR 5718.5 SG3 748.2 ST 69.4 SR 227.5 SS 118.7
RDE 4.4307 RRA -.0366 RC3-3.1038 FAU .16267 RRT .8834 RRF .9993 RTF .8908 CRT .9771 CRS-1.0000 CST -.9790
FDE 6.8452 FRA -.1494 FC3-4.5221 BSP 10260 SGB 6114.9 R23 .0375 R13 .9987 LSA 265.5 MSA 14.2 SSA .2
BDE 4.6230 BRA .4383 BC3 3.3327 FSP 1306 SG1 6038.9 SG2 961.2 THA 71.00 EL1 237.5 EL2 14.2 ALF 73.33

LAUNCH DATE JUL 21 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 20 1974

HELIOCENTRIC CONIC DISTANCE 555.698 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.815	GAL	-1.49	AZL	81.28	HCA	168.55	SMA	198.27	ECC	.23473	INC	8.7200	V1	29.310
RP	241.07	LAP	1.58	LOP	107.76	VP	20.777	GAP	5.42	AZP	98.58	TAL	352.14	TAP	161.69	RCA	151.73	APO	244.82	V2	22.777
RC	239.179	GL	57.26	GP	-55.76	ZAL	97.00	ZAP	93.95	ETS	188.87	ZAE	111.84	ETE	221.26	ZAC	33.18	ETC	295.93	LVI	33.46

PLANETOCENTRIC CONIC

C3	34.961	VHL	5.913	DLA	65.95	RAL	358.82	RAD	6648.9	VEL	12.444	PTH	7.35	VHP	4.150	DPA	-41.61	RAP	49.00	ECC	1.5754

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.57	4 17 44	4721.28	-24.86	233.95	256.90	26.69	5 36 25	3721.3	-46.35	219.24
27.57	4 17 44	4721.28	-24.86	233.95	256.90	26.69	5 36 25	3721.3	-46.35	219.24
27.57	4 17 44	4721.28	-24.86	233.95	256.90	26.69	5 36 25	3721.3	-46.35	219.24
27.57	4 17 44	4721.28	-24.86	233.95	256.90	26.69	5 36 25	3721.3	-46.35	219.24
27.57	4 17 44	4721.28	-24.86	233.95	256.90	26.69	5 36 25	3721.3	-46.35	219.24
27.57	4 17 44	4721.28	-24.86	233.95	256.90	26.69	5 36 25	3721.3	-46.35	219.24
27.57	4 17 44	4721.28	-24.86	233.95	256.90	26.69	5 36 25	3721.3	-46.35	219.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.5272	TRA	-.4859	TC3	-1.1833	BAU	1.4606	SGT	2341.5	SGR	5883.9	SG3	643.1	ST	76.0	SR	238.1	SS	109.7
RDE	4.9103	RRA	-.2234	RC3	-2.8922	FAU	.14207	RRT	.9030	RRF	.9993	RTF	.9107	CRT	.9807	CRS	-1.0000	CST	-.9825
FDE	6.3053	FRA	-.3670	FC3	-3.5181	BSP	10622	SGB	6332.7	R23	.0363	R13	.9988	LSA	272.6	MSA	14.2	SSA	.1
BDE	5.1423	BRA	.5348	BC3	3.1249	FSP	1126	SG1	6261.7	SG2	945.1	THA	69.75	EL1	249.5	EL2	14.2	ALF	72.55

LAUNCH DATE JUL 21 1973 FLIGHT TIME 244.00 ARRIVAL DATE MAR 22 1974

HELIOCENTRIC CONIC DISTANCE 559.462 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.814	GAL	-1.51	AZL	80.35	HCA	170.47	SMA	198.25	ECC	.23468	INC	9.6535	V1	29.310
RP	241.36	LAP	1.59	LOP	108.69	VP	20.744	GAP	5.19	AZP	99.52	TAL	352.05	TAP	162.52	RCA	151.73	APO	244.78	V2	22.749
RC	242.049	GL	60.47	GP	-57.57	ZAL	96.63	ZAP	92.89	ETS	187.75	ZAE	109.96	ETE	220.15	ZAC	31.66	ETC	297.17	LVI	35.15

PLANETOCENTRIC CONIC

C3	39.964	VHL	6.322	DLA	68.21	RAL	352.92	RAD	6650.6	VEL	12.643	PTH	7.49	VHP	4.446	DPA	-43.36	RAP	49.86	ECC	1.6577

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.93	3 48 19	4763.53	-23.20	237.31	253.07	23.82	5 7 43	3763.5	-45.43	224.49
24.93	3 48 19	4763.53	-23.20	237.31	253.07	23.82	5 7 43	3763.5	-45.43	224.49
24.93	3 48 19	4763.53	-23.20	237.31	253.07	23.82	5 7 43	3763.5	-45.43	224.49
24.93	3 48 19	4763.53	-23.20	237.31	253.07	23.82	5 7 43	3763.5	-45.43	224.49
24.93	3 48 19	4763.53	-23.20	237.31	253.07	23.82	5 7 43	3763.5	-45.43	224.49
24.93	3 48 19	4763.53	-23.20	237.31	253.07	23.82	5 7 43	3763.5	-45.43	224.49
24.93	3 48 19	4763.53	-23.20	237.31	253.07	23.82	5 7 43	3763.5	-45.43	224.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.7202	TRA	-.5503	TC3	-1.1282	BAU	1.5382	SGT	2504.3	SGR	6040.8	SG3	537.7	ST	80.5	SR	245.8	SS	98.8
RDE	5.4099	RRA	-.4550	RC3	-2.6488	FAU	.12083	RRT	.9198	RRF	.9993	RTF	.9279	CRT	.9829	CRS	-.9999	CST	-.9847
FDE	5.6267	FRA	-.5457	FC3	-2.6174	BSP	11047	SGB	6539.3	R23	.0328	R13	.9990	LSA	276.3	MSA	14.1	SSA	.1
BDE	5.6768	BRA	.7141	BC3	2.8790	FSP	949	SG1	6474.7	SG2	916.8	THA	68.68	EL1	258.3	EL2	14.1	ALF	72.09

LAUNCH DATE JUL 21 1973 FLIGHT TIME 290.00 ARRIVAL DATE MAY 7 1974

HELIOCENTRIC CONIC DISTANCE 646.708 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.852	GAL	-2.37	AZL	99.06	HCA	191.66	SMA	198.99	ECC	.23953	INC	9.0564	V1	29.310
RP	246.65	LAP	1.82	LOP	129.61	VP	20.229	GAP	.21	AZP	81.13	TAL	347.68	TAP	179.34	RCA	151.33	APO	246.66	V2	22.224
RC	303.274	GL	-57.13	GP	51.65	ZAL	101.50	ZAP	76.18	ETS	200.58	ZAE	94.38	ETE	177.00	ZAC	138.57	ETC	291.71	LVI	-72.79

PLANETOCENTRIC CONIC

C3	37.842	VHL	6.152	DLA	-37.31	RAL	63.78	RAD	6649.9	VEL	12.559	PTH	7.43	VHP	3.839	DPA	50.79	RAP	345.68	ECC	1.6228

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 33 56	2481.27	-6.46	65.62	293.85	137.24	19 15 17	1481.3	11.91	49.83
60.00	20 32 34	2164.92	3.62	46.81	303.45	130.17	21 8 39	1164.9	19.22	28.06
64.58	22 38 31	1801.34	15.42	25.83	312.53	124.40	23 8 32	801.3	28.11	3.80
64.58	22 38 31	1801.34	15.42	25.83	312.53	124.40	23 8 32	801.3	28.11	3.80
64.58	22 38 31	1801.34	15.42	25.83	312.53	124.40	23 8 32	801.3	28.11	3.80
64.58	22 38 31	1801.34	15.42	25.83	312.53	124.40	23 8 32	801.3	28.11	3.80
64.58	22 38 31	1801.34	15.42	25.83	312.53	124.40	23 8 32	801.3	28.11	3.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.4334	TRA	3.8880	TC3	-3.3227	BAU	2.0556	SGT	6903.9	SGR	5284.6	SG3	741.5	ST	174.0	SR	107.8	SS	52.7
RDE	1.9081	RRA	-3.4678	RC3	2.3387	FAU	.17903	RRT	-.9849	RRF	-.9980	RTF	.6509	CRT	-.9806	CRS	.9983	CST	-.9677
FDE	-2.6961	FRA	5.5312	FC3	-4.0957	BSP	15002	SGB	8694.3	R23	.1213	R13	-.9907	LSA	210.3	MSA	20.7	SSA	.3
BDE	3.9279	BRA	5.2098	BC3	4.0632	FSP	1325	SG1	8663.6	SG2	729.6	THA	142.68	EL1	203.9	EL2	18.0	ALF	148.44

LAUNCH DATE JUL 21 1973 FLIGHT TIME 292.00 ARRIVAL DATE MAY 9 1974

HELIOCENTRIC CONIC DISTANCE 650.443 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.856	GAL	-2.41	AZL	98.45	HCA	192.54	SMA	199.06	ECC	.23992	INC	8.4459	V1	29.310
RP	246.82	LAP	1.83	LOP	130.50	VP	20.216	GAP	-.00	AZP	81.75	TAL	347.47	TAP	180.01	RCA	151.30	APO	246.82	V2	22.207
RC	305.673	GL	-54.81	GP	49.77	ZAL	102.24	ZAP	74.82	ETS	201.07	ZAE	93.51	ETE	178.24	ZAC	136.88	ETC	290.98	LVI	-71.19

PLANETOCENTRIC CONIC

C3	34.803	VHL	5.899	DLA	-35.10	RAL	62.88	RAD	6648.8	VEL	12.438	PTH	7.34	VHP	3.668	DPA	49.18	RAP	347.22	ECC	1.5728

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 13 45	2519.13	-6.35	67.23	290.56	137.01	18 55 44	1519.1	10.03	51.47
60.00	19 57 11	2243.65	.15	50.57	298.68	130.30	20 34 35	1243.7	16.01	32.23
68.28	22 55 0	1720.61	15.38	19.33	309.83	121.95	23 23 41	720.6	27.13	356.82
68.28	22 55 0	1720.61	15.38	19.33	309.83	121.95	23 23 41	720.6	27.13	356.82
68.28	22 55 0	1720.61	15.38	19.33	309.83	121.95	23 23 41	720.6	27.13	356.82
68.28	22 55 0	1720.61	15.38	19.33	309.83	121.95	23 23 41	720.6	27.13	356.82
68.28	22 55 0	1720.61	15.38	19.33	309.83	121.95	23 23 41	720.6	27.13	356.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.2996	TRA	3.8759	TC3	-3.6649	BAU	2.0424	SGT	7080.9	SGR	5104.5	SG3	830.7	ST	174.6	SR	102.6	SS	55.2
RDE	1.7376	RRA	-3.2714	RC3	2.4160	FAU	.19676	RRT	-.9850	RRF	-.9979	RTF	.9810	CRT	-.9806	CRS	.9980	CST	-.9661
FDE	-2.8147	FRA	6.0526	FC3	-4.8945	BSP	15053	SGB	8729.0	R23	.1251	R13	-.9901	LSA	208.9	MSA	20.7	SSA	.3
BDE	3.7291	BRA	5.0720	BC3	4.3896	FSP	1482	SG1	8699.5	SG2	716.1	THA	144.34	EL1	201.8	EL2	17.4	ALF	149.79

LAUNCH DATE JUL 21 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 11 1974

HELIOCENTRIC CONIC — DISTANCE 654.193 — EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.860 GAL -2.46 AZL 97.92 HCA 193.42 SMA 199.13 ECC .24032 INC 7.9152 V1 29.310
RP 246.98 LAP 1.83 LOP 131.39 VP 20.205 GAP -.22 AZP 82.30 TAL 347.26 TAP 180.68 RCA 151.28 APO 246.99 V2 22.191
RC 308.046 GL -52.64 GP 47.95 ZAL 102.96 ZAP 73.47 ETS 201.48 ZAE 92.59 ETE 179.39 ZAC 135.21 ETC 290.33 LVI -69.58

PLANETOCENTRIC CONIC

C3 32.349 VHL 5.688 DLA -33.02 RAL 62.14 RAD 6647.9 VEL 12.340 PTH 7.27 VHP 3.526 DPA 47.60 RAP 348.64 ECC 1.5324

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 56 42	2553.49	-10.06	68.71	287.91	136.75	18 39 15	1553.5	8.33	52.95
60.00	19 30 28	2303.90	-2.50	53.45	295.11	130.24	20 8 52	1303.9	13.49	35.33
70.00	21 55 38	1876.05	8.25	26.86	303.12	123.26	22 26 54	876.1	21.06	5.86
72.20	23 15 44	1629.89	15.18	12.13	307.45	119.68	23 42 54	629.9	26.06	349.26
72.20	23 15 44	1629.89	15.18	12.13	307.45	119.68	23 42 54	629.9	26.06	349.26
72.20	23 15 44	1629.89	15.18	12.13	307.45	119.68	23 42 54	629.9	26.06	349.26
110.00	2 59 0	6210.91	8.25	293.68	303.12	123.26	4 42 31	5210.9	21.06	272.68

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-3.1715 TRA 3.8769 TC3-4.0000 BAU 2.0329 — SGT 7252.9 SGR 4923.7 SG3 914.7 — ST 174.5 SR 97.3 SS 57.0
RDE 1.5797 RRA-3.0947 RC3 2.4689 FAU .21300 — RRT -.9851 RRF -.9978 RTF .9811 — CRT -.9803 CRS .9975 CST -.9639
FDE-2.8794 FRA 6.5341 FC3-5.7002 BSP 15156 — SGB 8766.3 R23 .1288 R13 -.9895 — LSA 206.7 NSA 20.8 SSA .3
BDE 3.5431 BRA 4.9606 BC3 4.7005 FSP 1634 — SG1 8738.1 SG2 702.4 THA 145.98 — EL1 199.0 EL2 16.8 ALF 151.12

LAUNCH DATE JUL 21 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 13 1974

HELIOCENTRIC CONIC — DISTANCE 657.937 — EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.863 GAL -2.50 AZL 97.45 HCA 194.30 SMA 199.21 ECC .24073 INC 7.4493 V1 29.310
RP 247.14 LAP 1.84 LOP 132.28 VP 20.194 GAP -.43 AZP 82.78 TAL 347.04 TAP 181.35 RCA 151.25 APO 247.16 V2 22.176
RC 310.395 GL -50.60 GP 46.18 ZAL 103.66 ZAP 72.13 ETS 201.83 ZAE 91.62 ETE 180.44 ZAC 133.59 ETC 289.75 LVI -67.99

PLANETOCENTRIC CONIC

C3 30.344 VHL 5.509 DLA -31.04 RAL 61.53 RAD 6647.1 VEL 12.259 PTH 7.20 VHP 3.407 DPA 46.07 RAP 349.96 ECC 1.4994

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 42 1	2585.35	-11.64	70.09	285.74	136.47	18 25 6	1585.3	6.74	54.30
60.00	19 8 49	2354.37	-4.71	55.87	292.31	130.07	19 48 4	1354.4	11.34	37.86
70.00	21 10 6	1997.44	3.67	33.27	298.62	123.98	21 43 24	997.4	17.08	13.01
76.63	23 43 7	1520.60	14.85	3.63	305.36	117.57	24 8 28	520.6	24.93	340.49
76.63	23 43 7	1520.60	14.85	3.63	305.36	117.57	24 8 28	520.6	24.93	340.49
76.63	23 43 7	1520.60	14.85	3.63	305.36	117.57	24 8 28	520.6	24.93	340.49
110.00	2 13 29	1044.26	3.67	322.18	298.62	123.98	2 30 53	44.3	17.08	301.93

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-3.0522 TRA 3.8845 TC3-4.3318 BAU 2.0297 — SGT 7422.4 SGR 4744.6 SG3 992.9 — ST 173.9 SR 91.9 SS 58.1
RDE 1.4371 RRA-2.9320 RC3 2.5037 FAU .22804 — RRT -.9852 RRF -.9976 RTF .9811 — CRT -.9799 CRS .9968 CST -.9610
FDE-2.9014 FRA 6.9692 FC3-6.5061 BSP 15248 — SGB 8809.3 R23 .1322 R13 -.9889 — LSA 204.1 NSA 20.9 SSA .4
BDE 3.3736 BRA 4.8668 BC3 5.0033 FSP 1775 — SG1 8782.4 SG2 688.3 THA 147.58 — EL1 196.1 EL2 16.3 ALF 152.41

LAUNCH DATE JUL 21 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC — DISTANCE 661.680 — EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.867 GAL -2.55 AZL 97.04 HCA 195.18 SMA 199.28 ECC .24115 INC 7.0370 V1 29.310
RP 247.29 LAP 1.84 LOP 133.17 VP 20.184 GAP -.64 AZP 83.21 TAL 346.82 TAP 182.01 RCA 151.23 APO 247.34 V2 22.161
RC 312.717 GL -48.68 GP 44.47 ZAL 104.35 ZAP 70.81 ETS 202.10 ZAE 90.63 ETE 181.41 ZAC 132.01 ETC 289.23 LVI -66.42

PLANETOCENTRIC CONIC

C3 28.688 VHL 5.356 DLA -29.17 RAL 61.02 RAD 6646.5 VEL 12.191 PTH 7.15 VHP 3.308 DPA 44.58 RAP 351.17 ECC 1.4721

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 29 13	2615.26	-13.11	71.41	283.97	136.16	18 12 48	1615.3	5.24	55.57
60.00	18 50 38	2398.66	-6.65	58.01	290.08	129.84	19 30 36	1398.7	9.44	40.06
70.00	20 39 31	2078.39	.58	37.50	295.52	124.15	21 14 9	1078.4	14.26	17.60
80.00	23 12 6	1600.31	9.34	6.58	300.86	118.49	23 38 47	600.3	20.24	344.51
82.54	0 29 38	1364.26	14.44	351.78	303.53	115.62	0 52 22	364.3	23.76	328.43
100.00	1 58 54	1074.79	9.34	327.95	300.86	118.49	2 16 49	74.8	20.24	305.88
110.00	1 42 53	1125.21	.58	326.41	295.52	124.15	2 1 39	125.2	14.26	306.51

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-2.9403 TRA 3.9000 TC3-4.6560 BAU 2.0305 — SGT 7589.3 SGR 4568.7 SG3 1065.0 — ST 173.0 SR 66.8 SS 58.8
RDE 1.3092 RRA-2.7830 RC3 2.5201 FAU .24166 — RRT -.9852 RRF -.9974 RTF .9811 — CRT -.9795 CRS .9960 CST -.9577
FDE-2.8875 FRA 7.3624 FC3-7.2929 BSP 15345 — SGB 8858.3 R23 .1351 R13 -.9883 — LSA 201.2 NSA 21.0 SSA .4
BDE 3.2186 BRA 4.7911 BC3 5.2943 FSP 1905 — SG1 8832.7 SG2 673.6 THA 149.13 — EL1 192.9 EL2 15.7 ALF 153.64

LAUNCH DATE JUL 21 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 17 1974

HELIOCENTRIC CONIC — DISTANCE 665.423 — EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.871 GAL -2.60 AZL 96.87 HCA 196.06 SMA 199.36 ECC .24159 INC 6.6692 V1 29.310
RP 247.44 LAP 1.84 LOP 134.06 VP 20.174 GAP -.85 AZP 83.59 TAL 346.60 TAP 182.66 RCA 151.20 APO 247.52 V2 22.147
RC 315.013 GL -46.87 GP 42.83 ZAL 105.03 ZAP 69.51 ETS 202.33 ZAE 89.60 ETE 182.30 ZAC 130.48 ETC 288.77 LVI -64.89

PLANETOCENTRIC CONIC

C3 27.307 VHL 5.226 DLA -27.39 RAL 60.59 RAD 6645.9 VEL 12.135 PTH 7.10 VHP 3.225 DPA 43.15 RAP 352.30 ECC 1.4494

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 17 56	2643.59	-14.50	72.67	282.52	135.83	18 1 59	1643.6	3.82	56.76
60.00	18 34 59	2438.62	-8.39	59.95	288.27	129.56	19 15 38	1438.6	7.71	42.01
70.00	20 15 39	2142.63	-1.88	40.85	293.16	124.11	20 51 21	1142.6	11.96	21.14
80.00	22 22 37	1745.17	4.54	14.66	297.14	119.54	22 51 42	745.2	16.23	353.40
90.00	0 27 24	1355.42	8.33	348.05	299.19	117.12	0 50 0	355.4	18.78	325.89
100.00	1 9 24	1219.64	4.54	336.03	297.14	119.54	1 29 44	219.6	16.23	314.77
110.00	1 19 1	1189.45	-1.88	329.77	293.16	124.11	1 38 50	189.5	11.96	310.06

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-2.8350 TRA 3.9204 TC3-4.9731 BAU 2.0356 — SGT 7753.4 SGR 4395.6 SG3 1130.4 — ST 171.7 SR 81.9 SS 59.0
RDE 1.1947 RRA-2.6438 RC3 2.5219 FAU .25404 — RRT -.9852 RRF -.9971 RTF .9811 — CRT -.9791 CRS .9950 CST -.9540
FDE-2.8429 FRA 7.7082 FC3-8.0541 BSP 15437 — SGB 8912.7 R23 .1374 R13 -.9877 — LSA 198.1 NSA 21.2 SSA .4
BDE 3.0764 BRA 4.7286 BC3 5.5760 FSP 2019 — SG1 8888.5 SG2 657.2 THA 150.64 — EL1 189.6 EL2 15.1 ALF 154.81

LAUNCH DATE JUL 21 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC DISTANCE 669.165 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.875 GAL -2.64 AZL 96.34 HCA 196.94 SMA 199.44 ECC .24203 INC 6.3392 V1 29.810
RP 247.58 LAP 1.84 LOP 134.94 VP 20.166 GAP -1.06 AZP 83.93 TAL 346.37 TAP 183.31 RCA 151.17 APO 247.71 V2 22.133
RC 317.282 GL -45.16 GP 41.26 ZAL 105.69 ZAP 68.24 ETS 202.50 ZAE 88.55 ETE 183.11 ZAC 129.00 ETC 288.36 LVI -63.40

PLANETOCENTRIC CONIC

C3 26.147 VHL 5.113 DLA -25.70 RAL 60.25 RAD 6645.5 VEL 12.088 PTH 7.07 VHP 3.155 DPA 41.77 RAP 353.36 ECC 1.4303

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 7 54	2670.59	-15.81	73.89	281.34	135.48	17 52 25	1670.6	2.47	57.89
60.00	18 21 19	2475.31	-9.97	61.75	286.80	129.25	19 2 35	1475.3	6.11	43.79
70.00	19 55 54	2197.25	-3.96	43.70	291.29	123.95	20 32 31	1197.2	9.96	24.11
80.00	21 51 12	1836.35	1.47	19.68	294.67	119.82	22 21 49	836.3	13.49	358.78
90.00	23 38 31	1490.29	4.07	355.67	296.11	118.01	24 3 21	490.3	15.21	334.17
100.00	0 38 0	1310.82	1.47	341.05	294.67	119.82	0 59 51	310.8	13.49	320.15
110.00	0 59 16	1244.07	-3.96	332.62	291.29	123.95	1 20 0	244.1	9.96	313.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.7361 TRA 3.9466 TC3-5.2813 BAU 2.0440 SGT 7915.6 SGR 4227.6 SG3 1189.5 ST 170.2 SR 77.2 SS 58.9
RDE 1.0928 RRA-2.5152 RC3 2.5101 FAU .26509 RRT -.9852 RRF -.9968 RTF .9811 CRT -.9789 CRS .9937 CST -.9499
FDE-2.7745 FRA 8.0138 FC3-8.7773 BSP 15538 SGB 8973.8 R23 .1392 R13 -.9871 LSA 194.8 MSA 21.4 SSA .5
BDE 2.9462 BRA 4.6799 BC3 5.8475 FSP 2122 SG1 8950.9 SG2 640.2 THA 152.09 EL1 186.4 EL2 14.4 ALF 155.90

LAUNCH DATE JUL 21 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC DISTANCE 672.907 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.879 GAL -2.69 AZL 96.04 HCA 197.82 SMA 199.52 ECC .24249 INC 6.0411 V1 29.310
RP 247.71 LAP 1.85 LOP 135.83 VP 20.158 GAP -1.27 AZP 84.25 TAL 346.13 TAP 183.96 RCA 151.14 APO 247.90 V2 22.120
RC 319.522 GL -43.55 GP 39.75 ZAL 106.33 ZAP 67.00 ETS 202.64 ZAE 87.49 ETE 183.85 ZAC 127.57 ETC 287.99 LVI -61.97

PLANETOCENTRIC CONIC

C3 25.166 VHL 5.017 DLA -24.10 RAL 59.97 RAD 6645.1 VEL 12.047 PTH 7.03 VHP 3.097 DPA 40.46 RAP 354.34 ECC 1.4142

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 58 56	2696.43	-17.06	75.07	280.38	135.12	17 43 53	1696.4	1.17	58.97
60.00	18 9 15	2509.44	-11.44	63.45	285.60	128.91	18 51 4	1509.4	4.61	45.44
70.00	19 39 2	2245.44	-5.78	46.24	289.80	123.72	20 16 28	1245.4	8.17	26.69
80.00	21 26 58	1907.65	-.95	23.59	292.80	119.84	21 58 46	907.7	11.26	2.90
90.00	23 8 34	1579.96	1.19	.68	293.99	118.26	23 34 54	580.0	12.64	339.51
100.00	0 13 46	1382.12	-.95	344.96	292.80	119.84	0 36 48	382.1	11.26	324.27
110.00	0 42 25	1292.26	-5.78	335.16	289.80	123.72	1 3 57	292.3	8.17	315.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.6415 TRA 3.9777 TC3-5.5795 BAU 2.0550 SGT 8075.2 SGR 4063.4 SG3 1242.0 ST 168.5 SR 72.8 SS 58.5
RDE 1.0005 RRA-2.3963 RC3 2.4851 FAU .27470 RRT -.9852 RRF -.9965 RTF .9811 CRT -.9786 CRS .9920 CST -.9449
FDE-2.6796 FRA 8.2821 FC3-9.4498 BSP 15665 SGB 9039.9 R23 .1407 R13 -.9865 LSA 191.5 MSA 21.6 SSA .5
BDE 2.8247 BRA 4.6438 BC3 6.1079 FSP 2217 SG1 9018.3 SG2 624.2 THA 153.49 EL1 183.1 EL2 13.8 ALF 156.94

LAUNCH DATE JUL 21 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 23 1974

HELIOCENTRIC CONIC DISTANCE 676.649 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.883 GAL -2.74 AZL 95.77 HCA 198.70 SMA 199.60 ECC .24296 INC 5.7705 V1 29.310
RP 247.84 LAP 1.85 LOP 136.71 VP 20.151 GAP -1.47 AZP 84.53 TAL 345.90 TAP 184.60 RCA 151.11 APO 248.10 V2 22.107
RC 321.734 GL -42.03 GP 38.31 ZAL 106.97 ZAP 65.79 ETS 202.73 ZAE 86.41 ETE 184.53 ZAC 126.20 ETC 287.66 LVI -60.59

PLANETOCENTRIC CONIC

C3 24.334 VHL 4.933 DLA -22.57 RAL 59.75 RAD 6644.7 VEL 12.013 PTH 7.00 VHP 3.048 DPA 39.20 RAP 355.27 ECC 1.4008

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 50 52	2721.23	-18.25	76.22	279.62	134.74	17 36 13	1721.2	-.08	60.01
60.00	17 58 28	2541.47	-12.80	65.05	284.64	128.55	18 40 49	1541.5	3.21	46.97
70.00	19 24 21	2288.98	-7.42	48.54	288.61	123.43	20 2 30	1289.0	6.53	29.00
80.00	21 6 59	1967.79	-2.98	26.90	291.35	119.72	21 39 46	967.8	9.33	6.32
90.00	22 45 9	1651.15	-1.10	4.65	292.39	118.26	23 12 40	651.2	10.52	343.66
100.00	23 49 50	1442.26	-2.98	348.27	291.35	119.72	24 13 53	442.3	9.33	327.68
110.00	0 27 43	1335.80	-7.42	337.46	288.61	123.43	0 49 59	335.8	6.53	317.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.5507 TRA 4.0148 TC3-5.8649 BAU 2.0676 SGT 8231.6 SGR 3904.4 SG3 1288.1 ST 166.6 SR 68.7 SS 57.8
RDE .9185 RRA-2.2860 RC3 2.4491 FAU .28296 RRT -.9852 RRF -.9960 RTF .9811 CRT -.9787 CRS .9898 CST -.9396
FDE-2.5695 FRA 8.5148 FC-10.0670 BSP 15801 SGB 9110.6 R23 .1413 R13 -.9860 LSA 188.0 MSA 21.8 SSA .5
BDE 2.7110 BRA 4.6200 BC3 6.3557 FSP 2298 SG1 9090.4 SG2 607.0 THA 154.83 EL1 179.7 EL2 13.1 ALF 157.90

LAUNCH DATE JUL 21 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 25 1974

HELIOCENTRIC CONIC DISTANCE 680.389 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.888 GAL -2.79 AZL 95.52 HCA 199.58 SMA 199.69 ECC .24344 INC 5.5236 V1 29.310
RP 247.97 LAP 1.85 LOP 137.59 VP 20.145 GAP -1.68 AZP 84.79 TAL 345.66 TAP 185.24 RCA 151.08 APO 248.30 V2 22.095
RC 323.917 GL -40.58 GP 36.93 ZAL 107.59 ZAP 64.61 ETS 202.79 ZAE 85.32 ETE 185.15 ZAC 124.89 ETC 287.36 LVI -59.26

PLANETOCENTRIC CONIC

C3 23.624 VHL 4.860 DLA -21.11 RAL 59.58 RAD 6644.4 VEL 11.984 PTH 6.98 VHP 3.008 DPA 38.01 RAP 356.15 ECC 1.3888

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 43 35	2745.10	-19.39	77.35	279.01	134.34	17 29 20	1745.1	-1.28	61.00
60.00	17 48 46	2571.72	-14.08	66.59	283.87	128.16	18 31 38	1571.7	1.88	48.42
70.00	19 11 21	2328.94	-8.92	50.67	287.65	123.11	19 50 10	1328.9	5.02	31.11
80.00	20 49 53	2020.58	-4.76	29.81	290.19	119.51	21 23 34	1020.6	7.60	9.28
90.00	22 25 40	1711.65	-3.05	8.03	291.14	118.13	22 54 11	711.6	8.67	347.14
100.00	23 32 45	1495.05	-4.76	351.18	290.19	119.51	23 57 40	495.1	7.60	330.65
110.00	0 14 44	1375.76	-8.92	339.59	287.65	123.11	0 37 39	375.8	5.02	320.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.4650 TRA 4.0552 TC3-6.1409 BAU 2.0828 SGT 8386.7 SGR 3750.6 SG3 1328.1 ST 164.6 SR 64.9 SS 57.1
RDE .8455 RRA-2.1833 RC3 2.4041 FAU .28994 RRT -.9850 RRF -.9956 RTF .9810 CRT -.9788 CRS .9871 CST -.9337
FDE-2.4456 FRA 8.7148 FC-10.6255 BSP 15941 SGB 9187.2 R23 .1415 R13 -.9855 LSA 184.6 MSA 22.0 SSA .6
BDE 2.6060 BRA 4.6056 BC3 6.5947 FSP 2368 SG1 9168.1 SG2 591.1 THA 156.12 EL1 176.5 EL2 12.4 ALF 158.80

LAUNCH DATE JUL 21 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 27 1974

HELIOCENTRIC CONIC DISTANCE 684.129 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.892 GAL -2.85 AZL 95.30 HCA 200.48 SMA 199.77 ECC .24393 INC 5.2973 V1 29.310
RP 248.09 LAP 1.85 LOP 138.47 VP 20.139 GAP -1.89 AZP 85.04 TAL 345.41 TAP 185.87 RCA 151.04 APO 248.51 V2 22.084
RC 326.069 GL -39.21 GP 35.61 ZAL 108.21 ZAP 63.46 ETS 202.82 ZAE 84.23 ETE 185.71 ZAC 123.63 ETC 287.09 LVI -57.98

PLANETOCENTRIC CONIC

C3 23.016 VHL 4.798 DLA -19.73 RAL 59.46 RAD 6644.2 VEL 11.958 PTH 6.96 VHP 2.974 DPA 36.87 RAP 356.98 ECC 1.3788

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 57	2768.12	-20.48	78.45	278.55	133.93	17 23 5	1768.1	-2.43	61.96
60.00	17 40 0	2600.46	-15.28	68.06	283.27	127.76	18 23 21	1600.5	.61	49.79
70.00	18 59 45	2366.04	-10.29	52.67	286.89	122.75	19 39 11	1366.0	3.61	33.06
80.00	20 34 57	2068.06	-6.34	32.44	289.28	119.24	21 9 25	1068.1	6.03	11.93
90.00	22 8 55	1764.96	-4.76	11.02	290.15	117.91	22 38 20	765.0	7.01	350.17
100.00	23 17 49	1542.53	-6.34	353.81	289.28	119.24	23 43 32	542.5	6.03	333.29
110.00	0 3 7	1412.86	-10.29	341.59	286.89	122.75	0 26 40	412.9	3.61	321.98

DIFFERENTIAL CORRECTIONS
TDE-2.3824 TRA 4.0993 TC3-6.4054 BAU 2.0996
RDE .7803 RRA-2.0873 RC3 2.3517 FAU .29573
FDE-2.3112 FRA 8.8825 FC-11.1236 BSP 16097
BDE 2.5070 BRA 4.6001 BC3 6.8235 FSP 2429

MID-COURSE EXECUTION ACCURACY
SGT 8539.2 SGR 3601.9 SG3 1362.1
RRT -.9849 RRF -.9950 RTF .9810
SGB 9267.8 R23 .1411 R13 -.9850
SG1 9249.9 SG2 575.3 THA 157.35

ORBIT DETERMINATION ACCURACY
ST 162.5 SR 61.3 SS 56.2
CRT -.9793 CRS .9837 CST -.9272
LSA 181.2 NSA 22.2 SSA .6
EL1 173.3 EL2 11.7 ALF 159.62

LAUNCH DATE JUL 21 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 29 1974

HELIOCENTRIC CONIC DISTANCE 687.868 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.896 GAL -2.90 AZL 95.09 HCA 201.34 SMA 199.86 ECC .24443 INC 5.0891 V1 29.310
RP 248.20 LAP 1.85 LOP 139.35 VP 20.134 GAP -2.09 AZP 85.26 TAL 345.16 TAP 186.50 RCA 151.01 APO 248.71 V2 22.073
RC 328.191 GL -37.91 GP 34.36 ZAL 108.81 ZAP 62.34 ETS 202.83 ZAE 83.14 ETE 186.23 ZAC 122.42 ETC 286.65 LVI -56.76

PLANETOCENTRIC CONIC

C3 22.496 VHL 4.743 DLA -18.40 RAL 59.38 RAD 6643.9 VEL 11.937 PTH 6.94 VHP 2.947 DPA 35.80 RAP 357.77 ECC 1.3702

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 30 55	2790.36	-21.53	79.53	278.21	133.51	17 17 26	1790.4	-3.55	62.90
60.00	17 32 2	2627.86	-16.42	69.48	282.81	127.34	18 15 50	1627.9	-.59	51.10
70.00	18 49 16	2400.79	-11.56	54.55	286.29	122.36	19 29 17	1400.8	2.29	34.88
80.00	20 21 42	2111.50	-7.78	34.86	288.56	118.92	20 56 54	1111.5	4.58	14.33
90.00	21 54 13	1813.04	-6.28	13.73	289.38	117.63	22 24 26	813.0	5.49	352.89
100.00	23 4 34	1585.97	-7.78	356.23	288.56	118.92	23 31 0	586.0	4.58	335.70
110.00	23 48 43	1447.61	-11.56	343.47	286.29	122.36	24 12 50	447.6	2.29	323.79

DIFFERENTIAL CORRECTIONS
TDE-2.3028 TRA 4.1474 TC3-6.6592 BAU 2.1183
RDE .7219 RRA-1.9981 RC3 2.2940 FAU .30048
FDE-2.1670 FRA 9.0242 FC-11.5636 BSP 16264
BDE 2.4133 BRA 4.6037 BC3 7.0433 FSP 2482

MID-COURSE EXECUTION ACCURACY
SGT 8690.3 SGR 3459.3 SG3 1390.9
RRT -.9847 RRF -.9944 RTF .9809
SGB 9353.5 R23 .1401 R13 -.9845
SG1 9336.7 SG2 560.4 THA 158.51

ORBIT DETERMINATION ACCURACY
ST 160.3 SR 58.0 SS 55.3
CRT -.9799 CRS .9795 CST -.9199
LSA 177.8 NSA 22.4 SSA .6
EL1 170.2 EL2 10.9 ALF 160.39

LAUNCH DATE JUL 21 1973 FLIGHT TIME 314.00 ARRIVAL DATE MAY 31 1974

HELIOCENTRIC CONIC DISTANCE 691.606 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.901 GAL -2.95 AZL 94.90 HCA 202.21 SMA 199.95 ECC .24494 INC 4.8967 V1 29.310
RP 248.30 LAP 1.85 LOP 140.23 VP 20.130 GAP -2.30 AZP 85.47 TAL 344.91 TAP 187.12 RCA 150.97 APO 248.93 V2 22.062
RC 330.283 GL -36.68 GP 33.17 ZAL 109.41 ZAP 61.25 ETS 202.82 ZAE 82.05 ETE 186.70 ZAC 121.26 ETC 286.64 LVI -55.59

PLANETOCENTRIC CONIC

C3 22.050 VHL 4.696 DLA -17.13 RAL 59.33 RAD 6643.7 VEL 11.918 PTH 6.92 VHP 2.925 DPA 34.78 RAP 358.53 ECC 1.3629

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 25 25	2811.88	-22.53	80.59	277.96	133.08	17 12 17	1811.9	-4.63	63.80
60.00	17 24 45	2654.09	-17.50	70.86	282.47	126.90	18 8 59	1654.1	-1.75	52.35
70.00	18 39 46	2433.55	-12.75	56.35	285.84	121.96	19 20 20	1433.5	1.04	36.59
80.00	20 9 49	2151.71	-9.10	37.12	288.01	118.56	20 45 41	1151.7	3.22	16.55
90.00	21 41 8	1857.11	-7.66	16.23	288.78	117.30	22 12 5	857.1	4.09	355.36
100.00	22 52 41	1626.18	-9.10	358.49	288.01	118.56	23 19 47	626.2	3.22	337.92
110.00	23 39 12	1480.37	-12.75	345.27	285.84	121.96	24 3 53	480.4	1.04	325.50

DIFFERENTIAL CORRECTIONS
TDE-2.2268 TRA 4.1982 TC3-6.9023 BAU 2.1384
RDE .6708 RRA-1.9140 RC3 2.2318 FAU .30424
FDE-2.0221 FRA 9.1367 FC-11.9452 BSP 16430
BDE 2.3256 BRA 4.6139 BC3 7.2542 FSP 2521

MID-COURSE EXECUTION ACCURACY
SGT 8639.5 SGR 3322.0 SG3 1414.5
RRT -.9845 RRF -.9937 RTF .9809
SGB 9443.1 R23 .1382 R13 -.9841
SG1 9427.3 SG2 545.5 THA 159.62

ORBIT DETERMINATION ACCURACY
ST 158.2 SR 55.0 SS 54.3
CRT -.9809 CRS .9744 CST -.9124
LSA 174.6 NSA 22.7 SSA .7
EL1 167.2 EL2 10.1 ALF 161.08

LAUNCH DATE JUL 21 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 2 1974

HELIOCENTRIC CONIC DISTANCE 695.342 EARTH TO MARS

RL 152.00 LAL -.00 LOL 298.09 VL 32.905 GAL -3.01 AZL 94.72 HCA 203.09 SMA 200.04 ECC .24547 INC 4.7184 V1 29.310
RP 248.40 LAP 1.85 LOP 141.11 VP 20.127 GAP -2.50 AZP 85.66 TAL 344.66 TAP 187.75 RCA 150.94 APO 249.14 V2 22.052
RC 332.344 GL -35.50 GP 32.04 ZAL 110.00 ZAP 60.20 ETS 202.78 ZAE 80.98 ETE 187.12 ZAC 120.15 ETC 286.44 LVI -54.47

PLANETOCENTRIC CONIC

C3 21.668 VHL 4.655 DLA -15.92 RAL 59.32 RAD 6643.6 VEL 11.902 PTH 6.91 VHP 2.907 DPA 33.81 RAP 359.26 ECC 1.3566

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 20 22	2832.72	-23.50	81.63	277.84	132.64	17 7 35	1832.7	-5.67	64.68
60.00	17 18 4	2679.26	-18.52	72.20	282.24	126.45	18 2 43	1679.3	-2.86	53.56
70.00	18 31 5	2464.61	-13.86	58.07	285.51	121.53	19 12 10	1464.6	-.15	36.21
80.00	19 59 3	2189.29	-10.31	39.25	287.59	118.18	20 35 32	1189.3	1.95	18.62
90.00	21 29 21	1897.97	-8.93	18.56	288.32	116.94	22 0 59	898.0	2.78	357.65
100.00	22 41 55	1663.76	-10.31	.62	287.59	118.18	23 9 39	663.8	1.95	339.98
110.00	23 30 32	1511.42	-13.86	346.98	285.51	121.53	23 55 43	511.4	-.15	327.12

DIFFERENTIAL CORRECTIONS
TDE-2.1530 TRA 4.2518 TC3-7.1332 BAU 2.1594
RDE .6247 RRA-1.8356 RC3 2.1648 FAU .30687
FDE-1.8696 FRA 9.2275 FC-12.2608 BSP 16615
BDE 2.2418 BRA 4.6311 BC3 7.4545 FSP 2558

MID-COURSE EXECUTION ACCURACY
SGT 8985.6 SGR 3189.5 SG3 1433.0
RRT -.9842 RRF -.9929 RTF .9808
SGB 9534.9 R23 .1362 R13 -.9837
SG1 9520.0 SG2 532.5 THA 160.68

ORBIT DETERMINATION ACCURACY
ST 155.9 SR 52.2 SS 53.2
CRT -.9821 CRS .9681 CST -.9040
LSA 171.3 NSA 22.9 SSA .7
EL1 164.2 EL2 9.3 ALF 161.73

LAUNCH DATE JUL 21 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 4 1974

HELIOCENTRIC CONIC DISTANCE 699.079 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.910	GAL	-3.06	AZL	94.55	HCA	203.97	SMA	200.13	ECC	.24600	INC	4.5526	V1	29.310
RP	248.50	LAP	1.85	LOP	141.99	VP	20.124	GAP	-2.71	AZP	85.84	TAL	344.40	TAP	188.36	RCA	150.90	APO	249.36	V2	22.043
RC	334.376	GL	-34.38	GP	30.95	ZAL	110.58	ZAP	59.18	ETS	202.74	ZAE	79.88	ETE	187.51	ZAC	119.08	ETC	286.27	LVI	-53.39

PLANETOCENTRIC CONIC

C3	21.341	VHL	4.620	DLA	-14.76	RAL	59.33	RAD	6643.4	VEL	11.689	PTH	6.90	VHP	2.894	DPA	32.91	RAP	359.97	ECC	1.3512

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 15 44	2852.94	-24.43	82.66	277.79	132.19	17 3 17	1852.9	-6.68	65.53
60.00	17 11 56	2703.48	-19.50	73.51	282.11	126.00	17 56 59	1703.5	-3.92	54.72
70.00	18 23 7	2494.18	-14.91	59.72	285.29	121.09	19 4 42	1494.2	-1.28	39.75
80.00	19 49 14	2224.65	-11.44	41.27	287.30	117.77	20 26 19	1224.6	.76	20.56
90.00	21 18 39	1936.18	-10.10	20.75	288.00	116.55	21 50 55	936.2	1.55	359.79
100.00	22 32 6	1699.12	-11.44	2.63	287.30	117.77	23 0 25	699.1	.76	341.93
110.00	23 22 34	1541.00	-14.91	348.64	285.29	121.09	23 48 15	541.0	-1.28	328.67

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0824	TRA	4.3086	TC3	-7.3548	BAU	2.1820	SGT	9131.6	SGR	3063.2	SG3	1447.4	ST	153.8	SR	49.7	SS	52.3
RDE	.5849	RRA	-1.7618	RC3	2.0962	FAU	.30876	RRT	-.9839	RRF	-.9920	RTF	.9808	CRT	-.9837	CRS	.9607	CST	-.8957
FDE	-1.7223	FRA	9.2959	FC	-12.5253	BSP	16797	SGB	9631.7	R23	.1331	R13	-.9834	LSA	168.3	MSA	23.1	SSA	.7
BDE	2.1630	BRA	4.6549	BC3	7.6477	FSP	2582	SG1	9617.6	SG2	519.8	THA	161.68	EL1	161.4	EL2	8.5	ALF	162.30

LAUNCH DATE JUL 21 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 6 1974

HELIOCENTRIC CONIC DISTANCE 702.813 EARTH TO MARS

RL	152.00	LAL	-.00	LOL	298.09	VL	32.915	GAL	-3.12	AZL	94.40	HCA	204.84	SMA	200.22	ECC	.24654	INC	4.3978	V1	29.310
RP	248.59	LAP	1.85	LOP	142.87	VP	20.122	GAP	-2.91	AZP	86.01	TAL	344.13	TAP	188.98	RCA	150.86	APO	249.58	V2	22.034
RC	336.377	GL	-33.31	GP	29.93	ZAL	111.16	ZAP	58.19	ETS	202.67	ZAE	78.80	ETE	187.87	ZAC	118.07	ETC	286.11	LVI	-52.37

PLANETOCENTRIC CONIC

C3	21.063	VHL	4.589	DLA	-13.65	RAL	59.38	RAD	6643.3	VEL	11.877	PTH	6.89	VHP	2.884	DPA	32.05	RAP	.65	ECC	1.3466

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 11 28	2872.57	-25.32	83.67	277.82	131.73	16 59 20	1872.6	-7.66	66.37
60.00	17 6 16	2726.84	-20.43	74.78	282.06	125.53	17 51 42	1726.8	-4.94	55.84
70.00	18 15 47	2522.44	-15.90	61.31	285.16	120.63	18 57 50	1522.4	-2.36	41.22
80.00	19 40 14	2258.12	-12.50	43.19	287.11	117.34	20 17 52	1258.1	-.38	22.39
90.00	21 8 52	1972.18	-11.19	22.84	287.78	116.14	21 41 44	972.2	.39	1.79
100.00	22 23 6	1732.59	-12.50	4.56	287.11	117.34	22 51 58	732.6	-.38	343.76
110.00	23 15 13	1569.26	-15.90	350.23	285.16	120.63	23 41 23	569.3	-2.36	330.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0144	TRA	4.3666	TC3	-7.5666	BAU	2.2057	SGT	9275.3	SGR	2941.8	SG3	1457.6	ST	151.7	SR	47.4	SS	51.3
RDE	.5492	RRA	-1.6925	RC3	2.0255	FAU	.30982	RRT	-.9834	RRF	-.9910	RTF	.9808	CRT	-.9855	CRS	.9518	CST	-.8866
FDE	-1.5721	FRA	9.3449	FC	-12.7343	BSP	16977	SGB	9730.6	R23	.1299	R13	-.9830	LSA	165.3	MSA	23.4	SSA	.8
BDE	2.0879	BRA	4.6832	BC3	7.8330	FSP	2600	SG1	9717.3	SG2	509.0	THA	162.63	EL1	158.7	EL2	7.7	ALF	162.84

LAUNCH DATE JUL 22 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 329.336 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 35.266 GAL -3.59 AZL 90.23 HCA 103.44 SMA 264.04 ECC .42814 INC .2269 V1 29.312
RP 217.98 LAP -.22 LOP 42.49 VP 26.740 GAP 23.40 AZP 89.95 TAL 348.00 TAP 91.44 RCA 151.00 APO 377.09 V2 25.208
RC 74.281 GL -1.28 GP -5.10 ZAL 109.35 ZAP 173.54 ETS 233.88 ZAE 166.87 ETE 338.99 ZAC 79.08 ETC 283.21 LVI -13.14

PLANETOCENTRIC CONIC

C3 38.925 VHL 6.239 DLA 16.07 RAL 46.31 RAD 6650.3 VEL 12.602 PTH 7.46 VHP 8.591 DPA 9.23 RAP 38.07 ECC 1.6406

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 23 21	3622.67	-47.46	139.70	295.82	93.85	14 23 44	2622.7	-40.43	107.31
60.00	13 44 37	3566.09	-40.30	134.95	296.17	90.18	14 44 3	2566.1	-35.82	104.80
70.00	14 15 49	3474.23	-34.06	127.34	296.00	87.29	15 13 43	2474.2	-31.61	98.88
80.00	15 4 11	3322.69	-29.52	115.51	295.65	85.30	15 59 33	2322.7	-28.47	88.13
90.00	16 16 37	3088.87	-27.79	98.15	295.48	84.55	17 8 6	2088.9	-27.26	71.16
100.00	17 47 2	2797.16	-29.52	76.87	295.65	85.30	18 33 40	1797.2	-28.47	49.50
110.00	19 15 15	2521.05	-34.06	56.26	296.00	87.29	19 57 16	1521.0	-31.61	27.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3957 TRA-1.3414 TC3 .1630 BAU .0927 SGT 1348.0 SGR 612.9 SG3 161.5 ST 26.5 SR 28.1 SS 17.8
RDE -.6070 RRA .2495 RC3 -.0721 FAU .05382 RRT -.1470 RRF .1670 RTF -.7144 CRT .5885 CRS .6471 CST .9935
FDE .3855 FRA 1.1163 FC3-1.1971 BSP 2091 SGB 1480.8 R23 -.0359 R13 .7162 LSA 38.2 MSA 18.6 SSA 1.2
BDE .7246 BRA 1.3644 BC3 .1782 FSP 203 SG1 1351.7 SG2 604.6 THA 175.22 EL1 34.4 EL2 17.5 ALF 47.92

LAUNCH DATE JUL 22 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 331.622 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 35.132 GAL -3.49 AZL 90.19 HCA 104.58 SMA 259.18 ECC .41725 INC .1900 V1 29.312
RP 218.35 LAP -.18 LOP 43.63 VP 26.525 GAP 23.03 AZP 89.95 TAL 348.12 TAP 92.70 RCA 151.03 APO 367.32 V2 25.168
RC 75.647 GL -1.10 GP -5.25 ZAL 109.13 ZAP 172.95 ETS 229.87 ZAE 166.10 ETE 339.14 ZAC 78.86 ETC 283.18 LVI -12.88

PLANETOCENTRIC CONIC

C3 37.121 VHL 6.093 DLA 16.19 RAL 46.04 RAD 6649.7 VEL 12.530 PTH 7.41 VHP 8.342 DPA 9.23 RAP 38.50 ECC 1.6109

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 21 47	3613.10	-47.41	138.78	294.47	94.56	14 22 0	2613.1	-40.13	106.59
60.00	13 42 53	3556.93	-40.30	134.17	294.92	90.71	14 42 10	2556.9	-35.60	104.11
70.00	14 13 54	3465.63	-34.08	126.67	294.81	87.69	15 11 40	2465.6	-31.47	98.25
80.00	15 2 4	3314.71	-29.56	114.92	294.50	85.61	15 57 19	2314.7	-28.38	87.55
90.00	14 24	3081.20	-27.84	97.59	294.34	84.83	17 5 46	2081.2	-27.19	70.61
100.00	17 44 56	2789.18	-29.56	76.29	294.50	85.61	18 31 25	1789.2	-28.38	48.92
110.00	19 13 21	2512.45	-34.08	55.59	294.81	87.69	19 55 13	1512.5	-31.47	27.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3962 TRA-1.3353 TC3 .1875 BAU .1013 SGT 1378.7 SGR 614.8 SG3 171.7 ST 27.1 SR 28.0 SS 18.5
RDE -.5909 RRA .2491 RC3 -.0807 FAU .05592 RRT -.1586 RRF .1803 RTF -.7240 CRT .5880 CRS .6505 CST .9933
FDE .4052 FRA 1.1545 FC3-1.3040 BSP 2163 SGB 1509.5 R23 -.0386 R13 .7260 LSA 38.8 MSA 18.8 SSA 1.3
BDE .7114 BRA 1.3583 BC3 .2042 FSP 218 SG1 1382.9 SG2 605.1 THA 174.99 EL1 34.7 EL2 17.7 ALF 46.72

LAUNCH DATE JUL 22 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 334.050 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 35.005 GAL -3.39 AZL 90.15 HCA 105.71 SMA 254.74 ECC .40695 INC .1531 V1 29.312
RP 218.71 LAP -.15 LOP 44.76 VP 26.318 GAP 22.67 AZP 89.96 TAL 348.25 TAP 93.97 RCA 151.07 APO 358.41 V2 25.127
RC 77.098 GL -.90 GP -5.41 ZAL 108.90 ZAP 172.33 ETS 226.49 ZAE 165.39 ETE 339.18 ZAC 78.63 ETC 283.15 LVI -12.63

PLANETOCENTRIC CONIC

C3 35.445 VHL 5.954 DLA 16.31 RAL 45.75 RAD 6649.1 VEL 12.464 PTH 7.36 VHP 8.102 DPA 9.22 RAP 38.93 ECC 1.5833

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 20 8	3603.96	-47.36	137.90	293.14	95.23	14 20 12	2604.0	-39.83	105.92
60.00	13 41 4	3548.23	-40.29	133.43	293.69	91.21	14 40 12	2548.2	-35.40	103.47
70.00	14 11 53	3457.31	-34.11	126.04	293.64	88.06	15 9 30	2457.5	-31.33	97.66
80.00	14 59 50	3307.23	-29.60	114.36	293.36	85.89	15 54 57	2307.2	-28.29	87.02
90.00	16 12 5	3074.05	-27.88	97.07	293.21	85.09	17 3 19	2074.1	-27.12	70.09
100.00	17 42 42	2781.71	-29.60	75.73	293.36	85.89	18 29 4	1781.7	-28.29	48.38
110.00	19 11 19	2504.33	-34.11	54.96	293.64	88.06	19 53 4	1504.3	-31.33	26.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3970 TRA-1.3295 TC3 .2135 BAU .1098 SGT 1410.0 SGR 616.5 SG3 182.5 ST 27.7 SR 27.9 SS 19.2
RDE -.5750 RRA .2490 RC3 -.0902 FAU .05813 RRT -.1710 RRF .1945 RTF -.7330 CRT .5874 CRS .6542 CST .9929
FDE .4266 FRA 1.1937 FC3-1.4198 BSP 2228 SGB 1538.9 R23 -.0414 R13 .7352 LSA 39.4 MSA 18.9 SSA 1.3
BDE .6988 BRA 1.3526 BC3 .2318 FSP 235 SG1 1414.8 SG2 605.4 THA 174.76 EL1 35.0 EL2 17.8 ALF 45.46

LAUNCH DATE JUL 22 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 336.603 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 34.884 GAL -3.29 AZL 90.12 HCA 106.84 SMA 250.69 ECC .39722 INC .1156 V1 29.312
RP 219.08 LAP -.11 LOP 45.89 VP 26.119 GAP 22.32 AZP 89.97 TAL 348.39 TAP 95.24 RCA 151.11 APO 350.26 V2 25.087
RC 78.631 GL -.70 GP -5.57 ZAL 108.65 ZAP 171.67 ETS 223.63 ZAE 164.73 ETE 339.11 ZAC 78.39 ETC 283.12 LVI -12.37

PLANETOCENTRIC CONIC

C3 33.888 VHL 5.821 DLA 16.44 RAL 45.44 RAD 6648.5 VEL 12.401 PTH 7.31 VHP 7.869 DPA 9.19 RAP 39.35 ECC 1.5577

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 18 23	3595.26	-47.30	137.07	291.83	95.87	14 18 18	2595.3	-39.55	105.28
60.00	13 39 9	3539.98	-40.27	132.73	292.47	91.68	14 38 9	2540.0	-35.20	102.86
70.00	14 9 45	3449.89	-34.12	125.44	292.48	88.41	15 7 15	2449.9	-31.20	97.10
80.00	14 57 29	3300.29	-29.63	113.85	292.23	86.16	15 52 30	2300.3	-28.21	86.52
90.00	16 9 37	3067.45	-27.92	96.60	292.08	85.32	17 0 45	2067.4	-27.06	69.62
100.00	17 40 21	2774.76	-29.63	75.22	292.23	86.16	18 26 36	1774.8	-28.21	47.89
110.00	19 9 11	2496.70	-34.12	54.36	292.48	88.41	19 50 48	1496.7	-31.20	26.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3978 TRA-1.3229 TC3 .2411 BAU .1184 SGT 1440.5 SGR 618.3 SG3 193.9 ST 28.3 SR 27.8 SS 19.9
RDE -.5594 RRA .2491 RC3 -.1006 FAU .06047 RRT -.1845 RRF .2099 RTF -.7418 CRT .5868 CRS .6577 CST .9925

END OF TAPE, CHANGE AND PRESS START

BDE .6864 BRA 1.3462 BC3 .2613 FSP 253 SG1 1446.0 SG2 605.4 THA 174.51 EL1 35.3 EL2 18.0 ALF 44.21

LAUNCH DATE JUL 22 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 339.268 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 34.770 GAL -3.20 AZL 90.08 HCA 107.97 SMA 246.97 ECC .38800 INC .0773 V1 29.312
RP 219.45 LAP -.08 LOP 47.02 VP 25.926 GAP 21.96 AZP 89.98 TAL 348.54 TAP 96.51 RCA 151.15 APO 342.80 V2 25.048
RC 80.245 GL -.48 GP -5.74 ZAL 108.39 ZAP 170.99 ETS 221.20 ZAE 164.13 ETE 338.96 ZAC 78.15 ETC 283.09 LVI -12.10

PLANETOCENTRIC CONIC

C3 32.439 VHL 5.696 DLA 16.58 RAL 45.12 RAD 6647.9 VEL 12.343 PTH 7.27 VHP 7.645 DPA 9.15 RAP 39.76 ECC 1.5339

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 16 32	3587.02	-47.24	136.28	290.55	96.47	14 16 19	2587.0	-39.28	104.66
60.00	13 37 7	3532.22	-40.25	132.07	291.27	92.13	14 36 0	2532.2	-35.00	102.29
70.00	14 7 31	3442.78	-34.13	124.89	291.33	88.74	15 4 53	2442.8	-31.08	96.58
80.00	14 55 1	3293.90	-29.66	113.38	291.11	86.41	15 49 55	2293.9	-28.13	86.06
90.00	16 7 2	3061.42	-27.95	96.16	290.97	85.54	16 58 4	2061.4	-26.99	69.19
100.00	17 37 53	2768.37	-29.66	74.75	291.11	86.41	18 24 1	1768.4	-28.13	47.43
110.00	19 6 57	2489.60	-34.13	53.81	291.33	88.74	19 48 27	1489.6	-31.08	25.50

DIFFERENTIAL CORRECTIONS

TDE -.3994 TRA-1.3162 TC3 .2697 BAU .1267
RDE -.5440 RRA .2495 RC3 -.1120 FAU .06291
FDE .4737 FRA 1.2760 FC3-1.6790 BSP 2357
BDE .6749 BRA 1.3397 BC3 .2920 FSP 271

MID-COURSE EXECUTION ACCURACY

SGT 1471.2 SGR 620.0 SG3 205.9
RRT -.1985 RRF .2260 RTF -.7500
SGB 1596.5 R23 -.0477 R13 .7526
SG1 1477.4 SG2 605.1 THA 174.25

ORBIT DETERMINATION ACCURACY

ST 28.9 SR 27.6 SS 20.7
CRT .5868 CRS .6617 CST .9921
LSA 40.7 MSA 19.1 SSA 1.3
EL1 35.6 EL2 18.1 ALF 42.69

LAUNCH DATE JUL 22 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 342.033 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 34.662 GAL -3.10 AZL 90.04 HCA 109.09 SMA 243.56 ECC .37927 INC .0377 V1 29.312
RP 219.82 LAP -.04 LOP 48.14 VP 25.741 GAP 21.61 AZP 89.99 TAL 348.69 TAP 97.79 RCA 151.18 APO 335.93 V2 25.005
RC 81.936 GL -.26 GP -5.92 ZAL 108.12 ZAP 170.28 ETS 219.12 ZAE 163.59 ETE 338.72 ZAC 77.90 ETC 283.06 LVI -11.83

PLANETOCENTRIC CONIC

C3 31.089 VHL 5.576 DLA 16.72 RAL 44.78 RAD 6647.4 VEL 12.289 PTH 7.23 VHP 7.428 DPA 9.11 RAP 40.16 ECC 1.5116

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 14 36	3579.23	-47.18	135.53	289.29	97.04	14 14 16	2579.2	-39.01	104.12
60.00	13 35 0	3524.93	-40.23	131.45	290.09	92.55	14 33 45	2524.9	-34.82	101.76
70.00	14 5 9	3436.17	-34.14	124.37	290.20	89.05	15 2 26	2436.2	-30.96	96.10
80.00	14 52 25	3288.05	-29.69	112.95	290.00	86.64	15 47 13	2288.1	-28.06	85.64
90.00	16 4 19	3055.96	-27.98	95.76	289.87	85.74	16 55 15	2056.0	-26.94	68.80
100.00	17 35 17	2762.52	-29.69	74.31	290.00	86.64	18 21 20	1762.5	-28.06	47.01
110.00	19 4 36	2482.99	-34.14	53.29	290.20	89.05	19 45 59	1483.0	-30.96	25.02

DIFFERENTIAL CORRECTIONS

TDE -.3890 TRA-1.2978 TC3 .3153 BAU .1408
RDE -.5265 RRA .2505 RC3 -.1240 FAU .06529
FDE .5036 FRA 1.3230 FC3-1.8180 BSP 2275
BDE .6562 BRA 1.3217 BC3 .3388 FSP 296

MID-COURSE EXECUTION ACCURACY

SGT 1490.7 SGR 621.5 SG3 218.5
RRT -.2220 RRF .2422 RTF -.7684
SGB 1615.1 R23 -.0392 R13 .7709
SG1 1498.4 SG2 602.9 THA 173.69

ORBIT DETERMINATION ACCURACY

ST 28.9 SR 27.5 SS 21.6
CRT .5776 CRS .6671 CST .9904
LSA 41.1 MSA 19.1 SSA 1.3
EL1 35.4 EL2 18.3 ALF 42.43

LAUNCH DATE JUL 22 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 344.890 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 34.559 GAL -3.01 AZL 90.00 HCA 110.21 SMA 240.42 ECC .37103 INC .0000 V1 29.312
RP 220.19 LAP -.00 LOP 49.26 VP 25.562 GAP 21.26 AZP 90.00 TAL 348.85 TAP 99.06 RCA 151.22 APO 329.62 V2 24.964
RC 83.701 GL -.02 GP -6.11 ZAL 107.84 ZAP 169.55 ETS 217.33 ZAE 163.11 ETE 338.40 ZAC 77.65 ETC 283.03 LVI -11.55

PLANETOCENTRIC CONIC

C3 29.835 VHL 5.462 DLA 16.87 RAL 44.43 RAD 6646.9 VEL 12.238 PTH 7.19 VHP 7.218 DPA 9.05 RAP 40.55 ECC 1.4910

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 12 36	3571.96	-47.11	134.84	288.06	97.57	14 12 8	2572.0	-38.77	103.60
60.00	13 32 48	3518.20	-40.21	130.88	288.94	92.94	14 31 26	2518.2	-34.65	101.27
70.00	14 2 42	3430.16	-34.15	123.90	289.09	89.32	14 59 52	2430.2	-30.85	95.67
80.00	14 49 42	3282.86	-29.71	112.56	288.91	86.84	15 44 25	2282.9	-27.99	85.27
90.00	16 1 29	3051.17	-28.01	95.41	288.79	85.91	16 52 20	2051.2	-26.88	68.46
100.00	17 32 34	2757.33	-29.71	73.93	288.91	86.84	18 18 31	1757.3	-27.99	46.64
110.00	19 2 8	2476.98	-34.15	52.82	289.09	89.32	19 43 25	1477.0	-30.85	24.59

DIFFERENTIAL CORRECTIONS

TDE -.3952 TRA-1.2945 TC3 .3422 BAU .1471
RDE -.5136 RRA .2512 RC3 -.1377 FAU .06811
FDE .5299 FRA 1.3650 FC3-1.9764 BSP 2393
BDE .6481 BRA 1.3187 BC3 .3689 FSP 316

MID-COURSE EXECUTION ACCURACY

SGT 1524.8 SGR 623.4 SG3 232.0
RRT -.2352 RRF .2612 RTF -.7720
SGB 1647.3 R23 -.0473 R13 .7749
SG1 1533.1 SG2 602.7 THA 173.50

ORBIT DETERMINATION ACCURACY

ST 29.7 SR 27.3 SS 22.4
CRT .5808 CRS .6702 CST .9904
LSA 41.9 MSA 19.1 SSA 1.4
EL1 35.9 EL2 18.4 ALF 40.76

LAUNCH DATE JUL 22 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 347.827 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 34.461 GAL -2.92 AZL 89.96 HCA 111.33 SMA 237.52 ECC .36322 INC .0321 V1 29.312
RP 220.57 LAP .03 LOP 50.38 VP 25.390 GAP 20.92 AZP 90.01 TAL 349.01 TAP 100.34 RCA 151.25 APO 323.80 V2 24.923
RC 85.536 GL .23 GP -6.31 ZAL 107.55 ZAP 168.80 ETS 215.79 ZAE 162.69 ETE 338.00 ZAC 77.40 ETC 283.01 LVI -11.27

PLANETOCENTRIC CONIC

C3 28.668 VHL 5.354 DLA 17.02 RAL 44.06 RAD 6646.5 VEL 12.191 PTH 7.15 VHP 7.015 DPA 8.97 RAP 40.94 ECC 1.4718

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 10 30	3565.20	-47.05	134.20	286.87	98.06	14 9 55	2565.2	-38.54	103.12
60.00	13 30 29	3511.99	-40.19	130.36	287.81	93.29	14 29 1	2512.0	-34.49	100.82
70.00	14 0 8	3424.73	-34.15	123.48	288.00	89.58	14 57 12	2424.7	-30.76	95.28
80.00	14 46 51	3278.28	-29.72	112.22	287.84	87.01	15 41 30	2278.3	-27.93	84.94
90.00	15 58 30	3047.03	-28.03	95.11	287.72	86.06	16 49 17	2047.0	-26.84	68.17
100.00	17 29 43	2752.75	-29.72	73.59	287.84	87.01	18 15 36	1752.8	-27.93	46.31
110.00	18 59 34	2471.55	-34.15	52.40	288.00	89.58	19 40 46	1471.5	-30.76	24.19

DIFFERENTIAL CORRECTIONS

TDE -.3997 TRA-1.2893 TC3 .3721 BAU .1541
RDE -.4988 RRA .2523 RC3 -.1525 FAU .07105
FDE .5581 FRA 1.4088 FC3-2.1456 BSP 2488
BDE .6392 BRA 1.3138 BC3 .4021 FSP 337

MID-COURSE EXECUTION ACCURACY

SGT 1556.8 SGR 625.6 SG3 246.2
RRT -.2508 RRF .2814 RTF -.7767
SGB 1677.8 R23 -.0541 R13 .7800
SG1 1566.1 SG2 602.0 THA 173.24

ORBIT DETERMINATION ACCURACY

ST 30.4 SR 27.0 SS 23.2
CRT .5824 CRS .6733 CST .9902
LSA 42.7 MSA 19.1 SSA 1.4
EL1 36.3 EL2 18.4 ALF 39.22

LAUNCH DATE JUL 22 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 350,839 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	34.369	GAL	-2.63	AZL	89.93	HCA	112.44	SMA	234.85	ECC	.35582	INC	.0734	V1	29.312
RP	220.95	LAP	.07	LOP	51.49	VP	25.223	GAP	20.58	AZP	90.03	TAL	349.18	TAP	101.62	RCA	151.28	APO	318.41	V2	24.882
RC	87.440	GL	.49	GP	-6.51	ZAL	107.25	ZAP	168.03	ETS	214.44	ZAE	162.33	ETE	337.52	ZAC	77.13	ETC	282.99	LVI	-10.98

PLANETOCENTRIC CONIC

C3	27.880	VHL	5.252	DLA	17.18	RAL	43.69	RAD	6646.0	VEL	12.146	PTH	7.11	VHP	6.819	DPA	8.89	RAP	41.32	ECC	1.4539

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 8 19	3598.94	-46.99	133.61	285.70	98.51	14 7 38	2558.9	-38.32	102.67
60.00	13 28 5	3506.33	-40.17	129.88	286.70	93.62	14 26 31	2506.3	-34.35	100.41
70.00	13 57 27	3419.88	-34.15	123.10	286.93	89.80	14 54 27	2419.9	-30.67	94.93
80.00	14 43 53	3274.34	-29.74	111.93	286.79	87.17	15 38 28	2274.3	-27.88	84.66
90.00	15 55 23	3043.56	-28.04	94.86	286.68	86.18	16 46 7	2043.6	-26.80	67.92
100.00	17 26 45	2748.82	-29.74	73.30	286.79	87.17	18 12 34	1748.8	-27.88	46.03
110.00	18 56 53	2466.70	-34.15	52.02	286.93	89.80	19 38 0	1466.7	-30.67	23.84

DIFFERENTIAL CORRECTIONS

TDE	-.4035	TRA	-1.2833	TC3	.4039	BAU	.1614
RDE	-.4841	RRA	.2537	RC3	-.1686	FAU	.07411
FDE	.5891	FRA	1.4548	FC3	-2.3262	BSP	2575
BDE	.6302	BRA	1.3082	BC3	.4377	FSP	360

MID-COURSE EXECUTION ACCURACY

SGT	1588.0	SGR	627.9	SG3	281.2
RRT	-.2680	RRF	.3026	RTF	-.7819
SGB	1707.6	R23	-.0601	R13	.7855
SG1	1598.3	SG2	601.0	THA	172.95

ORBIT DETERMINATION ACCURACY

ST	31.1	SR	26.8	SS	24.1
CRT	.5830	CRS	.6766	CST	.9898
LSA	43.6	MSA	19.1	SSA	1.4
EL1	36.7	EL2	18.5	ALF	37.73

LAUNCH DATE JUL 22 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 353,917 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	34.281	GAL	-2.75	AZL	89.89	HCA	113.55	SMA	232.37	ECC	.34882	INC	.1132	V1	29.312
RP	221.33	LAP	.10	LOP	52.60	VP	25.063	GAP	20.24	AZP	90.05	TAL	349.35	TAP	102.90	RCA	151.32	APO	313.42	V2	24.840
RC	89.407	GL	.76	GP	-6.73	ZAL	106.95	ZAP	167.25	ETS	213.26	ZAE	162.02	ETE	336.96	ZAC	76.86	ETC	282.96	LVI	-10.69

PLANETOCENTRIC CONIC

C3	26.566	VHL	5.154	DLA	17.36	RAL	43.30	RAD	6645.6	VEL	12.105	PTH	7.08	VHP	6.629	DPA	8.79	RAP	41.68	ECC	1.4372

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 6 4	3553.20	-46.93	133.07	284.57	98.93	14 5 17	2553.2	-38.12	102.27
60.00	13 25 35	3501.22	-40.14	129.44	285.62	93.91	14 23 56	2501.2	-34.21	100.04
70.00	13 54 40	3415.63	-34.15	122.77	285.88	90.00	14 51 35	2415.6	-30.59	94.62
80.00	14 40 47	3271.07	-29.75	111.69	285.76	87.29	15 35 18	2271.1	-27.84	84.43
90.00	15 52 8	3040.78	-28.05	94.66	285.65	86.28	16 42 49	2040.8	-26.77	67.72
100.00	17 23 39	2745.54	-29.75	73.06	285.76	87.29	18 9 25	1745.5	-27.84	45.79
110.00	18 54 6	2462.45	-34.15	51.69	285.88	90.00	19 35 8	1462.5	-30.59	23.54

DIFFERENTIAL CORRECTIONS

TDE	-.4068	TRA	-1.2754	TC3	.4385	BAU	.1692
RDE	-.4695	RRA	.2554	RC3	-.1860	FAU	.07733
FDE	.6223	FRA	1.5015	FC3	-2.5200	BSP	2648
BDE	.6212	BRA	1.3007	BC3	.4764	FSP	385

MID-COURSE EXECUTION ACCURACY

SGT	1617.2	SGR	630.6	SG3	277.1
RRT	-.2868	RRF	.3249	RTF	-.7876
SGB	1735.8	R23	-.0657	R13	.7916
SG1	1628.9	SG2	599.8	THA	172.61

ORBIT DETERMINATION ACCURACY

ST	31.8	SR	26.5	SS	25.0
CRT	.5834	CRS	.6798	CST	.9894
LSA	44.4	MSA	19.0	SSA	1.5
EL1	37.0	EL2	18.5	ALF	36.31

LAUNCH DATE JUL 22 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 357,056 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	34.198	GAL	-2.67	AZL	89.85	HCA	114.65	SMA	230.07	ECC	.34218	INC	.1539	V1	29.312
RP	221.71	LAP	.14	LOP	53.70	VP	24.907	GAP	19.91	AZP	90.06	TAL	349.52	TAP	104.17	RCA	151.35	APO	308.80	V2	24.799
RC	91.436	GL	1.04	GP	-6.95	ZAL	106.64	ZAP	166.45	ETS	212.23	ZAE	161.77	ETE	336.31	ZAC	76.58	ETC	282.94	LVI	-10.39

PLANETOCENTRIC CONIC

C3	25.622	VHL	5.062	DLA	17.54	RAL	42.90	RAD	6645.2	VEL	12.066	PTH	7.05	VHP	6.445	DPA	8.67	RAP	42.04	ECC	1.4217

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 3 43	3547.99	-46.87	132.58	283.47	99.30	14 2 51	2548.0	-37.94	101.91
60.00	13 23 0	3496.68	-40.12	129.06	284.57	94.17	14 21 17	2496.7	-34.09	99.72
70.00	13 51 46	3412.01	-34.15	122.49	284.85	90.16	14 48 38	2412.0	-30.52	94.36
80.00	14 37 33	3268.48	-29.75	111.50	284.74	87.40	15 32 2	2268.5	-27.80	84.24
90.00	15 48 44	3038.73	-28.06	94.51	284.64	86.36	16 39 23	2038.7	-26.75	67.58
100.00	17 20 25	2742.96	-29.75	72.86	284.74	87.40	18 6 8	1743.0	-27.80	45.61
110.00	18 51 12	2458.83	-34.15	51.40	284.85	90.16	19 32 11	1458.8	-30.52	23.28

DIFFERENTIAL CORRECTIONS

TDE	-.4099	TRA	-1.2667	TC3	.4740	BAU	.1769
RDE	-.4550	RRA	.2573	RC3	-.2049	FAU	.08069
FDE	.6586	FRA	1.5499	FC3	-2.7265	BSP	2715
BDE	.6124	BRA	1.2925	BC3	.5164	FSP	412

MID-COURSE EXECUTION ACCURACY

SGT	1645.2	SGR	633.7	SG3	293.8
RRT	-.3068	RRF	.3484	RTF	-.[illegible]33
SGB	1763.0	R23	-.0712	R13	.7977
SG1	1658.4	SG2	598.3	THA	172.24

ORBIT DETERMINATION ACCURACY

ST	32.4	SR	26.2	SS	25.9
CRT	.5833	CRS	.6831	CST	.9889
LSA	45.2	MSA	18.9	SSA	1.5
EL1	37.3	EL2	18.4	ALF	34.90

LAUNCH DATE JUL 22 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 360,250 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	34.119	GAL	-2.59	AZL	89.80	HCA	115.75	SMA	227.94	ECC	.33589	INC	.1945	V1	29.312
RP	222.09	LAP	.18	LOP	54.80	VP	24.757	GAP	19.57	AZP	90.08	TAL	349.69	TAP	105.45	RCA	151.38	APO	304.50	V2	24.757
RC	93.523	GL	1.34	GP	-7.19	ZAL	106.32	ZAP	165.63	ETS	211.32	ZAE	161.56	ETE	335.59	ZAC	76.30	ETC	282.92	LVI	-10.08

PLANETOCENTRIC CONIC

C3	24.742	VHL	4.974	DLA	17.73	RAL	42.50	RAD	6644.9	VEL	12.030	PTH	7.02	VHP	6.267	DPA	8.54	RAP	42.39	ECC	1.4072

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 1 18	3543.33	-46.82	132.14	282.41	99.64	14 0 22	2543.3	-37.77	101.58
60.00	13 20 19	3492.72	-40.10	128.72	283.55	94.40	14 18 32	2492.7	-33.99	99.43
70.00	13 48 45	3409.02	-34.15	122.25	283.85	90.30	14 45 34	2409.0	-30.46	94.15
80.00	14 34 11	3266.60	-29.76	111.36	283.75	87.47	15 28 38	2266.6	-27.78	84.11
90.00	15 45 11	3037.42	-28.07	94.41	283.65	86.41	16 35 49	2037.4	-26.73	67.48
100.00	17 17 3	2741.08	-29.76	72.72	283.75	87.47	18 2 44	1741.1	-27.78	45.47
110.00	18 48 11	2455.84	-34.15	51.17	283.85	90.30	19 29 7	1455.8	-30.46	23.06

DIFFERENTIAL CORRECTIONS

TDE	-.4129	TRA	-1.2580	TC3	.5104	BAU	.1845
RDE	-.4405	RRA	.2596	RC3	-.2252	FAU	.08423
FDE	.6974	FRA	1.6001	FC3	-2.9473	BSP	2782
BDE	.6037	BRA	1.2845	BC3	.5579	FSP	440

MID-COURSE EXECUTION ACCURACY

SGT	1672.8	SGR	637.3	SG3	311.4
RRT	-.3283	RRF	.3731	RTF	-.7986
SGB	1790.1	R23	-.0768	R13	.8036
SG1	1687.7	SG2	596.7	THA	171.84

ORBIT DETERMINATION ACCURACY

ST	33.0	SR	25.8	SS	26.9
CRT	.5825	CRS	.6861	CST	.9882
LSA	46.1	MSA	18.7	SSA	1.5
EL1	37.6	EL2	18.4	ALF	33.50

LAUNCH DATE JUL 22 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 363.494 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	34.044	GAL	-2.51	AZL	89.76	HCA	116.89	SMA	225.86	ECC	.32994	INC	.2389	V1	29.312
RP	222.48	LAP	.21	LOP	55.90	VP	24.612	GAP	19.25	AZP	90.11	TAL	349.87	TAP	106.72	RCA	151.40	APO	300.51	V2	24.715
RC	95.665	GL	1.65	GP	-7.43	ZAL	106.00	ZAP	164.79	ETS	210.52	ZAE	161.41	ETE	334.77	ZAC	76.01	ETC	282.91	LVI	-9.77

PLANETOCENTRIC CONIC

C3	23.921	VHL	4.891	DLA	17.93	RAL	42.08	RAD	6644.5	VEL	11.996	PTH	6.99	VHP	6.095	DPA	8.40	RAP	42.72	ECC	1.3937

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 58 49	3539.22	-46.77	131.75	281.38	99.93	13 57 48	2539.2	-37.62	101.30
60.00	13 17 32	3489.35	-40.06	128.44	282.55	94.59	14 15 42	2489.3	-33.90	98.19
70.00	13 45 37	3406.69	-34.15	122.07	282.88	90.41	14 42 24	2406.7	-30.42	93.98
80.00	14 30 41	3265.45	-29.76	111.27	282.78	87.51	15 25 6	2265.5	-27.76	84.02
90.00	15 41 29	3036.88	-28.07	94.37	282.68	86.43	16 32 6	2036.9	-26.73	67.45
100.00	17 13 33	2739.93	-29.76	72.64	282.78	87.51	17 59 13	1739.9	-27.76	45.39
110.00	18 45 3	2453.51	-34.15	50.99	282.88	90.41	19 25 57	1453.5	-30.42	22.90

DIFFERENTIAL CORRECTIONS

TDE	-.4158	TRA	-1.2481	TC3	.5484	BAU	.1924
RDE	-.4260	RRA	.2621	RC3	-.2474	FAU	.08797
FDE	.7390	FRA	1.6515	FC3	-3.1839	BSP	2843
BDE	.5953	BRA	1.2753	BC3	.6016	FSP	470

MID-COURSE EXECUTION ACCURACY

SGT	1699.0	SGR	641.7	SG3	329.9				
RRT	-.3511	RRF	.3990	RTF	-.8041				
SGB	1816.1	R23	-.0824	R13	.8095				
SG1	1715.9	SG2	594.9	THA	171.41				

ORBIT DETERMINATION ACCURACY

ST	33.5	SR	25.4	SS	28.0		
CRT	.5814	CRS	.6887	CST	.9876		
LSA	47.0	NSA	18.6	SSA	1.5		
EL1	37.9	EL2	18.3	ALF	32.11		

LAUNCH DATE JUL 22 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 366.785 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.973	GAL	-2.43	AZL	89.72	HCA	117.94	SMA	224.11	ECC	.32430	INC	.2779	V1	29.312
RP	222.86	LAP	.25	LOP	56.99	VP	24.471	GAP	18.92	AZP	90.13	TAL	350.04	TAP	107.99	RCA	151.43	APO	296.79	V2	24.673
RC	97.860	GL	1.97	GP	-7.69	ZAL	105.68	ZAP	163.93	ETS	209.81	ZAE	161.31	ETE	333.86	ZAC	75.71	ETC	282.89	LVI	-9.45

PLANETOCENTRIC CONIC

C3	23.156	VHL	4.812	DLA	18.14	RAL	41.66	RAD	6644.2	VEL	11.964	PTH	6.96	VHP	5.929	DPA	8.23	RAP	43.04	ECC	1.3811

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 56 14	3535.66	-46.73	131.42	280.39	100.18	13 55 10	2535.7	-37.50	101.05
60.00	13 14 40	3486.59	-40.07	128.21	281.59	94.75	14 12 47	2486.6	-33.82	99.00
70.00	13 42 23	3405.03	-34.15	121.94	281.93	90.49	14 39 8	2405.0	-30.39	93.86
80.00	14 27 2	3265.05	-29.76	111.24	281.84	87.53	15 21 27	2265.1	-27.76	84.00
90.00	15 37 38	3037.14	-28.07	94.39	281.73	86.42	16 28 16	2037.1	-26.73	67.46
100.00	17 9 54	2739.53	-29.76	72.61	281.84	87.53	17 55 33	1739.5	-27.76	45.36
110.00	18 41 49	2451.85	-34.15	50.86	281.93	90.49	19 22 41	1451.8	-30.39	22.78

DIFFERENTIAL CORRECTIONS

TDE	-.4188	TRA	-1.2377	TC3	.5861	BAU	.1999
RDE	-.4115	RRA	.2649	RC3	-.2712	FAU	.09187
FDE	.7833	FRA	1.7039	FC3	-3.4349	BSP	2902
BDE	.5871	BRA	1.2657	BC3	.6458	FSP	502

MID-COURSE EXECUTION ACCURACY

SGT	1723.8	SGR	646.8	SG3	349.4				
RRT	-.3746	RRF	.4260	RTF	-.8090				
SGB	1841.2	R23	-.0886	R13	.8150				
SG1	1743.0	SG2	593.1	THA	170.94				

ORBIT DETERMINATION ACCURACY

ST	34.1	SR	25.0	SS	29.1		
CRT	.5800	CRS	.6910	CST	.9870		
LSA	47.9	NSA	18.4	SSA	1.6		
EL1	38.2	EL2	18.2	ALF	30.73		

LAUNCH DATE JUL 22 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 370.117 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.905	GAL	-2.36	AZL	89.68	HCA	119.03	SMA	222.39	ECC	.31895	INC	.3208	V1	29.312
RP	223.25	LAP	.28	LOP	58.08	VP	24.335	GAP	18.60	AZP	90.16	TAL	350.22	TAP	109.26	RCA	151.46	APO	293.32	V2	24.631
RC	100.104	GL	2.30	GP	-7.96	ZAL	105.35	ZAP	163.06	ETS	209.17	ZAE	161.24	ETE	332.84	ZAC	75.40	ETC	282.88	LVI	-9.13

PLANETOCENTRIC CONIC

C3	22.442	VHL	4.737	DLA	18.36	RAL	41.23	RAD	6643.9	VEL	11.935	PTH	6.94	VHP	5.768	DPA	8.06	RAP	43.36	ECC	1.3693

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 53 36	3532.68	-46.70	131.14	279.43	100.40	13 52 28	2532.7	-37.39	100.85
60.00	13 11 43	3484.44	-40.06	128.02	280.65	94.87	14 9 47	2484.4	-33.76	98.85
70.00	13 39 1	3404.05	-34.15	121.86	281.00	90.53	14 35 45	2404.0	-30.37	93.79
80.00	14 23 14	3265.43	-29.76	111.27	280.92	87.51	15 17 40	2265.4	-27.76	84.02
90.00	15 33 38	3038.22	-28.07	94.47	280.81	86.38	16 24 16	2038.2	-26.74	67.54
100.00	17 6 6	2739.90	-29.76	72.64	280.92	87.51	17 51 46	1739.9	-27.76	45.38
110.00	18 38 27	2450.87	-34.15	50.78	281.00	90.53	19 19 18	1450.9	-30.37	22.71

DIFFERENTIAL CORRECTIONS

TDE	-.4214	TRA	-1.2268	TC3	.6251	BAU	.2076
RDE	-.3970	RRA	.2681	RC3	-.2970	FAU	.09601
FDE	.8313	FRA	1.7577	FC3	-3.7038	BSP	2955
BDE	.5789	BRA	1.2558	BC3	.6921	FSP	536

MID-COURSE EXECUTION ACCURACY

SGT	1747.7	SGR	652.9	SG3	370.0				
RRT	-.3996	RRF	.4541	RTF	-.8139				
SGB	1865.7	R23	-.0946	R13	.8205				
SG1	1769.6	SG2	591.2	THA	170.43				

ORBIT DETERMINATION ACCURACY

ST	34.6	SR	24.5	SS	30.2		
CRT	.5775	CRS	.6929	CST	.9862		
LSA	48.8	NSA	18.2	SSA	1.6		
EL1	38.4	EL2	18.1	ALF	29.35		

LAUNCH DATE JUL 22 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 373.487 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.841	GAL	-2.29	AZL	89.64	HCA	120.12	SMA	220.79	ECC	.31389	INC	.3643	V1	29.312
RP	223.64	LAP	.32	LOP	59.17	VP	24.203	GAP	18.28	AZP	90.18	TAL	350.40	TAP	110.52	RCA	151.48	APO	290.09	V2	24.590
RC	102.397	GL	2.64	GP	-8.24	ZAL	105.03	ZAP	162.17	ETS	208.61	ZAE	161.22	ETE	331.72	ZAC	75.08	ETC	282.87	LVI	-8.80

PLANETOCENTRIC CONIC

C3	21.777	VHL	4.667	DLA	18.59	RAL	40.80	RAD	6643.6	VEL	11.907	PTH	6.92	VHP	5.612	DPA	7.86	RAP	43.66	ECC	1.3584

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 50 52	3530.27	-46.67	130.92	278.51	100.57	13 49 43	2530.3	-37.30	100.68
60.00	13 8 39	3482.92	-40.05	127.90	279.75	94.96	14 6 42	2482.9	-33.72	98.74
70.00	13 35 32	3403.78	-34.15	121.84	280.11	90.54	14 32 16	2403.8	-30.36	93.77
80.00	14 19 18	3266.61	-29.76	111.36	280.02	87.47	15 13 45	2266.6	-27.78	84.11
90.00	15 29 27	3040.16	-28.06	94.61	279.91	86.31	16 20 7	2040.2	-26.76	67.68
100.00	17 2 10	2741.08	-29.76	72.72	280.02	87.47	17 47 51	1741.1	-27.78	45.47
110.00	18 34 59	2450.59	-34.15	50.76	280.11	90.54	19 15 49	1450.6	-30.36	22.69

DIFFERENTIAL CORRECTIONS

TDE	-.4245	TRA	-1.2154	TC3	.6641	BAU	.2152
RDE	-.3823	RRA	.2715	RC3	-.3247	FAU	.10034
FDE	.8826	FRA	1.8126	FC3	-3.9890	BSP	3006
BDE	.5713	BRA	1.2454	BC3	.7392	FSP	572

MID-COURSE EXECUTION ACCURACY

SGT	1770.5	SGR	660.1	SG3	391.6				
RRT	-.4251	RRF	.4830	RTF	-.8185				
SGB	1889.5	R23	-.1011	R13	.8258				
SG1	1795.3	SG2	589.3	THA	169.89				

ORBIT DETERMINATION ACCURACY

ST	35.2	SR	24.1	SS	31.5		
CRT	.5749	CRS	.6942	CST	.9855		
LSA	49.8	NSA	18.0	SSA	1.6		
EL1	38.7	EL2	17.9	ALF	27.95		

LAUNCH DATE JUL 22 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 376.893 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.781	GAL	-2.22	AZL	89.59	HCA	121.20	SMA	219.29	ECC	.30909	INC	.4087
RP	224.03	LAP	.35	LOP	60.25	VP	24.075	GAP	17.96	AZP	90.21	TAL	350.58	TAP	111.78	RCA	151.51	APO	287.07
RC	104.735	GL	3.00	GP	-8.53	ZAL	104.70	ZAP	161.25	ETS	208.11	ZAE	161.24	ETE	330.49	ZAC	74.75	ETC	282.87

V1	29.312																		
V2	24.548																		
LVI	-8.46																		

PLANETOCENTRIC CONIC

C3	21.158	VHL	4.600	DLA	18.84	RAL	40.36	RAD	6643.3	VEL	11.881	PTH	6.89	VHP	5.461	DPA	7.64	RAP	43.94
ECC	1.3482																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 48 5	3528.44	-46.64	130.75	277.63	100.70	13 46 53	2528.4	-37.24	100.56
60.00	13 5 31	3482.03	-40.04	127.82	278.89	95.01	14 3 33	2482.0	-33.70	98.67
70.00	13 31 56	3404.22	-34.15	121.88	279.24	90.52	14 28 40	2404.2	-30.37	93.80
80.00	14 15 12	3268.61	-29.75	111.50	279.15	87.39	15 9 41	2268.6	-27.81	84.25
90.00	15 25 6	3042.98	-28.05	94.82	279.04	86.20	16 15 49	2043.0	-26.80	67.88
100.00	16 58 4	2743.08	-29.75	72.87	279.15	87.39	17 43 47	1743.1	-27.81	45.62
110.00	18 31 23	2451.04	-34.15	50.80	279.24	90.52	19 12 14	1451.0	-30.37	22.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4282	TRA	-1.2037	TC3	.7017	BAU	.2224	SGT	1792.0	SGR	668.6	SG3	414.3	ST	35.7	SR	23.5	SS	32.7
RDE	-.3674	RRA	.2752	RC3	-.3545	FAU	.10485	RRT	-.4509	RRF	.5126	RTF	-.8226	CRT	.5718	CRS	.6947	CST	.9849
FDE	.9381	FRA	1.8695	FC3	-4.2905	BSP	3064	SGB	1912.6	R23	-.1085	R13	.8307	LSA	50.8	MSA	17.8	SSA	1.6
BDE	.5642	BRA	1.2348	BC3	.7861	FSP	610	SG1	1820.1	SG2	587.5	THA	169.32	EL1	38.9	EL2	17.7	ALF	26.52

LAUNCH DATE JUL 22 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 380.331 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.723	GAL	-2.16	AZL	89.55	HCA	122.28	SMA	217.89	ECC	.30454	INC	.4539
RP	224.42	LAP	.38	LOP	61.33	VP	23.951	GAP	17.65	AZP	90.24	TAL	350.75	TAP	113.03	RCA	151.53	APO	284.24
RC	107.119	GL	3.38	GP	-8.84	ZAL	104.38	ZAP	160.32	ETS	207.66	ZAE	161.29	ETE	329.14	ZAC	74.42	ETC	282.86

V1	29.312																		
V2	24.506																		
LVI	-8.11																		

PLANETOCENTRIC CONIC

C3	20.580	VHL	4.537	DLA	19.10	RAL	39.92	RAD	6643.1	VEL	11.857	PTH	6.87	VHP	5.316	DPA	7.41	RAP	44.22
ECC	1.3387																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 45 13	3527.20	-46.63	130.63	276.80	100.78	13 44 0	2527.2	-37.19	100.47
60.00	13 2 16	3481.79	-40.04	127.80	278.05	95.02	14 0 18	2481.8	-33.69	98.66
70.00	13 28 13	3405.40	-34.15	121.97	278.41	90.47	14 24 58	2405.4	-30.39	93.89
80.00	14 10 56	3271.46	-29.74	111.72	278.30	87.28	15 5 28	2271.5	-27.84	84.45
90.00	15 20 34	3046.73	-28.03	95.09	278.19	86.07	16 11 21	2046.7	-26.84	68.14
100.00	16 53 48	2745.93	-29.74	73.08	278.30	87.28	17 39 34	1745.9	-27.84	45.82
110.00	18 27 39	2452.22	-34.15	50.89	278.41	90.47	19 8 31	1452.2	-30.39	22.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4313	TRA	-1.1917	TC3	.7398	BAU	.2297	SGT	1812.2	SGR	678.6	SG3	438.2	ST	36.2	SR	23.0	SS	34.1
RDE	-.3524	RRA	.2793	RC3	-.3866	FAU	.10960	RRT	-.4778	RRF	.5429	RTF	-.8266	CRT	.5671	CRS	.6942	CST	.9841
FDE	.9971	FRA	1.9280	FC3	-4.6107	BSP	3106	SGB	1935.1	R23	-.1158	R13	.8356	LSA	51.9	MSA	17.5	SSA	1.7
BDE	.5570	BRA	1.2240	BC3	.8347	FSP	649	SG1	1844.4	SG2	585.8	THA	168.70	EL1	39.2	EL2	17.5	ALF	25.09

LAUNCH DATE JUL 22 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 383.799 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.668	GAL	-2.09	AZL	89.50	HCA	123.35	SMA	216.58	ECC	.30024	INC	.5000
RP	224.81	LAP	.42	LOP	62.40	VP	23.831	GAP	17.34	AZP	90.27	TAL	350.92	TAP	114.28	RCA	151.55	APO	281.60
RC	109.544	GL	3.76	GP	-9.17	ZAL	104.05	ZAP	159.37	ETS	207.25	ZAE	161.36	ETE	327.65	ZAC	74.07	ETC	282.86

V1	29.312																		
V2	24.464																		
LVI	-7.75																		

PLANETOCENTRIC CONIC

C3	20.042	VHL	4.477	DLA	19.37	RAL	39.48	RAD	6642.9	VEL	11.834	PTH	6.85	VHP	5.175	DPA	7.15	RAP	44.47
ECC	1.3298																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 42 16	3526.56	-46.62	130.57	276.00	100.83	13 41 3	2526.6	-37.17	100.43
60.00	12 58 55	3482.22	-40.04	127.84	277.25	95.00	13 56 58	2482.2	-33.70	98.69
70.00	13 24 21	3407.34	-34.15	122.12	277.60	90.38	14 21 9	2407.3	-30.43	94.03
80.00	14 6 30	3275.20	-29.73	111.99	277.49	87.13	15 1 6	2275.2	-27.89	84.72
90.00	15 15 49	3051.43	-28.01	95.43	277.37	85.90	16 6 41	2051.4	-26.89	68.48
100.00	16 49 22	2749.67	-29.73	73.36	277.49	87.13	17 35 12	1749.7	-27.89	46.09
110.00	18 23 48	2454.16	-34.15	51.04	277.60	90.38	19 4 42	1454.2	-30.43	22.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4347	TRA	-1.1789	TC3	.7769	BAU	.2368	SGT	1830.6	SGR	690.3	SG3	463.3	ST	36.7	SR	22.3	SS	35.4
RDE	-.3372	RRA	.2837	RC3	-.4212	FAU	.11461	RRT	-.5046	RRF	.5735	RTF	-.8401	CRT	.5617	CRS	.6929	CST	.9834
FDE	1.0605	FRA	1.9866	FC3	-4.9508	BSP	3159	SGB	1956.5	R23	-.1238	R13	.8401	LSA	53.0	MSA	17.2	SSA	1.7
BDE	.5502	BRA	1.2126	BC3	.8837	FSP	691	SG1	1867.2	SG2	584.3	THA	168.04	EL1	39.4	EL2	17.2	ALF	23.65

LAUNCH DATE JUL 22 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 387.294 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.616	GAL	-2.03	AZL	89.45	HCA	124.42	SMA	215.35	ECC	.29616	INC	.5469
RP	225.20	LAP	.45	LOP	63.47	VP	23.715	GAP	17.03	AZP	90.31	TAL	351.10	TAP	115.52	RCA	151.57	APO	279.13
RC	112.011	GL	4.16	GP	-9.51	ZAL	103.73	ZAP	158.40	ETS	206.89	ZAE	161.47	ETE	326.02	ZAC	73.71	ETC	282.87

V1	29.312																		
V2	24.422																		
LVI	-7.38																		

PLANETOCENTRIC CONIC

C3	19.541	VHL	4.421	DLA	19.65	RAL	39.03	RAD	6642.6	VEL	11.813	PTH	6.83	VHP	5.039	DPA	6.88	RAP	44.72
ECC	1.3218																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 39 15	3526.53	-46.62	130.57	275.24	100.83	13 38 2	2526.5	-37.17	100.43
60.00	12 55 29	3483.31	-40.05	127.93	276.49	94.94	13 53 32	2483.3	-33.73	98.77
70.00	13 20 22	3410.05	-34.15	122.33	276.82	90.25	14 17 12	2410.0	-30.48	94.22
80.00	14 1 54	3279.85	-29.72	112.34	276.69	86.95	14 56 34	2279.8	-27.95	85.05
90.00	15 10 53	3057.14	-27.98	95.85	276.57	85.69	16 1 50	2057.1	-26.95	68.89
100.00	16 44 46	2754.32	-29.72	73.71	276.69	86.95	17 30 40	1754.3	-27.95	46.42
110.00	18 19 48	2456.87	-34.15	51.25	276.82	90.25	19 0 45	1456.9	-30.48	23.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4385	TRA	-1.1657	TC3	.8135	BAU	.2439	SGT	1847.8	SGR	703.9	SG3	489.7	ST	37.3	SR	21.7	SS	36.9
RDE	-.3216	RRA	.2885	RC3	-.4583	FAU	.11986	RRT	-.5316	RRF	.6043	RTF	-.8335	CRT	.5550	CRS	.6902	CST	.9826
FDE	1.1293	FRA	2.0473	FC3	-5.3101	BSP	3204	SGB	1977.4	R23	-.1321	R13	.8447	LSA	54.1	MSA	17.0	SSA	1.7
BDE	.5438	BRA	1.2009	BC3	.9338	FSP	735	SG1	1889.4	SG2	583.1	THA	167.32	EL1	39.6	EL2	17.0	ALF	22.16

LAUNCH DATE JUL 22 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 390.815 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.567	GAL	-1.97	AZL	89.40	HCA	125.49	SMA	214.20	ECC	.29229	INC	.5951	V1	29.312
RP	225.59	LAP	.48	LOP	64.54	VP	23.602	GAP	16.73	AZP	90.35	TAL	351.27	TAP	116.75	RCA	151.59	APO	276.81	V2	24.380
RC	114.516	GL	4.58	GP	-9.86	ZAL	103.41	ZAP	157.41	ETS	206.56	ZAE	161.59	ETE	324.23	ZAC	73.34	ETC	282.87	LVI	-7.81

PLANETOCENTRIC CONIC

C3	19.074	VHL	4.367	DLA	19.95	RAL	38.58	RAD	6642.4	VEL	11.794	PTH	6.82	VHP	4.907	DPA	6.58	RAP	44.95	ECC	1.3139

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 36 9	3527.08	-46.63	130.62	274.51	100.78	13 34 56	2527.1	-37.19	100.47
60.00	12 51 56	3485.06	-40.06	128.08	275.75	94.84	13 50 1	2485.1	-33.78	98.89
70.00	13 16 14	3413.52	-34.15	122.60	276.07	90.09	14 13 7	2413.5	-30.55	94.47
80.00	13 57 6	3285.41	-29.70	112.75	275.92	86.74	14 51 51	2285.4	-28.03	85.45
90.00	15 5 44	3063.84	-27.94	96.33	275.79	85.45	15 56 47	2063.8	-27.02	69.36
100.00	16 39 57	2759.88	-29.70	74.12	275.92	86.74	17 25 57	1759.9	-28.03	46.82
110.00	18 15 40	2460.34	-34.15	51.52	276.07	90.09	18 56 40	1460.3	-30.55	23.39

DIFFERENTIAL CORRECTIONS

TDE	-.4274	TRA	-1.1382	TC3	.8768	BAU	.2572
RDE	-.3059	RRA	.2933	RC3	-.4984	FAU	.12539
FDE	1.1990	FRA	2.1065	FC3	-5.6914	BSP	3082
BDE	.5256	BRA	1.1754	BC3	1.0086	FSP	780

MID-COURSE EXECUTION ACCURACY

SGT	1850.5	SGR	719.9	SG3	517.2
RRT	-.5696	RRF	.6351	RTF	-.8449
SGB	1985.6	R23	-.1239	R13	.8565
SG1	1900.1	SG2	576.3	THA	166.21

ORBIT DETERMINATION ACCURACY

ST	36.8	SR	21.0	SS	38.4
CRT	.5376	CRS	.6857	CST	.9801
LSA	54.6	MSA	16.8	SSA	1.7
EL1	38.9	EL2	16.7	ALF	21.14

LAUNCH DATE JUL 22 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 394.358 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.521	GAL	-1.92	AZL	89.36	HCA	126.55	SMA	213.13	ECC	.28863	INC	.6443	V1	29.312
RP	225.98	LAP	.52	LOP	65.60	VP	23.492	GAP	16.43	AZP	90.38	TAL	351.43	TAP	117.98	RCA	151.61	APO	274.65	V2	24.338
RC	117.057	GL	5.01	GP	-10.23	ZAL	103.10	ZAP	156.40	ETS	206.27	ZAE	164.72	ETE	322.28	ZAC	72.95	ETC	282.89	LVI	-6.62

PLANETOCENTRIC CONIC

C3	18.641	VHL	4.317	DLA	20.26	RAL	38.13	RAD	6642.2	VEL	11.775	PTH	6.80	VHP	4.780	DPA	6.26	RAP	45.17	ECC	1.3068

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 59	3528.31	-46.64	130.73	273.84	100.71	13 31 47	2528.3	-37.23	100.55
60.00	12 48 17	3487.55	-40.07	128.29	275.06	94.69	13 46 25	2487.6	-33.85	99.07
70.00	13 11 57	3417.87	-34.15	122.94	275.36	89.89	14 8 55	2417.9	-30.63	94.78
80.00	13 52 6	3292.02	-29.67	113.24	275.19	86.48	14 46 58	2292.0	-28.11	85.82
90.00	15 0 20	3071.71	-27.90	96.90	275.04	85.17	15 51 32	2071.7	-27.10	69.83
100.00	16 34 57	2766.49	-29.67	74.61	275.19	86.48	17 21 4	1766.5	-28.11	47.29
110.00	18 11 23	2464.69	-34.15	51.86	275.36	89.89	18 52 28	1464.7	-30.63	23.70

DIFFERENTIAL CORRECTIONS

TDE	-.4368	TRA	-1.1296	TC3	.8991	BAU	.2615
RDE	-.2895	RRA	.2988	RC3	-.5410	FAU	.13110
FDE	1.2779	FRA	2.1693	FC3	-6.0887	BSP	3188
BDE	.5241	BRA	1.1685	BC3	1.0493	FSP	829

MID-COURSE EXECUTION ACCURACY

SGT	1868.8	SGR	737.9	SG3	546.0
RRT	-.5913	RRF	.6651	RTF	-.8441
SGB	2009.2	R23	-.1399	R13	.8575
SG1	1924.3	SG2	577.9	THA	165.52

ORBIT DETERMINATION ACCURACY

ST	37.6	SR	20.2	SS	40.0
CRT	.5304	CRS	.6795	CST	.9801
LSA	56.1	MSA	16.4	SSA	1.8
EL1	39.5	EL2	16.4	ALF	19.38

LAUNCH DATE JUL 22 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 397.922 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.477	GAL	-1.86	AZL	89.31	HCA	127.61	SMA	212.12	ECC	.28517	INC	.6946	V1	29.312
RP	226.37	LAP	.55	LOP	66.66	VP	23.386	GAP	16.13	AZP	90.42	TAL	351.59	TAP	119.20	RCA	151.63	APO	272.61	V2	24.297
RC	119.633	GL	5.45	GP	-10.62	ZAL	102.80	ZAP	155.36	ETS	206.01	ZAE	161.87	ETE	320.15	ZAC	72.55	ETC	282.90	LVI	-6.23

PLANETOCENTRIC CONIC

C3	18.238	VHL	4.271	DLA	20.59	RAL	37.68	RAD	6642.0	VEL	11.759	PTH	6.79	VHP	4.658	DPA	5.92	RAP	45.37	ECC	1.3002

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 44	3530.16	-46.66	130.91	273.20	100.57	13 28 35	2530.2	-37.30	100.68
60.00	12 44 32	3490.76	-40.09	128.56	274.40	94.51	13 42 43	2490.8	-33.93	99.30
70.00	13 7 31	3423.06	-34.15	123.35	274.67	89.65	14 4 34	2423.1	-30.72	95.16
80.00	13 46 53	3299.67	-29.64	113.81	274.48	86.19	14 41 52	2299.7	-28.20	86.47
90.00	14 54 42	3080.74	-27.84	97.56	274.32	84.85	15 46 2	2080.7	-27.19	70.57
100.00	16 29 44	2774.14	-29.64	75.17	274.48	86.19	17 15 59	1774.1	-28.20	47.84
110.00	18 6 58	2469.68	-34.15	52.27	274.67	89.65	18 48 8	1469.9	-30.72	24.07

DIFFERENTIAL CORRECTIONS

TDE	-.4440	TRA	-1.1186	TC3	.9226	BAU	.2666
RDE	-.2726	RRA	.3047	RC3	-.5866	FAU	.13708
FDE	1.3624	FRA	2.2331	FC3	-6.5068	BSP	3276
BDE	.5210	BRA	1.1594	BC3	1.0933	FSP	881

MID-COURSE EXECUTION ACCURACY

SGT	1883.1	SGR	758.6	SG3	576.2
RRT	-.6140	RRF	.6946	RTF	-.8440
SGB	2030.2	R23	-.1342	R13	.8594
SG1	1945.7	SG2	579.5	THA	164.72

ORBIT DETERMINATION ACCURACY

ST	38.3	SR	19.4	SS	41.7
CRT	.5188	CRS	.6708	CST	.9798
LSA	57.6	MSA	16.1	SSA	1.8
EL1	39.9	EL2	16.0	ALF	17.67

LAUNCH DATE JUL 22 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 401.506 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.435	GAL	-1.81	AZL	89.25	HCA	128.67	SMA	211.18	ECC	.28189	INC	.7464	V1	29.312
RP	226.76	LAP	.58	LOP	67.72	VP	23.283	GAP	15.83	AZP	90.47	TAL	351.75	TAP	120.42	RCA	151.65	APO	270.71	V2	24.255
RC	122.240	GL	5.91	GP	-11.03	ZAL	102.50	ZAP	154.30	ETS	205.77	ZAE	162.01	ETE	317.84	ZAC	72.14	ETC	282.92	LVI	-5.82

PLANETOCENTRIC CONIC

C3	17.865	VHL	4.227	DLA	20.94	RAL	37.23	RAD	6641.9	VEL	11.743	PTH	6.77	VHP	4.539	DPA	5.55	RAP	45.55	ECC	1.2940

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 25	3532.65	-46.70	131.14	272.61	100.40	13 25 17	2532.7	-37.39	100.85
60.00	12 40 40	3494.69	-40.11	128.89	273.78	94.29	13 38 54	2494.7	-34.04	99.58
70.00	13 2 56	3429.12	-34.15	123.82	274.02	89.37	14 0 5	2429.1	-30.84	95.59
80.00	13 41 26	3308.41	-29.59	114.45	273.80	85.85	14 36 34	2308.4	-28.31	87.10
90.00	14 48 46	3090.99	-27.78	98.30	273.62	84.48	15 40 17	2091.0	-27.28	71.31
100.00	16 24 18	2782.88	-29.59	75.82	273.80	85.85	17 10 40	1782.9	-28.31	48.47
110.00	18 2 22	2475.94	-34.15	52.74	274.02	89.37	18 43 38	1475.9	-30.84	24.51

DIFFERENTIAL CORRECTIONS

TDE	-.4498	TRA	-1.1061	TC3	.9460	BAU	.2721
RDE	-.2550	RRA	.3111	RC3	-.6351	FAU	.14323
FDE	1.4537	FRA	2.2998	FC3	-6.9409	BSP	3339
BDE	.5171	BRA	1.1490	BC3	1.1394	FSP	935

MID-COURSE EXECUTION ACCURACY

SGT	1894.4	SGR	782.1	SG3	607.6
RRT	-.6368	RRF	.7230	RTF	-.8447
SGB	2049.4	R23	-.1669	R13	.8621
SG1	1965.3	SG2	581.2	THA	163.82

ORBIT DETERMINATION ACCURACY

ST	38.9	SR	18.6	SS	43.5
CRT	.5024	CRS	.6586	CST	.9793
LSA	59.1	MSA	15.7	SSA	1.8
EL1	40.2	EL2	15.5	ALF	15.96

LAUNCH DATE JUL 22 1973 FLIGHT TIME 162.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 405.108 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.395	GAL	-1.76	AZL	89.20	HCA	129.72	SMA	210.89	ECC	.27879	INC	.7998	VI	29.312
RP	227.15	LAP	.62	LOP	68.77	VP	23.182	GAP	15.54	AZP	90.51	TAL	351.90	TAP	121.62	RCA	151.66	APO	268.92	V2	24.214
RC	124.678	GL	6.39	GP	-11.46	ZAL	102.21	ZAP	153.22	ETS	205.55	ZAE	162.14	ETE	315.34	ZAC	71.72	ETC	282.95	LVI	-9.40

PLANETOCENTRIC CONIC

C3	17.519	VHL	4.186	DLA	21.30	RAL	36.78	RAD	6641.7	VEL	11.728	PTH	6.76	VHP	4.425	DPA	5.15	RAP	45.72	ECC	1.2883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 23 0	3535.80	-46.73	131.43	272.07	100.17	13 21 56	2535.8	-37.50	101.06
60.00	12 36 40	3499.38	-40.13	129.29	273.20	94.02	13 35 0	2499.4	-34.16	99.91
70.00	12 50 10	3436.09	-34.14	124.37	273.40	89.05	13 55 26	2436.1	-30.96	96.10
80.00	13 35 44	3318.29	-29.54	115.18	273.14	85.47	14 31 2	2318.3	-28.42	87.81
90.00	14 42 33	3102.56	-27.70	99.14	272.95	84.07	15 34 16	2102.6	-27.39	72.14
100.00	16 18 36	2792.76	-29.54	76.55	273.14	85.47	17 5 8	1792.8	-28.42	49.18
110.00	17 57 36	2482.91	-34.14	53.28	273.40	89.05	18 38 59	1482.9	-30.96	25.01

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4545	TRA	-1.0916	TC3	.9691	BAU	.2782	SGT	1902.0	SGR	808.5	SG3	640.2	ST	39.3	SR	17.7	SS	45.4
RDE	-.2368	RRA	.3178	RC3	-.6870	FAU	.14964	RRT	-.6591	RRF	.7501	RTF	-.8455	CRT	.4812	CRS	.6426	CST	.9786
FDE	1.5509	FRA	2.3650	FC3	-7.3951	BSP	3395	SGB	2066.7	R23	-.1787	R13	.8653	LSA	60.6	MSA	15.4	SSA	1.9
BDE	.5125	BRA	1.1369	BC3	1.1879	FSP	993	SG1	1982.7	SG2	583.3	THA	162.81	EL1	40.4	EL2	15.1	ALF	14.22

LAUNCH DATE JUL 22 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 408.726 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.357	GAL	-1.72	AZL	89.15	HCA	130.77	SMA	209.46	ECC	.27585	INC	.8540	VI	29.312
RP	227.54	LAP	.65	LOP	69.82	VP	23.085	GAP	15.25	AZP	90.56	TAL	352.05	TAP	122.82	RCA	151.68	APO	267.24	V2	24.172
RC	127.544	GL	6.88	GP	-11.90	ZAL	101.92	ZAP	152.11	ETS	205.36	ZAE	162.27	ETE	312.64	ZAC	71.27	ETC	282.98	LVI	-4.97

PLANETOCENTRIC CONIC

C3	17.199	VHL	4.147	DLA	21.68	RAL	36.33	RAD	6641.6	VEL	11.715	PTH	6.75	VHP	4.315	DPA	4.73	RAP	45.88	ECC	1.2830

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 19 30	3539.62	-46.78	131.79	271.56	99.90	13 18 29	2539.6	-37.64	101.33
60.00	12 32 33	3504.83	-40.16	129.75	272.65	93.71	13 30 58	2504.8	-34.31	100.30
70.00	12 53 12	3444.00	-34.13	124.98	272.81	88.69	13 50 36	2444.0	-31.10	96.67
80.00	13 29 45	3329.40	-29.48	116.00	272.51	85.04	14 25 15	2329.4	-28.54	88.62
90.00	14 36 0	3115.55	-27.61	100.08	272.29	83.61	15 27 55	2115.5	-27.50	73.07
100.00	16 12 37	2803.87	-29.48	77.37	272.51	85.04	16 59 21	1803.9	-28.54	49.98
110.00	17 52 39	2490.82	-34.13	53.90	272.81	88.69	18 34 10	1490.8	-31.10	25.59

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4586	TRA	-1.0757	TC3	.9909	BAU	.2847	SGT	1906.5	SGR	838.4	SG3	674.2	ST	39.8	SR	16.7	SS	47.3
RDE	-.2178	RRA	.3247	RC3	-.7425	FAU	.15636	RRT	-.6804	RRF	.7759	RTF	-.8464	CRT	.4539	CRS	.6214	CST	.9760
FDE	1.6550	FRA	2.4299	FC3	-7.8710	BSP	3438	SGB	2082.7	R23	-.1900	R13	.8687	LSA	62.2	MSA	15.0	SSA	1.9
BDE	.5077	BRA	1.1236	BC3	1.2382	FSP	1052	SG1	1998.5	SG2	586.1	THA	161.71	EL1	40.6	EL2	14.6	ALF	12.45

LAUNCH DATE JUL 22 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 412.360 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.322	GAL	-1.67	AZL	89.09	HCA	131.81	SMA	208.68	ECC	.27308	INC	.9101	VI	29.312
RP	227.93	LAP	.68	LOP	70.86	VP	22.990	GAP	14.96	AZP	90.61	TAL	352.20	TAP	124.01	RCA	151.69	APO	265.66	V2	24.131
RC	130.237	GL	7.39	GP	-12.37	ZAL	101.64	ZAP	150.97	ETS	205.18	ZAE	162.36	ETE	309.74	ZAC	70.81	ETC	283.01	LVI	-4.52

PLANETOCENTRIC CONIC

C3	16.903	VHL	4.111	DLA	22.07	RAL	35.88	RAD	6641.4	VEL	11.702	PTH	6.74	VHP	4.210	DPA	4.28	RAP	46.01	ECC	1.2782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 15 54	3544.12	-46.83	132.21	271.10	99.58	13 14 58	2544.1	-37.80	101.64
60.00	12 28 16	3511.08	-40.19	130.28	272.14	93.35	13 26 49	2511.1	-34.47	100.75
70.00	12 48 3	3452.90	-34.12	125.68	272.25	88.28	13 45 36	2452.9	-31.25	97.32
80.00	13 23 29	3341.80	-29.40	116.92	271.90	84.57	14 19 11	2341.8	-28.67	89.51
90.00	14 29 4	3130.06	-27.49	101.12	271.66	83.09	15 21 14	2130.1	-27.61	74.12
100.00	16 6 21	2816.28	-29.40	78.28	271.90	84.57	16 53 17	1816.3	-28.67	50.88
110.00	17 47 30	2499.72	-34.12	54.60	272.25	88.28	18 29 9	1499.7	-31.25	26.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4615	TRA	-1.0592	TC3	1.0095	BAU	.2913	SGT	1907.9	SGR	871.9	SG3	709.5	ST	40.1	SR	15.7	SS	49.3
RDE	-.1981	RRA	.3323	RC3	-.8015	FAU	.16329	RRT	-.7006	RRF	.8002	RTF	-.8470	CRT	.4178	CRS	.5926	CST	.9772
FDE	1.7649	FRA	2.4965	FC3	-8.3636	BSP	3474	SGB	2097.7	R23	-.2009	R13	.8724	LSA	63.8	MSA	14.7	SSA	1.9
BDE	.5022	BRA	1.1101	BC3	1.2890	FSP	1114	SG1	2013.1	SG2	589.7	THA	160.51	EL1	40.7	EL2	14.1	ALF	10.60

LAUNCH DATE JUL 22 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 416.008 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.288	GAL	-1.63	AZL	89.03	HCA	132.85	SMA	207.94	ECC	.27045	INC	.9078	VI	29.312
RP	228.32	LAP	.71	LOP	71.90	VP	22.898	GAP	14.67	AZP	90.66	TAL	352.34	TAP	125.19	RCA	151.70	APO	264.18	V2	24.090
RC	132.954	GL	7.92	GP	-12.87	ZAL	101.37	ZAP	149.81	ETS	205.01	ZAE	162.43	ETE	306.64	ZAC	70.34	ETC	283.06	LVI	-4.06

PLANETOCENTRIC CONIC

C3	16.631	VHL	4.078	DLA	22.49	RAL	35.44	RAD	6641.3	VEL	11.691	PTH	6.72	VHP	4.108	DPA	3.81	RAP	46.13	ECC	1.2737

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 12 12	3549.33	-46.89	132.70	270.69	99.21	13 11 22	2549.3	-37.98	102.00
60.00	12 23 55	3518.15	-40.21	130.88	271.67	92.94	13 22 33	2518.1	-34.65	101.26
70.00	12 42 41	3462.84	-34.09	126.45	271.72	87.82	13 40 24	2462.8	-31.42	98.04
80.00	13 16 53	3355.61	-29.31	117.93	271.32	84.04	14 12 48	2355.6	-28.81	90.52
90.00	14 21 43	3146.25	-27.35	102.29	271.05	82.53	15 14 9	2146.2	-27.73	75.29
100.00	15 59 44	2830.08	-29.31	79.30	271.32	84.04	16 46 54	1830.1	-28.81	51.89
110.00	17 42 7	2509.66	-34.09	55.37	271.72	87.82	18 23 57	1509.7	-31.42	26.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4644	TRA	-1.0416	TC3	1.0251	BAU	.2982	SGT	1906.2	SGR	909.2	SG3	746.1	ST	40.4	SR	14.7	SS	51.5
RDE	-.1773	RRA	.3400	RC3	-.8645	FAU	.17050	RRT	-.7190	RRF	.8227	RTF	-.8473	CRT	.3716	CRS	.5545	CST	.9764
FDE	1.8831	FRA	2.5613	FC3	-8.8757	BSP	3503	SGB	2111.9	R23	-.2115	R13	.8761	LSA	65.5	MSA	14.4	SSA	1.9
BDE	.4971	BRA	1.0957	BC3	1.3410	FSP	1177	SG1	2026.6	SG2	594.4	THA	159.20	EL1	40.8	EL2	13.5	ALF	8.67

LAUNCH DATE JUL 22 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 419.669 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.256	GAL	-1.59	AZL	88.97	HCA	133.89	SMA	207.25	ECC	.26796	INC	1.0273	V1	29.312
RP	228.70	LAP	.74	LOP	72.94	VP	22.808	GAP	14.39	AZP	90.71	TAL	352.47	TAP	126.36	RCA	151.72	APO	262.79	V2	24.049
RC	135.694	GL	8.47	GP	-13.38	ZAL	101.11	ZAP	148.62	ETS	204.88	ZAE	162.44	ETE	303.36	ZAC	69.85	ETC	283.10	LVI	-3.59

PLANETOCENTRIC CONIC

C3	16.381	VHL	4.047	DLA	22.93	RAL	34.99	RAD	6641.2	VEL	11.680	PTH	6.72	VHP	4.010	DPA	3.30	RAP	46.24	ECC	1.2696

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 8 24	3555.25	-46.95	133.26	270.32	98.78	13 7 40	2555.2	-38.19	102.41
60.00	12 19 22	3526.07	-40.24	131.55	271.23	92.49	13 18 8	2526.1	-34.85	101.84
70.00	12 37 5	3473.87	-34.06	127.31	271.22	87.31	13 34 59	2473.9	-31.60	98.85
80.00	13 9 54	3370.94	-29.20	119.06	270.76	83.46	14 6 5	2370.9	-28.96	91.63
90.00	14 13 54	3164.29	-27.19	103.58	270.46	81.90	15 6 38	2164.3	-27.84	76.59
100.00	15 52 46	2845.41	-29.20	80.42	270.76	83.46	16 40 11	1845.4	-28.96	53.00
110.00	17 36 31	2520.68	-34.06	56.23	271.22	87.31	18 18 32	1520.7	-31.60	27.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4674	TRA	-1.0245	TC3	1.0360	BAU	.3051	SGT	1902.9	SGR	950.6	SG3	784.0	ST	40.7	SR	13.7	SS	53.7
RDE	-.1553	RRA	.3486	RC3	-.9312	FAU	.17788	RRT	-.7355	RRF	.8435	RTF	-.8472	CRT	.3102	CRS	.5022	CST	.9756
FDE	2.0108	FRA	2.6293	FC3	-9.4010	BSP	3531	SGB	2127.1	R23	-.2219	R13	.8799	LSA	67.3	MSA	14.1	SSA	1.9
BDE	.4925	BRA	1.0822	BC3	1.3930	FSP	1243	SG1	2040.6	SG2	600.6	THA	157.80	EL1	40.9	EL2	12.9	ALF	6.61

LAUNCH DATE JUL 22 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 423.342 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.226	GAL	-1.55	AZL	88.91	HCA	134.92	SMA	206.61	ECC	.26562	INC	1.0887	V1	29.312
RP	229.09	LAP	.77	LOP	73.98	VP	22.721	GAP	14.11	AZP	90.77	TAL	352.60	TAP	127.52	RCA	151.73	APO	261.48	V2	24.008
RC	138.457	GL	9.04	GP	-13.92	ZAL	100.86	ZAP	147.41	ETS	204.71	ZAE	162.41	ETE	299.91	ZAC	69.33	ETC	283.16	LVI	-3.10

PLANETOCENTRIC CONIC

C3	16.153	VHL	4.019	DLA	23.38	RAL	34.55	RAD	6641.1	VEL	11.670	PTH	6.71	VHP	3.916	DPA	2.76	RAP	46.33	ECC	1.2658

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 30	3561.91	-47.02	133.90	270.00	98.30	13 3 52	2561.9	-38.42	102.88
60.00	12 14 39	3534.87	-40.26	132.30	270.83	91.98	13 13 34	2534.9	-35.07	102.48
70.00	12 31 13	3486.05	-34.02	128.26	270.75	86.75	13 29 19	2486.0	-31.80	99.75
80.00	13 2 30	3387.93	-29.06	120.30	270.22	82.82	13 58 58	2387.9	-29.10	92.87
90.00	14 5 32	3184.42	-26.99	105.02	269.89	81.21	14 58 36	2184.4	-27.96	78.06
100.00	15 45 22	2862.40	-29.06	81.67	270.22	82.82	16 33 4	1862.4	-29.10	54.24
110.00	17 30 40	2532.87	-34.02	57.18	270.75	86.75	18 12 53	1532.9	-31.80	28.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4690	TRA	-1.0059	TC3	1.0439	BAU	.3126	SGT	1895.3	SGR	996.5	SG3	823.3	ST	40.8	SR	12.6	SS	56.0
RDE	-.1323	RRA	.3573	RC3	-1.0026	FAU	.18562	RRT	-.7504	RRF	.8625	RTF	-.8467	CRT	.2299	CRS	.4319	CST	.9747
FDE	2.1441	FRA	2.6940	FC3	-9.9484	BSP	3560	SGB	2141.3	R23	-.2315	R13	.8840	LSA	69.1	MSA	13.8	SSA	1.9
BDE	.4873	BRA	1.0675	BC3	1.4474	FSP	1311	SG1	2053.1	SG2	608.1	THA	156.26	EL1	41.0	EL2	12.3	ALF	4.47

LAUNCH DATE JUL 22 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 427.027 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.197	GAL	-1.51	AZL	88.85	HCA	135.95	SMA	206.00	ECC	.26339	INC	1.1521	V1	29.312
RP	229.48	LAP	.80	LOP	75.01	VP	22.637	GAP	13.83	AZP	90.83	TAL	352.72	TAP	128.68	RCA	151.74	APO	260.25	V2	23.967
RC	141.241	GL	9.62	GP	-14.49	ZAL	100.62	ZAP	146.16	ETS	204.57	ZAE	162.31	ETE	296.29	ZAC	68.80	ETC	283.22	LVI	-2.59

PLANETOCENTRIC CONIC

C3	15.944	VHL	3.993	DLA	23.86	RAL	34.10	RAD	6641.0	VEL	11.661	PTH	6.70	VHP	3.826	DPA	2.19	RAP	46.40	ECC	1.2624

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 0 28	3569.31	-47.09	134.59	269.71	97.76	12 59 57	2569.3	-38.68	103.41
60.00	12 9 45	3544.55	-40.28	133.12	270.47	91.42	13 8 50	2544.6	-35.31	103.20
70.00	12 25 4	3499.41	-33.96	129.30	270.30	86.14	13 23 24	2499.4	-32.00	100.74
80.00	12 54 38	3406.70	-28.89	121.67	269.69	82.12	13 51 24	2406.7	-29.25	94.25
90.00	13 56 31	3206.86	-26.74	106.62	269.32	80.44	14 49 58	2206.9	-28.07	79.69
100.00	15 37 30	2881.17	-28.89	83.04	269.69	82.12	16 25 31	1881.2	-29.25	55.62
110.00	17 24 31	2546.23	-33.96	58.22	270.30	86.14	18 6 57	1546.2	-32.00	29.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4557	TRA	-.9713	TC3	1.0831	BAU	.3261	SGT	1870.4	SGR	1047.5	SG3	863.6	ST	39.9	SR	11.7	SS	58.2
RDE	-.1091	RRA	.3650	RC3	-1.0806	FAU	.19395	RRT	-.7743	RRF	.8798	RTF	-.8541	CRT	.1237	CRS	.3431	CST	.9722
FDE	2.2745	FRA	2.7434	FC3	-10.5313	BSP	3397	SGB	2143.7	R23	-.2220	R13	.8941	LSA	70.2	MSA	13.5	SSA	1.9
BDE	.4685	BRA	1.0377	BC3	1.5300	FSP	1365	SG1	2057.3	SG2	602.7	THA	154.18	EL1	39.9	EL2	11.6	ALF	2.27

LAUNCH DATE JUL 22 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 430.721 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.171	GAL	-1.48	AZL	88.78	HCA	136.98	SMA	205.43	ECC	.26131	INC	1.2177	V1	29.312
RP	229.86	LAP	.83	LOP	76.03	VP	22.554	GAP	13.55	AZP	90.89	TAL	352.84	TAP	129.82	RCA	151.75	APO	259.11	V2	23.927
RC	144.046	GL	10.23	GP	-15.08	ZAL	100.39	ZAP	144.89	ETS	204.44	ZAE	162.13	ETE	292.58	ZAC	68.25	ETC	283.29	LVI	-2.07

PLANETOCENTRIC CONIC

C3	15.757	VHL	3.970	DLA	24.36	RAL	33.66	RAD	6640.9	VEL	11.653	PTH	6.69	VHP	3.740	DPA	1.58	RAP	46.45	ECC	1.2593

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 56 19	3577.55	-47.16	135.38	269.49	97.16	12 55 56	2577.6	-38.96	104.00
60.00	12 4 41	3555.26	-40.29	134.03	270.15	90.80	13 3 56	2555.3	-35.56	103.99
70.00	12 18 37	3514.17	-33.89	130.45	269.89	85.46	13 17 11	2514.2	-32.21	101.84
80.00	12 46 13	3427.61	-28.69	123.19	269.19	81.34	13 43 20	2427.6	-29.40	95.79
90.00	13 46 44	3232.16	-26.44	108.41	268.76	79.59	14 40 36	2232.2	-28.16	81.53
100.00	15 29 4	2902.09	-28.69	84.56	269.19	81.34	16 17 27	1902.1	-29.40	57.15
110.00	17 18 4	2560.99	-33.89	59.36	269.89	85.46	18 0 45	1561.0	-32.21	30.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4685	TRA	-.9636	TC3	1.0530	BAU	.3298	SGT	1867.4	SGR	1101.9	SG3	904.8	ST	40.9	SR	10.8	SS	61.0
RDE	-.0819	RRA	.3758	RC3	-1.1583	FAU	.20165	RRT	-.7766	RRF	.8952	RTF	-.8462	CRT	-.0144	CRS	.2081	CST	.9726
FDE	2.4380	FRA	2.8175	FC3	-11.0792	BSP	3567	SGB	2168.3	R23	-.2437	R13	.8941	LSA	73.0	MSA	13.2	SSA	1.9
BDE	.4756	BRA	1.0343	BC3	1.5654	FSP	1450	SG1	2076.5	SG2	624.4	THA	152.71	EL1	40.9	EL2	10.8	ALF	179.77

LAUNCH DATE JUL 22 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 434.424 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.148	GAL	-1.45	AZL	88.71	HCA	138.00	SMA	204.89	ECC	.25933	INC	1.2856	V1	29.312
RP	230.25	LAP	.86	LOP	77.06	VP	22.474	GAP	13.28	AZP	90.96	TAL	352.95	TAP	130.95	RCA	151.76	APO	258.03	V2	23.887
RC	146.870	GL	10.85	GP	-15.70	ZAL	100.17	ZAP	143.59	ETS	204.31	ZAE	161.87	ETE	288.78	ZAC	67.67	ETC	283.36	LVI	-1.52

PLANETOCENTRIC CONIC

C3	15.569	VHL	3.948	DLA	24.88	RAL	33.22	RAD	6640.8	VEL	11.646	PTH	6.68	VHP	3.658	DPA	.94	RAP	46.49	ECC	1.2566

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 52 1	3586.60	-47.24	136.24	269.32	96.50	12 51 48	2586.6	-39.26	104.65
60.00	11 59 23	3566.96	-40.30	135.03	269.87	90.13	12 58 50	2567.0	-35.84	104.86
70.00	12 11 49	3530.32	-33.79	131.70	269.51	84.73	13 10 39	2530.3	-32.44	103.04
80.00	12 37 9	3450.84	-28.44	124.87	268.69	80.49	13 34 40	2450.8	-29.54	97.50
90.00	13 36 0	3260.74	-26.08	110.42	268.21	78.65	14 30 21	2260.7	-28.24	83.62
100.00	15 20 1	2925.32	-28.44	86.24	268.69	80.49	16 8 46	1925.3	-29.54	58.87
110.00	17 11 15	2577.14	-33.79	60.62	269.51	84.73	17 54 13	1577.1	-32.44	31.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4725	TRA	-.9469	TC3	1.0342	BAU	.3367	SGT	1852.4	SGR	1161.2	SG3	946.6	ST	41.1	SR	10.2	SS	63.7
RDE	-.0538	RRA	.3862	RC3	-1.2412	FAU	.20963	RRT	-.7823	RRF	.9089	RTF	-.8416	CRT	-.1878	CRS	.0374	CST	.9720
FDE	2.6038	FRA	2.8808	FC	-11.6419	BSP	3636	SGB	2186.2	R23	-.2547	R13	.8973	LSA	75.4	MSA	12.9	SSA	1.9
BDE	.4755	BRA	1.0226	BC3	1.6156	FSP	1529	SG1	2090.1	SG2	641.1	THA	150.88	EL1	41.2	EL2	10.0	ALF	177.18

LAUNCH DATE JUL 22 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 438.136 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.121	GAL	-1.42	AZL	88.64	HCA	139.02	SMA	204.39	ECC	.25747	INC	1.3561	V1	29.312
RP	230.63	LAP	.89	LOP	78.08	VP	22.396	GAP	13.00	AZP	91.02	TAL	353.05	TAP	132.07	RCA	151.76	APO	257.01	V2	23.847
RC	149.713	GL	11.50	GP	-16.35	ZAL	99.96	ZAP	142.25	ETS	204.18	ZAE	161.52	ETE	284.93	ZAC	67.08	ETC	283.44	LVI	-.96

PLANETOCENTRIC CONIC

C3	15.439	VHL	3.929	DLA	25.43	RAL	32.79	RAD	6640.7	VEL	11.640	PTH	6.68	VHP	3.580	DPA	.26	RAP	46.51	ECC	1.2541

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 47 34	3596.49	-47.31	137.18	269.19	95.78	12 47 30	2596.5	-39.59	105.37
60.00	11 53 51	3579.73	-40.30	136.11	269.62	89.39	12 53 31	2579.7	-36.13	105.82
70.00	12 4 37	3548.00	-33.67	133.06	269.14	83.93	13 3 45	2548.0	-32.66	104.37
80.00	12 27 19	3476.78	-28.13	126.74	268.20	79.56	13 25 15	2476.8	-29.66	99.42
90.00	13 24 5	3293.41	-25.62	112.70	267.63	77.60	14 18 58	2293.4	-28.28	86.01
100.00	15 10 10	2951.26	-28.13	88.11	268.20	79.56	15 59 22	1951.3	-29.66	60.78
110.00	17 4 3	2594.82	-33.67	61.98	269.14	83.93	17 47 18	1594.8	-32.66	33.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4733	TRA	-.9275	TC3	1.0186	BAU	.3457	SGT	1833.0	SGR	1226.4	SG3	989.7	ST	41.2	SR	9.9	SS	66.6
RDE	-.0238	RRA	.3971	RC3	-1.3296	FAU	.21792	RRT	-.7886	RRF	.9211	RTF	-.8383	CRT	-.1676	CRS	-.1674	CST	.9710
FDE	2.7787	FRA	2.9436	FC	-12.2195	BSP	3673	SGB	2205.4	R23	-.2601	R13	.9022	LSA	77.9	MSA	12.6	SSA	1.9
BDE	.4739	BRA	1.0089	BC3	1.6749	FSP	1606	SG1	2105.4	SG2	656.6	THA	148.81	EL1	41.4	EL2	9.1	ALF	174.41

LAUNCH DATE JUL 22 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 441.856 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.098	GAL	-1.39	AZL	88.57	HCA	140.04	SMA	203.92	ECC	.25571	INC	1.4292	V1	29.312
RP	231.01	LAP	.92	LOP	79.10	VP	22.320	GAP	12.73	AZP	91.10	TAL	353.15	TAP	133.19	RCA	151.77	APO	256.06	V2	23.807
RC	152.572	GL	12.18	GP	-17.02	ZAL	99.76	ZAP	140.89	ETS	204.05	ZAE	161.07	ETE	281.09	ZAC	66.46	ETC	283.53	LVI	-.37

PLANETOCENTRIC CONIC

C3	15.308	VHL	3.913	DLA	26.00	RAL	32.35	RAD	6640.7	VEL	11.634	PTH	6.67	VHP	3.505	DPA	-.45	RAP	46.52	ECC	1.2519

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 42 57	3607.27	-47.38	138.22	269.11	94.99	12 43 4	2607.3	-39.94	106.16
60.00	11 48 4	3593.62	-40.28	137.30	269.41	88.59	12 47 58	2593.6	-36.43	106.67
70.00	11 56 58	3567.38	-33.53	134.56	268.80	83.06	12 56 26	2567.4	-32.90	105.83
80.00	12 16 32	3505.96	-27.75	128.82	267.71	78.52	13 14 58	2506.0	-29.77	101.58
90.00	13 10 34	3331.43	-25.04	115.33	267.04	76.40	14 6 5	2331.4	-28.27	88.79
100.00	14 59 24	2980.43	-27.75	90.19	267.71	78.52	15 49 4	1980.4	-29.77	62.95
110.00	16 56 25	2614.19	-33.53	63.47	268.80	83.06	17 39 59	1614.2	-32.90	34.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4726	TRA	-.9058	TC3	.9980	BAU	.3557	SGT	1807.6	SGR	1296.7	SG3	1033.2	ST	41.1	SR	10.1	SS	69.9
RDE	.0083	RRA	.4079	RC3	-1.4228	FAU	.22632	RRT	-.7931	RRF	.9319	RTF	-.8343	CRT	-.5853	CRS	-.3815	CST	.9699
FDE	2.9632	FRA	2.9974	FC	-12.7997	BSP	3700	SGB	2224.6	R23	-.2628	R13	.9076	LSA	80.4	MSA	12.4	SSA	1.9
BDE	.4727	BRA	.9934	BC3	1.7379	FSP	1683	SG1	2120.2	SG2	673.4	THA	146.55	EL1	41.5	EL2	8.1	ALF	171.46

LAUNCH DATE JUL 22 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 445.583 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	33.077	GAL	-1.37	AZL	88.49	HCA	141.05	SMA	203.47	ECC	.25405	INC	1.5053	V1	29.312
RP	231.39	LAP	.95	LOP	80.11	VP	22.246	GAP	12.47	AZP	91.17	TAL	353.24	TAP	134.29	RCA	151.78	APO	255.16	V2	23.767
RC	155.447	GL	12.88	GP	-17.73	ZAL	99.57	ZAP	139.50	ETS	203.92	ZAE	160.52	ETE	277.29	ZAC	65.81	ETC	283.63	LVI	.24

PLANETOCENTRIC CONIC

C3	15.195	VHL	3.898	DLA	26.60	RAL	31.91	RAD	6640.6	VEL	11.629	PTH	6.67	VHP	3.434	DPA	-1.20	RAP	46.51	ECC	1.2501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 38 9	3618.98	-47.44	139.34	269.08	94.12	12 38 28	2619.0	-40.32	107.03
60.00	11 42 0	3608.71	-40.25	138.58	269.24	87.72	12 42 9	2608.7	-36.76	108.02
70.00	11 48 49	3588.62	-33.34	136.19	268.47	82.11	12 48 37	2588.6	-33.13	107.45
80.00	12 4 35	3539.12	-27.28	131.17	267.20	77.37	13 3 34	2539.1	-29.84	104.04
90.00	12 54 45	3377.01	-24.27	118.45	266.38	75.02	13 51 2	2377.0	-28.17	92.12
100.00	14 47 26	3013.59	-27.28	92.54	267.20	77.37	15 37 40	2013.6	-29.84	65.41
110.00	16 48 15	2635.44	-33.34	65.10	268.47	82.11	17 32 11	1635.4	-33.13	36.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4691	TRA	-.8828	TC3	.9729	BAU	.3667	SGT	1776.7	SGR	1372.5	SG3	1076.8	ST	40.8	SR	10.9	SS	72.4
RDE	.0421	RRA	.4191	RC3	-1.5206	FAU	.23478	RRT	-.7962	RRF	.9413	RTF	-.8298	CRT	-.7481	CRS	-.5700	CST	.9684
FDE	3.1522	FRA	3.0472	FC	-13.3769	BSP	3726	SGB	2245.1	R23	-.2623	R13	.9137	LSA	82.9	MSA	12.2	SSA	1.9
BDE	.4710	BRA	.9772	BC3	1.8052	FSP	1762	SG1	2136.2	SG2	690.7	THA	144.08	EL1	41.6	EL2	7.1	ALF	168.32

LAUNCH DATE JUL 22 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 449.317 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 33.057 GAL -1.35 AZL 88.42 HCA 142.06 SMA 203.08 ECC .25248 INC 1.5845 V1 29.312
RP 231.77 LAP .97 LOP 81.12 VP 22.174 GAP 12.20 AZP 91.25 TAL 353.32 TAP 135.38 RCA 151.79 APO 254.33 V2 23.728
RC 158.336 GL 13.60 GP -18.47 ZAL 99.39 ZAP 138.07 ETS 203.78 ZAE 159.86 ETE 273.56 ZAC 69.14 ETC 283.74 LVI .87

PLANETOCENTRIC CONIC

C3 15.100 VHL 3.886 DLA 27.23 RAL 31.46 RAD 6640.6 VEL 11.625 PTH 6.67 VHP 3.368 DPA -1.99 RAP 46.49 ECC 1.2485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 33 8	3631.65	-47.50	140.56	269.10	93.18	12 33 40	2631.7	-40.71	107.99
60.00	11 35 36	3625.08	-40.19	139.97	269.09	86.78	12 36 1	2625.1	-37.09	109.29
70.00	11 40 3	3611.95	-33.11	137.97	268.15	81.08	12 40 15	2612.0	-33.36	109.23
80.00	11 51 3	3577.42	-26.68	133.86	266.66	78.08	12 50 40	2577.4	-29.86	106.89
90.00	12 35 11	3434.78	-23.20	122.34	265.61	73.36	13 32 26	2434.8	-27.92	96.32
100.00	14 33 55	3051.89	-26.68	95.23	266.66	76.08	15 24 47	2051.9	-29.86	68.25
110.00	16 39 30	2658.77	-33.11	66.89	268.15	81.08	17 23 48	1658.8	-33.36	38.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4581 TRA -.8529 TC3 .9615 BAU .3816 SGT 1736.4 SGR 1455.9 SG3 1121.7 ST 39.9 SR 12.3 SS 75.2
RDE .0775 RRA .4294 RC3-1.6273 FAU .24392 RRT -.8028 RRF .9496 RTF -.8287 CRT -.8619 CRS -.7120 CST .9660
FDE 3.3428 FRA 3.0825 FC-13.9849 BSP 3672 SGB 2266.0 R23 -.2524 R13 .9222 LSA 85.2 MSA 12.1 SSA 1.8
BDE .4646 BRA .9549 BC3 1.8902 FSP 1825 SG1 2155.4 SG2 699.4 THA 141.22 EL1 41.3 EL2 6.0 ALF 164.84

LAUNCH DATE JUL 22 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 453.056 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 33.038 GAL -1.32 AZL 88.33 HCA 143.07 SMA 202.67 ECC .25103 INC 1.6671 V1 29.312
RP 232.14 LAP 1.00 LOP 82.13 VP 22.103 GAP 11.94 AZP 91.33 TAL 353.40 TAP 136.46 RCA 151.79 APO 253.54 V2 23.689
RC 161.238 GL 14.35 GP -19.25 ZAL 99.22 ZAP 136.62 ETS 203.63 ZAE 159.10 ETE 269.96 ZAC 64.45 ETC 283.86 LVI 1.53

PLANETOCENTRIC CONIC

C3 15.023 VHL 3.876 DLA 27.89 RAL 31.03 RAD 6640.5 VEL 11.622 PTH 6.66 VHP 3.305 DPA -2.82 RAP 46.45 ECC 1.2472

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 27 55	3645.40	-47.54	141.89	269.17	92.16	12 28 40	2645.4	-41.14	109.04
60.00	11 28 51	3642.89	-40.11	141.48	268.98	85.76	12 29 34	2642.9	-37.44	110.67
70.00	11 30 36	3637.74	-32.82	139.92	267.85	79.96	12 31 14	2637.7	-33.58	111.21
80.00	11 35 18	3622.97	-25.90	137.02	266.06	74.60	12 35 41	2623.0	-29.79	110.27
90.00	12 7 8	3519.99	-21.43	127.96	264.55	71.09	13 5 48	2520.0	-27.30	102.48
100.00	14 18 10	3097.45	-25.90	98.39	266.06	74.60	15 9 47	2097.4	-29.79	71.64
110.00	16 30 2	2684.56	-32.82	68.84	267.85	79.96	17 14 47	1684.6	-33.58	40.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4628 TRA -.8385 TC3 .8968 BAU .3914 SGT 1708.2 SGR 1542.2 SG3 1165.0 ST 40.2 SR 14.3 SS 78.8
RDE .1188 RRA .4428 RC3-1.7303 FAU .25172 RRT -.7938 RRF .9567 RTF -.8155 CRT -.9332 CRS -.8173 CST .9654
FDE 3.5709 FRA 3.1361 FC-14.5059 BSP 3820 SGB 2301.4 R23 -.2561 R13 .9264 LSA 88.8 MSA 11.9 SSA 1.8
BDE .4778 BRA .9482 BC3 1.9489 FSP 1920 SG1 2181.0 SG2 734.6 THA 138.68 EL1 42.4 EL2 4.9 ALF 161.37

LAUNCH DATE JUL 22 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 456.801 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 33.020 GAL -1.30 AZL 88.25 HCA 144.07 SMA 202.30 ECC .24965 INC 1.7532 V1 29.312
RP 232.51 LAP 1.03 LOP 83.13 VP 22.035 GAP 11.67 AZP 91.42 TAL 353.46 TAP 137.54 RCA 151.80 APO 252.81 V2 23.650
RC 164.150 GL 15.14 GP -20.06 ZAL 99.07 ZAP 135.13 ETS 203.48 ZAE 158.22 ETE 266.50 ZAC 63.72 ETC 283.99 LVI 2.21

PLANETOCENTRIC CONIC

C3 14.964 VHL 3.868 DLA 28.58 RAL 30.58 RAD 6640.5 VEL 11.620 PTH 6.66 VHP 3.246 DPA -3.69 RAP 46.40 ECC 1.2463

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 22 26	3660.23	-47.57	143.32	269.29	91.06	12 23 26	2660.2	-41.58	110.18
60.00	11 21 42	3662.19	-40.00	143.11	268.90	84.66	12 22 44	2662.2	-37.79	112.19
70.00	11 20 18	3666.31	-32.46	142.07	267.54	78.74	12 21 24	2666.3	-33.78	113.42
80.00	11 16 2	3679.77	-24.81	140.89	265.33	72.84	12 17 21	2679.8	-29.57	114.48
85.71	10 48 16	3769.37	-18.43	145.02	262.88	67.77	11 51 5	2769.4	-25.99	120.47
100.00	13 58 53	3154.24	-24.81	102.26	265.33	72.84	14 51 26	2154.2	-29.57	75.84
110.00	16 19 45	2713.13	-32.46	70.99	267.54	78.74	17 4 58	1713.1	-33.78	42.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4571 TRA -.8156 TC3 .8488 BAU .4057 SGT 1667.8 SGR 1636.1 SG3 1208.5 ST 39.7 SR 16.7 SS 82.1
RDE .1616 RRA .4552 RC3-1.8416 FAU .26002 RRT -.7893 RRF .9629 RTF -.8362 CRT -.9710 CRS -.8821 CST .9635
FDE 3.7938 FRA 3.1723 FC-15.0430 BSP 3878 SGB 2336.3 R23 -.2484 R13 .9333 LSA 91.9 MSA 11.8 SSA 1.8
BDE .4848 BRA .9340 BC3 2.0278 FSP 2000 SG1 2209.8 SG2 758.2 THA 135.70 EL1 42.9 EL2 3.7 ALF 157.53

LAUNCH DATE JUL 22 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 460.551 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 33.003 GAL -1.29 AZL 88.16 HCA 145.07 SMA 201.96 ECC .24836 INC 1.8435 V1 29.312
RP 232.89 LAP 1.06 LOP 84.13 VP 21.968 GAP 11.41 AZP 91.51 TAL 353.53 TAP 136.60 RCA 151.80 APO 252.12 V2 23.612
RC 167.073 GL 15.95 GP -20.90 ZAL 98.92 ZAP 133.62 ETS 203.31 ZAE 157.25 ETE 263.21 ZAC 62.97 ETC 284.13 LVI 2.92

PLANETOCENTRIC CONIC

C3 14.924 VHL 3.863 DLA 29.30 RAL 30.13 RAD 6640.5 VEL 11.618 PTH 6.66 VHP 3.191 DPA -4.61 RAP 46.34 ECC 1.2456

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 16 41	3676.23	-47.58	144.87	269.46	89.87	12 17 57	2676.2	-42.04	111.44
60.00	11 14 5	3683.15	-39.86	144.87	268.84	83.47	12 15 28	2683.1	-38.15	113.85
70.00	11 8 58	3698.22	-32.01	144.45	267.21	77.40	12 10 37	2698.2	-33.96	115.89
80.00	10 49 28	3759.66	-23.10	146.20	264.33	70.54	11 52 8	2759.7	-29.02	120.35
82.01	10 16 32	3865.30	-18.89	152.28	262.58	67.18	11 20 57	2865.3	-26.64	127.69
100.00	13 32 20	3234.13	-23.10	107.57	264.33	70.54	14 26 14	2234.1	-29.02	81.72
110.00	16 8 25	2745.04	-32.01	73.37	267.21	77.40	16 54 10	1745.0	-33.96	44.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4504 TRA -.7915 TC3 .7926 BAU .4212 SGT 1622.7 SGR 1735.8 SG3 1251.2 ST 39.0 SR 19.7 SS 85.6
RDE .2085 RRA .4677 RC3-1.9564 FAU .26802 RRT -.7820 RRF .9682 RTF -.7949 CRT -.9894 CRS -.9236 CST .9613
FDE 4.0322 FRA 3.2007 FC-15.5477 BSP 3937 SGB 2376.2 R23 -.2374 R13 .9406 LSA 95.4 MSA 11.7 SSA 1.7
BDE .4963 BRA .9194 BC3 2.1108 FSP 2077 SG1 2243.7 SG2 782.4 THA 132.54 EL1 43.6 EL2 2.6 ALF 153.42

LAUNCH DATE JUL 22 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 464.306 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.987	GAL	-1.27	AZL	88.06	HCA	146.07	SMA	201.64	ECC	.24715	INC	1.9380	V1	29.312
RP	233.25	LAP	1.08	LOP	85.13	VP	21.903	GAP	11.15	AZP	91.61	TAL	353.58	TAP	139.65	RCA	151.80	APO	251.47	V2	23.573
RC	170.003	GL	16.79	GP	-21.79	ZAL	98.79	ZAP	132.07	ETS	203.13	ZAE	156.16	ETE	260.09	ZAC	62.19	ETC	284.28	LVI	3.66

PLANETOCENTRIC CONIC

C3	14.903	VHL	3.860	DLA	30.05	RAL	29.68	RAD	6640.5	VEL	11.617	PTH	6.66	VHP	3.140	DPA	-5.57	RAP	46.26	ECC	1.2453

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 10 36	3693.48	-47.56	146.54	269.68	88.58	12 12 10	2693.5	-42.52	112.81
60.00	11 5 56	3705.94	-39.66	146.78	268.80	82.19	12 7 42	2705.9	-38.51	115.68
70.00	10 56 20	3734.27	-31.44	147.11	266.85	75.92	11 58 34	2734.3	-34.09	118.70
79.39	9 54 28	3929.78	-19.35	157.27	262.31	66.55	10 59 58	2929.8	-27.32	132.65
79.39	9 54 28	3929.78	-19.35	157.27	262.31	66.55	10 59 58	2929.8	-27.32	132.65
79.39	9 54 28	3929.78	-19.35	157.27	262.31	66.55	10 59 58	2929.8	-27.32	132.65
110.00	15 55 47	2781.09	-31.44	76.03	266.85	75.92	16 42 8	1781.1	-34.09	47.61

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4410	TRA	-.7664	TC3	.7319	BAU	.4386	SGT	1573.0	SGR	1842.3	SG3	1292.7	ST	38.2	SR	22.9	SS	89.1
RDE	.2586	RRA	.4799	RC3	-2.0762	FAU	.27594	RRT	-.7724	RRF	.9728	RTF	-.7816	CRT	-.9961	CRS	-.9496	CST	.9586
FDE	4.2747	FRA	3.2177	FC	-16.0297	BSP	4001	SGB	2422.5	R23	-.2231	R13	.9481	LSA	98.9	MSA	11.7	SSA	1.7
BDE	.5112	BRA	.9042	BC3	2.2014	FSP	2151	SG1	2284.6	SG2	805.7	THA	129.20	EL1	44.5	EL2	1.7	ALF	149.06

LAUNCH DATE JUL 22 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 468.064 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.972	GAL	-1.26	AZL	87.96	HCA	147.06	SMA	201.34	ECC	.24601	INC	2.0373	V1	29.312
RP	233.62	LAP	1.11	LOP	86.13	VP	21.840	GAP	10.90	AZP	91.71	TAL	353.63	TAP	140.69	RCA	151.81	APO	250.87	V2	23.536
RC	172.941	GL	17.67	GP	-22.70	ZAL	98.66	ZAP	130.50	ETS	202.93	ZAE	154.98	ETE	257.15	ZAC	61.38	ETC	284.45	LVI	4.43

PLANETOCENTRIC CONIC

C3	14.901	VHL	3.860	DLA	30.84	RAL	29.22	RAD	6640.5	VEL	11.617	PTH	6.66	VHP	3.094	DPA	-6.57	RAP	46.18	ECC	1.2452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 4 10	3712.08	-47.51	148.33	269.94	87.20	12 6 2	2712.1	-43.02	114.32
60.00	10 57 9	3730.79	-39.41	148.84	268.77	80.80	11 59 20	2730.8	-38.87	117.69
70.00	10 41 58	3775.66	-30.72	150.12	266.43	74.28	11 44 54	2775.7	-34.15	121.93
77.15	9 36 10	3982.04	-19.83	161.40	262.07	65.89	10 42 32	2982.0	-28.03	136.74
77.15	9 36 10	3982.04	-19.83	161.40	262.07	65.89	10 42 32	2982.0	-28.03	136.74
77.15	9 36 10	3982.04	-19.83	161.40	262.07	65.89	10 42 32	2982.0	-28.03	136.74
110.00	15 41 25	2822.48	-30.72	79.04	266.43	74.28	16 28 27	1822.5	-34.15	50.84

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4289	TRA	-.7410	TC3	.6637	BAU	.4575	SGT	1519.4	SGR	1954.9	SG3	1332.5	ST	37.2	SR	26.6	SS	92.7
RDE	.3129	RRA	.4924	RC3	-2.1987	FAU	.28340	RRT	-.7594	RRF	.9767	RTF	-.7655	CRT	-.9964	CRS	-.9661	CST	.9551
FDE	4.5256	FRA	3.2277	FC	-16.4650	BSP	4083	SGB	2475.9	R23	-.2063	R13	.9554	LSA	102.7	MSA	11.6	SSA	1.6
BDE	.5309	BRA	.8897	BC3	2.2967	FSP	2225	SG1	2333.3	SG2	828.2	THA	125.73	EL1	45.7	EL2	1.8	ALF	144.43

LAUNCH DATE JUL 22 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 471.827 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.958	GAL	-1.24	AZL	87.86	HCA	148.05	SMA	201.06	ECC	.24494	INC	2.1416	V1	29.312
RP	233.99	LAP	1.13	LOP	87.12	VP	21.778	GAP	10.64	AZP	91.82	TAL	353.67	TAP	141.72	RCA	151.81	APO	250.31	V2	23.498
RC	175.686	GL	18.59	GP	-23.66	ZAL	98.54	ZAP	128.90	ETS	202.71	ZAE	153.70	ETE	254.40	ZAC	60.54	ETC	284.62	LVI	5.23

PLANETOCENTRIC CONIC

C3	14.920	VHL	3.863	DLA	31.67	RAL	28.75	RAD	6640.5	VEL	11.618	PTH	6.66	VHP	3.051	DPA	-7.62	RAP	46.09	ECC	1.2456

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 57 20	3732.15	-47.43	150.27	270.25	85.71	11 59 32	2732.1	-43.54	115.98
60.00	10 47 40	3757.98	-39.09	151.08	268.74	79.32	11 50 18	2758.0	-39.22	119.92
70.00	10 25 10	3824.48	-29.76	153.60	265.90	72.42	11 28 55	2824.5	-34.11	125.74
75.12	9 20 0	4027.32	-20.32	165.05	261.86	65.18	10 27 7	3027.3	-28.76	140.36
75.12	9 20 0	4027.32	-20.32	165.05	261.86	65.18	10 27 7	3027.3	-28.76	140.36
75.12	9 20 0	4027.32	-20.32	165.05	261.86	65.18	10 27 7	3027.3	-28.76	140.36
110.00	15 24 36	2871.30	-29.76	82.52	265.90	72.42	16 12 28	1871.3	-34.11	54.66

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4122	TRA	-.7130	TC3	.5968	BAU	.4794	SGT	1459.6	SGR	2075.7	SG3	1370.9	ST	35.8	SR	30.6	SS	96.1
RDE	.3708	RRA	.5039	RC3	-2.3280	FAU	.29093	RRT	-.7449	RRF	.9801	RTF	-.7578	CRT	-.9926	CRS	-.9768	CST	.9506
FDE	4.7765	FRA	3.2205	FC	-16.8812	BSP	4149	SGB	2537.5	R23	-.1862	R13	.9626	LSA	106.4	MSA	11.6	SSA	1.5
BDE	.5545	BRA	.8731	BC3	2.4033	FSP	2285	SG1	2392.8	SG2	844.8	THA	122.12	EL1	47.0	EL2	2.8	ALF	139.51

LAUNCH DATE JUL 22 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 475.594 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.945	GAL	-1.23	AZL	87.75	HCA	149.04	SMA	200.80	ECC	.24395	INC	2.2515	V1	29.312
RP	234.35	LAP	1.16	LOP	88.11	VP	21.718	GAP	10.39	AZP	91.93	TAL	353.70	TAP	142.74	RCA	151.81	APO	249.78	V2	23.461
RC	178.836	GL	19.55	GP	-24.66	ZAL	98.44	ZAP	127.28	ETS	202.46	ZAE	152.33	ETE	251.82	ZAC	59.67	ETC	284.82	LVI	6.07

PLANETOCENTRIC CONIC

C3	14.961	VHL	3.868	DLA	32.53	RAL	28.27	RAD	6640.5	VEL	11.619	PTH	6.66	VHP	3.013	DPA	-8.71	RAP	45.99	ECC	1.2462

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 50 2	3753.80	-47.30	152.34	270.58	84.12	11 52 36	2753.8	-44.06	117.80
60.00	10 37 17	3787.83	-38.69	153.52	268.70	77.71	11 40 25	2787.8	-39.55	122.39
70.00	10 4 29	3884.96	-28.45	157.81	265.18	70.25	11 9 14	2885.0	-33.87	130.44
73.20	9 5 14	4067.96	-20.82	168.40	261.68	64.42	10 13 2	3068.0	-29.52	143.67
73.20	9 5 14	4067.96	-20.82	168.40	261.68	64.42	10 13 2	3068.0	-29.52	143.67
73.20	9 5 14	4067.96	-20.82	168.40	261.68	64.42	10 13 2	3068.0	-29.52	143.67
110.00	15 3 56	2931.77	-28.45	86.73	265.18	70.25	15 52 47	1931.8	-33.87	59.36

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3883	TRA	-.6790	TC3	.5364	BAU	.5046	SGT	1387.9	SGR	2204.0	SG3	1407.2	ST	33.9	SR	34.8	SS	99.4
RDE	.4320	RRA	.5125	RC3	-2.4655	FAU	.29862	RRT	-.7302	RRF	.9830	RTF	-.7297	CRT	-.9857	CRS	-.9839	CST	.9440
FDE	5.0212	FRA	3.1826	FC	-17.2802	BSP	4183	SGB	2604.6	R23	-.1627	R13	.9696	LSA	110.0	MSA	11.6	SSA	1.4
BDE	.5808	BRA	.8507	BC3	2.5231	FSP	2327	SG1	2462.5	SG2	848.8	THA	118.36	EL1	48.4	EL2	4.1	ALF	134.18

LAUNCH DATE JUL 22 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 9 1974

DISTANCE 478.361 EARTH TO MARS

HELIOCENTRIC CONIC

RL 151.99 LAL -.00 LOL 299.05 VL 32.933 GAL -1.23 AZL 87.63 HCA 150.02 SMA 200.55 ECC .24302 INC 2.3675 V1 29.312
RP 234.71 LAP 1.18 LOP 89.09 VP 21.660 GAP 10.13 AZP 92.05 TAL 353.73 TAP 143.75 RCA 151.82 APO 249.29 V2 23.424
RC 181.791 GL 20.54 GP -25.69 ZAL 98.34 ZAP 125.63 ETS 202.20 ZAE 190.87 ETE 249.43 ZAC 58.77 ETC 285.02 LVI 6.94

PLANETOCENTRIC CONIC

C3 15.025 VHL 3.876 DLA 33.44 RAL 27.78 RAD 6640.5 VEL 11.622 PTH 6.66 VHP 2.980 DPA -9.85 RAP 45.89 ECC 1.2473

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 42 13	3777.25	-47.11	154.58	270.96	82.41	11 45 11	2777.3	-44.59	119.80
60.00	10 25 53	3820.92	-38.18	156.18	268.64	75.97	11 29 34	2820.9	-39.85	125.16
70.00	9 35 50	3969.46	-26.37	163.50	264.04	67.46	10 41 58	2969.5	-33.21	136.95
71.36	8 51 29	4105.39	-21.33	171.55	261.54	63.61	9 59 54	3105.4	-30.31	146.79
71.36	8 51 29	4105.39	-21.33	171.55	261.54	63.61	9 59 54	3105.4	-30.31	146.79
71.36	8 51 29	4105.39	-21.33	171.55	261.54	63.61	9 59 54	3105.4	-30.31	146.79
110.00	14 35 16	3016.28	-26.37	92.42	264.04	67.46	15 25 32	2016.3	-33.21	65.86

DIFFERENTIAL CORRECTIONS

TDE -.3810 TRA -.6655 TC3 .4129 BAU .5257
RDE .5055 RRA .5285 RC3-2.5843 FAU .30312
FDE 5.3204 FRA 3.1893 FC-17.4659 BSP .4428
BDE .6330 BRA .8499 BC3 2.6170 FSP .2415

MID-COURSE EXECUTION ACCURACY

SGT 1345.2 SGR 2334.2 SG3 1438.3
RRT -.6898 RRF .9855 RTF -.6888
SGB 2694.1 R23 -.1472 R13 .9745
SG1 2541.2 SG2 894.6 THA 114.98

ORBIT DETERMINATION ACCURACY

ST 33.3 SR 40.0 SS 103.7
CRT -.9780 CRS -.9889 CST .9393
LSA 115.4 MSA 11.7 SSA 1.4
EL1 51.8 EL2 5.4 ALF 129.60

LAUNCH DATE JUL 22 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 11 1974

DISTANCE 483.132 EARTH TO MARS

HELIOCENTRIC CONIC

RL 151.99 LAL -.00 LOL 299.05 VL 32.922 GAL -1.22 AZL 87.51 HCA 151.00 SMA 200.33 ECC .24216 INC 2.4984 V1 29.312
RP 235.06 LAP 1.21 LOP 90.08 VP 21.603 GAP 9.88 AZP 92.18 TAL 353.74 TAP 144.75 RCA 151.82 APO 248.84 V2 23.387
RC 184.750 GL 21.59 GP -26.77 ZAL 98.25 ZAP 123.96 ETS 201.91 ZAE 149.33 ETE 247.19 ZAC 57.83 ETC 285.24 LVI 7.84

PLANETOCENTRIC CONIC

C3 15.113 VHL 3.888 DLA 34.40 RAL 27.27 RAD 6640.6 VEL 11.626 PTH 6.67 VHP 2.951 DPA -11.03 RAP 45.78 ECC 1.2487

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 33 47	3802.63	-46.86	156.98	271.35	80.57	11 37 10	2802.6	-45.12	122.02
60.00	10 13 9	3857.80	-37.53	159.10	268.52	74.08	11 17 26	2857.8	-40.09	128.26
69.55	8 38 28	4140.23	-21.86	174.54	261.42	62.75	9 47 29	3140.2	-31.13	149.76
69.55	8 38 28	4140.23	-21.86	174.54	261.42	62.75	9 47 29	3140.2	-31.13	149.76
69.55	8 38 28	4140.23	-21.86	174.54	261.42	62.75	9 47 29	3140.2	-31.13	149.76
69.55	8 38 28	4140.23	-21.86	174.54	261.42	62.75	9 47 29	3140.2	-31.13	149.76
69.55	8 38 28	4140.23	-21.86	174.54	261.42	62.75	9 47 29	3140.2	-31.13	149.76

DIFFERENTIAL CORRECTIONS

TDE -.3590 TRA -.6396 TC3 .3139 BAU .5518
RDE .5817 RRA .5396 RC3-2.7128 FAU .30801
FDE 5.5974 FRA 3.1510 FC-17.6440 BSP .4597
BDE .6836 BRA .8368 BC3 2.7309 FSP .2477

MID-COURSE EXECUTION ACCURACY

SGT 1282.5 SGR 2472.4 SG3 1466.1
RRT -.6527 RRF .9876 RTF -.6499
SGB 2785.2 R23 -.1261 R13 .9795
SG1 2631.4 SG2 912.9 THA 111.41

ORBIT DETERMINATION ACCURACY

ST 31.5 SR 45.3 SS 107.5
CRT -.9674 CRS -.9922 CST .9306
LSA 120.2 MSA 11.8 SSA 1.3
EL1 54.8 EL2 6.6 ALF 124.49

LAUNCH DATE JUL 22 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 13 1974

DISTANCE 486.906 EARTH TO MARS

HELIOCENTRIC CONIC

RL 151.99 LAL -.00 LOL 299.05 VL 32.911 GAL -1.21 AZL 87.38 HCA 151.98 SMA 200.12 ECC .24135 INC 2.6207 V1 29.312
RP 235.42 LAP 1.23 LOP 91.06 VP 21.547 GAP 9.63 AZP 92.31 TAL 353.76 TAP 145.74 RCA 151.82 APO 248.42 V2 23.351
RC 187.714 GL 22.68 GP -27.89 ZAL 98.17 ZAP 122.27 ETS 201.59 ZAE 147.72 ETE 245.10 ZAC 56.87 ETC 285.48 LVI 8.78

PLANETOCENTRIC CONIC

C3 15.228 VHL 3.902 DLA 35.40 RAL 26.74 RAD 6640.6 VEL 11.631 PTH 6.67 VHP 2.927 DPA -12.26 RAP 49.68 ECC 1.2506

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 24 38	3830.19	-46.52	159.55	271.75	78.62	11 28 28	2830.2	-45.64	124.47
60.00	9 58 43	3899.51	-36.70	162.33	268.31	72.03	11 3 42	2899.5	-40.25	131.80
67.76	8 26 3	4173.07	-22.39	177.43	261.33	61.83	9 35 36	3173.1	-31.98	152.63
67.76	8 26 3	4173.07	-22.39	177.43	261.33	61.83	9 35 36	3173.1	-31.98	152.63
67.76	8 26 3	4173.07	-22.39	177.43	261.33	61.83	9 35 36	3173.1	-31.98	152.63
67.76	8 26 3	4173.07	-22.39	177.43	261.33	61.83	9 35 36	3173.1	-31.98	152.63
67.76	8 26 3	4173.07	-22.39	177.43	261.33	61.83	9 35 36	3173.1	-31.98	152.63

DIFFERENTIAL CORRECTIONS

TDE -.3331 TRA -.6132 TC3 .2141 BAU .5809
RDE .6643 RRA .5494 RC3-2.8451 FAU .31253
FDE 5.8733 FRA 3.0950 FC-17.7673 BSP .4755
BDE .7431 BRA .8233 BC3 2.8532 FSP .2518

MID-COURSE EXECUTION ACCURACY

SGT 1219.4 SGR 2619.4 SG3 1490.8
RRT -.6077 RRF .9894 RTF -.6532
SGB 2889.3 R23 -.1053 R13 .9838
SG1 2736.6 SG2 926.9 THA 107.92

ORBIT DETERMINATION ACCURACY

ST 29.5 SR 51.1 SS 111.2
CRT -.9538 CRS -.9945 CST .9189
LSA 125.3 MSA 11.9 SSA 1.2
EL1 58.5 EL2 7.7 ALF 119.45

LAUNCH DATE JUL 22 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 15 1974

DISTANCE 490.681 EARTH TO MARS

HELIOCENTRIC CONIC

RL 151.99 LAL -.00 LOL 299.05 VL 32.901 GAL -1.21 AZL 87.24 HCA 152.96 SMA 199.92 ECC .24061 INC 2.7591 V1 29.312
RP 235.77 LAP 1.25 LOP 92.03 VP 21.493 GAP 9.39 AZP 92.46 TAL 353.76 TAP 146.72 RCA 151.82 APO 248.02 V2 23.315
RC 190.680 GL 23.82 GP -29.05 ZAL 98.09 ZAP 120.57 ETS 201.23 ZAE 146.03 ETE 243.14 ZAC 55.87 ETC 285.74 LVI 9.76

PLANETOCENTRIC CONIC

C3 15.373 VHL 3.921 DLA 36.45 RAL 26.18 RAD 6640.7 VEL 11.637 PTH 6.68 VHP 2.908 DPA -13.54 RAP 45.58 ECC 1.2530

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 14 38	3860.22	-46.08	162.32	272.13	76.53	11 18 58	2860.2	-46.14	127.19
60.00	9 41 59	3947.62	-35.63	165.96	267.95	69.76	10 47 47	2947.6	-40.30	135.89
65.98	8 14 3	4204.43	-22.92	180.26	261.27	60.85	9 24 7	3204.4	-32.86	155.44
65.98	8 14 3	4204.43	-22.92	180.26	261.27	60.85	9 24 7	3204.4	-32.86	155.44
65.98	8 14 3	4204.43	-22.92	180.26	261.27	60.85	9 24 7	3204.4	-32.86	155.44
65.98	8 14 3	4204.43	-22.92	180.26	261.27	60.85	9 24 7	3204.4	-32.86	155.44
65.98	8 14 3	4204.43	-22.92	180.26	261.27	60.85	9 24 7	3204.4	-32.86	155.44

DIFFERENTIAL CORRECTIONS

TDE -.3036 TRA -.5876 TC3 .1069 BAU .6117
RDE .7548 RRA .5586 RC3-2.9742 FAU .31586
FDE 6.1518 FRA 3.0272 FC-17.7875 BSP .4945
BDE .8136 BRA .8107 BC3 2.9761 FSP .2556

MID-COURSE EXECUTION ACCURACY

SGT 1159.0 SGR 2772.4 SG3 1510.4
RRT -.5503 RRF .9910 RTF -.5443
SGB 3004.9 R23 -.0857 R13 .9872
SG1 2854.1 SG2 940.1 THA 104.57

ORBIT DETERMINATION ACCURACY

ST 27.4 SR 57.3 SS 114.8
CRT -.9359 CRS -.9960 CST .9025
LSA 130.8 MSA 12.0 SSA 1.1
EL1 62.9 EL2 8.8 ALF 114.58

LAUNCH DATE JUL 22 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 494.459 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.892	GAL	-1.21	AZL	87.09	HCA	153.93	SMA	199.74	ECC	.23991	INC	2.9087	V1	29.312
RP	236.12	LAP	1.28	LOP	93.01	VP	21.441	GAP	9.14	AZP	92.61	TAL	353.76	TAP	147.69	RCA	151.82	APO	247.66	V2	23.279
RC	193.649	GL	25.02	GP	-30.25	ZAL	98.02	ZAP	118.85	ETS	200.84	ZAE	144.27	ETE	241.31	ZAC	54.83	ETC	286.01	LVI	10.77

PLANETOCENTRIC CONIC

C3	15.551	VHL	3.943	DLA	37.55	RAL	25.60	RAD	6640.8	VEL	11.645	PTH	6.68	VHP	2.894	DPA	-14.86	RAP	45.48	ECC	1.2559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 3 37	3893.10	-45.51	165.29	272.47	74.30	11 8 30	2893.1	-46.61	130.23
60.00	9 21 52	4005.01	-34.19	170.16	267.34	67.23	10 26 37	3005.0	-40.14	140.76
64.19	8 2 24	4234.47	-23.46	183.03	261.25	59.80	9 12 58	3234.5	-33.77	158.22
64.19	8 2 24	4234.47	-23.46	183.03	261.25	59.80	9 12 58	3234.5	-33.77	158.22
64.19	8 2 24	4234.47	-23.46	183.03	261.25	59.80	9 12 58	3234.5	-33.77	158.22
64.19	8 2 24	4234.47	-23.46	183.03	261.25	59.80	9 12 58	3234.5	-33.77	158.22
64.19	8 2 24	4234.47	-23.46	183.03	261.25	59.80	9 12 58	3234.5	-33.77	158.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2677	TRA	-.5600	TC3	-.0017	BAU	.6447	SGT	1097.5	SGR	2930.3	SG3	1523.8	ST	24.8	SR	63.9	SS	118.5
RDE	.8523	RRA	.5649	RC3	-3.1010	FAU	.31816	RRT	-.4791	RRF	.9923	RTF	-.4715	CRT	-.9100	CRS	-.9971	CST	.8775
FDE	6.4191	FRA	2.9339	FC	-17.7121	BSP	5136	SGB	3129.1	R23	-.0674	R13	.9900	LSA	136.3	MSA	12.1	SSA	1.1
BDE	.8933	BRA	.7955	BC3	3.1010	FSP	2576	SG1	2982.5	SG2	946.5	THA	101.33	EL1	67.9	EL2	9.7	ALF	109.87

LAUNCH DATE JUL 22 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 498.237 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.884	GAL	-1.21	AZL	86.94	HCA	154.90	SMA	199.57	ECC	.23928	INC	3.0644	V1	29.312
RP	236.46	LAP	1.30	LOP	93.98	VP	21.389	GAP	8.89	AZP	92.78	TAL	353.75	TAP	148.65	RCA	151.82	APO	247.32	V2	23.244
RC	196.619	GL	26.27	GP	-31.49	ZAL	97.96	ZAP	117.12	ETS	200.41	ZAE	142.46	ETE	239.60	ZAC	53.76	ETC	286.31	LVI	11.83

PLANETOCENTRIC CONIC

C3	15.765	VHL	3.971	DLA	38.71	RAL	24.99	RAD	6640.9	VEL	11.654	PTH	6.69	VHP	2.887	DPA	-16.23	RAP	45.40	ECC	1.2595

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 51 21	3929.33	-44.80	168.48	272.75	71.93	10 56 51	2929.3	-47.02	133.63
60.00	8 55 54	4078.30	-32.14	175.28	266.27	64.25	10 3 52	3078.3	-39.62	146.92
62.38	7 50 59	4263.55	-24.00	185.77	261.26	58.67	9 2 2	3263.6	-34.71	160.98
62.38	7 50 59	4263.55	-24.00	185.77	261.26	58.67	9 2 2	3263.6	-34.71	160.98
62.38	7 50 59	4263.55	-24.00	185.77	261.26	58.67	9 2 2	3263.6	-34.71	160.98
62.38	7 50 59	4263.55	-24.00	185.77	261.26	58.67	9 2 2	3263.6	-34.71	160.98
62.38	7 50 59	4263.55	-24.00	185.77	261.26	58.67	9 2 2	3263.6	-34.71	160.98

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2308	TRA	-.5366	TC3	-.1238	BAU	.6789	SGT	1051.4	SGR	3093.9	SG3	1531.0	ST	22.3	SR	71.2	SS	122.1
RDE	.9609	RRA	.5714	RC3	-3.2187	FAU	.31878	RRT	-.3871	RRF	.9934	RTF	-.3786	CRT	-.8737	CRS	-.9979	CST	.8419
FDE	6.6922	FRA	2.8351	FC	-17.5053	BSP	5394	SGB	3267.7	R23	-.0509	R13	.9921	LSA	142.6	MSA	12.3	SSA	1.0
BDE	.9882	BRA	.7839	BC3	3.2211	FSP	2602	SG1	3123.4	SG2	960.3	THA	98.28	EL1	73.9	EL2	10.5	ALF	105.64

LAUNCH DATE JUL 22 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 502.017 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.876	GAL	-1.21	AZL	86.77	HCA	155.86	SMA	199.42	ECC	.23869	INC	3.2332	V1	29.312
RP	236.81	LAP	1.32	LOP	94.95	VP	21.339	GAP	8.65	AZP	92.95	TAL	353.73	TAP	149.60	RCA	151.82	APO	247.01	V2	23.209
RC	199.589	GL	27.59	GP	-32.78	ZAL	97.90	ZAP	115.39	ETS	199.95	ZAE	140.59	ETE	237.98	ZAC	52.66	ETC	286.63	LVI	12.93

PLANETOCENTRIC CONIC

C3	16.021	VHL	4.003	DLA	39.93	RAL	24.34	RAD	6641.0	VEL	11.665	PTH	6.70	VHP	2.885	DPA	-17.64	RAP	45.32	ECC	1.2637

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 37 32	3969.58	-43.89	171.93	272.90	69.40	10 43 42	2969.6	-47.35	137.46
60.00	8 14 6	4194.95	-28.43	182.93	263.92	60.14	9 24 1	3194.9	-38.06	156.44
60.55	7 39 43	4291.87	-24.54	188.51	261.29	57.46	8 51 15	3291.9	-35.68	163.76
60.55	7 39 43	4291.87	-24.54	188.51	261.29	57.46	8 51 15	3291.9	-35.68	163.76
60.55	7 39 43	4291.87	-24.54	188.51	261.29	57.46	8 51 15	3291.9	-35.68	163.76
60.55	7 39 43	4291.87	-24.54	188.51	261.29	57.46	8 51 15	3291.9	-35.68	163.76
60.55	7 39 43	4291.87	-24.54	188.51	261.29	57.46	8 51 15	3291.9	-35.68	163.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1863	TRA	-.5119	TC3	-.2452	BAU	.7157	SGT	1011.3	SGR	3262.2	SG3	1530.9	ST	19.6	SR	78.9	SS	125.4
RDE	1.0772	RRA	.5736	RC3	-3.3326	FAU	.31835	RRT	-.2761	RRF	.9944	RTF	-.2966	CRT	-.8142	CRS	-.9985	CST	.7824
FDE	6.9431	FRA	2.7075	FC	-17.2026	BSP	5638	SGB	3415.3	R23	-.0358	R13	.9937	LSA	148.9	MSA	12.4	SSA	.9
BDE	1.0932	BRA	.7688	BC3	3.3416	FSP	2603	SG1	3275.2	SG2	968.2	THA	95.36	EL1	80.5	EL2	11.1	ALF	101.65

LAUNCH DATE JUL 22 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 505.798 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.869	GAL	-1.21	AZL	86.59	HCA	156.83	SMA	199.27	ECC	.23815	INC	3.4148	V1	29.312
RP	237.14	LAP	1.34	LOP	95.91	VP	21.290	GAP	8.41	AZP	93.14	TAL	353.71	TAP	150.54	RCA	151.82	APO	248.73	V2	23.174
RC	202.557	GL	28.98	GP	-34.11	ZAL	97.84	ZAP	113.66	ETS	199.44	ZAE	138.68	ETE	236.44	ZAC	51.52	ETC	286.97	LVI	14.07

PLANETOCENTRIC CONIC

C3	16.324	VHL	4.040	DLA	41.21	RAL	23.63	RAD	6641.2	VEL	11.678	PTH	6.71	VHP	2.889	DPA	-19.09	RAP	45.26	ECC	1.2686

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 21 43	4014.82	-42.74	175.67	272.86	66.70	10 28 38	3014.8	-47.54	141.82
58.68	7 28 33	4319.52	-25.07	191.26	261.36	56.15	8 40 33	3319.5	-36.67	166.56
58.68	7 28 33	4319.52	-25.07	191.26	261.36	56.15	8 40 33	3319.5	-36.67	166.56
58.68	7 28 33	4319.52	-25.07	191.26	261.36	56.15	8 40 33	3319.5	-36.67	166.56
58.68	7 28 33	4319.52	-25.07	191.26	261.36	56.15	8 40 33	3319.5	-36.67	166.56
58.68	7 28 33	4319.52	-25.07	191.26	261.36	56.15	8 40 33	3319.5	-36.67	166.56
58.68	7 28 33	4319.52	-25.07	191.26	261.36	56.15	8 40 33	3319.5	-36.67	166.56

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1289	TRA	-.4826	TC3	-.3496	BAU	.7571	SGT	970.0	SGR	3438.4	SG3	1524.6	ST	16.4	SR	86.6	SS	127.9
RDE	1.1988	RRA	.5696	RC3	-3.4518	FAU	.31781	RRT	-.1498	RRF	.9952	RTF	-.1385	CRT	-.6992	CRS	-.9989	CST	.6660
FDE	7.1514	FRA	2.5444	FC	-16.8553	BSP	5847	SGB	3572.6	R23	-.0234	R13	.9950	LSA	154.9	MSA	12.5	SSA	.8
BDE	1.2057	BRA	.7465	BC3	3.4694	FSP	2571	SG1	3441.7	SG2	958.2	THA	92.62	EL1	87.4	EL2	11.6	ALF	97.69

LAUNCH DATE JUL 22 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 509.579 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.862	GAL	-1.21	AZL	86.39	HCA	157.79	SMA	199.14	ECC	.23766	INC	3.6107	V1	29.312
RP	237.48	LAP	1.36	LOP	96.87	VP	21.243	GAP	8.16	AZP	93.34	TAL	353.68	TAP	151.47	RCA	151.82	APO	246.47	V2	23.140
RC	205.523	GL	30.44	GP	-35.48	ZAL	97.78	ZAP	111.93	ETS	198.88	ZAE	136.70	ETE	234.99	ZAC	50.35	ETC	287.34	LVI	15.25

PLANETOCENTRIC CONIC

C3	16.681	VHL	4.084	DLA	42.56	RAL	22.88	RAD	6641.3	VEL	11.693	PTH	6.73	VHP	2.901	DPA	-20.59	RAP	45.23	ECC	1.2745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 3 12	4066.69	-41.26	179.77	272.53	63.82	10 10 58	3066.7	-47.55	146.84
56.76	7 17 26	4346.71	-25.60	194.03	261.45	54.76	8 29 53	3346.7	-37.70	169.42
56.76	7 17 26	4346.71	-25.60	194.03	261.45	54.76	8 29 53	3346.7	-37.70	169.42
56.76	7 17 26	4346.71	-25.60	194.03	261.45	54.76	8 29 53	3346.7	-37.70	169.42
56.76	7 17 26	4346.71	-25.60	194.03	261.45	54.76	8 29 53	3346.7	-37.70	169.42
56.76	7 17 26	4346.71	-25.60	194.03	261.45	54.76	8 29 53	3346.7	-37.70	169.42
56.76	7 17 26	4346.71	-25.60	194.03	261.45	54.76	8 29 53	3346.7	-37.70	169.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0765	TRA	-.4653	TC3	-.4833	BAU	.7966	SGT	976.1	SGR	3617.7	SG3	1510.1	ST	14.3	SR	95.7	SS	131.2
RDE	1.3429	RRA	.5708	RC3	-3.5390	FAU	.31369	RRT	-.0069	RRF	.9959	RTF	.0043	CRT	-.5242	CRS	-.9992	CST	.4906
FDE	7.3949	FRA	2.4073	FC	-16.2800	BSP	6197	SGB	3747.1	R23	-.0117	R13	.9959	LSA	162.5	MSA	12.8	SSA	.8
BDE	1.3451	BRA	.7364	BC3	3.5719	FSP	2573	SG1	3617.7	SG2	976.1	THA	90.12	EL1	96.0	EL2	12.2	ALF	94.57

LAUNCH DATE JUL 22 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC DISTANCE 513.360 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.856	GAL	-1.22	AZL	86.18	HCA	158.74	SMA	199.02	ECC	.23721	INC	3.8227	V1	29.312
RP	237.81	LAP	1.39	LOP	97.83	VP	21.197	GAP	7.92	AZP	93.56	TAL	353.65	TAP	152.39	RCA	151.81	APO	246.23	V2	23.106
RC	208.485	GL	31.98	GP	-36.90	ZAL	97.72	ZAP	110.21	ETS	198.28	ZAE	134.69	ETE	233.60	ZAC	49.15	ETC	287.74	LVI	16.47

PLANETOCENTRIC CONIC

C3	17.102	VHL	4.135	DLA	43.98	RAL	22.05	RAD	6641.5	VEL	11.710	PTH	6.74	VHP	2.920	DPA	-22.13	RAP	45.22	ECC	1.2815

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 40 42	4127.94	-39.31	184.35	271.73	60.69	9 49 30	3127.9	-47.25	152.73
54.80	7 6 14	4373.66	-26.09	196.84	261.57	53.25	8 19 8	3373.7	-38.73	172.36
54.80	7 6 14	4373.66	-26.09	196.84	261.57	53.25	8 19 8	3373.7	-38.73	172.36
54.80	7 6 14	4373.66	-26.09	196.84	261.57	53.25	8 19 8	3373.7	-38.73	172.36
54.80	7 6 14	4373.66	-26.09	196.84	261.57	53.25	8 19 8	3373.7	-38.73	172.36
54.80	7 6 14	4373.66	-26.09	196.84	261.57	53.25	8 19 8	3373.7	-38.73	172.36
54.80	7 6 14	4373.66	-26.09	196.84	261.57	53.25	8 19 8	3373.7	-38.73	172.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0112	TRA	-.4437	TC3	-.6029	BAU	.8396	SGT	989.2	SGR	3800.0	SG3	1486.8	ST	12.9	SR	105.0	SS	133.7
RDE	1.4955	RRA	.5620	RC3	-3.6223	FAU	.30882	RRT	.1430	RRF	.9965	RTF	.1544	CRT	-.2112	CRS	-.9994	CST	.1784
FDE	7.5911	FRA	2.2231	FC	-15.6333	BSP	6494	SGB	3926.6	R23	-.0018	R13	.9966	LSA	170.0	MSA	12.9	SSA	.7
BDE	1.4956	BRA	.7160	BC3	3.6721	FSP	2533	SG1	3802.8	SG2	978.3	THA	87.72	EL1	105.0	EL2	12.6	ALF	91.50

LAUNCH DATE JUL 22 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC DISTANCE 517.142 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.850	GAL	-1.22	AZL	85.95	HCA	159.70	SMA	198.91	ECC	.23680	INC	4.0530	V1	29.312
RP	238.14	LAP	1.41	LOP	98.79	VP	21.152	GAP	7.68	AZP	93.80	TAL	353.61	TAP	153.30	RCA	151.81	APO	246.02	V2	23.073
RC	211.443	GL	33.80	GP	-38.36	ZAL	97.66	ZAP	108.51	ETS	197.63	ZAE	132.66	ETE	232.26	ZAC	47.91	ETC	288.18	LVI	17.74

PLANETOCENTRIC CONIC

C3	17.597	VHL	4.195	DLA	45.47	RAL	21.15	RAD	6641.7	VEL	11.731	PTH	6.76	VHP	2.947	DPA	-23.70	RAP	45.24	ECC	1.2896

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 11 30	4204.97	-36.61	189.73	270.11	57.18	9 21 35	3205.0	-46.41	159.97
52.78	6 54 56	4400.39	-26.57	199.70	261.70	51.63	8 8 16	3400.4	-39.79	175.40
52.78	6 54 56	4400.39	-26.57	199.70	261.70	51.63	8 8 16	3400.4	-39.79	175.40
52.78	6 54 56	4400.39	-26.57	199.70	261.70	51.63	8 8 16	3400.4	-39.79	175.40
52.78	6 54 56	4400.39	-26.57	199.70	261.70	51.63	8 8 16	3400.4	-39.79	175.40
52.78	6 54 56	4400.39	-26.57	199.70	261.70	51.63	8 8 16	3400.4	-39.79	175.40
52.78	6 54 56	4400.39	-26.57	199.70	261.70	51.63	8 8 16	3400.4	-39.79	175.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0622	TRA	-.4249	TC3	-.7210	BAU	.8840	SGT	1028.5	SGR	3986.1	SG3	1455.1	ST	13.1	SR	114.9	SS	138.9
RDE	1.6641	RRA	.5506	RC3	-3.6879	FAU	.30210	RRT	.2871	RRF	.9970	RTF	.2483	CRT	.1900	CRS	-.9996	CST	-.2181
FDE	7.7644	FRA	2.0322	FC	-14.8627	BSP	6840	SGB	4116.7	R23	.0067	R13	.9971	LSA	178.0	MSA	13.1	SSA	.6
BDE	1.6653	BRA	.6954	BC3	3.7577	FSP	2490	SG1	3997.7	SG2	982.3	THA	85.49	EL1	114.9	EL2	12.9	ALF	88.74

LAUNCH DATE JUL 22 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC DISTANCE 520.924 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.845	GAL	-1.23	AZL	85.70	HCA	160.65	SMA	198.82	ECC	.23643	INC	4.3044	V1	29.312
RP	238.47	LAP	1.43	LOP	99.75	VP	21.108	GAP	7.45	AZP	94.06	TAL	353.56	TAP	154.21	RCA	151.81	APO	245.82	V2	23.040
RC	214.394	GL	35.31	GP	-39.86	ZAL	97.59	ZAP	106.82	ETS	196.94	ZAE	130.60	ETE	230.98	ZAC	48.63	ETC	288.65	LVI	19.08

PLANETOCENTRIC CONIC

C3	18.180	VHL	4.264	DLA	47.04	RAL	20.15	RAD	6642.0	VEL	11.756	PTH	6.78	VHP	2.984	DPA	-25.32	RAP	45.30	ECC	1.2992

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 25 0	4323.11	-31.98	197.20	266.42	52.68	8 37 3	3323.1	-44.21	170.49
50.70	6 43 24	4427.17	-27.00	202.62	261.84	49.89	7 57 11	3427.2	-40.85	178.57
50.70	6 43 24	4427.17	-27.00	202.62	261.84	49.89	7 57 11	3427.2	-40.85	178.57
50.70	6 43 24	4427.17	-27.00	202.62	261.84	49.89	7 57 11	3427.2	-40.85	178.57
50.70	6 43 24	4427.17	-27.00	202.62	261.84	49.89	7 57 11	3427.2	-40.85	178.57
50.70	6 43 24	4427.17	-27.00	202.62	261.84	49.89	7 57 11	3427.2	-40.85	178.57
50.70	6 43 24	4427.17	-27.00	202.62	261.84	49.89	7 57 11	3427.2	-40.85	178.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1454	TRA	-.4081	TC3	-.8318	BAU	.9309	SGT	1090.3	SGR	4176.4	SG3	1414.9	ST	15.6	SR	125.3	SS	137.7
RDE	1.8489	RRA	.5329	RC3	-3.7387	FAU	.29396	RRT	.4176	RRF	.9975	RTF	.4284	CRT	.5273	CRS	-.9997	CST	-.5481
FDE	7.9026	FRA	1.8230	FC	-13.9987	BSP	7182	SGB	4316.3	R23	.0138	R13	.9974	LSA	186.3	MSA	13.3	SSA	.6
BDE	1.8546	BRA	.6712	BC3	3.8302	FSP	2424	SG1	4202.6	SG2	984.5	THA	83.42	EL1	125.6	EL2	13.2	ALF	86.21

LAUNCH DATE JUL 22 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC DISTANCE 524.706 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.841	GAL	-1.24	AZL	85.42	HCA	161.60	SMA	198.73	ECC	.23610	INC	4.5799	VI	29.312
RP	238.79	LAP	1.44	LOP	100.70	VP	21.065	GAP	7.21	AZP	94.35	TAL	353.50	TAP	155.10	RCA	151.81	APO	245.65	V2	23.008
RC	217.340	GL	37.13	GP	-41.40	ZAL	97.52	ZAP	105.17	ETS	196.19	ZAE	128.52	ETE	229.73	ZAC	45.32	ETC	289.16	LVI	20.41

PLANETOCENTRIC CONIC

C3	18.869	VHL	4.344	DLA	48.69	RAL	19.03	RAD	6642.3	VEL	11.785	PTH	6.81	VHP	3.030	DPA	-26.97	RAP	45.40	ECC	1.3105

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.55	6 31 32	4454.16	-27.37	205.61	261.97	48.02	7 45 46	3454.2	-41.89	181.90
48.55	6 31 32	4454.16	-27.37	205.61	261.97	48.02	7 45 46	3454.2	-41.89	181.90
48.55	6 31 32	4454.16	-27.37	205.61	261.97	48.02	7 45 46	3454.2	-41.89	181.90
48.55	6 31 32	4454.16	-27.37	205.61	261.97	48.02	7 45 46	3454.2	-41.89	181.90
48.55	6 31 32	4454.16	-27.37	205.61	261.97	48.02	7 45 46	3454.2	-41.89	181.90
48.55	6 31 32	4454.16	-27.37	205.61	261.97	48.02	7 45 46	3454.2	-41.89	181.90
48.55	6 31 32	4454.16	-27.37	205.61	261.97	48.02	7 45 46	3454.2	-41.89	181.90

DIFFERENTIAL CORRECTIONS

TDE	.2397	TRA	-.3935	TC3	-.9368	BAU	.9793												
RDE	2.0505	RRA	.5065	RC3	-3.7675	FAU	.28399												
FDE	7.9951	FRA	1.5927	FC	-13.0301	BSP	7536												
BDE	2.0644	BRA	.6414	BC3	3.8822	FSP	2343												

MID-COURSE EXECUTION ACCURACY

SGT	1174.9	SGR	4364.9	SG3	1364.7						
RRT	.5310	RRF	.9978	RTF	.5413						
SGB	4520.2	R23	.0201	R13	.9977						
SG1	4411.6	SG2	985.0	THA	81.43						

ORBIT DETERMINATION ACCURACY

ST	19.8	SR	136.2	SS	138.7
CRT	.7302	CRS	-.9998	CST	-.7446
LSA	194.9	MSA	13.5	SSA	.5
EL1	136.9	EL2	13.4	ALF	83.89

LAUNCH DATE JUL 22 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 528.487 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.837	GAL	-1.25	AZL	85.12	HCA	162.54	SMA	198.65	ECC	.23581	INC	4.8834	VI	29.312
RP	239.10	LAP	1.46	LOP	101.65	VP	21.024	GAP	6.97	AZP	94.66	TAL	353.45	TAP	155.99	RCA	151.80	APO	245.49	V2	22.975
RC	220.278	GL	39.04	GP	-42.98	ZAL	97.43	ZAP	103.55	ETS	195.39	ZAE	126.42	ETE	228.52	ZAC	43.98	ETC	289.72	LVI	21.82

PLANETOCENTRIC CONIC

C3	19.685	VHL	4.437	DLA	50.43	RAL	17.76	RAD	6642.7	VEL	11.819	PTH	6.84	VHP	3.088	DPA	-28.65	RAP	45.54	ECC	1.3240

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.34	6 19 16	4481.46	-27.68	208.68	262.08	46.00	7 33 57	3481.5	-42.92	185.41
46.34	6 19 16	4481.46	-27.68	208.68	262.08	46.00	7 33 57	3481.5	-42.92	185.41
46.34	6 19 16	4481.46	-27.68	208.68	262.08	46.00	7 33 57	3481.5	-42.92	185.41
46.34	6 19 16	4481.46	-27.68	208.68	262.08	46.00	7 33 57	3481.5	-42.92	185.41
46.34	6 19 16	4481.46	-27.68	208.68	262.08	46.00	7 33 57	3481.5	-42.92	185.41
46.34	6 19 16	4481.46	-27.68	208.68	262.08	46.00	7 33 57	3481.5	-42.92	185.41
46.34	6 19 16	4481.46	-27.68	208.68	262.08	46.00	7 33 57	3481.5	-42.92	185.41

DIFFERENTIAL CORRECTIONS

TDE	.3460	TRA	-.3824	TC3	-1.0313	BAU	1.0298												
RDE	2.2736	RRA	.4730	RC3	-3.7746	FAU	.27244												
FDE	8.0459	FRA	1.3547	FC	-11.9816	BSP	7903												
BDE	2.2998	BRA	.6083	BC3	3.9130	FSP	2247												

MID-COURSE EXECUTION ACCURACY

SGT	1279.9	SGR	4556.2	SG3	1306.1						
RRT	.6232	RRF	.9982	RTF	.6328						
SGB	4732.6	R23	.0252	R13	.9979						
SG1	4628.9	SG2	985.3	THA	79.59						

ORBIT DETERMINATION ACCURACY

ST	25.2	SR	147.6	SS	139.1
CRT	.8379	CRS	-.9998	CST	-.8478
LSA	203.9	MSA	13.6	SSA	.4
EL1	149.1	EL2	13.6	ALF	81.78

LAUNCH DATE JUL 22 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC DISTANCE 532.267 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.833	GAL	-1.26	AZL	84.78	HCA	163.48	SMA	198.58	ECC	.23556	INC	5.2192	VI	29.312
RP	239.42	LAP	1.48	LOP	102.60	VP	20.984	GAP	6.74	AZP	95.01	TAL	353.38	TAP	156.86	RCA	151.80	APO	245.35	V2	22.944
RC	223.209	GL	41.07	GP	-44.60	ZAL	97.34	ZAP	101.97	ETS	194.54	ZAE	124.32	ETE	227.34	ZAC	42.61	ETC	290.32	LVI	23.26

PLANETOCENTRIC CONIC

C3	20.659	VHL	4.545	DLA	52.25	RAL	16.32	RAD	6643.1	VEL	11.860	PTH	6.87	VHP	3.160	DPA	-30.36	RAP	45.75	ECC	1.3400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.04	6 6 24	4509.33	-27.89	211.84	262.14	43.85	7 21 34	3509.3	-43.90	189.13
44.04	6 6 24	4509.33	-27.89	211.84	262.14	43.85	7 21 34	3509.3	-43.90	189.13
44.04	6 6 24	4509.33	-27.89	211.84	262.14	43.85	7 21 34	3509.3	-43.90	189.13
44.04	6 6 24	4509.33	-27.89	211.84	262.14	43.85	7 21 34	3509.3	-43.90	189.13
44.04	6 6 24	4509.33	-27.89	211.84	262.14	43.85	7 21 34	3509.3	-43.90	189.13
44.04	6 6 24	4509.33	-27.89	211.84	262.14	43.85	7 21 34	3509.3	-43.90	189.13
44.04	6 6 24	4509.33	-27.89	211.84	262.14	43.85	7 21 34	3509.3	-43.90	189.13

DIFFERENTIAL CORRECTIONS

TDE	.4642	TRA	-.3765	TC3	-1.1163	BAU	1.0832												
RDE	2.5191	RRA	.4273	RC3	-3.7596	FAU	.25950												
FDE	8.0417	FRA	1.0998	FC	-10.8746	BSP	8258												
BDE	2.3615	BRA	.5695	BC3	3.9218	FSP	2130												

MID-COURSE EXECUTION ACCURACY

SGT	1404.8	SGR	4747.4	SG3	1238.9						
RRT	.6964	RRF	.9984	RTF	.7154						
SGB	4950.9	R23	.0297	R13	.9981						
SG1	4851.6	SG2	986.4	THA	77.85						

ORBIT DETERMINATION ACCURACY

ST	31.5	SR	159.4	SS	138.7
CRT	.8956	CRS	-.9999	CST	-.9025
LSA	213.2	MSA	13.8	SSA	.4
EL1	161.9	EL2	13.8	ALF	79.88

LAUNCH DATE JUL 22 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC DISTANCE 536.046 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.830	GAL	-1.27	AZL	84.41	HCA	164.42	SMA	198.51	ECC	.23534	INC	5.5938	VI	29.312
RP	239.73	LAP	1.50	LOP	103.54	VP	20.944	GAP	6.50	AZP	95.39	TAL	353.31	TAP	157.73	RCA	151.80	APO	245.23	V2	22.912
RC	226.132	GL	43.22	GP	-46.26	ZAL	97.22	ZAP	100.44	ETS	193.64	ZAE	122.23	ETE	226.17	ZAC	41.20	ETC	290.99	LVI	24.75

PLANETOCENTRIC CONIC

C3	21.828	VHL	4.672	DLA	54.16	RAL	14.66	RAD	6643.6	VEL	11.909	PTH	6.92	VHP	3.246	DPA	-32.10	RAP	46.02	ECC	1.3592

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.67	5 52 47	4538.00	-27.99	215.10	262.10	41.54	7 8 25	3538.0	-44.80	193.09
41.67	5 52 47	4538.00	-27.99	215.10	262.10	41.54	7 8 25	3538.0	-44.80	193.09
41.67	5 52 47	4538.00	-27.99	215.10	262.10	41.54	7 8 25	3538.0	-44.80	193.09
41.67	5 52 47	4538.00	-27.99	215.10	262.10	41.54	7 8 25	3538.0	-44.80	193.09
41.67	5 52 47	4538.00	-27.99	215.10	262.10	41.54	7 8 25	3538.0	-44.80	193.09
41.67	5 52 47	4538.00	-27.99	215.10	262.10	41.54	7 8 25	3538.0	-44.80	193.09
41.67	5 52 47	4538.00	-27.99	215.10	262.10	41.54	7 8 25	3538.0	-44.80	193.09

DIFFERENTIAL CORRECTIONS

TDE	.5983	TRA	-.3750	TC3	-1.1871	BAU	1.1363												
RDE	2.7934	RRA	.3735	RC3	-3.7085	FAU	.24438												
FDE	7.9861	FRA	.8503	FC	-9.6927	BSP	8638												
BDE	2.8568	BRA	.5293	BC3	3.8939	FSP	2004												

MID-COURSE EXECUTION ACCURACY

SGT	1544.6	SGR	4935.1	SG3	1162.8						
RRT	.7534	RRF	.9987	RTF	.7617						
SGB	5171.2	R23	.0335	R13	.9982						
SG1	5076.0	SG2	987.5	THA	76.20						

ORBIT DETERMINATION ACCURACY

ST	38.6	SR	171.8	SS	137.6
CRT	.9290	CRS	-.9999	CST	-.9340
LSA	223.0	MSA	14.0	SSA	.3
EL1	175.5	EL2	14.0	ALF	78.14

LAUNCH DATE JUL 22 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 13 1974

HELIOCENTRIC CONIC DISTANCE 539.824 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.827 GAL -1.29 AZL 83.99 HCA 165.36 SMA 198.46 ECC .23515 INC 6.0140 V1 29.312
RP 240.03 LAP 1.52 LOP 104.48 VP 20.906 GAP 6.27 AZP 95.82 TAL 353.24 TAP 158.59 RCA 151.79 APO 245.13 V2 22.882
RC 229.048 GL 45.90 GP -47.96 ZAL 97.09 ZAP 98.97 ETS 192.69 ZAE 120.15 ETE 225.03 ZAC 39.77 ETC 291.72 LVI 26.29

PLANETOCENTRIC CONIC

C3 23.241 VHL 4.821 DLA 56.16 RAL 12.72 RAD 6644.3 VEL 11.968 PTH 6.97 VHP 3.351 DPA -33.85 RAP 46.36 ECC 1.3825

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.23	5 38 11	4567.68	-27.94	218.44	261.90	39.08	6 54 18	3567.7	-45.60	197.31
39.23	5 38 11	4567.68	-27.94	218.44	261.90	39.08	6 54 18	3567.7	-45.60	197.31
39.23	5 38 11	4567.68	-27.94	218.44	261.90	39.08	6 54 18	3567.7	-45.60	197.31
39.23	5 38 11	4567.68	-27.94	218.44	261.90	39.08	6 54 18	3567.7	-45.60	197.31
39.23	5 38 11	4567.68	-27.94	218.44	261.90	39.08	6 54 18	3567.7	-45.60	197.31
39.23	5 38 11	4567.68	-27.94	218.44	261.90	39.08	6 54 18	3567.7	-45.60	197.31
39.23	5 38 11	4567.68	-27.94	218.44	261.90	39.08	6 54 18	3567.7	-45.60	197.31

DIFFERENTIAL CORRECTIONS

TDE .7486 TRA -.3787 TC3-1.2398 BAU 1.1927
RDE 3.0975 RRA .3027 RC3-3.6330 FAU .22818
FDE 7.8633 FRA .5909 FC3-8.4996 BSP 9038
BDE 3.1867 BRA .4848 BC3 3.8387 FSP 1868

MID-COURSE EXECUTION ACCURACY

SGT 1695.2 SGR 5122.5 SG3 1079.4
RRT .7993 RRF .9989 RTF .8070
SGB 5395.7 R23 .0364 R13 .9983
SG1 5305.2 SG2 983.6 THA 74.64

ORBIT DETERMINATION ACCURACY

ST 46.1 SR 184.4 SS 135.4
CRT .9497 CRS -.9999 CST -.9534
LSA 233.0 MSA 14.1 SSA .3
EL1 189.6 EL2 14.1 ALF 76.56

LAUNCH DATE JUL 22 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 15 1974

HELIOCENTRIC CONIC DISTANCE 543.601 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.824 GAL -1.30 AZL 83.51 HCA 166.29 SMA 198.41 ECC .23499 INC 6.4887 V1 29.312
RP 240.34 LAP 1.54 LOP 105.42 VP 20.869 GAP 6.04 AZP 96.31 TAL 353.16 TAP 159.44 RCA 151.79 APO 245.04 V2 22.851
RC 231.955 GL 47.92 GP -49.69 ZAL 96.93 ZAP 97.57 ETS 191.70 ZAE 118.08 ETE 223.89 ZAC 38.31 ETC 292.52 LVI 27.86

PLANETOCENTRIC CONIC

C3 24.968 VHL 4.997 DLA 58.24 RAL 10.42 RAD 6645.0 VEL 12.039 PTH 7.03 VHP 3.476 DPA -35.63 RAP 46.78 ECC 1.4109

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.71	5 22 17	4598.72	-27.70	221.86	261.47	36.48	6 38 55	3598.7	-46.23	201.82
36.71	5 22 17	4598.72	-27.70	221.86	261.47	36.48	6 38 55	3598.7	-46.23	201.82
36.71	5 22 17	4598.72	-27.70	221.86	261.47	36.48	6 38 55	3598.7	-46.23	201.82
36.71	5 22 17	4598.72	-27.70	221.86	261.47	36.48	6 38 55	3598.7	-46.23	201.82
36.71	5 22 17	4598.72	-27.70	221.86	261.47	36.48	6 38 55	3598.7	-46.23	201.82
36.71	5 22 17	4598.72	-27.70	221.86	261.47	36.48	6 38 55	3598.7	-46.23	201.82
36.71	5 22 17	4598.72	-27.70	221.86	261.47	36.48	6 38 55	3598.7	-46.23	201.82

DIFFERENTIAL CORRECTIONS

TDE .9145 TRA -.3917 TC3-1.2781 BAU 1.2513
RDE 3.4320 RRA .2146 RC3-3.5241 FAU .21051
FDE 7.6589 FRA .3341 FC3-7.2992 BSP 9408
BDE 3.5518 BRA .4466 BC3 3.7487 FSP 1713

MID-COURSE EXECUTION ACCURACY

SGT 1859.8 SGR 5301.8 SG3 988.4
RRT .8343 RRF .9990 RTF .8416
SGB 5618.5 R23 .0390 R13 .9984
SG1 5531.9 SG2 982.8 THA 73.14

ORBIT DETERMINATION ACCURACY

ST 54.0 SR 197.0 SS 132.0
CRT .9624 CRS -.9999 CST -.9653
LSA 242.7 MSA 14.2 SSA .3
EL1 203.7 EL2 14.2 ALF 75.14

LAUNCH DATE JUL 22 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 17 1974

HELIOCENTRIC CONIC DISTANCE 547.375 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.822 GAL -1.32 AZL 82.97 HCA 167.22 SMA 198.37 ECC .23486 INC 7.0299 V1 29.312
RP 240.63 LAP 1.55 LOP 106.36 VP 20.833 GAP 5.81 AZP 96.86 TAL 353.07 TAP 160.29 RCA 151.78 APO 244.96 V2 22.821
RC 234.852 GL 50.48 GP -51.45 ZAL 96.75 ZAP 96.24 ETS 190.66 ZAE 116.05 ETE 222.77 ZAC 36.83 ETC 293.40 LVI 29.47

PLANETOCENTRIC CONIC

C3 27.101 VHL 5.206 DLA 60.39 RAL 7.67 RAD 6645.9 VEL 12.127 PTH 7.10 VHP 3.627 DPA -37.40 RAP 47.28 ECC 1.4460

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.12	5 4 40	4631.45	-27.23	225.35	260.68	33.75	6 21 52	3631.4	-46.65	206.60
34.12	5 4 40	4631.45	-27.23	225.35	260.68	33.75	6 21 52	3631.4	-46.65	206.60
34.12	5 4 40	4631.45	-27.23	225.35	260.68	33.75	6 21 52	3631.4	-46.65	206.60
34.12	5 4 40	4631.45	-27.23	225.35	260.68	33.75	6 21 52	3631.4	-46.65	206.60
34.12	5 4 40	4631.45	-27.23	225.35	260.68	33.75	6 21 52	3631.4	-46.65	206.60
34.12	5 4 40	4631.45	-27.23	225.35	260.68	33.75	6 21 52	3631.4	-46.65	206.60
34.12	5 4 40	4631.45	-27.23	225.35	260.68	33.75	6 21 52	3631.4	-46.65	206.60

DIFFERENTIAL CORRECTIONS

TDE 1.0978 TRA -.4126 TC3-1.2939 BAU 1.3141
RDE 3.8036 RRA .1033 RC3-3.3882 FAU .19199
FDE 7.3713 FRA .0820 FC3-6.1330 BSP 9786
BDE 3.9588 BRA .4253 BC3 3.6268 FSP 1550

MID-COURSE EXECUTION ACCURACY

SGT 2029.7 SGR 5479.2 SG3 892.2
RRT .8631 RRF .9991 RTF .8701
SGB 5843.1 R23 .0404 R13 .9984
SG1 5761.2 SG2 974.9 THA 71.73

ORBIT DETERMINATION ACCURACY

ST 62.0 SR 209.4 SS 127.1
CRT .9711 CRS-1.0000 CST -.9734
LSA 252.3 MSA 14.2 SSA .2
EL1 217.9 EL2 14.2 ALF 73.89

LAUNCH DATE JUL 22 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 19 1974

HELIOCENTRIC CONIC DISTANCE 551.147 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.821 GAL -1.33 AZL 82.35 HCA 168.14 SMA 198.34 ECC .23476 INC 7.6528 V1 29.312
RP 240.93 LAP 1.57 LOP 107.30 VP 20.798 GAP 5.58 AZP 97.49 TAL 352.98 TAP 161.13 RCA 151.78 APO 244.90 V2 22.792
RC 237.739 GL 53.21 GP -53.23 ZAL 96.54 ZAP 95.00 ETS 189.60 ZAE 114.06 ETE 221.65 ZAC 35.33 ETC 294.37 LVI 31.10

PLANETOCENTRIC CONIC

C3 29.770 VHL 5.456 DLA 62.61 RAL 4.31 RAD 6646.9 VEL 12.235 PTH 7.18 VHP 3.808 DPA -39.18 RAP 47.89 ECC 1.4899

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.49	4 44 51	4666.21	-26.50	228.85	259.36	30.93	6 2 38	3666.2	-46.78	211.61
31.49	4 44 51	4666.21	-26.50	228.85	259.36	30.93	6 2 38	3666.2	-46.78	211.61
31.49	4 44 51	4666.21	-26.50	228.85	259.36	30.93	6 2 38	3666.2	-46.78	211.61
31.49	4 44 51	4666.21	-26.50	228.85	259.36	30.93	6 2 38	3666.2	-46.78	211.61
31.49	4 44 51	4666.21	-26.50	228.85	259.36	30.93	6 2 38	3666.2	-46.78	211.61
31.49	4 44 51	4666.21	-26.50	228.85	259.36	30.93	6 2 38	3666.2	-46.78	211.61
31.49	4 44 51	4666.21	-26.50	228.85	259.36	30.93	6 2 38	3666.2	-46.78	211.61

DIFFERENTIAL CORRECTIONS

TDE 1.2972 TRA -.4438 TC3-1.2875 BAU 1.3780
RDE 4.2176 RRA -.0293 RC3-3.2141 FAU .17211
FDE 6.9942 FRA -.1465 FC3-5.0052 BSP 10202
BDE 4.4126 BRA .4447 BC3 3.4624 FSP 1384

MID-COURSE EXECUTION ACCURACY

SGT 2203.5 SGR 5649.9 SG3 791.3
RRT .8858 RRF .9992 RTF .8927
SGB 6064.4 R23 .0409 R13 .9985
SG1 5987.2 SG2 964.9 THA 70.41

ORBIT DETERMINATION ACCURACY

ST 69.8 SR 221.5 SS 120.9
CRT .9770 CRS-1.0000 CST -.9789
LSA 261.4 MSA 14.3 SSA .2
EL1 231.8 EL2 14.2 ALF 72.82

LAUNCH DATE JUL 22 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 21 1974

HELIOCENTRIC CONIC DISTANCE 554.915 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.819	GAL	-1.35	AZL	81.62	HCA	169.07	SMA	198.31	ECC	.23469	INC	8.3774
RP	241.22	LAP	1.58	LOP	108.23	VP	20.764	GAP	5.35	AZP	98.23	TAL	352.89	TAP	161.96	RCA	151.77	APO	244.65
RC	240.615	GL	56.11	GP	-55.02	ZAL	96.29	ZAP	93.84	ETS	188.50	ZAE	112.12	ETE	220.55	ZAC	33.82	ETC	295.45

V1	29.312	V2	22.763	LVI	32.76														

PLANETOCENTRIC CONIC

C3	33.163	VHL	5.759	DLA	64.86	RAL	.16	RAD	6648.2	VEL	12.372	PTH	7.29	VHP	4.027	DPA	-40.94	RAP	48.60

ECC	1.5458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.84	4 22 2	4703.51	-25.43	232.34	257.28	28.06	5 40 26	3703.5	-46.55	216.79
28.84	4 22 2	4703.51	-25.43	232.34	257.28	28.06	5 40 26	3703.5	-46.55	216.79
28.84	4 22 2	4703.51	-25.43	232.34	257.28	28.06	5 40 26	3703.5	-46.55	216.79
28.84	4 22 2	4703.51	-25.43	232.34	257.28	28.06	5 40 26	3703.5	-46.55	216.79
28.84	4 22 2	4703.51	-25.43	232.34	257.28	28.06	5 40 26	3703.5	-46.55	216.79
28.84	4 22 2	4703.51	-25.43	232.34	257.28	28.06	5 40 26	3703.5	-46.55	216.79
28.84	4 22 2	4703.51	-25.43	232.34	257.28	28.06	5 40 26	3703.5	-46.55	216.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.5008	TRA	-.4906	TC3	-1.2624	BAU	1.4491	SGT	2379.9	SGR	5812.9	SG3	687.7	ST	76.7	SR	232.0
RDE	4.6609	RRA	-.2034	RC3	-3.0149	FAU	.15182	RRT	.9050	RRF	.9993	RTF	.9120	CRT	.9808	CRS	-1.0000
FDE	6.4962	FRA	-.3668	FC3	-3.9634	BSP	10517	SGB	6281.2	R23	.0401	R13	.9986	LSA	268.7	MSA	14.2
BDE	4.8966	BRA	.8311	BC3	3.2685	FSP	1201	SG1	6209.3	SG2	947.6	THA	69.16	EL1	244.0	EL2	14.2

SS	112.6																		
CST	-.9825																		
SSA	.2																		
ALF	71.98																		

LAUNCH DATE JUL 22 1973 FLIGHT TIME 244.00 ARRIVAL DATE MAR 23 1974

HELIOCENTRIC CONIC DISTANCE 558.680 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.818	GAL	-1.37	AZL	80.77	HCA	169.98	SMA	198.29	ECC	.23464	INC	9.2314
RP	241.50	LAP	1.60	LOP	109.16	VP	20.731	GAP	5.12	AZP	99.09	TAL	352.80	TAP	162.78	RCA	151.77	APO	244.82
RC	243.479	GL	59.19	GP	-56.81	ZAL	96.00	ZAP	92.79	ETS	187.40	ZAE	110.26	ETE	219.46	ZAC	32.32	ETC	296.63

V1	29.312	V2	22.734	LVI	34.43														

PLANETOCENTRIC CONIC

C3	37.554	VHL	6.128	DLA	67.10	RAL	354.91	RAD	6649.8	VEL	12.547	PTH	7.42	VHP	4.295	DPA	-42.67	RAP	49.42

ECC	1.6180

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.22	3 55 10	4743.83	-23.98	235.72	254.10	25.20	5 14 14	3743.8	-45.86	222.00
26.22	3 55 10	4743.83	-23.98	235.72	254.10	25.20	5 14 14	3743.8	-45.86	222.00
26.22	3 55 10	4743.83	-23.98	235.72	254.10	25.20	5 14 14	3743.8	-45.86	222.00
26.22	3 55 10	4743.83	-23.98	235.72	254.10	25.20	5 14 14	3743.8	-45.86	222.00
26.22	3 55 10	4743.83	-23.98	235.72	254.10	25.20	5 14 14	3743.8	-45.86	222.00
26.22	3 55 10	4743.83	-23.98	235.72	254.10	25.20	5 14 14	3743.8	-45.86	222.00
26.22	3 55 10	4743.83	-23.98	235.72	254.10	25.20	5 14 14	3743.8	-45.86	222.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.6962	TRA	-.5536	TC3	-1.2133	BAU	1.5263	SGT	2548.7	SGR	5972.0	SG3	583.4	ST	81.8	SR	240.3
RDE	5.1299	RRA	-.4138	RC3	-2.7875	FAU	.13102	RRT	.9204	RRF	.9993	RTF	.9276	CRT	.9830	CRS	-1.0000
FDE	5.8740	FRA	-.5477	FC3	-3.0204	BSP	10879	SGB	6493.1	R23	.0376	R13	.9988	LSA	273.3	MSA	14.3
BDE	5.4030	BRA	.6911	BC3	3.0401	FSP	1021	SG1	6426.8	SG2	926.0	THA	68.08	EL1	253.5	EL2	14.2

SS	102.2																		
CST	-.9847																		
SSA	.1																		
ALF	71.44																		

LAUNCH DATE JUL 22 1973 FLIGHT TIME 290.00 ARRIVAL DATE MAY 8 1974

HELIOCENTRIC CONIC DISTANCE 645.924 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.858	GAL	-2.24	AZL	99.47	HCA	191.16	SMA	199.07	ECC	.23949	INC	9.4742
RP	246.74	LAP	1.83	LOP	130.06	VP	20.225	GAP	.15	AZP	80.70	TAL	348.38	TAP	179.54	RCA	151.39	APO	246.74
RC	304.476	GL	-58.76	GP	52.79	ZAL	100.40	ZAP	76.55	ETS	200.89	ZAE	94.18	ETE	177.08	ZAC	139.55	ETC	292.17

V1	29.312	V2	22.215	LVI	-73.68														

PLANETOCENTRIC CONIC

C3	39.956	VHL	6.321	DLA	-38.88	RAL	64.31	RAD	6650.6	VEL	12.642	PTH	7.49	VHP	3.972	DPA	51.85	RAP	344.85

ECC	1.6578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 45 28	2449.99	-4.90	64.30	296.28	137.38	19 26 18	1450.0	13.44	48.45
60.00	21 2 43	2083.26	7.19	42.87	307.72	129.76	21 37 27	1083.3	22.43	23.55
62.12	22 24 30	1850.51	15.44	29.89	314.27	126.14	22 55 21	850.5	28.79	8.23
62.12	22 24 30	1850.51	15.44	29.89	314.27	126.14	22 55 21	850.5	28.79	8.23
62.12	22 24 30	1850.51	15.44	29.89	314.27	126.14	22 55 21	850.5	28.79	8.23
62.12	22 24 30	1850.51	15.44	29.89	314.27	126.14	22 55 21	850.5	28.79	8.23
62.12	22 24 30	1850.51	15.44	29.89	314.27	126.14	22 55 21	850.5	28.79	8.23

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.6609	TRA	3.8834	TC3	-3.1923	BAU	2.0986	SGT	6909.9	SGR	5358.8	SG3	674.5	ST	179.3	SR	112.9
RDE	2.0871	RRA	-3.5135	RC3	2.2899	FAU	.16630	RRT	-.9850	RRF	-.9980	RTF	.9907	CRT	-.9825	CRS	.9985
FDE	-2.6641	FRA	5.0348	FC3	-3.6033	BSP	15041	SGB	8744.3	R23	.1213	R13	-.9907	LSA	217.1	MSA	20.2
BDE	4.2141	BRA	5.2383	BC3	3.9287	FSP	1200	SG1	8713.4	SG2	734.3	THA	142.31	EL1	211.1	EL2	17.9

SS	51.3																		
CST	-.9710																		
SSA	.3																		
ALF	148.02																		

LAUNCH DATE JUL 22 1973 FLIGHT TIME 292.00 ARRIVAL DATE MAY 10 1974

HELIOCENTRIC CONIC DISTANCE 649.664 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.862	GAL	-2.28	AZL	98.81	HCA	192.04	SMA	199.14	ECC	.23987	INC	8.8066
RP	246.90	LAP	1.83	LOP	130.95	VP	20.213	GAP	-.07	AZP	81.38	TAL	348.17	TAP	180.21	RCA	151.37	APO	246.90
RC	306.863	GL	-56.35	GP	50.90	ZAL	101.13	ZAP	75.18	ETS	201.42	ZAE	93.31	ETE	178.35	ZAC	137.85	ETC	291.39

V1	29.312	V2	22.199	LVI	-72.10														

PLANETOCENTRIC CONIC

C3	36.470	VHL	6.039	DLA	-36.61	RAL	63.32	RAD	6649.4	VEL	12.504	PTH	7.39	VHP	3.781	DPA	50.23	RAP	346.47

ECC	1.6002

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 22 41	2491.13	-6.96	66.04	292.48	137.19	19 4 12	1491.1	11.42	50.26
60.00	20 15 39	2190.09	2.51	48.01	301.51	130.24	20 52 9	1190.1	18.21	29.41
65.72	22 38 43	1774.53	15.52	23.73	311.35	123.58	23 8 18	774.5	27.89	1.50
65.72	22 38 43	1774.53	15.52	23.73	311.35	123.58	23 8 18	774.5	27.89	1.50
65.72	22 38 43	1774.53	15.52	23.73	311.35	123.58	23 8 18	774.5	27.89	1.50
65.72	22 38 43	1774.53	15.52	23.73	311.35	123.58	23 8 18	774.5	27.89	1.50
65.72	22 38 43	1774.53	15.52	23.73	311.35	123.58	23 8 18	774.5	27.89	1.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.5163	TRA	3.8594	TC3	-3.5441	BAU	2.0815	SGT	7089.3	SGR	5178.7	SG3	764.8	ST	180.4	SR	107.6
RDE	1.8997	RRA	-3.3104	RC3	2.3801	FAU	.18446	RRT	-.9850	RRF	-.9980	RTF	.9808	CRT	-.9824	CRS	.9983
FDE	-2.8171	FRA	5.5638	FC3	-4.3788	BSP	15084	SGB	8779.4	R23	.1254	R13	-.9901	LSA	216.0	MSA	20.2
BDE	3.9967	BRA	5.0846	BC3	4.2691	FSP	1358	SG1	8749.5	SG2	723.5	THA	143.98	EL1	209.4	EL2	17.3

SS	54.3																		
CST	-.9697																		
SSA	.3																		
ALF	149.39																		

LAUNCH DATE JUL 22 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 12 1974

HELIOCENTRIC CONIC DISTANCE 653.496 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.868 GAL -2.32 AZL 98.23 HCA 192.92 SMA 199.21 ECC .24027 INC 8.2295 V1 29.312
RP 247.06 LAP 1.83 LOP 131.84 VP 20.202 GAP -.28 AZP 81.98 TAL 347.96 TAP 180.88 RCA 151.35 APO 247.07 V2 22.183
RC 309.224 GL -54.09 GP 49.05 ZAL 101.84 ZAP 73.82 ETS 201.86 ZAE 92.40 ETE 179.52 ZAC 136.17 ETC 290.70 LVI -70.50

PLANETOCENTRIC CONIC

C3 33.678 VHL 5.803 DLA -34.45 RAL 62.51 RAD 6648.4 VEL 12.393 PTH 7.31 VHP 3.622 DPA 48.64 RAP 347.98 ECC 1.5543

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 3 44	2527.71	-8.78	67.60	289.44	136.95	18 45 51	1527.7	9.61	51.84
60.00	19 43 47	2261.30	-.62	51.41	297.22	130.30	20 21 28	1261.3	15.28	33.19
69.46	22 56 24	1691.63	15.42	17.07	308.78	121.19	23 24 36	691.6	26.87	354.42
69.46	22 56 24	1691.63	15.42	17.07	308.78	121.19	23 24 36	691.6	26.87	354.42
69.46	22 56 24	1691.63	15.42	17.07	308.78	121.19	23 24 36	691.6	26.87	354.42
69.46	22 56 24	1691.63	15.42	17.07	308.78	121.19	23 24 36	691.6	26.87	354.42
69.46	22 56 24	1691.63	15.42	17.07	308.78	121.19	23 24 36	691.6	26.87	354.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.3767 TRA 3.8511 TC3-3.8894 BAU 2.0689 SGT 7263.0 SGR 4998.1 SG3 850.5 ST 180.6 SR 102.1 SS 56.5
RDE 1.7262 RRA-3.1264 RC3 2.4470 FAU .20135 RRT -.9851 RRF -.9978 RTF .9809 CRT -.9822 CRS .9979 CST -.9679
FDE-2.9135 FRA 6.0534 FC3-5.1759 BSP 15184 SGB 8816.6 R23 .1292 R13 -.9895 LSA 214.1 MSA 20.2 SSA .3
BDE 3.7923 BRA 4.9604 BC3 4.5951 FSP 1511 SG1 8788.0 SG2 710.2 THA 145.61 EL1 206.8 EL2 16.8 ALF 150.74

LAUNCH DATE JUL 22 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC DISTANCE 657.149 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.869 GAL -2.37 AZL 97.73 HCA 193.80 SMA 199.28 ECC .24068 INC 7.7256 V1 29.312
RP 247.22 LAP 1.84 LOP 132.73 VP 20.192 GAP -.49 AZP 82.49 TAL 347.75 TAP 181.54 RCA 151.32 APO 247.25 V2 22.168
RC 311.559 GL -51.97 GP 47.25 ZAL 102.53 ZAP 72.46 ETS 202.23 ZAE 91.45 ETE 180.60 ZAC 134.52 ETC 290.08 LVI -68.89

PLANETOCENTRIC CONIC

C3 31.411 VHL 5.605 DLA -32.40 RAL 61.82 RAD 6647.5 VEL 12.302 PTH 7.24 VHP 3.490 DPA 47.09 RAP 349.37 ECC 1.5169

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 47 35	2561.20	-10.44	69.04	286.97	136.69	18 30 16	1561.2	7.94	53.28
60.00	19 19 1	2317.87	-3.11	54.12	293.95	130.20	19 57 39	1317.9	12.90	36.03
70.00	21 34 29	1918.86	6.64	29.13	301.26	123.58	22 6 28	918.9	19.70	8.42
73.48	23 18 48	1596.83	15.17	9.59	306.52	118.98	23 45 25	596.8	25.77	346.61
73.48	23 18 48	1596.83	15.17	9.59	306.52	118.98	23 45 25	596.8	25.77	346.61
73.48	23 18 48	1596.83	15.17	9.59	306.52	118.98	23 45 25	596.8	25.77	346.61
110.00	2 37 52	6253.71	6.64	295.95	301.26	123.58	4 22 5	5253.7	19.70	275.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.2462 TRA 3.8517 TC3-4.2312 BAU 2.0625 SGT 7433.6 SGR 4818.7 SG3 930.8 ST 180.2 SR 96.6 SS 58.0
RDE 1.5687 RRA-2.9586 RC3 2.4938 FAU .21701 RRT -.9851 RRF -.9977 RTF .9809 CRT -.9818 CRS .9974 CST -.9655
FDE-2.9618 FRA 6.5001 FC3-5.9811 BSP 15283 SGB 8858.8 R23 .1327 R13 -.9889 LSA 211.6 MSA 20.3 SSA .4
BDE 3.6054 BRA 4.8568 BC3 4.9115 FSP 1655 SG1 8831.3 SG2 696.8 THA 147.21 EL1 203.8 EL2 16.2 ALF 152.05

LAUNCH DATE JUL 22 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC DISTANCE 660.891 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.873 GAL -2.41 AZL 97.28 HCA 194.68 SMA 199.36 ECC .24109 INC 7.2815 V1 29.312
RP 247.37 LAP 1.84 LOP 133.61 VP 20.182 GAP -.70 AZP 82.95 TAL 347.53 TAP 182.20 RCA 151.30 APO 247.43 V2 22.154
RC 313.869 GL -49.98 GP 45.50 ZAL 103.21 ZAP 71.13 ETS 202.53 ZAE 90.46 ETE 181.58 ZAC 132.91 ETC 289.52 LVI -67.31

PLANETOCENTRIC CONIC

C3 29.548 VHL 5.436 DLA -30.46 RAL 61.26 RAD 6646.8 VEL 12.226 PTH 7.18 VHP 3.380 DPA 45.58 RAP 350.65 ECC 1.4863

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 33 37	2592.39	-11.98	70.40	284.96	136.40	18 16 49	1592.4	6.39	54.60
60.00	18 58 39	2366.13	-5.23	56.44	291.37	130.02	19 38 6	1366.1	10.84	38.45
70.00	20 55 31	2022.28	2.72	34.57	297.36	124.06	21 29 14	1022.3	16.23	14.43
78.17	23 49 15	1478.72	14.81	.47	304.54	116.93	24 13 53	478.7	24.62	337.23
78.17	23 49 15	1478.72	14.81	.47	304.54	116.93	24 13 53	478.7	24.62	337.23
78.17	23 49 15	1478.72	14.81	.47	304.54	116.93	24 13 53	478.7	24.62	337.23
110.00	1 58 54	1069.10	2.72	323.48	297.36	124.06	2 16 43	69.1	16.23	303.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.1244 TRA 3.8597 TC3-4.5668 BAU 2.0608 SGT 7600.9 SGR 4641.6 SG3 1005.3 ST 179.4 SR 91.3 SS 58.9
RDE 1.4280 RRA-2.8046 RC3 2.5218 FAU .23134 RRT -.9852 RRF -.9975 RTF .9809 CRT -.9814 CRS .9967 CST -.9628
FDE-2.9721 FRA 6.9034 FC3-6.7780 BSP 15387 SGB 8906.0 R23 .1357 R13 -.9883 LSA 208.7 MSA 20.5 SSA .4
BDE 3.4353 BRA 4.7711 BC3 5.2168 FSP 1789 SG1 8879.9 SG2 682.1 THA 148.76 EL1 200.7 EL2 15.7 ALF 153.30

LAUNCH DATE JUL 22 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 664.633 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.877 GAL -2.46 AZL 96.89 HCA 195.56 SMA 199.44 ECC .24152 INC 6.8869 V1 29.312
RP 247.51 LAP 1.84 LOP 134.50 VP 20.173 GAP -.91 AZP 83.36 TAL 347.30 TAP 182.86 RCA 151.27 APO 247.61 V2 22.140
RC 316.151 GL -48.10 GP 43.83 ZAL 103.88 ZAP 69.82 ETS 202.76 ZAE 89.44 ETE 182.49 ZAC 131.35 ETC 289.03 LVI -65.76

PLANETOCENTRIC CONIC

C3 28.002 VHL 5.292 DLA -28.62 RAL 60.79 RAD 6646.2 VEL 12.164 PTH 7.13 VHP 3.287 DPA 44.13 RAP 351.85 ECC 1.4608

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 21 23	2621.78	-13.43	71.70	283.31	136.09	18 5 5	1621.8	4.91	55.84
60.00	18 41 24	2408.92	-7.10	58.51	289.29	129.78	19 21 33	1408.9	8.99	40.56
70.00	20 27 30	2096.87	-.13	38.46	294.54	124.15	21 2 27	1096.9	13.61	18.62
80.00	22 49 7	1653.37	7.60	9.56	299.29	118.96	23 16 40	653.4	18.83	347.82
85.38	0 47 51	1283.94	14.36	345.83	302.79	115.03	1 9 15	283.9	23.45	322.42
100.00	1 35 55	1127.84	7.60	330.93	299.29	118.96	1 54 43	127.8	18.83	309.19
110.00	1 30 53	1143.69	-.13	327.38	294.54	124.15	1 49 56	143.7	13.61	307.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.0126 TRA 3.8714 TC3-4.8987 BAU 2.0648 SGT 7766.8 SGR 4467.9 SG3 1073.6 ST 178.3 SR 86.1 SS 59.4
RDE 1.3022 RRA-2.6616 RC3 2.5346 FAU .24446 RRT -.9851 RRF -.9972 RTF .9808 CRT -.9809 CRS .9959 CST -.9595
FDE-2.9489 FRA 7.2618 FC3-7.5580 BSP 15449 SGB 8960.2 R23 .1386 R13 -.9876 LSA 205.7 MSA 20.6 SSA .4
BDE 3.2820 BRA 4.6981 BC3 5.5155 FSP 1906 SG1 8935.3 SG2 667.8 THA 150.28 EL1 197.4 EL2 15.1 ALF 154.50

LAUNCH DATE JUL 22 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC DISTANCE 668.375 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.881 GAL -2.51 AZL 96.33 HCA 196.44 SMA 199.52 ECC .24197 INC 6.5342 V1 29.312
RP 247.65 LAP 1.85 LOP 135.38 VP 20.165 GAP -1.12 AZP 83.73 TAL 347.07 TAP 183.51 RCA 151.24 APO 247.80 V2 22.126
RC 318.406 GL -46.33 GP 42.21 ZAL 104.54 ZAP 68.53 ETS 202.95 ZAE 88.39 ETE 183.31 ZAC 129.84 ETC 288.59 LVI -64.25

PLANETOCENTRIC CONIC

C3 26.709 VHL 5.168 DLA -26.88 RAL 60.41 RAD 6645.7 VEL 12.111 PTH 7.08 VHP 3.210 DPA 42.73 RAP 352.96 ECC 1.4396

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 10 35	2649.68	-14.79	72.94	281.97	135.75	17 54 44	1649.7	3.51	57.01
60.00	18 26 29	2447.79	-8.79	60.40	287.61	129.49	19 7 17	1447.8	7.31	42.46
70.00	20 5 8	2157.69	-2.45	41.63	292.36	124.08	20 41 6	1157.7	11.41	21.96
80.00	22 7 54	1773.41	3.60	16.22	296.12	119.66	22 37 28	773.4	15.40	355.08
90.00	0 6 48	1402.67	6.85	350.73	297.90	117.50	0 30 11	402.7	17.57	328.83
100.00	0 54 42	1247.88	3.60	337.59	296.12	119.66	1 15 30	247.9	15.40	316.45
110.00	1 8 31	1204.51	-2.45	330.55	292.36	124.08	1 28 35	204.5	11.41	310.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.9028 TRA 3.8941 TC3-5.2156 BAU 2.0698 SGT 7927.4 SGR 4297.0 SG3 1135.5 ST 176.7 SR 81.1 SS 59.4
RDE 1.1881 RRA-2.5306 RC3 2.5297 FAU .25602 RRT -.9851 RRF -.9970 RTF .9808 CRT -.9805 CRS .9948 CST -.9557
FDE-2.8917 FRA 7.5820 FC3-8.2985 BSP 15588 SGB 9017.1 R23 .1405 R13 -.9870 LSA 202.2 MSA 20.8 SSA .4
BDE 3.1365 BRA 4.6441 BC3 5.7967 FSP 2017 SG1 8993.6 SG2 650.8 THA 151.74 EL1 193.9 EL2 14.5 ALF 155.62

LAUNCH DATE JUL 22 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 672.117 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.885 GAL -2.56 AZL 96.22 HCA 197.31 SMA 199.60 ECC .24242 INC 6.2166 V1 29.312
RP 247.78 LAP 1.85 LOP 136.27 VP 20.158 GAP -1.33 AZP 84.06 TAL 346.83 TAP 184.15 RCA 151.21 APO 247.99 V2 22.113
RC 320.632 GL -44.66 GP 40.67 ZAL 105.18 ZAP 67.28 ETS 203.09 ZAE 87.33 ETE 184.07 ZAC 128.38 ETC 288.19 LVI -62.79

PLANETOCENTRIC CONIC

C3 25.619 VHL 5.062 DLA -25.21 RAL 60.10 RAD 6645.2 VEL 12.086 PTH 7.05 VHP 3.145 DPA 41.39 RAP 354.00 ECC 1.4216

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 0 57	2676.33	-16.09	74.15	280.87	135.40	17 45 33	1676.3	2.18	58.13
60.00	18 13 23	2483.66	-10.33	62.17	286.24	129.17	18 54 47	1483.7	5.74	44.19
70.00	19 46 26	2210.12	-4.45	44.38	290.63	123.90	20 23 16	1210.1	9.48	24.80
80.00	21 39 14	1857.07	.77	20.82	293.88	119.85	22 10 11	857.1	12.85	359.99
90.00	23 24 26	1517.75	3.19	357.21	295.22	118.11	23 49 44	517.7	14.44	335.82
100.00	0 26 1	1331.54	.77	342.19	293.88	119.85	0 48 13	331.5	12.85	321.36
110.00	0 49 48	1256.94	-4.45	333.30	290.63	123.90	1 10 45	256.9	9.48	313.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.8005 TRA 3.9208 TC3-5.5255 BAU 2.0789 SGT 8087.2 SGR 4131.6 SG3 1190.8 ST 175.0 SR 76.4 SS 59.1
RDE 1.0863 RRA-2.4099 RC3 2.5120 FAU .26626 RRT -.9851 RRF -.9966 RTF .9808 CRT -.9802 CRS .9935 CST -.9513
FDE-2.8103 FRA 7.8663 FC3-8.9975 BSP 15716 SGB 9081.5 R23 .1423 R13 -.9864 LSA 198.7 MSA 21.0 SSA .5
BDE 3.0038 BRA 4.6022 BC3 6.0697 FSP 2117 SG1 9059.3 SG2 635.2 THA 153.14 EL1 190.4 EL2 13.9 ALF 156.69

LAUNCH DATE JUL 22 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 24 1974

HELIOCENTRIC CONIC DISTANCE 675.858 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.889 GAL -2.61 AZL 95.93 HCA 198.19 SMA 199.68 ECC .24288 INC 5.9291 V1 29.312
RP 247.91 LAP 1.85 LOP 137.15 VP 20.151 GAP -1.53 AZP 84.37 TAL 346.60 TAP 184.79 RCA 151.18 APO 248.18 V2 22.101
RC 322.829 GL -43.08 GP 39.19 ZAL 105.81 ZAP 66.05 ETS 203.19 ZAE 86.26 ETE 184.76 ZAC 126.98 ETC 287.84 LVI -61.37

PLANETOCENTRIC CONIC

C3 24.695 VHL 4.969 DLA -23.83 RAL 59.85 RAD 6644.9 VEL 12.028 PTH 7.02 VHP 3.091 DPA 40.10 RAP 354.98 ECC 1.4064

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 52 19	2701.86	-17.32	75.32	279.98	135.04	17 37 21	1701.9	.89	59.20
60.00	18 1 46	2517.13	-11.77	63.83	285.13	128.83	18 43 44	1517.1	4.28	45.81
70.00	19 30 20	2256.79	-6.21	46.84	289.25	123.65	20 7 56	1256.8	7.74	27.30
80.00	21 16 31	1924.46	-1.52	24.52	292.16	119.82	21 48 35	924.5	10.73	3.86
90.00	22 56 56	1600.97	.55	1.83	293.30	118.28	23 23 37	600.6	12.04	340.72
100.00	0 3 19	1398.94	-1.52	345.88	292.16	119.82	0 26 37	398.9	10.73	325.23
110.00	0 33 42	1303.61	-6.21	333.75	289.25	123.65	0 55 26	303.6	7.74	316.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.7016 TRA 3.9542 TC3-5.8219 BAU 2.0893 SGT 8242.8 SGR 3970.2 SG3 1230.7 ST 172.9 SR 72.0 SS 58.8
RDE .9946 RRA-2.2981 RC3 2.4815 FAU .27505 RRT -.9850 RRF -.9962 RTF .9807 CRT -.9800 CRS .9917 CST -.9463
FDE-2.7062 FRA 8.1150 FC3-9.6423 BSP 15872 SGB 9149.1 R23 .1433 R13 -.9859 LSA 195.1 MSA 21.2 SSA .5
BDE 2.8789 BRA 4.5735 BC3 6.3283 FSP 2206 SG1 9128.2 SG2 618.7 THA 154.49 EL1 186.8 EL2 13.3 ALF 157.69

LAUNCH DATE JUL 22 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 26 1974

HELIOCENTRIC CONIC DISTANCE 679.598 EARTH TO MARS

RL 151.99 LAL -.00 LOL 299.05 VL 32.894 GAL -2.66 AZL 95.67 HCA 199.07 SMA 199.77 ECC .24336 INC 5.6675 V1 29.312
RP 248.03 LAP 1.85 LOP 138.03 VP 20.145 GAP -1.74 AZP 84.64 TAL 346.35 TAP 185.43 RCA 151.15 APO 248.38 V2 22.089
RC 324.997 GL -41.38 GP 37.78 ZAL 106.44 ZAP 64.85 ETS 203.25 ZAE 85.17 ETE 185.39 ZAC 125.63 ETC 287.53 LVI -60.01

PLANETOCENTRIC CONIC

C3 23.909 VHL 4.890 DLA -22.13 RAL 59.66 RAD 6644.5 VEL 11.995 PTH 6.99 VHP 3.045 DPA 38.88 RAP 355.90 ECC 1.3935

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 44 32	2726.40	-18.50	76.46	279.28	134.65	17 29 58	1726.4	-.34	60.22
60.00	17 51 23	2548.62	-13.11	65.41	284.24	128.46	18 33 52	1548.6	2.89	47.32
70.00	19 16 14	2299.19	-7.81	49.09	288.14	123.36	19 54 33	1299.2	6.15	29.54
80.00	20 57 32	1982.15	-3.47	27.69	290.81	119.67	21 30 34	982.2	8.86	7.13
90.00	22 34 54	1668.08	-1.65	5.60	291.82	118.24	23 2 42	668.1	10.01	344.64
100.00	23 40 24	1456.63	-3.47	349.06	290.81	119.67	24 4 40	456.6	8.86	328.49
110.00	0 19 36	1346.01	-7.81	338.00	288.14	123.36	0 42 2	346.0	6.15	318.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.6097 TRA 3.9895 TC3-6.1107 BAU 2.1035 SGT 8398.2 SGR 3814.5 SG3 1282.7 ST 170.8 SR 67.9 SS 57.8
RDE .9138 RRA-2.1934 RC3 2.4426 FAU .28272 RRT -.9849 RRF -.9958 RTF .9806 CRT -.9799 CRS .9894 CST -.9408
FDE-2.5897 FRA 8.3277 FC-10.2374 BSP 16011 SGB 9223.9 R23 .1439 R13 -.9853 LSA 191.5 MSA 21.4 SSA .5
BDE 2.7651 BRA 4.5528 BC3 6.5808 FSP 2263 SG1 9204.2 SG2 602.9 THA 155.79 EL1 183.4 EL2 12.6 ALF 158.61

LAUNCH DATE JUL 22 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 28 1974

HELIOCENTRIC CONIC DISTANCE 683.338 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.898	GAL	-2.71	AZL	95.43	HCA	199.95	SMA	199.86	ECC	.24384	INC	5.4283	V1	29.312
RP	248.14	LAP	1.85	LOP	138.91	VP	20.140	GAP	-1.95	AZP	84.90	TAL	346.11	TAP	186.06	RCA	151.12	APO	248.59	V2	22.078
RC	327.134	GL	-40.16	GP	36.43	ZAL	107.05	ZAP	63.69	ETS	203.29	ZAE	84.08	ETE	185.96	ZAC	124.33	ETC	287.24	LVI	-58.71

PLANETOCENTRIC CONIC

C3	23.237	VHL	4.820	DLA	-20.69	RAL	59.51	RAD	6644.2	VEL	11.968	PTH	6.97	VHP	3.007	DPA	37.72	RAP	356.77	ECC	1.3824

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 37 29	2750.04	-19.63	77.58	278.73	134.26	17 23 19	1750.0	-1.53	61.21
60.00	17 42 1	2578.44	-14.36	66.93	283.54	128.07	18 24 59	1578.4	1.58	48.74
70.00	19 3 43	2338.28	-9.26	51.17	287.26	123.02	19 42 41	1338.3	4.67	31.60
80.00	20 41 11	2033.24	-5.18	30.51	289.75	119.45	21 15 4	1033.2	7.18	9.99
90.00	22 16 22	1726.21	-3.52	8.85	290.67	118.08	22 45 8	726.2	8.22	347.97
100.00	23 24 2	1507.71	-5.18	351.88	289.75	119.45	23 49 10	507.7	7.18	331.36
110.00	0 7 5	1385.10	-9.26	340.09	287.26	123.02	0 30 10	385.1	4.67	320.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.5219	TRA	4.0288	TC3	-6.3877	BAU	2.1193	SGT	8550.6	SGR	3663.9	SG3	1319.7	ST	168.7	SR	64.1	SS	56.9
RDE	.8419	RRA	-2.0955	RC3	2.3956	FAU	.28921	RRT	-.9848	RRF	-.9953	RTF	.9806	CRT	-.9801	CRS	.9866	CST	-.9349
FDE	-2.4615	FRA	8.5073	FC	-10.7750	BSP	16162	SGB	9302.6	R23	.1438	R13	-.9848	LSA	187.9	MSA	21.6	SSA	.6
BDE	2.6587	BRA	4.5412	BC3	6.8222	FSP	2349	SG1	9284.0	SG2	586.7	THA	157.02	EL1	180.0	EL2	11.9	ALF	159.47

LAUNCH DATE JUL 22 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 30 1974

HELIOCENTRIC CONIC DISTANCE 687.077 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.902	GAL	-2.76	AZL	95.21	HCA	200.83	SMA	199.94	ECC	.24434	INC	5.2085	V1	29.312
RP	248.25	LAP	1.85	LOP	139.79	VP	20.135	GAP	-2.15	AZP	85.13	TAL	345.86	TAP	186.68	RCA	151.09	APO	248.80	V2	22.067
RC	329.241	GL	-38.81	GP	35.14	ZAL	107.66	ZAP	62.56	ETS	203.29	ZAE	82.99	ETE	186.48	ZAC	123.09	ETC	286.99	LVI	-57.45

PLANETOCENTRIC CONIC

C3	22.661	VHL	4.760	DLA	-19.32	RAL	59.41	RAD	6644.0	VEL	11.944	PTH	6.95	VHP	2.976	DPA	36.62	RAP	357.60	ECC	1.3729

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 31 5	2772.86	-20.71	78.67	278.31	133.85	17 17 18	1772.9	-2.67	62.16
60.00	17 33 32	2606.80	-15.55	68.39	282.99	127.66	18 16 59	1606.8	.33	50.10
70.00	18 52 29	2374.69	-10.61	53.14	286.56	122.66	19 32 4	1374.7	3.29	33.51
80.00	20 26 49	2079.47	-6.72	33.08	288.91	119.16	21 1 28	1079.5	5.65	12.56
90.00	22 0 19	1777.87	-5.17	11.75	289.76	117.84	22 29 56	777.9	6.60	350.90
100.00	23 9 41	1553.94	-6.72	354.44	288.91	119.16	23 35 35	553.9	5.65	333.93
110.00	23 51 56	1421.50	-10.61	342.05	286.56	122.66	24 15 37	421.5	3.29	322.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.4391	TRA	4.0703	TC3	-6.6569	BAU	2.1380	SGT	8702.7	SGR	3519.3	SG3	1351.3	ST	166.4	SR	60.6	SS	55.9
RDE	.7782	RRA	-2.0039	RC3	2.3429	FAU	.29468	RRT	-.9846	RRF	-.9947	RTF	.9806	CRT	-.9805	CRS	.9832	CST	-.9283
FDE	-2.3254	FRA	8.6567	FC	-11.2579	BSP	16299	SGB	9387.3	R23	.1432	R13	-.9843	LSA	184.4	MSA	21.9	SSA	.6
BDE	2.5602	BRA	4.5368	BC3	7.0571	FSP	2401	SG1	9369.9	SG2	571.5	THA	158.20	EL1	176.8	EL2	11.2	ALF	160.27

LAUNCH DATE JUL 22 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 1 1974

HELIOCENTRIC CONIC DISTANCE 690.814 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.907	GAL	-2.82	AZL	95.01	HCA	201.70	SMA	200.03	ECC	.24485	INC	5.0061	V1	29.312
RP	248.35	LAP	1.85	LOP	140.67	VP	20.132	GAP	-2.36	AZP	85.35	TAL	345.61	TAP	187.31	RCA	151.05	APO	249.01	V2	22.057
RC	331.317	GL	-37.53	GP	33.92	ZAL	108.26	ZAP	61.46	ETS	203.28	ZAE	81.90	ETE	186.95	ZAC	121.90	ETC	286.76	LVI	-56.25

PLANETOCENTRIC CONIC

C3	22.167	VHL	4.708	DLA	-18.01	RAL	59.35	RAD	6643.8	VEL	11.923	PTH	6.93	VHP	2.951	DPA	35.57	RAP	358.40	ECC	1.3648

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 25 15	2794.92	-21.74	79.75	278.01	133.42	17 11 50	1794.9	-3.78	63.09
60.00	17 25 48	2633.89	-16.67	69.80	282.57	127.24	18 9 42	1633.9	-.86	51.39
70.00	18 42 21	2408.87	-11.86	54.99	286.02	122.27	19 22 30	1408.9	1.98	35.30
80.00	20 14 1	2121.95	-8.12	35.45	288.25	118.83	20 49 23	1121.9	4.22	14.91
90.00	21 46 9	1824.73	-6.65	14.39	289.05	117.55	22 16 34	824.7	5.12	353.55
100.00	22 56 53	1596.42	-8.12	356.82	288.25	118.83	23 23 29	596.4	4.22	336.28
110.00	23 41 47	1455.68	-11.86	343.91	286.02	122.27	24 6 3	455.7	1.98	324.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.3373	TRA	4.1182	TC3	-6.9090	BAU	2.1563	SGT	8850.2	SGR	3379.1	SG3	1377.3	ST	164.1	SR	57.4	SS	54.8
RDE	.7210	RRA	-1.9192	RC3	2.2820	FAU	.29876	RRT	-.9844	RRF	-.9940	RTF	.9805	CRT	-.9811	CRS	.9788	CST	-.9211
FDE	-2.1805	FRA	8.7841	FC	-11.6682	BSP	16481	SGB	9473.3	R23	.1418	R13	-.9839	LSA	180.9	MSA	22.1	SSA	.7
BDE	2.4651	BRA	4.5434	BC3	7.2761	FSP	2450	SG1	9456.9	SG2	556.8	THA	159.33	EL1	173.5	EL2	10.5	ALF	160.99

LAUNCH DATE JUL 22 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 3 1974

HELIOCENTRIC CONIC DISTANCE 694.552 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.911	GAL	-2.87	AZL	94.82	HCA	202.58	SMA	200.12	ECC	.24536	INC	4.8187	V1	29.312
RP	248.45	LAP	1.85	LOP	141.55	VP	20.129	GAP	-2.56	AZP	85.55	TAL	345.35	TAP	187.93	RCA	151.02	APO	249.22	V2	22.048
RC	333.364	GL	-36.31	GP	32.75	ZAL	108.85	ZAP	60.40	ETS	203.24	ZAE	80.81	ETE	187.39	ZAC	120.76	ETC	286.55	LVI	-55.10

PLANETOCENTRIC CONIC

C3	21.743	VHL	4.663	DLA	-16.76	RAL	59.33	RAD	6643.6	VEL	11.905	PTH	6.91	VHP	2.931	DPA	34.58	RAP	359.16	ECC	1.3578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 19 55	2816.27	-22.74	80.80	277.82	132.99	17 6 51	1816.3	-4.85	63.98
60.00	17 18 44	2659.84	-17.73	71.17	282.28	126.80	18 3 4	1659.8	-2.00	52.63
70.00	18 33 7	2441.16	-13.02	56.77	285.61	121.86	19 13 48	1441.2	.75	36.98
80.00	20 2 30	2161.40	-9.41	37.67	287.75	118.47	20 38 32	1161.4	2.89	17.08
90.00	21 33 30	1867.85	-8.00	16.84	288.50	117.21	22 4 38	867.9	3.74	355.97
100.00	22 45 22	1635.87	-9.41	359.04	287.75	118.47	23 12 38	635.9	2.89	338.45
110.00	23 32 34	1487.98	-13.02	345.69	285.61	121.86	23 57 22	488.0	.75	325.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.2806	TRA	4.1670	TC3	-7.1547	BAU	2.1775	SGT	8998.2	SGR	3245.4	SG3	1398.8	ST	161.8	SR	54.4	SS	53.8
RDE	.6708	RRA	-1.8392	RC3	2.2192	FAU	.30217	RRT	-.9841	RRF	-.9932	RTF	.9805	CRT	-.9821	CRS	.9735	CST	-.9135
FDE	-2.0339	FRA	8.8838	FC	-12.0313	BSP	16647	SGB	9565.6	R23	.1399	R13	-.9835	LSA	177.5	MSA	22.3	SSA	.7
BDE	2.3772	BRA	4.5549	BC3	7.4909	FSP	2486	SG1	9550.1	SG2	542.7	THA	160.39	EL1	170.4	EL2	9.7	ALF	161.65

LAUNCH DATE JUL 22 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 5 1974

HELIOCENTRIC CONIC DISTANCE 698.288 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.916	GAL	-2.93	AZL	94.64	HCA	203.45	SMA	200.21	ECC	.24589	INC	4.6448	V1	29.312
RP	248.54	LAP	1.85	LOP	142.43	VP	20.126	GAP	-2.76	AZP	85.74	TAL	345.09	TAP	188.54	RCA	150.98	APO	249.44	V2	22.039
RC	335.380	GL	-35.15	GP	31.64	ZAL	109.43	ZAP	59.36	ETS	203.19	ZAE	79.73	ETE	187.78	ZAC	119.67	ETC	286.36	LVI	-54.00

PLANETOCENTRIC CONIC

C3	21.380	VHL	4.624	DLA	-15.56	RAL	59.33	RAD	6643.4	VEL	11.890	PTH	6.90	VHP	2.915	DPA	33.65	RAP	359.89	ECC	1.3519

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 15 1	2836.97	-23.70	81.84	277.72	132.55	17 2 18	1837.0	-5.89	64.86
60.00	17 12 15	2684.78	-18.75	72.50	282.09	126.35	17 56 59	1684.8	-3.10	53.82
70.00	18 24 41	2471.83	-14.12	58.47	285.32	121.43	19 5 53	1471.8	-.42	38.58
80.00	19 52 3	2198.36	-10.60	39.76	287.38	118.07	20 28 41	1198.4	1.65	19.11
90.00	21 22 4	1907.96	-9.24	19.13	288.10	116.85	21 53 52	908.0	2.46	358.21
100.00	22 34 55	1672.83	-10.60	1.13	287.38	118.07	23 2 48	672.8	1.65	340.48
110.00	23 24 7	1518.65	-14.12	347.39	285.32	121.43	23 49 26	518.6	-.42	327.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.2045	TRA	4.2209	TC3	-7.3855	BAU	2.1987	SGT	9142.5	SGR	3116.4	SG3	1415.3	ST	159.3	SR	51.7	SS	52.7
RDE	.6255	RRA	-1.7649	RC3	2.1511	FAU	.30439	RRT	-.9838	RRF	-.9924	RTF	.9804	CRT	-.9833	CRS	.9671	CST	-.9051
FDE	-1.8815	FRA	8.9653	FC-12	3.3256	BSP	16839	SGB	9659.0	R23	.1374	R13	-.9831	LSA	174.2	MSA	22.6	SSA	.7
BDE	2.2915	BRA	4.5750	BC3	7.6924	FSP	2518	SG1	9644.5	SG2	530.0	THA	161.40	EL1	167.3	EL2	9.0	ALF	162.26

LAUNCH DATE JUL 22 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 7 1974

HELIOCENTRIC CONIC DISTANCE 702.023 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	299.05	VL	32.921	GAL	-2.98	AZL	94.48	HCA	204.33	SMA	200.31	ECC	.24642	INC	4.4828	V1	29.312
RP	248.63	LAP	1.85	LOP	143.31	VP	20.125	GAP	-2.97	AZP	85.91	TAL	344.83	TAP	189.16	RCA	150.95	APO	249.67	V2	22.030
RC	337.366	GL	-34.04	GP	30.58	ZAL	110.01	ZAP	58.36	ETS	203.12	ZAE	78.65	ETE	188.14	ZAC	118.62	ETC	286.19	LVI	-52.95

PLANETOCENTRIC CONIC

C3	21.069	VHL	4.590	DLA	-14.41	RAL	59.37	RAD	6643.3	VEL	11.877	PTH	6.89	VHP	2.903	DPA	32.77	RAP	.60	ECC	1.3467

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 10 31	2857.07	-24.62	82.87	277.70	132.09	16 58 8	1857.1	-6.89	65.71
60.00	17 6 16	2708.80	-19.71	73.80	281.99	125.89	17 51 25	1708.8	-4.15	54.97
70.00	18 16 56	2501.07	-15.15	60.11	285.14	120.98	18 58 37	1501.1	-1.54	40.11
80.00	19 42 30	2233.22	-11.71	41.76	287.12	117.66	20 19 43	1233.2	.46	21.03
90.00	21 11 40	1945.57	-10.39	21.30	287.81	116.45	21 44 5	945.6	1.24	.31
100.00	22 25 22	1707.69	-11.71	3.13	287.12	117.66	22 53 50	707.7	.46	342.40
110.00	23 16 22	1547.89	-15.15	349.02	285.14	120.98	23 42 10	547.9	-1.54	329.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.1330	TRA	4.2752	TC3	-7.6094	BAU	2.2222	SGT	9286.8	SGR	2993.3	SG3	1428.0	ST	157.0	SR	49.2	SS	51.6
RDE	.5857	RRA	-1.6948	RC3	2.0824	FAU	.30600	RRT	-.9833	RRF	-.9914	RTF	.9803	CRT	-.9847	CRS	.9593	CST	-.8960
FDE	-1.7299	FRA	9.0250	FC-12	5.5737	BSP	17013	SGB	9757.3	R23	.1346	R13	-.9827	LSA	171.0	MSA	22.9	SSA	.8
BDE	2.2120	BRA	4.5989	BC3	7.8892	FSP	2539	SG1	9743.5	SG2	518.5	THA	162.36	EL1	164.4	EL2	8.2	ALF	162.82

LAUNCH DATE JUL 23 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 12 1973

HELIOCENTRIC CONIC DISTANCE 325.928 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	35.378	GAL	-3.47	AZL	90.24	HCA	101.91	SMA	268.17	ECC	.43668	INC	.2442
RP	217.81	LAP	-.24	LOP	41.92	VP	26.903	GAP	23.66	AZP	89.95	TAL	348.55	TAP	90.47	RCA	151.06	APO	385.27
RC	73.631	GL	-1.37	GP	-5.01	ZAL	108.38	ZAP	173.96	ETS	237.87	ZAE	167.07	ETE	339.33	ZAC	79.16	ETC	283.20

V1	29.314	V2	25.227	LVI	-13.21														

PLANETOCENTRIC CONIC

C3	39.976	VHL	6.323	DLA	15.99	RAL	46.32	RAD	6650.7	VEL	12.643	PTH	7.49	VHP	8.774	DPA	9.32	RAP	38.07

ECC	1.6579																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 19 48	3627.65	-47.48	140.18	296.42	93.48	14 20 16	2627.6	-40.59	107.68
60.00	13 41 10	3570.76	-40.30	135.35	296.71	89.91	14 40 41	2570.8	-35.92	105.15
70.00	14 12 31	3478.50	-34.05	127.67	296.51	87.10	15 10 30	2478.5	-31.68	99.19
80.00	15 1 1	3326.52	-29.50	115.79	296.15	85.15	15 56 28	2326.5	-28.51	88.41
90.00	16 13 31	3092.49	-27.77	98.41	295.97	84.43	17 5 4	2092.5	-27.30	71.41
100.00	17 43 53	2800.99	-29.50	77.16	296.15	85.15	18 30 34	1801.0	-28.51	49.78
110.00	19 11 57	2525.32	-34.05	56.59	296.51	87.10	19 54 3	1525.3	-31.68	28.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3889	TRA	-1.3201	TC3	.1537	BAU	.0897	SGT	1307.9	SGR	612.9	SG3	153.5	ST	25.7	SR	28.2	SS	16.9
RDE	-.6180	RRA	.2482	RC3	-.0674	FAU	.05237	RRT	-.1377	RRF	.1564	RTF	-.7028	CRT	.5906	CRS	.6489	CST	.9933
FDE	.3640	FRA	1.0552	FC3	-1.1342	BSP	2044	SGB	1444.4	R23	-.0335	R13	.7046	LSA	37.5	MSA	18.4	SSA	1.2
BDE	.7302	BRA	1.3433	BC3	.1678	FSP	190	SG1	1311.4	SG2	605.5	THA	175.31	EL1	34.1	EL2	17.2	ALF	49.56

LAUNCH DATE JUL 23 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 328.101 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	35.238	GAL	-3.37	AZL	90.21	HCA	103.06	SMA	262.92	ECC	.42530	INC	.2074
RP	218.16	LAP	-.20	LOP	43.06	VP	26.681	GAP	23.30	AZP	89.95	TAL	348.68	TAP	91.73	RCA	151.10	APO	374.73
RC	74.953	GL	-1.19	GP	-5.16	ZAL	108.16	ZAP	173.41	ETS	233.23	ZAE	166.27	ETE	339.52	ZAC	78.94	ETC	283.17

V1	29.314	V2	25.188	LVI	-12.96														

PLANETOCENTRIC CONIC

C3	38.082	VHL	6.171	DLA	16.10	RAL	46.04	RAD	6650.0	VEL	12.568	PTH	7.44	VHP	8.519	DPA	9.33	RAP	38.50

ECC	1.6267																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 18 16	3617.69	-47.43	139.22	295.03	94.22	14 18 33	2617.7	-40.28	106.94
60.00	13 39 29	3561.20	-40.30	134.54	295.44	90.46	14 38 50	2561.2	-35.70	104.43
70.00	14 10 39	3469.47	-34.07	126.97	295.30	87.51	15 8 28	2469.5	-31.53	98.53
80.00	14 58 57	3318.07	-29.54	115.17	294.97	85.48	15 54 16	2318.1	-28.42	87.80
90.00	16 11 22	3084.33	-27.82	97.82	294.80	84.72	17 2 47	2084.3	-27.22	70.83
100.00	17 41 49	2792.54	-29.54	76.53	294.97	85.48	18 28 22	1792.5	-28.42	49.17
110.00	19 10 5	2516.29	-34.07	55.89	295.30	87.51	19 52 1	1516.3	-31.53	27.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3896	TRA	-1.3154	TC3	.1776	BAU	.0983	SGT	1339.7	SGR	615.0	SG3	163.2	ST	26.3	SR	28.2	SS	17.6
RDE	-.6019	RRA	.2476	RC3	-.0756	FAU	.05441	RRT	-.1486	RRF	.1691	RTF	-.7127	CRT	.5900	CRS	.6521	CST	.9930
FDE	.3823	FRA	1.0914	FC3	-1.2369	BSP	2090	SGB	1474.1	R23	-.0363	R13	.7146	LSA	38.0	MSA	18.6	SSA	1.3
BDE	.7170	BRA	1.3385	BC3	.1930	FSP	205	SG1	1343.6	SG2	606.4	THA	175.10	EL1	34.4	EL2	17.4	ALF	48.36

LAUNCH DATE JUL 23 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 330.429 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	35.105	GAL	-3.27	AZL	90.17	HCA	104.19	SMA	258.14	ECC	.41453	INC	.1709
RP	218.53	LAP	-.17	LOP	44.19	VP	26.467	GAP	22.94	AZP	89.96	TAL	348.81	TAP	93.00	RCA	151.13	APO	365.15
RC	76.362	GL	-1.00	GP	-5.31	ZAL	107.92	ZAP	172.81	ETS	229.33	ZAE	165.53	ETE	339.60	ZAC	78.72	ETC	283.14

V1	29.314	V2	25.148	LVI	-12.71														

PLANETOCENTRIC CONIC

C3	36.324	VHL	6.027	DLA	16.22	RAL	45.75	RAD	6649.4	VEL	12.499	PTH	7.39	VHP	8.272	DPA	9.32	RAP	38.92

ECC	1.5978																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 16 37	3608.15	-47.38	138.30	293.66	94.92	14 16 46	2608.2	-39.97	106.23
60.00	13 37 41	3552.08	-40.29	133.76	294.17	90.99	14 36 53	2552.1	-35.49	103.75
70.00	14 8 40	3460.90	-34.10	126.30	294.10	87.91	15 6 21	2460.9	-31.39	97.90
80.00	14 56 47	3310.11	-29.59	114.58	293.80	85.78	15 51 57	2310.1	-28.33	87.22
90.00	16 9 6	3076.67	-27.87	97.26	293.65	84.99	17 0 23	2076.7	-27.15	70.28
100.00	17 39 39	2784.58	-29.59	75.95	293.80	85.78	18 26 3	1784.6	-28.33	48.59
110.00	19 8 6	2507.72	-34.10	55.22	294.10	87.91	19 49 54	1507.7	-31.39	26.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3905	TRA	-1.3097	TC3	.2029	BAU	.1068	SGT	1370.8	SGR	617.0	SG3	173.5	ST	26.9	SR	28.1	SS	18.3
RDE	-.5860	RRA	.2472	RC3	-.0846	FAU	.05633	RRT	-.1601	RRF	.1823	RTF	-.7123	CRT	.5899	CRS	.6563	CST	.9927
FDE	.4026	FRA	1.1285	FC3	-1.3473	BSP	2151	SGB	1303.3	R23	-.0389	R13	.7244	LSA	38.7	MSA	18.7	SSA	1.3
BDE	.7043	BRA	1.3329	BC3	.2199	FSP	221	SG1	1375.3	SG2	607.1	THA	174.88	EL1	34.7	EL2	17.6	ALF	47.13

LAUNCH DATE JUL 23 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 332.893 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	34.979	GAL	-3.18	AZL	90.13	HCA	105.32	SMA	253.79	ECC	.40436	INC	.1338
RP	218.89	LAP	-.13	LOP	45.33	VP	26.262	GAP	22.58	AZP	89.96	TAL	348.95	TAP	94.27	RCA	151.17	APO	356.42
RC	77.855	GL	-.80	GP	-5.47	ZAL	107.67	ZAP	172.18	ETS	226.04	ZAE	164.85	ETE	339.57	ZAC	78.48	ETC	283.11

V1	29.314	V2	25.107	LVI	-12.45														

PLANETOCENTRIC CONIC

C3	34.692	VHL	5.890	DLA	16.34	RAL	45.45	RAD	6648.8	VEL	12.434	PTH	7.34	VHP	8.034	DPA	9.30	RAP	39.34

ECC	1.5709																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 14 54	3599.05	-47.33	137.43	292.32	95.59	14 14 53	2599.1	-39.67	105.56
60.00	13 35 48	3543.40	-40.28	133.02	292.92	91.49	14 34 51	2543.4	-35.28	103.11
70.00	14 6 34	3452.81	-34.12	125.67	292.91	88.28	15 4 7	2452.8	-31.25	97.31
80.00	14 54 29	3302.67	-29.62	114.03	292.65	86.07	15 49 32	2302.7	-28.24	86.69
90.00	16 6 42	3069.55	-27.91	96.75	292.50	85.25	16 57 52	2069.5	-27.08	69.77
100.00	17 37 21	2777.14	-29.62	75.40	292.65	86.07	18 23 38	1777.1	-28.24	48.06
110.00	19 6 1	2499.63	-34.12	54.59	292.91	88.28	19 47 40	1499.6	-31.25	26.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3915	TRA	-1.3036	TC3	.2303	BAU	.1155	SGT	1401.8	SGR	618.9	SG3	184.4	ST	27.5	SR	28.0	SS	19.0
RDE	-.5704	RRA	.2470	RC3	-.0945	FAU	.05879	RRT	-.1727	RRF	.1965	RTF	-.7315	CRT	.5896	CRS	.6604	CST	.9923
FDE	.4241	FRA	1.1663	FC3	-1.4672	BSP	2212	SGB	1532.3	R23	-.0416	R13	.7338	LSA	39.3	MSA	18.8	SSA	1.3
BDE	.6919	BRA	1.3268	BC3	.2490	FSP	238	SG1	1406.8	SG2	607.4	THA	174.64	EL1	35.0	EL2	17.8	ALF	45.89

LAUNCH DATE JUL 23 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 335.478 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	34.860	GAL	-3.08	AZL	90.10	HCA	106.45	SMA	249.82	ECC	.39474	INC	.0959	V1	29.314
RP	219.26	LAP	-.09	LOP	46.46	VP	26.064	GAP	22.22	AZP	89.97	TAL	349.10	TAP	95.55	RCA	151.20	APO	348.43	V2	25.067
RC	79.428	GL	-.59	GP	-5.63	ZAL	107.41	ZAP	171.52	ETS	223.25	ZAE	164.22	ETE	339.45	ZAC	78.25	ETC	283.08	LVI	-12.19

PLANETOCENTRIC CONIC

C3	33.175	VHL	5.760	DLA	16.47	RAL	45.12	RAD	6648.2	VEL	12.373	PTH	7.29	VHP	7.803	DPA	9.27	RAP	39.76	ECC	1.5460

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 13 4	3590.40	-47.26	136.60	291.00	96.23	14 12 55	2590.4	-39.39	104.92
60.00	13 33 48	3535.21	-40.26	132.33	291.69	91.96	14 32 43	2535.2	-35.08	102.51
70.00	14 4 22	3445.23	-34.13	125.08	291.73	88.63	15 1 48	2445.2	-31.12	96.76
80.00	14 52 4	3295.76	-29.65	113.52	291.50	86.34	15 47 0	2295.8	-28.15	86.19
90.00	16 4 11	3062.98	-27.95	96.27	291.36	85.48	16 55 14	2063.0	-27.01	69.30
100.00	17 34 56	2770.23	-29.65	74.88	291.50	86.34	18 21 6	1770.2	-28.15	47.56
110.00	19 3 49	2492.05	-34.13	54.00	291.73	88.63	19 45 21	1492.0	-31.12	25.68

DIFFERENTIAL CORRECTIONS

TDE	-.3930	TRA	-1.2970	TC3	.2588	BAU	.1239
RDE	-.5550	RRA	.2472	RC3	-.1053	FAU	.06117
FDE	.4466	FRA	1.2053	FC3	-1.5962	BSP	2277
BDE	.6801	BRA	1.3204	BC3	.2794	FSP	256

MID-COURSE EXECUTION ACCURACY

SGT	1432.4	SGR	620.7	SG3	195.9
RRT	-.1859	RRF	.2119	RTF	-.7401
SGB	1561.1	R23	-.0449	R13	.7426
SG1	1438.1	SG2	607.5	THA	174.39

ORBIT DETERMINATION ACCURACY

ST	28.1	SR	27.9	SS	19.7
CRT	.5898	CRS	.6642	CST	.9919
LSA	39.9	MSA	18.9	SSA	1.3
EL1	35.3	EL2	17.9	ALF	44.61

LAUNCH DATE JUL 23 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 338.173 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	34.747	GAL	-2.99	AZL	90.06	HCA	107.58	SMA	246.17	ECC	.38563	INC	.0577	V1	29.314
RP	219.63	LAP	-.06	LOP	47.58	VP	25.873	GAP	21.87	AZP	89.98	TAL	349.25	TAP	96.83	RCA	151.24	APO	341.10	V2	25.026
RC	81.081	GL	-.37	GP	-5.81	ZAL	107.13	ZAP	170.83	ETS	220.88	ZAE	163.66	ETE	339.25	ZAC	78.01	ETC	283.05	LVI	-11.93

PLANETOCENTRIC CONIC

C3	31.765	VHL	5.636	DLA	16.60	RAL	44.78	RAD	6647.7	VEL	12.316	PTH	7.25	VHP	7.580	DPA	9.23	RAP	40.16	ECC	1.5228

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 11 10	3582.22	-47.20	135.82	289.71	96.82	14 10 52	2582.2	-39.11	104.33
60.00	13 31 43	3527.50	-40.24	131.67	290.48	92.40	14 30 31	2527.5	-34.89	101.94
70.00	14 2 4	3438.17	-34.14	124.53	290.57	88.96	14 59 22	2438.2	-31.00	96.25
80.00	14 49 32	3289.42	-29.68	113.05	290.37	86.58	15 44 21	2289.4	-28.08	85.74
90.00	16 1 32	3057.00	-27.98	95.84	290.24	85.70	16 52 29	2057.0	-26.95	68.88
100.00	17 32 24	2763.89	-29.68	74.41	290.37	86.58	18 18 28	1763.9	-28.08	47.10
110.00	19 1 30	2484.99	-34.14	53.45	290.57	88.96	19 42 55	1485.0	-31.00	25.17

DIFFERENTIAL CORRECTIONS

TDE	-.3941	TRA	-1.2899	TC3	.2892	BAU	.1325
RDE	-.5399	RRA	.2475	RC3	-.1171	FAU	.06367
FDE	.4712	FRA	1.2454	FC3	-1.7351	BSP	2336
BDE	.6684	BRA	1.3134	BC3	.3120	FSP	275

MID-COURSE EXECUTION ACCURACY

SGT	1462.6	SGR	622.5	SG3	208.1
RRT	-.2003	RRF	.2282	RTF	-.7487
SGB	1589.6	R23	-.0479	R13	.7514
SG1	1469.0	SG2	607.3	THA	174.12

ORBIT DETERMINATION ACCURACY

ST	28.7	SR	27.7	SS	20.5
CRT	.5895	CRS	.6684	CST	.9914
LSA	40.6	MSA	19.0	SSA	1.4
EL1	35.6	EL2	18.1	ALF	43.34

LAUNCH DATE JUL 23 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 340.965 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	34.640	GAL	-2.89	AZL	90.02	HCA	108.70	SMA	242.82	ECC	.37701	INC	.0121	V1	29.314
RP	220.00	LAP	-.02	LOP	48.70	VP	25.689	GAP	21.51	AZP	89.99	TAL	349.41	TAP	98.11	RCA	151.27	APO	334.36	V2	24.985
RC	82.809	GL	-.14	GP	-5.99	ZAL	106.84	ZAP	170.11	ETS	218.85	ZAE	163.15	ETE	338.97	ZAC	77.76	ETC	283.02	LVI	-11.65

PLANETOCENTRIC CONIC

C3	30.452	VHL	5.518	DLA	16.74	RAL	44.42	RAD	6647.2	VEL	12.263	PTH	7.21	VHP	7.365	DPA	9.18	RAP	40.56	ECC	1.5012

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 9 10	3574.49	-47.14	135.08	288.44	97.39	14 8 44	2574.5	-38.85	103.78
60.00	13 29 32	3520.27	-40.22	131.06	289.29	92.82	14 28 12	2520.3	-34.70	101.42
70.00	13 59 39	3431.62	-34.15	124.02	289.43	89.26	14 56 50	2431.6	-30.88	95.77
80.00	14 46 52	3283.62	-29.70	112.62	289.25	86.81	15 41 36	2283.6	-28.00	85.32
90.00	15 58 45	3051.58	-28.00	95.44	289.12	85.89	16 49 37	2051.6	-26.89	68.49
100.00	17 29 44	2758.09	-29.70	73.99	289.25	86.81	18 15 42	1758.1	-28.00	46.69
110.00	18 59 5	2478.43	-34.15	52.94	289.43	89.26	19 40 24	1478.4	-30.88	24.69

DIFFERENTIAL CORRECTIONS

TDE	-.3846	TRA	-1.2714	TC3	.3355	BAU	.1464
RDE	-.5246	RRA	.2484	RC3	-.1298	FAU	.06614
FDE	.5007	FRA	1.2901	FC3	-1.8602	BSP	2267
BDE	.6505	BRA	1.2955	BC3	.3597	FSP	299

MID-COURSE EXECUTION ACCURACY

SGT	1482.2	SGR	624.3	SG3	220.8
RRT	-.2234	RRF	.2447	RTF	-.[illegible]66
SGB	1608.3	R23	-.0401	R13	.7693
SG1	1490.0	SG2	605.3	THA	173.56

ORBIT DETERMINATION ACCURACY

ST	28.8	SR	27.5	SS	21.3
CRT	.5813	CRS	.6739	CST	.9897
LSA	40.9	MSA	19.0	SSA	1.4
EL1	35.4	EL2	18.2	ALF	42.87

LAUNCH DATE JUL 23 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 343.845 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	34.538	GAL	-2.80	AZL	89.98	HCA	109.82	SMA	239.73	ECC	.36886	INC	.0000	V1	29.314
RP	220.38	LAP	.02	LOP	49.82	VP	25.511	GAP	21.17	AZP	90.01	TAL	349.57	TAP	99.39	RCA	151.31	APO	328.16	V2	24.944
RC	84.610	GL	.10	GP	-6.18	ZAL	106.55	ZAP	169.38	ETS	217.10	ZAE	162.70	ETE	338.61	ZAC	77.51	ETC	283.00	LVI	-11.38

PLANETOCENTRIC CONIC

C3	29.233	VHL	5.407	DLA	16.89	RAL	44.05	RAD	6646.7	VEL	12.214	PTH	7.17	VHP	7.157	DPA	9.11	RAP	40.95	ECC	1.4811

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 7 5	3567.29	-47.07	134.40	287.20	97.91	14 6 33	2567.3	-38.61	103.26
60.00	13 27 15	3513.60	-40.20	130.49	288.13	93.20	14 25 49	2513.6	-34.53	100.93
70.00	13 57 7	3425.67	-34.15	123.55	288.31	89.53	14 54 13	2425.7	-30.77	95.34
80.00	14 44 5	3278.48	-29.72	112.24	288.15	87.01	15 38 44	2278.5	-27.94	84.95
90.00	15 55 51	3046.85	-28.03	95.10	288.03	86.06	16 46 38	2046.9	-26.84	68.15
100.00	17 26 57	2752.95	-29.72	73.60	288.15	87.01	18 12 50	1753.0	-27.94	46.32
110.00	18 56 34	2472.49	-34.15	52.47	288.31	89.53	19 37 46	1472.5	-30.77	24.26

DIFFERENTIAL CORRECTIONS

TDE	-.3905	TRA	-1.2660	TC3	.3633	BAU	.1527
RDE	-.5099	RRA	.2491	RC3	-.1437	FAU	.06898
FDE	.5271	FRA	1.3305	FC3	-2.0429	BSP	2382
BDE	.6423	BRA	1.2923	BC3	.3907	FSP	319

MID-COURSE EXECUTION ACCURACY

SGT	1515.8	SGR	626.3	SG3	234.4
RRT	-.2369	RRF	.2636	RTF	-.7703
SGB	1640.1	R23	-.0479	R13	.7733
SG1	1524.4	SG2	605.1	THA	173.36

ORBIT DETERMINATION ACCURACY

ST	29.5	SR	27.3	SS	22.1
CRT	.5844	CRS	.6774	CST	.9896
LSA	41.8	MSA	19.0	SSA	1.4
EL1	35.9	EL2	18.3	ALF	41.23

LAUNCH DATE JUL 23 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 346.805 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	34.442	GAL	-2.72	AZL	89.95	HCA	110.93	SMA	236.89	ECC	.36115	INC	.0523
RP	220.76	LAP	.05	LOP	50.93	VP	25.340	GAP	20.82	AZP	90.02	TAL	349.74	TAP	100.67	RCA	151.34	APO	322.44
RC	86.480	GL	.36	GP	-6.37	ZAL	106.24	ZAP	168.63	ETS	215.58	ZAE	162.31	ETE	338.18	ZAC	77.25	ETC	282.97

V1	29.314																		
V2	24.902																		
LVI	-11.09																		

PLANETOCENTRIC CONIC

C3	28.098	VHL	5.301	DLA	17.04	RAL	43.67	RAD	6646.3	VEL	12.167	PTH	7.13	VHP	6.955	DPA	9.04	RAP	41.33
ECC	1.4624																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 4 56	3560.60	-47.01	133.77	286.00	98.39	14 4 16	2560.6	-38.38	102.79
60.00	13 24 53	3507.47	-40.17	129.97	286.99	93.55	14 23 20	2507.5	-34.37	100.49
70.00	13 54 30	3420.30	-34.15	123.13	287.21	89.78	14 51 30	2420.3	-30.67	94.96
80.00	14 41 11	3273.96	-29.74	111.90	287.07	87.18	15 35 45	2274.0	-27.88	84.63
90.00	15 52 49	3042.77	-28.05	94.80	286.96	86.21	16 43 31	2042.8	-26.79	67.86
100.00	17 24 3	2748.44	-29.74	73.27	287.07	87.18	18 9 51	1748.4	-27.88	46.00
110.00	18 53 56	2467.12	-34.15	52.05	287.21	89.78	19 35 3	1467.1	-30.67	23.87

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3950	TRA	-1.2622	TC3	.3941	BAU	.1596	SGT	1546.9	SGR	628.6	SG3	248.8	ST	30.2	SR	27.1	SS	22.9
RDE	-.4954	RRA	.2501	RC3	-.1591	FAU	.07195	RRT	-.2524	RRF	.2837	RTF	-.7750	CRT	.5863	CRS	.6809	CST	.9894
FDE	.5556	FRA	1.3725	FC3	-2.2171	BSP	2474	SGB	1669.8	R23	-.0546	R13	.7784	LSA	42.6	MSA	19.0	SSA	1.4
BDE	.6335	BRA	1.2867	BC3	.4250	FSP	340	SG1	1556.5	SG2	604.5	THA	173.10	EL1	36.2	EL2	18.3	ALF	39.71

LAUNCH DATE JUL 23 1973 FLIGHT TIME 130.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 349.837 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	34.350	GAL	-2.63	AZL	89.91	HCA	112.04	SMA	234.26	ECC	.35385	INC	.0928
RP	221.14	LAP	.09	LOP	52.04	VP	25.175	GAP	20.48	AZP	90.04	TAL	349.91	TAP	101.95	RCA	151.37	APO	317.15
RC	88.416	GL	.62	GP	-6.58	ZAL	105.93	ZAP	167.85	ETS	214.26	ZAE	161.98	ETE	337.67	ZAC	76.99	ETC	282.95

V1	29.314																		
V2	24.861																		
LVI	-10.81																		

PLANETOCENTRIC CONIC

C3	27.041	VHL	5.200	DLA	17.20	RAL	43.28	RAD	6645.8	VEL	12.124	PTH	7.10	VHP	6.761	DPA	8.95	RAP	41.70
ECC	1.4450																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 2 41	3554.42	-46.94	133.18	284.83	98.84	14 1 56	2554.4	-38.16	102.36
60.00	13 22 25	3501.88	-40.15	129.50	285.87	93.87	14 20 47	2501.9	-34.23	100.09
70.00	13 51 45	3415.52	-34.15	122.76	286.13	90.00	14 48 41	2415.5	-30.58	94.61
80.00	14 38 9	3270.09	-29.75	111.61	286.01	87.33	15 32 39	2270.1	-27.83	84.36
90.00	15 49 38	3039.36	-28.06	94.55	285.90	86.34	16 40 18	2039.4	-26.75	67.62
100.00	17 21 1	2744.57	-29.75	72.98	286.01	87.33	18 6 46	1744.6	-27.83	45.72
110.00	18 51 12	2462.34	-34.15	51.68	286.13	90.00	19 32 14	1462.3	-30.58	23.53

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3989	TRA	-1.2557	TC3	.4269	BAU	.1669	SGT	1577.3	SGR	631.1	SG3	264.0	ST	30.9	SR	26.9	SS	23.8
RDE	-.4809	RRA	.2514	RC3	-.1757	FAU	.07509	RRT	-.2695	RRF	.3050	RTF	-.7801	CRT	.5875	CRS	.6845	CST	.9890
FDE	.5865	FRA	1.4161	FC3	-2.4042	BSP	2557	SGB	1698.9	R23	-.0609	R13	.7839	LSA	43.4	MSA	18.9	SSA	1.4
BDE	.6248	BRA	1.2806	BC3	.4616	FSP	364	SG1	1588.0	SG2	603.7	THA	172.80	EL1	36.6	EL2	18.3	ALF	38.24

LAUNCH DATE JUL 23 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 352.933 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	34.263	GAL	-2.55	AZL	89.87	HCA	113.15	SMA	231.82	ECC	.34693	INC	.1325
RP	221.52	LAP	.12	LOP	53.15	VP	25.015	GAP	20.15	AZP	90.05	TAL	350.09	TAP	103.24	RCA	151.40	APO	312.25
RC	90.414	GL	.89	GP	-6.80	ZAL	105.61	ZAP	167.06	ETS	213.10	ZAE	161.70	ETE	337.07	ZAC	76.72	ETC	282.93

V1	29.314																		
V2	24.819																		
LVI	-10.51																		

PLANETOCENTRIC CONIC

C3	26.056	VHL	5.105	DLA	17.37	RAL	42.88	RAD	6645.4	VEL	12.084	PTH	7.06	VHP	6.572	DPA	8.84	RAP	42.06
ECC	1.4288																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 22	3548.76	-46.88	132.65	283.69	99.25	13 59 31	2548.8	-37.96	101.96
60.00	13 19 52	3496.84	-40.12	129.07	284.78	94.16	14 18 9	2496.8	-34.10	99.73
70.00	13 48 54	3411.35	-34.15	122.43	285.07	90.19	14 45 46	2411.3	-30.51	94.31
80.00	14 35 0	3266.89	-29.76	111.38	284.96	87.46	15 29 27	2266.9	-27.78	84.13
90.00	15 46 20	3036.65	-28.07	94.36	284.86	86.43	16 36 56	2036.7	-26.72	67.43
100.00	17 17 52	2741.36	-29.76	72.75	284.96	87.46	18 3 33	1741.4	-27.78	45.50
110.00	18 48 21	2458.17	-34.15	51.35	285.07	90.19	19 29 19	1458.2	-30.51	23.23

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4019	TRA	-1.2473	TC3	.4628	BAU	.1748	SGT	1605.8	SGR	633.9	SG3	280.0	ST	31.5	SR	26.6	SS	24.7
RDE	-.4665	RRA	.2530	RC3	-.1937	FAU	.07838	RRT	-.2885	RRF	.3273	RTF	-.7959	CRT	.5878	CRS	.6884	CST	.9884
FDE	.6203	FRA	1.4607	FC3	-2.6042	BSP	2631	SGB	1726.4	R23	-.0661	R13	.7901	LSA	44.2	MSA	18.9	SSA	1.5
BDE	.6158	BRA	1.2727	BC3	.5017	FSP	390	SG1	1617.9	SG2	602.4	THA	172.45	EL1	36.9	EL2	18.4	ALF	36.85

LAUNCH DATE JUL 23 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 356.089 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	34.181	GAL	-2.47	AZL	89.83	HCA	114.25	SMA	229.57	ECC	.34038	INC	.1727
RP	221.90	LAP	.16	LOP	54.25	VP	24.861	GAP	19.81	AZP	90.07	TAL	350.27	TAP	104.52	RCA	151.43	APO	307.70
RC	92.473	GL	1.18	GP	-7.02	ZAL	105.28	ZAP	166.25	ETS	212.09	ZAE	161.48	ETE	336.40	ZAC	76.44	ETC	282.91

V1	29.314																		
V2	24.778																		
LVI	-10.22																		

PLANETOCENTRIC CONIC

C3	25.139	VHL	5.014	DLA	17.55	RAL	42.46	RAD	6645.0	VEL	12.046	PTH	7.03	VHP	6.390	DPA	8.72	RAP	42.41
ECC	1.4137																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 57 58	3543.64	-46.83	132.17	282.58	99.61	13 57 2	2543.6	-37.78	101.60
60.00	13 17 13	3492.38	-40.10	128.70	283.72	94.42	14 15 25	2492.4	-33.98	99.41
70.00	13 45 57	3407.80	-34.15	122.16	284.04	90.36	14 42 45	2407.8	-30.44	94.06
80.00	14 31 43	3264.37	-29.77	111.19	283.94	87.56	15 26 7	2264.4	-27.75	83.95
90.00	15 42 52	3034.66	-28.08	94.21	283.84	86.51	16 33 27	2034.7	-26.70	67.29
100.00	17 14 35	2738.84	-29.77	72.56	283.94	87.56	18 0 13	1738.8	-27.75	45.32
110.00	18 45 23	2454.62	-34.15	51.08	284.04	90.36	19 26 18	1454.6	-30.44	22.98

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4052	TRA	-1.2388	TC3	.4988	BAU	.1823	SGT	1633.8	SGR	637.2	SG3	296.8	ST	32.1	SR	26.2	SS	25.6
RDE	-.4522	RRA	.2549	RC3	-.2131	FAU	.08179	RRT	-.3085	RRF	.3508	RTF	-.7915	CRT	.5881	CRS	.6917	CST	.9879
FDE	.6562	FRA	1.5074	FC3	-2.8166	BSP	2695	SGB	1753.7	R23	-.0718	R13	.7962	LSA	45.0	MSA	18.8	SSA	1.5
BDE	.6072	BRA	1.2648	BC3	.5425	FSP	416	SG1	1647.4	SG2	601.1	THA	172.08	EL1	37.2	EL2	18.3	ALF	35.44

LAUNCH DATE JUL 23 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 359.298 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 34.103 GAL -2.39 AZL 89.79 HCA 115.35 SMA 227.47 ECC .33418 INC .2133 V1 29.314
RP 222.28 LAP .19 LOP 55.35 VP 24.712 GAP 19.48 AZP 90.09 TAL 350.45 TAP 105.79 RCA 151.45 APO 303.48 V2 24.736
RC 94.587 GL 1.48 GP -7.26 ZAL 104.95 ZAP 165.43 ETS 211.19 ZAE 161.30 ETE 335.64 ZAC 76.16 ETC 282.89 LVI -9.91

PLANETOCENTRIC CONIC

C3 24.284 VHL 4.928 DLA 17.74 RAL 42.04 RAD 6644.7 VEL 12.011 PTH 7.00 VHP 6.214 DPA 8.59 RAP 42.75 ECC 1.3997

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 55 29	3539.06	-46.77	131.74	281.52	99.94	13 54 28	2539.1	-37.62	101.29
60.00	13 14 29	3488.51	-40.08	128.37	282.69	94.64	14 12 37	2488.5	-33.87	99.13
70.00	13 42 53	3404.89	-34.15	121.93	283.03	90.49	14 39 38	2404.9	-30.38	93.85
80.00	14 28 18	3262.56	-29.77	111.06	282.94	87.63	15 22 40	2262.6	-27.72	83.82
90.00	15 39 17	3033.42	-28.09	94.12	282.84	86.55	16 29 50	2033.4	-26.69	67.20
100.00	17 11 9	2737.03	-29.77	72.42	282.94	87.63	17 56 46	1737.0	-27.72	45.19
110.00	18 42 19	2451.71	-34.15	50.85	283.03	90.49	19 23 11	1451.7	-30.38	22.77

DIFFERENTIAL CORRECTIONS

TDE -.4083 TRA-1.2295 TC3 .5370 BAU .1902
RDE -.4379 RRA .2570 RC3 -.2343 FAU .08544
FDE .6956 FRA 1.5550 FC3-3.0459 BSP 2760
BDE .5988 BRA 1.2561 BC3 .5859 FSP 445

MID-COURSE EXECUTION ACCURACY

SGT 1660.8 SGR 641.1 SG3 314.7
RRT -.3300 RRF .3755 RTF -.7970
SGB 1780.3 R23 -.0774 R13 .8022
SG1 1676.2 SG2 599.6 THA 171.67

ORBIT DETERMINATION ACCURACY

ST 32.7 SR 25.9 SS 26.7
CRT .5679 CRS .6952 CST .9873
LSA 45.9 MSA 18.6 SSA 1.5
EL1 37.5 EL2 18.3 ALF 34.05

LAUNCH DATE JUL 23 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 362.556 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 34.029 GAL -2.31 AZL 89.74 HCA 116.44 SMA 225.52 ECC .32830 INC .2547 V1 29.314
RP 222.67 LAP .23 LOP 56.45 VP 24.567 GAP 19.15 AZP 90.11 TAL 350.63 TAP 107.07 RCA 151.48 APO 299.55 V2 24.694
RC 96.756 GL 1.79 GP -7.51 ZAL 104.62 ZAP 164.58 ETS 210.40 ZAE 161.18 ETE 334.80 ZAC 75.87 ETC 282.87 LVI -9.60

PLANETOCENTRIC CONIC

C3 23.488 VHL 4.846 DLA 17.94 RAL 41.61 RAD 6644.4 VEL 11.978 PTH 6.98 VHP 6.043 DPA 8.44 RAP 43.08 ECC 1.3866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 52 56	3535.04	-46.72	131.36	280.48	100.23	13 51 51	2535.0	-37.47	101.01
60.00	13 11 39	3485.22	-40.06	128.09	281.69	94.83	14 9 44	2485.2	-33.78	98.90
70.00	13 39 42	3402.63	-34.15	121.75	282.04	90.60	14 36 25	2402.6	-30.34	93.69
80.00	14 24 44	3261.48	-29.77	110.98	281.97	87.67	15 19 6	2261.5	-27.71	83.74
90.00	15 35 32	3032.95	-28.09	94.09	281.87	86.57	16 26 5	2032.9	-26.68	67.17
100.00	17 7 36	2735.95	-29.77	72.34	281.97	87.67	17 53 12	1736.0	-27.71	45.11
110.00	18 39 8	2449.45	-34.15	50.67	282.04	90.60	19 19 58	1449.5	-30.34	22.61

DIFFERENTIAL CORRECTIONS

TDE -.4109 TRA-1.2191 TC3 .5758 BAU .1980
RDE -.4237 RRA .2593 RC3 -.2571 FAU .08925
FDE .7367 FRA 1.6031 FC3-3.2897 BSP 2816
BDE .5902 BRA 1.2464 BC3 .6306 FSP 476

MID-COURSE EXECUTION ACCURACY

SGT 1686.0 SGR 645.6 SG3 333.4
RRT -.3527 RRF .4015 RTF -.8023
SGB 1805.4 R23 -.0830 R13 .8080
SG1 1703.5 SG2 597.9 THA 171.22

ORBIT DETERMINATION ACCURACY

ST 33.3 SR 25.5 SS 27.7
CRT .5869 CRS .6981 CST .9866
LSA 46.7 MSA 18.5 SSA 1.6
EL1 37.8 EL2 18.2 ALF 32.70

LAUNCH DATE JUL 23 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 365.859 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.959 GAL -2.24 AZL 89.70 HCA 117.53 SMA 223.70 ECC .32273 INC .2968 V1 29.314
RP 223.06 LAP .26 LOP 57.54 VP 24.428 GAP 18.83 AZP 90.14 TAL 350.81 TAP 108.34 RCA 151.51 APO 295.90 V2 24.652
RC 98.976 GL 2.11 GP -7.76 ZAL 104.28 ZAP 163.72 ETS 209.69 ZAE 161.10 ETE 333.86 ZAC 75.57 ETC 282.86 LVI -9.28

PLANETOCENTRIC CONIC

C3 22.746 VHL 4.769 DLA 18.15 RAL 41.18 RAD 6644.0 VEL 11.947 PTH 6.95 VHP 5.878 DPA 8.27 RAP 43.40 ECC 1.3743

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 50 19	3531.57	-46.68	131.04	279.49	100.47	13 49 11	2531.6	-37.35	100.77
60.00	13 8 44	3482.54	-40.04	127.86	280.73	94.98	14 6 46	2482.5	-33.71	98.71
70.00	13 36 25	3401.05	-34.15	121.63	281.09	90.67	14 33 6	2401.0	-30.31	93.58
80.00	14 21 3	3261.15	-29.78	110.95	281.02	87.68	15 15 24	2261.2	-27.71	83.72
90.00	15 31 38	3033.27	-28.09	94.11	280.92	86.56	16 22 12	2033.3	-26.69	67.19
100.00	17 3 55	2735.62	-29.78	72.32	281.02	87.68	17 49 30	1735.6	-27.71	45.09
110.00	18 35 51	2447.87	-34.15	50.55	281.09	90.67	19 16 39	1447.9	-30.31	22.49

DIFFERENTIAL CORRECTIONS

TDE -.4145 TRA-1.2091 TC3 .6142 BAU .2055
RDE -.4093 RRA .2620 RC3 -.2816 FAU .09322
FDE .7826 FRA 1.6538 FC3-3.5481 BSP 2878
BDE .5826 BRA 1.2371 BC3 .6757 FSP 508

MID-COURSE EXECUTION ACCURACY

SGT 1711.1 SGR 650.9 SG3 353.2
RRT -.3760 RRF .4282 RTF -.8574
SGB 1830.7 R23 -.0891 R13 .8136
SG1 1730.9 SG2 596.2 THA 170.75

ORBIT DETERMINATION ACCURACY

ST 33.9 SR 25.1 SS 28.8
CRT .5862 CRS .7011 CST .9859
LSA 47.6 MSA 18.3 SSA 1.6
EL1 38.1 EL2 18.1 ALF 31.28

LAUNCH DATE JUL 23 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 369.203 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.892 GAL -2.17 AZL 89.66 HCA 118.62 SMA 222.01 ECC .31746 INC .3394 V1 29.314
RP 223.44 LAP .30 LOP 58.63 VP 24.292 GAP 18.51 AZP 90.16 TAL 350.99 TAP 109.61 RCA 151.53 APO 292.49 V2 24.611
RC 101.244 GL 2.45 GP -8.03 ZAL 103.95 ZAP 162.64 ETS 209.07 ZAE 161.06 ETE 332.82 ZAC 75.26 ETC 282.85 LVI -8.96

PLANETOCENTRIC CONIC

C3 22.054 VHL 4.696 DLA 18.37 RAL 40.73 RAD 6643.7 VEL 11.918 PTH 6.92 VHP 5.718 DPA 8.09 RAP 43.70 ECC 1.3630

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 47 37	3528.68	-46.65	130.77	278.53	100.68	13 46 26	2528.7	-37.25	100.57
60.00	13 5 43	3480.48	-40.03	127.69	279.79	95.10	14 3 44	2480.5	-33.66	98.56
70.00	13 33 1	3400.15	-34.15	121.56	280.16	90.71	14 29 41	2400.1	-30.29	93.51
80.00	14 17 13	3261.59	-29.77	110.98	280.09	87.66	15 11 34	2261.6	-27.71	83.75
90.00	15 27 35	3034.42	-28.08	94.19	279.99	86.52	16 18 10	2034.4	-26.70	67.27
100.00	17 0 5	2736.07	-29.77	72.35	280.09	87.66	17 45 41	1736.1	-27.71	45.12
110.00	18 32 27	2446.96	-34.15	50.48	280.16	90.71	19 13 14	1447.0	-30.29	22.43

DIFFERENTIAL CORRECTIONS

TDE -.4175 TRA-1.1978 TC3 .6536 BAU .2131
RDE -.3950 RRA .2649 RC3 -.3081 FAU .09743
FDE .8306 FRA 1.7049 FC3-3.8246 BSP 2926
BDE .5747 BRA 1.2267 BC3 .7226 FSP 542

MID-COURSE EXECUTION ACCURACY

SGT 1734.2 SGR 657.2 SG3 374.0
RRT -.4006 RRF .4562 RTF -.8122
SGB 1854.5 R23 -.0953 R13 .8191
SG1 1756.7 SG2 594.4 THA 170.24

ORBIT DETERMINATION ACCURACY

ST 34.4 SR 24.6 SS 30.0
CRT .5845 CRS .7033 CST .9852
LSA 48.5 MSA 18.1 SSA 1.6
EL1 38.3 EL2 17.9 ALF 29.91

LAUNCH DATE JUL 23 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 372.585 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.829	GAL	-2.10	AZL	89.62	HCA	119.71	SMA	220.43	ECC	.31247	INC	.3828	V1	29.314
RP	223.93	LAP	.33	LOP	59.71	VP	24.161	GAP	18.19	AZP	90.19	TAL	351.17	TAP	110.88	RCA	151.55	APO	289.31	V2	24.569
RC	103.560	GL	2.80	GP	-8.32	ZAL	103.61	ZAP	161.95	ETS	208.51	ZAE	161.07	ETE	331.67	ZAC	74.94	ETC	282.84	LVI	-8.63

PLANETOCENTRIC CONIC

C3	21.410	VHL	4.627	DLA	18.60	RAL	40.29	RAD	6643.5	VEL	11.892	PTH	6.90	VHP	5.564	DPA	7.89	RAP	44.00	ECC	1.3524

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 44 51	3526.35	-46.62	130.55	277.61	100.84	13 43 38	2526.4	-37.16	100.42
60.00	13 2 38	3479.03	-40.02	127.57	278.88	95.16	14 0 37	2479.0	-33.62	98.46
70.00	13 29 29	3399.94	-34.15	121.54	279.26	90.72	14 26 9	2399.9	-30.29	93.50
80.00	14 13 14	3262.83	-29.77	111.08	279.19	87.61	15 7 37	2262.8	-27.73	83.84
90.00	15 23 22	3036.41	-28.07	94.34	279.09	86.44	16 13 59	2036.4	-26.72	67.41
100.00	16 56 6	2737.30	-29.77	72.44	279.19	87.61	17 41 43	1737.3	-27.73	45.21
110.00	18 28 56	2446.76	-34.15	50.46	279.26	90.72	19 9 42	1446.8	-30.29	22.42

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4200	TRA	-1.1858	TC3	.6925	BAU	.2204	SGT	1755.4	SGR	664.6	SG3	395.7	ST	34.9	SR	24.1	SS	31.1
RDE	-.3806	RRA	.2680	RC3	-.3366	FAU	.10182	RRT	-.4260	RRF	.4850	RTF	-.8165	CRT	.5819	CRS	.7048	CST	.9844
FDE	.8811	FRA	1.7560	FC3	-4.1171	BSP	2978	SGB	1877.0	R23	-.1019	R13	.8242	LSA	49.5	MSA	17.9	SSA	1.6
BDE	.5668	BRA	1.2157	BC3	.7700	FSP	578	SG1	1781.0	SG2	592.6	THA	169.68	EL1	38.5	EL2	17.8	ALF	28.55

LAUNCH DATE JUL 23 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 376.000 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.769	GAL	-2.03	AZL	89.57	HCA	120.78	SMA	218.95	ECC	.30773	INC	.4268	V1	29.314
RP	224.22	LAP	.37	LOP	60.79	VP	24.035	GAP	17.87	AZP	90.22	TAL	351.35	TAP	112.14	RCA	151.57	APO	286.33	V2	24.527
RC	105.921	GL	3.16	GP	-8.61	ZAL	103.27	ZAP	161.03	ETS	208.01	ZAE	161.10	ETE	330.40	ZAC	74.62	ETC	282.83	LVI	-8.29

PLANETOCENTRIC CONIC

C3	20.810	VHL	4.562	DLA	18.84	RAL	39.84	RAD	6643.2	VEL	11.866	PTH	6.88	VHP	5.415	DPA	7.67	RAP	44.28	ECC	1.3428

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 42 1	3524.61	-46.59	130.39	276.73	100.97	13 40 46	2524.6	-37.10	100.30
60.00	12 59 26	3478.23	-40.02	127.50	278.01	95.23	13 57 24	2478.2	-33.59	98.41
70.00	13 25 51	3400.46	-34.15	121.58	278.39	90.70	14 22 31	2400.5	-30.30	93.53
80.00	14 9 6	3264.89	-29.77	111.23	278.31	87.53	15 3 31	2264.9	-27.76	83.98
90.00	15 18 59	3039.29	-28.06	94.55	278.21	86.34	16 9 38	2039.3	-26.75	67.62
100.00	16 51 58	2739.36	-29.77	72.60	278.31	87.53	17 37 37	1739.4	-27.76	45.35
110.00	18 25 17	2447.28	-34.15	50.50	278.39	90.70	19 6 5	1447.3	-30.30	22.45

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4238	TRA	-1.1742	TC3	.7316	BAU	.2278	SGT	1776.9	SGR	673.3	SG3	418.7	ST	35.4	SR	23.6	SS	32.4
RDE	-.3659	RRA	.2715	RC3	-.3673	FAU	.10646	RRT	-.4519	RRF	.5145	RTF	-.8208	CRT	.5793	CRS	.7059	CST	.9837
FDE	.9371	FRA	1.8100	FC3	-4.4288	BSP	3030	SGB	1900.2	R23	-.1090	R13	.8293	LSA	50.5	MSA	17.6	SSA	1.7
BDE	.5599	BRA	1.2052	BC3	.8186	FSP	616	SG1	1806.0	SG2	591.0	THA	169.10	EL1	38.8	EL2	17.6	ALF	27.12

LAUNCH DATE JUL 23 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 379.448 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.712	GAL	-1.97	AZL	89.53	HCA	121.86	SMA	217.58	ECC	.30325	INC	.4717	V1	29.314
RP	224.61	LAP	.40	LOP	61.86	VP	23.912	GAP	17.56	AZP	90.25	TAL	351.53	TAP	113.39	RCA	151.60	APO	283.56	V2	24.485
RC	108.326	GL	3.54	GP	-8.92	ZAL	102.94	ZAP	160.09	ETS	207.56	ZAE	161.17	ETE	329.01	ZAC	74.28	ETC	282.83	LVI	-7.94

PLANETOCENTRIC CONIC

C3	20.251	VHL	4.500	DLA	19.10	RAL	39.38	RAD	6642.9	VEL	11.843	PTH	6.86	VHP	5.270	DPA	7.43	RAP	44.54	ECC	1.3333

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 39 7	3523.46	-46.58	130.28	275.89	101.05	13 37 50	2523.5	-37.06	100.22
60.00	12 56 9	3478.07	-40.02	127.49	277.18	95.23	13 54 7	2478.1	-33.59	98.39
70.00	13 22 5	3401.70	-34.15	121.68	277.55	90.64	14 18 47	2401.7	-30.32	93.62
80.00	14 4 49	3267.80	-29.76	111.44	277.47	87.42	14 59 16	2267.8	-27.80	84.19
90.00	15 14 25	3043.08	-28.04	94.82	277.36	86.20	16 5 8	2043.1	-26.80	67.89
100.00	16 47 40	2742.27	-29.76	72.81	277.47	87.42	17 33 23	1742.3	-27.80	45.56
110.00	18 21 32	2448.52	-34.15	50.60	277.55	90.64	19 2 20	1448.5	-30.32	22.54

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4273	TRA	-1.1624	TC3	.7700	BAU	.2350	SGT	1796.9	SGR	683.6	SG3	442.9	ST	36.0	SR	23.0	SS	33.7
RDE	-.3511	RRA	.2754	RC3	-.4003	FAU	.11131	RRT	-.4784	RRF	.5447	RTF	-.8246	CRT	.5753	CRS	.7059	CST	.9829
FDE	.9968	FRA	1.8655	FC3	-4.7588	BSP	3090	SGB	1922.6	R23	-.1166	R13	.8340	LSA	51.5	MSA	17.4	SSA	1.7
BDE	.5530	BRA	1.1945	BC3	.8678	FSP	658	SG1	1830.0	SG2	589.4	THA	168.47	EL1	39.0	EL2	17.4	ALF	25.68

LAUNCH DATE JUL 23 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 382.924 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.658	GAL	-1.91	AZL	89.48	HCA	122.93	SMA	216.29	ECC	.29901	INC	.5176	V1	29.314
RP	225.00	LAP	.43	LOP	62.94	VP	23.793	GAP	17.25	AZP	90.28	TAL	351.71	TAP	114.64	RCA	151.62	APO	280.96	V2	24.443
RC	110.773	GL	3.92	GP	-9.25	ZAL	102.61	ZAP	159.14	ETS	207.16	ZAE	161.27	ETE	327.49	ZAC	73.93	ETC	282.83	LVI	-7.58

PLANETOCENTRIC CONIC

C3	19.730	VHL	4.442	DLA	19.37	RAL	38.93	RAD	6642.7	VEL	11.821	PTH	6.84	VHP	5.131	DPA	7.18	RAP	44.79	ECC	1.3247

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 36 8	3522.90	-46.57	130.23	275.09	101.09	13 34 51	2522.9	-37.04	100.18
60.00	12 52 47	3478.56	-40.02	127.53	276.37	95.21	13 50 45	2478.6	-33.60	98.43
70.00	13 18 12	3403.70	-34.15	121.84	276.74	90.55	14 14 56	2403.7	-30.36	93.77
80.00	14 0 21	3271.58	-29.74	111.72	276.64	87.27	14 54 53	2271.6	-27.85	84.46
90.00	15 9 40	3047.82	-28.02	95.17	276.53	86.03	16 0 28	2047.8	-26.85	68.22
100.00	16 43 13	2746.05	-29.74	73.09	276.64	87.27	17 28 59	1746.0	-27.85	45.83
110.00	18 17 39	2450.52	-34.15	50.76	276.74	90.55	18 58 29	1450.5	-30.36	22.68

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4304	TRA	-1.1490	TC3	.8082	BAU	.2422	SGT	1814.3	SGR	695.6	SG3	468.2	ST	36.4	SR	22.4	SS	35.1
RDE	-.3360	RRA	.2795	RC3	-.4359	FAU	.11645	RRT	-.5053	RRF	.5752	RTF	-.8282	CRT	.5703	CRS	.7050	CST	.9821
FDE	1.0602	FRA	1.9207	FC3	-5.1096	BSP	3128	SGB	1943.1	R23	-.1244	R13	.8388	LSA	52.6	MSA	17.1	SSA	1.7
BDE	.5460	BRA	1.1825	BC3	.9183	FSP	699	SG1	1852.0	SG2	588.0	THA	167.79	EL1	39.2	EL2	17.1	ALF	24.25

LAUNCH DATE JUL 23 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 386.426 EARTH TO MARS

RL	151.99	LAL	-.00	LOL	300.00	VL	33.607	GAL	-1.85	AZL	89.44	HCA	124.00	SMA	215.08	ECC	.29499	INC	.5644	V1	29.314
RP	225.39	LAP	.47	LOP	64.01	VP	23.677	GAP	16.94	AZP	90.32	TAL	351.88	TAP	115.88	RCA	151.63	APO	278.53	V2	24.401
RC	113.259	GL	4.33	GP	-9.59	ZAL	102.28	ZAP	158.16	ETS	206.80	ZAE	161.39	ETE	325.82	ZAC	73.57	ETC	282.84	LVI	-7.22

PLANETOCENTRIC CONIC

C3	19.246	VHL	4.387	DLA	19.65	RAL	38.47	RAD	6642.5	VEL	11.801	PTH	6.82	VHP	4.996	DPA	6.90	RAP	45.03	ECC	1.3167

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 33 5	3522.94	-46.57	130.23	274.33	101.09	13 31 48	2522.9	-37.04	100.18
60.00	12 49 19	3479.72	-40.03	127.63	275.61	95.14	13 47 18	2479.7	-33.63	98.51
70.00	13 14 11	3406.46	-34.15	122.05	275.96	90.42	14 10 58	2406.5	-30.41	93.96
80.00	13 55 43	3276.26	-29.73	112.07	275.85	87.09	14 50 20	2276.3	-27.91	84.80
90.00	15 4 43	3053.55	-28.00	95.59	275.73	85.82	15 55 36	2053.6	-26.91	68.63
100.00	16 38 35	2750.74	-29.73	73.44	275.85	87.09	17 24 26	1750.7	-27.91	46.16
110.00	18 13 38	2453.28	-34.15	50.97	275.96	90.42	18 54 31	1453.3	-30.41	22.88

DIFFERENTIAL CORRECTIONS

TDE	-.4341	TRA	-1.1357	TC3	.8439	BAU	.2490												
RDE	-.3206	RRA	.2839	RC3	-.4739	FAU	.12177												
FDE	1.1292	FRA	1.9774	FC3	-5.4775	BSP	3171												
BDE	.5397	BRA	1.1706	BC3	.9679	FSP	744												

MID-COURSE EXECUTION ACCURACY

SGT	1830.4	SGR	709.3	SG3	494.8						
RRT	-.8318	RRF	.6097	RTF	-.8313						
SGB	1963.0	R23	-.1330	R13	.8431						
SG1	1873.2	SG2	587.0	THA	167.06						

ORBIT DETERMINATION ACCURACY

ST	36.9	SR	21.8	SS	36.6						
CRT	.5642	CRS	.7030	CST	.9813						
LSA	53.7	MSA	16.8	SSA	1.8						
EL1	39.4	EL2	16.8	ALF	22.77						

LAUNCH DATE JUL 23 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 389.954 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.558	GAL	-1.79	AZL	89.39	HCA	125.07	SMA	213.95	ECC	.29118	INC	.6121	V1	29.314
RP	225.78	LAP	.50	LOP	65.07	VP	23.565	GAP	16.64	AZP	90.38	TAL	352.06	TAP	117.12	RCA	151.65	APO	276.25	V2	24.359
RC	115.782	GL	4.74	GP	-9.94	ZAL	101.95	ZAP	157.16	ETS	206.47	ZAE	161.53	ETE	323.99	ZAC	73.20	ETC	282.85	LVI	-6.85

PLANETOCENTRIC CONIC

C3	18.794	VHL	4.335	DLA	19.95	RAL	38.01	RAD	6642.3	VEL	11.782	PTH	6.81	VHP	4.865	DPA	6.59	RAP	45.25	ECC	1.3093

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 57	3523.56	-46.58	130.29	273.60	101.04	13 28 41	2523.6	-37.06	100.23
60.00	12 45 44	3481.53	-40.04	127.78	274.87	95.04	13 43 46	2481.5	-33.68	98.64
70.00	13 10 2	3409.98	-34.15	122.33	275.21	90.26	14 6 52	2410.0	-30.46	94.22
80.00	13 50 54	3281.85	-29.71	112.49	275.08	86.88	14 45 36	2281.9	-27.98	85.20
90.00	14 59 32	3060.28	-27.96	96.07	274.95	85.58	15 50 33	2060.3	-26.98	69.11
100.00	16 33 46	2756.32	-29.71	73.85	275.08	86.88	17 19 42	1756.3	-27.98	46.96
110.00	18 9 28	2456.80	-34.15	51.25	275.21	90.26	18 50 25	1456.8	-30.48	23.13

DIFFERENTIAL CORRECTIONS

TDE	-.4242	TRA	-1.1086	TC3	.9064	BAU	.2619												
RDE	-.3051	RRA	.2884	RC3	-.5149	FAU	.12740												
FDE	1.1998	FRA	2.0329	FC3	-5.8687	BSP	3059												
BDE	.5225	BRA	1.1455	BC3	1.0424	FSP	790												

MID-COURSE EXECUTION ACCURACY

SGT	1833.4	SGR	725.5	SG3	522.5						
RRT	-.5690	RRF	.6362	RTF	-.8426						
SGB	1971.7	R23	-.1253	R13	.8548						
SG1	1884.4	SG2	580.5	THA	165.95						

ORBIT DETERMINATION ACCURACY

ST	36.5	SR	21.1	SS	38.0						
CRT	.5486	CRS	.6992	CST	.9789						
LSA	54.3	MSA	16.6	SSA	1.7						
EL1	38.8	EL2	16.6	ALF	21.75						

LAUNCH DATE JUL 23 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 393.504 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.512	GAL	-1.73	AZL	89.34	HCA	126.13	SMA	212.89	ECC	.28757	INC	.6611	V1	29.314
RP	226.17	LAP	.53	LOP	66.13	VP	23.456	GAP	16.34	AZP	90.39	TAL	352.22	TAP	118.35	RCA	151.67	APO	274.11	V2	24.318
RC	118.341	GL	5.17	GP	-10.32	ZAL	101.63	ZAP	156.14	ETS	206.18	ZAE	161.68	ETE	322.00	ZAC	72.82	ETC	282.86	LVI	-6.46

PLANETOCENTRIC CONIC

C3	18.376	VHL	4.287	DLA	20.26	RAL	37.55	RAD	6642.1	VEL	11.764	PTH	6.79	VHP	4.740	DPA	6.27	RAP	45.46	ECC	1.3024

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 46	3524.65	-46.60	130.41	272.93	100.95	13 25 30	2524.8	-37.11	100.31
60.00	12 42 4	3484.08	-40.05	127.99	274.18	94.89	13 40 8	2484.1	-33.75	98.82
70.00	13 5 44	3414.36	-34.15	122.67	274.50	90.05	14 2 39	2414.4	-30.56	94.53
80.00	13 45 54	3288.48	-29.68	112.98	274.34	86.62	14 40 42	2288.5	-28.06	85.67
90.00	14 54 9	3068.15	-27.92	96.65	274.20	85.30	15 45 17	2068.2	-27.06	69.67
100.00	16 28 45	2762.95	-29.68	74.35	274.34	86.62	17 14 48	1763.0	-28.06	47.04
110.00	18 5 11	2461.18	-34.15	51.59	274.50	90.05	18 46 12	1461.2	-30.56	23.45

DIFFERENTIAL CORRECTIONS

TDE	-.4337	TRA	-1.1005	TC3	.9283	BAU	.2661												
RDE	-.2888	RRA	.2935	RC3	-.3585	FAU	.13323												
FDE	1.2791	FRA	2.0926	FC3	-6.2771	BSP	3166												
BDE	.5211	BRA	1.1390	BC3	1.0833	FSP	839												

MID-COURSE EXECUTION ACCURACY

SGT	1851.5	SGR	743.8	SG3	551.7						
RRT	-.5904	RRF	.6661	RTF	-.[illegible]15						
SGB	1995.3	R23	-.1417	R13	.8556						
SG1	1908.4	SG2	582.4	THA	165.25						

ORBIT DETERMINATION ACCURACY

ST	37.3	SR	20.3	SS	39.8						
CRT	.5420	CRS	.6936	CST	.9789						
LSA	55.8	MSA	16.3	SSA	1.8						
EL1	39.3	EL2	16.2	ALF	19.97						

LAUNCH DATE JUL 23 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 397.074 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.469	GAL	-1.68	AZL	89.29	HCA	127.18	SMA	211.90	ECC	.28416	INC	.7113	V1	29.314
RP	226.56	LAP	.57	LOP	67.19	VP	23.350	GAP	16.04	AZP	90.43	TAL	352.39	TAP	119.57	RCA	151.69	APO	272.11	V2	24.276
RC	120.933	GL	5.62	GP	-10.71	ZAL	101.32	ZAP	155.10	ETS	205.91	ZAE	161.84	ETE	319.83	ZAC	72.42	ETC	282.88	LVI	-6.07

PLANETOCENTRIC CONIC

C3	17.987	VHL	4.241	DLA	20.58	RAL	37.09	RAD	6641.9	VEL	11.748	PTH	6.78	VHP	4.618	DPA	5.92	RAP	45.65	ECC	1.2980

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 23 29	3526.75	-46.62	130.59	272.29	100.82	13 22 16	2526.8	-37.18	100.44
60.00	12 38 18	3487.33	-40.07	128.27	273.52	94.71	13 36 25	2487.3	-33.84	99.05
70.00	13 1 18	3419.58	-34.15	123.08	273.81	89.81	13 58 18	2419.6	-30.66	94.90
80.00	13 40 40	3296.13	-29.65	113.54	273.63	86.32	14 35 37	2296.1	-28.16	86.22
90.00	14 48 30	3077.17	-27.87	97.30	273.48	84.97	15 39 47	2077.2	-27.15	70.32
100.00	16 23 32	2770.60	-29.65	74.91	273.63	86.32	17 9 43	1770.6	-28.16	47.59
110.00	18 0 44	2466.39	-34.15	51.99	273.81	89.81	18 41 51	1466.4	-30.66	23.82

DIFFERENTIAL CORRECTIONS

TDE	-.4406	TRA	-1.0893	TC3	.9520	BAU	.2712												
RDE	-.2721	RRA	.2990	RC3	-.6050	FAU	.13928												
FDE	1.3646	FRA	2.1526	FC3	-6.7039	BSP	3245												
BDE	.5178	BRA	1.1296	BC3	1.1280	FSP	891												

MID-COURSE EXECUTION ACCURACY

SGT	1864.8	SGR	764.6	SG3	582.1						
RRT	-.6129	RRF	.6952	RTF	-.8416						
SGB	2015.4	R23	-.1555	R13	.8577						
SG1	1929.0	SG2	584.0	THA	164.43						

ORBIT DETERMINATION ACCURACY

ST	38.0	SR	19.5	SS	41.4						
CRT	.5310	CRS	.6857	CST	.9785						
LSA	57.2	MSA	15.9	SSA	1.8						
EL1	39.7	EL2	15.8	ALF	18.25						

LAUNCH DATE JUL 23 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 400.663 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.427	GAL	-1.63	AZL	89.24	HCA	128.24	SMA	210.97	ECC	.28094	INC	.7625	V1	29.314
RP	226.93	LAP	.60	LOP	68.24	VP	23.248	GAP	15.74	AZP	90.47	TAL	352.55	TAP	120.78	RCA	151.70	APO	270.24	V2	24.234
RC	123.556	GL	6.08	GP	-11.11	ZAL	101.01	ZAP	154.03	ETS	205.67	ZAE	162.00	ETE	317.47	ZAC	72.01	ETC	282.90	LVI	-5.66

PLANETOCENTRIC CONIC

C3	17.627	VHL	4.198	DLA	20.93	RAL	36.63	RAD	6641.8	VEL	11.733	PTH	6.76	VHP	4.501	DPA	5.55	RAP	45.83	ECC	1.2901

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 9	3529.30	-46.65	130.83	271.70	100.64	13 18 58	2529.3	-37.27	100.62
60.00	12 34 25	3491.29	-40.09	128.60	272.90	94.48	13 32 36	2491.3	-33.95	99.33
70.00	12 56 42	3425.65	-34.15	123.55	273.16	89.53	13 53 48	2425.7	-30.77	95.34
80.00	13 35 14	3304.85	-29.61	114.19	272.95	85.99	14 30 19	2304.9	-28.26	86.84
90.00	14 42 35	3087.39	-27.80	98.04	272.78	84.61	15 34 3	2087.4	-27.25	71.05
100.00	16 18 6	2779.32	-29.61	75.56	272.95	85.99	17 4 25	1779.3	-28.26	48.21
110.00	17 56 8	2472.47	-34.15	52.47	273.16	89.53	18 37 21	1472.5	-30.77	24.26

DIFFERENTIAL CORRECTIONS

TDE	-.4457	TRA	-1.0769	TC3	.9741	BAU	.2765
RDE	-.2548	RRA	.3050	RC3	-.6543	FAU	.14548
FDE	1.4550	FRA	2.2151	FC3	-7.1454	BSP	3310
BDE	.5134	BRA	1.1193	BC3	1.1734	FSP	947

MID-COURSE EXECUTION ACCURACY

SGT	1874.8	SGR	788.2	SG3	613.5				
RRT	-.6355	RRF	.7233	RTF	-.8419				
SGB	2033.7	R23	-.1682	R13	.8603				
SG1	1947.5	SG2	585.9	THA	163.51				

ORBIT DETERMINATION ACCURACY

ST	38.5	SR	18.6	SS	43.1		
CRT	.5152	CRS	.6744	CST	.9779		
LSA	58.7	MSA	15.6	SSA	1.9		
EL1	39.9	EL2	15.4	ALF	16.54		

LAUNCH DATE JUL 23 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 404.270 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.388	GAL	-1.58	AZL	89.18	HCA	129.29	SMA	210.10	ECC	.27788	INC	.8152	V1	29.314
RP	227.34	LAP	.63	LOP	69.29	VP	23.148	GAP	15.45	AZP	90.52	TAL	352.71	TAP	121.99	RCA	151.71	APO	268.48	V2	24.193
RC	126.208	GL	6.56	GP	-11.54	ZAL	100.72	ZAP	152.94	ETS	205.45	ZAE	162.14	ETE	314.91	ZAC	71.58	ETC	282.92	LVI	-5.28

PLANETOCENTRIC CONIC

C3	17.293	VHL	4.158	DLA	21.28	RAL	36.18	RAD	6641.6	VEL	11.719	PTH	6.75	VHP	4.388	DPA	5.15	RAP	45.99	ECC	1.2846

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 16 43	3532.49	-46.69	131.12	271.15	100.41	13 15 35	2532.5	-37.38	100.83
60.00	12 30 25	3496.00	-40.12	129.00	272.31	94.21	13 28 41	2496.0	-34.07	99.67
70.00	12 51 56	3432.62	-34.15	124.10	272.54	89.21	13 49 9	2432.6	-30.90	95.85
80.00	13 29 32	3314.70	-29.56	114.92	272.29	85.61	14 24 47	2314.7	-28.38	87.55
90.00	14 36 23	3098.91	-27.73	98.88	272.11	84.20	15 28 2	2098.9	-27.35	71.87
100.00	16 12 24	2789.17	-29.56	76.28	272.29	85.61	16 58 53	1789.2	-28.38	48.92
110.00	17 51 22	2479.44	-34.15	53.01	272.54	89.21	18 32 42	1479.4	-30.90	24.76

DIFFERENTIAL CORRECTIONS

TDE	-.4506	TRA	-1.0616	TC3	.9981	BAU	.2829
RDE	-.2368	RRA	.3110	RC3	-.7076	FAU	.15213
FDE	1.5522	FRA	2.2746	FC3	-7.6160	BSP	3354
BDE	.5090	BRA	1.1063	BC3	1.2235	FSP	1003

MID-COURSE EXECUTION ACCURACY

SGT	1881.2	SGR	815.0	SG3	646.6				
RRT	-.6574	RRF	.7504	RTF	-.8428				
SGB	2050.1	R23	-.1800	R13	.8636				
SG1	1963.9	SG2	588.3	THA	162.48				

ORBIT DETERMINATION ACCURACY

ST	39.0	SR	17.7	SS	45.0		
CRT	.4959	CRS	.6598	CST	.9773		
LSA	60.2	MSA	15.3	SSA	1.9		
EL1	40.1	EL2	15.0	ALF	14.82		

LAUNCH DATE JUL 23 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 407.893 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.351	GAL	-1.54	AZL	89.13	HCA	130.33	SMA	209.28	ECC	.27499	INC	.8692	V1	29.314
RP	227.73	LAP	.66	LOP	70.34	VP	23.051	GAP	15.16	AZP	90.56	TAL	352.86	TAP	123.19	RCA	151.73	APO	266.83	V2	24.152
RC	128.887	GL	7.05	GP	-11.99	ZAL	100.43	ZAP	151.83	ETS	205.25	ZAE	162.27	ETE	312.16	ZAC	71.14	ETC	282.96	LVI	-4.82

PLANETOCENTRIC CONIC

C3	16.984	VHL	4.121	DLA	21.66	RAL	35.72	RAD	6641.5	VEL	11.706	PTH	6.74	VHP	4.279	DPA	4.73	RAP	46.14	ECC	1.2795

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 13 12	3536.33	-46.74	131.48	270.65	100.14	13 12 9	2536.3	-37.52	101.10
60.00	12 26 18	3501.47	-40.14	129.46	271.77	93.90	13 24 39	2501.5	-34.22	100.06
70.00	12 46 59	3440.52	-34.14	124.71	271.95	88.85	13 44 20	2440.5	-31.04	96.42
80.00	13 23 35	3325.75	-29.50	115.73	271.66	85.18	14 19 1	2325.8	-28.50	88.35
90.00	14 29 51	3111.81	-27.63	99.81	271.46	83.74	15 21 43	2111.8	-27.46	72.80
100.00	16 6 27	2800.22	-29.50	77.10	271.66	85.18	16 53 7	1800.2	-28.50	49.72
110.00	17 46 26	2487.34	-34.14	53.63	271.95	88.85	18 27 53	1487.3	-31.04	25.34

DIFFERENTIAL CORRECTIONS

TDE	-.4939	TRA	-1.0458	TC3	1.0204	BAU	.2895
RDE	-.2181	RRA	.3174	RC3	-.7644	FAU	.15800
FDE	1.6552	FRA	2.3348	FC3	-8.1047	BSP	3394
BDE	.5036	BRA	1.0929	BC3	1.2750	FSP	1062

MID-COURSE EXECUTION ACCURACY

SGT	1884.9	SGR	845.2	SG3	681.0				
RRT	-.6788	RRF	.7761	RTF	-.8637				
SGB	2065.7	R23	-.1909	R13	.8672				
SG1	1979.3	SG2	591.0	THA	161.35				

ORBIT DETERMINATION ACCURACY

ST	39.3	SR	16.8	SS	46.9		
CRT	.4697	CRS	.6400	CST	.9769		
LSA	61.7	MSA	14.9	SSA	1.9		
EL1	40.2	EL2	14.5	ALF	13.04		

LAUNCH DATE JUL 23 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 411.531 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.316	GAL	-1.50	AZL	89.08	HCA	131.38	SMA	208.51	ECC	.27226	INC	.9248	V1	29.314
RP	228.12	LAP	.69	LOP	71.38	VP	22.957	GAP	14.87	AZP	90.61	TAL	353.00	TAP	124.38	RCA	151.74	APO	265.28	V2	24.110
RC	131.592	GL	7.56	GP	-12.46	ZAL	100.14	ZAP	150.69	ETS	205.06	ZAE	162.38	ETE	309.20	ZAC	70.69	ETC	282.99	LVI	-4.38

PLANETOCENTRIC CONIC

C3	16.700	VHL	4.087	DLA	22.05	RAL	35.27	RAD	6641.3	VEL	11.693	PTH	6.73	VHP	4.175	DPA	4.28	RAP	46.26	ECC	1.2748

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 9 36	3540.86	-46.79	131.91	270.19	99.81	13 8 37	2540.9	-37.68	101.41
60.00	12 22 3	3507.72	-40.17	129.99	271.26	93.54	13 20 30	2507.7	-34.38	100.51
70.00	12 41 51	3449.39	-34.12	125.40	271.39	88.44	13 39 20	2449.4	-31.19	97.06
80.00	13 17 20	3338.08	-29.43	116.64	271.06	84.71	14 12 59	2338.1	-28.64	89.24
90.00	14 22 58	3126.22	-27.52	100.85	270.83	83.23	15 15 4	2126.2	-27.58	73.84
100.00	16 0 12	2812.56	-29.43	78.01	271.06	84.71	16 47 5	1812.6	-28.64	50.61
110.00	17 41 17	2496.21	-34.12	54.32	271.39	88.44	18 22 53	1496.2	-31.19	25.98

DIFFERENTIAL CORRECTIONS

TDE	-.4572	TRA	-1.0302	TC3	1.0364	BAU	.2956
RDE	-.1984	RRA	.3245	RC3	-.8243	FAU	.16599
FDE	1.7665	FRA	2.3982	FC3	-8.6053	BSP	3433
BDE	.4984	BRA	1.0801	BC3	1.3242	FSP	1125

MID-COURSE EXECUTION ACCURACY

SGT	1886.0	SGR	878.8	SG3	716.4				
RRT	-.6983	RRF	.8000	RTF	-.8440				
SGB	2080.7	R23	-.2022	R13	.8707				
SG1	1993.8	SG2	595.0	THA	160.13				

ORBIT DETERMINATION ACCURACY

ST	39.7	SR	15.8	SS	48.9		
CRT	.4352	CRS	.6128	CST	.9758		
LSA	63.3	MSA	14.6	SSA	1.9		
EL1	40.4	EL2	14.0	ALF	11.17		

LAUNCH DATE JUL 23 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 415.183 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.283 GAL -1.45 AZL 89.02 HCA 132.42 SMA 207.78 ECC .26967 INC .9819 V1 29.314
RP 228.51 LAP .73 LOP 72.42 VP 22.866 GAP 14.58 AZP 90.66 TAL 353.14 TAP 125.56 RCA 151.75 APO 263.82 V2 24.069
RC 134.321 GL 8.09 GP -12.95 ZAL 99.87 ZAP 149.52 ETS 204.89 ZAE 162.44 ETE 306.05 ZAC 70.21 ETC 283.04 LVI -3.92

PLANETOCENTRIC CONIC

C3 16.438 VHL 4.054 DLA 22.46 RAL 34.81 RAD 6641.2 VEL 11.682 PTH 6.72 VHP 4.074 DPA 3.80 RAP 46.38 ECC 1.2705

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 5 55	3546.07	-46.85	132.40	269.77	99.44	13 5 1	2546.1	-37.87	101.77
60.00	12 17 40	3514.77	-40.20	130.59	270.78	93.13	13 16 14	2514.8	-34.56	101.02
70.00	12 36 30	3459.27	-34.10	126.18	270.86	87.98	13 34 9	2459.3	-31.36	97.78
80.00	13 10 46	3351.79	-29.34	117.65	270.48	84.19	14 6 38	2351.8	-28.77	90.24
90.00	14 15 40	3142.26	-27.39	102.00	270.22	82.67	15 8 2	2142.3	-27.70	75.00
100.00	15 53 38	2826.26	-29.34	79.02	270.48	84.19	16 40 45	1826.3	-28.77	51.61
110.00	17 35 56	2506.09	-34.10	55.09	270.86	87.98	18 17 42	1506.1	-31.36	26.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4608 TRA -1.0128 TC3 1.0496 BAU .3021 SGT 1883.3 SGR 915.9 SG3 753.3 ST 40.0 SR 14.7 SS 51.1
RDE -.1776 RRA .3317 RC3 -.8882 FAU .17328 RRT -.7159 RRF .8223 RTF -.8439 CRT .3915 CRS .5768 CST .9751
FDE 1.8874 FRA 2.4584 FC3-9.1264 BSP 3465 SGB 2094.3 R23 -.2132 R13 .8743 LSA 65.0 MSA 14.3 SSA 2.0
BDE .4939 BRA 1.0657 BC3 1.3749 FSP 1190 SG1 2006.4 SG2 600.3 THA 158.82 EL1 40.5 EL2 13.4 ALF 9.21

LAUNCH DATE JUL 23 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 418.848 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.251 GAL -1.42 AZL 88.96 HCA 133.45 SMA 207.11 ECC .26723 INC 1.0409 V1 29.314
RP 228.90 LAP .76 LOP 73.46 VP 22.777 GAP 14.30 AZP 90.72 TAL 353.28 TAP 126.73 RCA 151.76 APO 262.45 V2 24.028
RC 137.073 GL 8.63 GP -13.46 ZAL 99.61 ZAP 148.33 ETS 204.73 ZAE 162.46 ETE 302.71 ZAC 69.72 ETC 283.08 LVI -3.45

PLANETOCENTRIC CONIC

C3 16.198 VHL 4.025 DLA 22.89 RAL 34.36 RAD 6641.1 VEL 11.672 PTH 6.71 VHP 3.977 DPA 3.29 RAP 46.47 ECC 1.2666

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 2 7	3551.99	-46.92	132.95	269.41	99.02	13 1 19	2552.0	-38.08	102.19
60.00	12 13 8	3522.66	-40.23	131.26	270.35	92.68	13 11 50	2522.7	-34.76	101.59
70.00	12 30 56	3470.23	-34.07	127.03	270.36	87.48	13 28 46	2470.2	-31.54	98.59
80.00	13 3 51	3366.98	-29.23	118.77	269.92	83.61	13 59 58	2367.0	-28.92	91.34
90.00	14 7 55	3160.12	-27.23	103.28	269.63	82.04	15 0 35	2160.1	-27.82	76.29
100.00	15 46 43	2841.45	-29.23	80.13	269.92	83.61	16 34 4	1841.4	-28.92	52.71
110.00	17 30 22	2517.05	-34.07	55.95	270.36	87.48	18 12 19	1517.0	-31.54	27.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4630 TRA -.9953 TC3 1.0621 BAU .3095 SGT 1879.1 SGR 957.7 SG3 791.7 ST 40.2 SR 13.7 SS 53.3
RDE -.1559 RRA .3394 RC3 -.9565 FAU .18091 RRT -.7327 RRF .8431 RTF -.8441 CRT .3326 CRS .5275 CST .9742
FDE 2.0139 FRA 2.5202 FC3-9.6692 BSP 3487 SGB 2109.1 R23 -.2227 R13 .8785 LSA 66.7 MSA 14.0 SSA 2.0
BDE .4885 BRA 1.0516 BC3 1.4293 FSP 1255 SG1 2020.0 SG2 606.2 THA 157.37 EL1 40.5 EL2 12.8 ALF 7.18

LAUNCH DATE JUL 23 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 422.524 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.222 GAL -1.38 AZL 88.90 HCA 134.48 SMA 206.47 ECC .26492 INC 1.1017 V1 29.314
RP 229.28 LAP .79 LOP 74.49 VP 22.691 GAP 14.02 AZP 90.77 TAL 353.41 TAP 127.89 RCA 151.77 APO 261.17 V2 23.988
RC 139.847 GL 9.19 GP -14.00 ZAL 99.36 ZAP 147.10 ETS 204.58 ZAE 162.43 ETE 299.20 ZAC 69.21 ETC 283.14 LVI -2.98

PLANETOCENTRIC CONIC

C3 15.978 VHL 3.997 DLA 23.35 RAL 33.92 RAD 6641.0 VEL 11.663 PTH 6.70 VHP 3.884 DPA 2.75 RAP 46.55 ECC 1.2630

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 58 13	3558.64	-46.99	133.58	269.08	98.54	12 57 32	2558.6	-38.31	102.65
60.00	12 8 26	3531.41	-40.25	132.01	269.96	92.18	13 7 18	2531.4	-34.98	102.23
70.00	12 25 6	3482.31	-34.03	127.97	269.89	86.92	13 23 9	2482.3	-31.74	99.48
80.00	12 56 31	3383.79	-29.09	120.00	269.38	82.98	13 52 55	2383.8	-29.07	92.57
90.00	13 59 37	3180.01	-27.03	104.71	269.06	81.36	14 52 37	2180.0	-27.93	77.73
100.00	15 39 23	2858.26	-29.09	81.36	269.38	82.98	16 27 1	1858.3	-29.07	53.94
110.00	17 24 33	2529.13	-34.03	56.89	269.89	86.92	18 6 42	1529.1	-31.74	28.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4652 TRA -.9778 TC3 1.0654 BAU .3163 SGT 1871.0 SGR 1003.2 SG3 830.8 ST 40.5 SR 12.6 SS 55.7
RDE -.1330 RRA .3477 RC3-1.0281 FAU .18857 RRT -.7467 RRF .8619 RTF -.8430 CRT .2547 CRS .4597 CST .9734
FDE 2.1490 FRA 2.5822 FC-10.2173 BSP 3520 SGB 2123.0 R23 -.2330 R13 .8823 LSA 68.6 MSA 13.7 SSA 2.0
BDE .4838 BRA 1.0378 BC3 1.4805 FSP 1325 SG1 2032.1 SG2 614.4 THA 155.83 EL1 40.6 EL2 12.1 ALF 4.98

LAUNCH DATE JUL 23 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 426.212 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.194 GAL -1.34 AZL 88.84 HCA 135.51 SMA 205.87 ECC .26274 INC 1.1643 V1 29.314
RP 229.67 LAP .82 LOP 75.52 VP 22.606 GAP 13.74 AZP 90.83 TAL 353.53 TAP 129.04 RCA 151.78 APO 259.96 V2 23.947
RC 142.641 GL 9.78 GP -14.57 ZAL 99.11 ZAP 145.85 ETS 204.43 ZAE 162.32 ETE 295.53 ZAC 68.69 ETC 283.20 LVI -2.46

PLANETOCENTRIC CONIC

C3 15.778 VHL 3.972 DLA 23.82 RAL 33.47 RAD 6640.9 VEL 11.654 PTH 6.69 VHP 3.795 DPA 2.17 RAP 46.61 ECC 1.2597

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 12	3566.00	-47.06	134.28	268.80	98.00	12 53 38	2566.0	-38.56	103.17
60.00	12 3 34	3541.03	-40.27	132.82	269.59	91.62	13 2 35	2541.0	-35.22	102.94
70.00	12 19 0	3495.56	-33.98	129.00	269.45	86.31	13 17 16	2495.6	-31.94	100.45
80.00	12 48 43	3402.33	-28.93	121.35	268.86	82.28	13 45 26	2402.3	-29.22	93.93
90.00	13 50 43	3202.14	-26.80	106.28	268.50	80.60	14 44 5	2202.1	-28.05	79.34
100.00	15 31 35	2876.81	-28.93	82.72	268.86	82.28	16 19 32	1876.8	-29.22	55.30
110.00	17 18 27	2542.38	-33.98	57.92	269.45	86.31	18 0 49	1542.4	-31.94	29.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4530 TRA -.9449 TC3 1.1035 BAU .3299 SGT 1848.0 SGR 1055.0 SG3 872.2 ST 39.6 SR 11.6 SS 57.8
RDE -.1099 RRA .3548 RC3-1.1081 FAU .19723 RRT -.7702 RRF .8793 RTF -.8501 CRT .1513 CRS .3735 CST .9709
FDE 2.2810 FRA 2.6280 FC-10.8219 BSP 3384 SGB 2127.9 R23 -.2241 R13 .8924 LSA 69.7 MSA 13.4 SSA 1.9
BDE .4661 BRA 1.0093 BC3 1.5638 FSP 1383 SG1 2038.6 SG2 610.0 THA 153.74 EL1 39.6 EL2 11.5 ALF 2.77

LAUNCH DATE JUL 23 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 429.908 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.167 GAL -1.31 AZL 88.77 HCA 136.54 SMA 205.31 ECC .26069 INC 1.2292 V1 29.314
RP 230.05 LAP .85 LOP 76.55 VP 22.525 GAP 13.46 AZP 90.89 TAL 353.65 TAP 130.18 RCA 151.79 APO 258.83 V2 23.907
RC 149.456 GL 10.38 GP -15.15 ZAL 98.88 ZAP 144.57 ETS 204.29 ZAE 162.14 ETE 291.77 ZAC 68.14 ETC 283.27 LVI -1.94

PLANETOCENTRIC CONIC

C3 15.598 VHL 3.950 DLA 24.31 RAL 33.02 RAD 6640.8 VEL 11.647 PTH 6.69 VHP 3.710 DPA 1.57 RAP 46.65 ECC 1.2567

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 50 4	3574.19	-47.13	135.06	268.58	97.41	12 49 38	2574.2	-38.84	103.76
60.00	11 58 32	3551.66	-40.29	133.73	269.28	91.01	12 57 43	2551.7	-35.48	103.72
70.00	12 12 37	3510.15	-33.91	130.14	269.04	85.65	13 11 7	2510.2	-32.16	101.94
80.00	12 40 24	3422.97	-28.73	122.85	268.36	81.52	13 37 27	2423.0	-29.37	95.44
90.00	13 41 4	3227.05	-26.51	108.05	267.95	79.76	14 34 51	2227.1	-28.14	81.16
100.00	15 23 16	2897.44	-28.73	84.22	268.36	81.52	16 11 33	1897.4	-29.37	56.81
110.00	17 12 3	2556.97	-33.91	59.05	269.04	85.65	17 54 40	1557.0	-32.16	30.46

DIFFERENTIAL CORRECTIONS

TDE -.4637 TRA -.9362 TC3 1.0699 BAU .3331
RDE -.0833 RRA .3645 RC3-1.1858 FAU .20485
FDE 2.4414 FRA 2.6945 FC-11.3692 BSP 3533
BDE .4711 BRA 1.0047 BC3 1.5971 FSP 1466

MID-COURSE EXECUTION ACCURACY

SGT 1840.6 SGR 1108.5 SG3 912.7
RRT -.7720 RRF .8944 RTF -.8416
SGB 2148.6 R23 -.2453 R13 .8924
SG1 2053.7 SG2 631.5 THA 152.21

ORBIT DETERMINATION ACCURACY

ST 40.4 SR 10.7 SS 60.5
CRT .0160 CRS .2433 CST .9711
LSA 72.4 MSA 13.1 SSA 2.0
EL1 40.4 EL2 10.7 ALF .26

LAUNCH DATE JUL 23 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 433.613 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.142 GAL -1.28 AZL 88.70 HCA 137.56 SMA 204.78 ECC .25875 INC 1.2963 V1 29.314
RP 230.44 LAP .87 LOP 77.57 VP 22.445 GAP 13.19 AZP 90.96 TAL 353.76 TAP 131.32 RCA 151.80 APO 257.77 V2 23.867
RC 148.289 GL 11.00 GP -15.77 ZAL 98.66 ZAP 143.27 ETS 204.15 ZAE 161.87 ETE 287.93 ZAC 67.57 ETC 283.35 LVI -1.40

PLANETOCENTRIC CONIC

C3 15.438 VHL 3.929 DLA 24.83 RAL 32.58 RAD 6640.7 VEL 11.640 PTH 6.68 VHP 3.629 DPA .93 RAP 46.68 ECC 1.2541

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 45 48	3583.17	-47.21	135.91	268.40	96.75	12 45 31	2583.2	-39.15	104.40
60.00	11 53 17	3563.25	-40.30	134.71	268.99	90.34	12 52 40	2563.2	-35.75	104.58
70.00	12 5 53	3526.11	-33.82	131.37	268.66	84.92	13 4 39	2526.1	-32.38	102.73
80.00	12 31 28	3445.84	-28.49	124.51	267.87	80.68	13 28 53	2445.8	-29.51	97.13
90.00	13 30 31	3255.12	-26.15	110.03	267.40	78.83	14 24 46	2255.1	-28.22	83.21
100.00	15 14 19	2920.32	-28.49	85.88	267.87	80.68	16 3 0	1920.3	-29.51	58.50
110.00	17 5 19	2572.93	-33.82	60.29	268.66	84.92	17 48 12	1572.9	-32.38	31.65

DIFFERENTIAL CORRECTIONS

TDE -.4688 TRA -.9208 TC3 1.0494 BAU .3399
RDE -.0550 RRA .3744 RC3-1.2695 FAU .21292
FDE 2.6119 FRA 2.7565 FC-11.9401 BSP 3603
BDE .4720 BRA .9940 BC3 1.6471 FSP 1546

MID-COURSE EXECUTION ACCURACY

SGT 1826.6 SGR 1167.7 SG3 954.9
RRT -.7773 RRF .9081 RTF -.8368
SGB 2167.9 R23 -.2562 R13 .8957
SG1 2068.6 SG2 648.7 THA 150.38

ORBIT DETERMINATION ACCURACY

ST 40.8 SR 10.0 SS 63.4
CRT -.1599 CRS .0707 CST .9706
LSA 74.9 MSA 12.8 SSA 2.0
EL1 40.8 EL2 9.8 ALF 177.62

LAUNCH DATE JUL 23 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 437.328 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.118 GAL -1.25 AZL 88.63 HCA 138.58 SMA 204.29 ECC .25692 INC 1.3658 V1 29.314
RP 230.82 LAP .90 LOP 78.59 VP 22.367 GAP 12.92 AZP 91.02 TAL 353.86 TAP 132.44 RCA 151.80 APO 256.77 V2 23.827
RC 151.140 GL 11.64 GP -16.42 ZAL 98.45 ZAP 141.93 ETS 204.01 ZAE 161.51 ETE 284.04 ZAC 66.98 ETC 283.43 LVI -.84

PLANETOCENTRIC CONIC

C3 15.295 VHL 3.911 DLA 25.37 RAL 32.14 RAD 6640.7 VEL 11.634 PTH 6.67 VHP 3.551 DPA .25 RAP 46.69 ECC 1.2517

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 41 23	3592.97	-47.28	136.85	268.27	96.04	12 41 16	2593.0	-39.47	105.11
60.00	11 47 40	3575.87	-40.30	135.79	268.75	89.61	12 47 24	2575.9	-36.04	105.53
70.00	11 58 46	3543.56	-33.71	132.72	268.30	84.13	12 57 50	2543.6	-32.61	104.04
80.00	12 21 47	3471.33	-28.20	126.35	267.39	79.75	13 19 38	2471.3	-29.64	99.01
90.00	13 18 49	3287.10	-25.71	112.26	266.84	77.80	14 13 36	2287.1	-28.27	85.55
100.00	15 4 39	2945.80	-28.20	87.71	267.39	79.75	15 53 45	1945.8	-29.64	60.38
110.00	16 58 12	2590.38	-33.71	61.64	268.30	84.13	17 41 23	1590.4	-32.61	32.95

DIFFERENTIAL CORRECTIONS

TDE -.4681 TRA -.9002 TC3 1.0347 BAU .3494
RDE -.0257 RRA .3837 RC3-1.3598 FAU .22150
FDE 2.7828 FRA 2.8073 FC-12.5378 BSP 3622
BDE .4688 BRA .9785 BC3 1.7088 FSP 1620

MID-COURSE EXECUTION ACCURACY

SGT 1804.3 SGR 1232.9 SG3 998.3
RRT -.7836 RRF .9203 RTF -.8435
SGB 2185.3 R23 -.2605 R13 .9010
SG1 2082.1 SG2 663.7 THA 148.23

ORBIT DETERMINATION ACCURACY

ST 40.7 SR 9.7 SS 66.1
CRT -.3609 CRS -.1334 CST .9695
LSA 77.2 MSA 12.6 SSA 2.0
EL1 40.9 EL2 9.0 ALF 174.86

LAUNCH DATE JUL 23 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 441.050 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.096 GAL -1.23 AZL 88.56 HCA 139.59 SMA 203.82 ECC .25519 INC 1.4380 V1 29.314
RP 231.20 LAP .93 LOP 79.60 VP 22.292 GAP 12.65 AZP 91.10 TAL 353.96 TAP 133.55 RCA 151.81 APO 255.84 V2 23.787
RC 154.008 GL 12.31 GP -17.09 ZAL 98.25 ZAP 140.56 ETS 203.88 ZAE 161.05 ETE 280.17 ZAC 66.36 ETC 283.52 LVI -.26

PLANETOCENTRIC CONIC

C3 15.170 VHL 3.895 DLA 25.93 RAL 31.70 RAD 6640.6 VEL 11.628 PTH 6.67 VHP 3.478 DPA -.46 RAP 46.69 ECC 1.2497

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 36 49	3603.64	-47.35	137.87	268.19	95.25	12 36 52	2603.6	-39.82	105.89
60.00	11 42 5	3589.59	-40.29	136.95	268.54	88.82	12 41 55	2589.6	-36.35	106.57
70.00	11 51 14	3562.65	-33.56	134.19	267.96	83.27	12 50 36	2562.6	-32.84	105.48
80.00	12 11 12	3499.93	-27.83	128.39	266.90	78.74	13 9 32	2499.9	-29.75	101.13
90.00	13 5 37	3324.17	-25.15	114.83	266.25	76.63	14 1 1	2324.2	-28.27	88.26
100.00	14 54 4	2974.40	-27.83	89.76	266.90	78.74	15 43 39	1974.4	-29.75	62.50
110.00	16 50 40	2609.46	-33.56	63.11	267.96	83.27	17 34 9	1609.5	-32.84	34.39

DIFFERENTIAL CORRECTIONS

TDE -.4666 TRA -.8800 TC3 1.0125 BAU .3594
RDE .0057 RRA .3939 RC3-1.4543 FAU .23007
FDE 2.9640 FRA 2.8597 FC-13.1302 BSP 3660
BDE .4666 BRA .9642 BC3 1.7720 FSP 1701

MID-COURSE EXECUTION ACCURACY

SGT 1779.2 SGR 1303.3 SG3 1042.2
RRT -.7878 RRF .9311 RTF -.8291
SGB 2205.5 R23 -.2630 R13 .9065
SG1 2097.8 SG2 680.8 THA 145.94

ORBIT DETERMINATION ACCURACY

ST 40.6 SR 9.8 SS 69.0
CRT -.5652 CRS -.3532 CST .9682
LSA 79.6 MSA 12.4 SSA 1.9
EL1 41.0 EL2 8.0 ALF 171.89

LAUNCH DATE JUL 23 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 444.779 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.075 GAL -1.20 AZL 88.49 HCA 140.60 SMA 203.39 ECC .25557 INC 1.5130 V1 29.314
RP 231.56 LAP .96 LOP 80.62 VP 22.219 GAP 12.38 AZP 91.17 TAL 354.05 TAP 134.65 RCA 151.82 APO 254.96 V2 23.748
RC 156.890 GL 13.00 GP -17.79 ZAL 98.07 ZAP 139.16 ETS 203.73 ZAE 160.49 ETE 276.35 ZAC 65.72 ETC 283.62 LVI .34

PLANETOCENTRIC CONIC

C3 15.062 VHL 3.881 DLA 26.52 RAL 31.26 RAD 6640.6 VEL 11.624 PTH 6.66 VHP 3.408 DPA -1.21 RAP 46.67 ECC 1.2479

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 32 4	3615.21	-47.42	138.98	268.16	94.40	12 32 19	2615.2	-40.20	106.75
60.00	11 36 5	3604.49	-40.26	138.22	268.36	87.96	12 36 10	2604.5	-36.67	107.70
70.00	11 43 11	3583.54	-33.39	135.80	267.64	82.34	12 42 55	2583.5	-33.08	107.06
80.00	11 59 30	3532.33	-27.38	130.69	266.41	77.61	12 58 22	2532.3	-29.83	103.54
90.00	12 50 16	3368.29	-24.42	117.86	265.61	75.28	13 46 25	2368.3	-28.20	91.48
100.00	14 42 22	3006.80	-27.38	92.06	266.41	77.61	15 32 29	2006.8	-29.83	64.90
110.00	16 42 38	2630.36	-33.39	64.72	267.64	82.34	17 26 28	1630.4	-33.08	35.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4632 TRA -.8573 TC3 .9885 BAU .3709 SGT 1748.5 SGR 1379.4 SG3 1086.6 ST 40.3 SR 10.6 SS 71.9
RDE .0395 RRA .4039 RC3-1.5541 FAU .23882 RRT -.7912 RRF .9405 RTF -.8248 CRT -.7378 CRS -.5525 CST .9868
FDE 3.1561 FRA 2.9033 FC-13.7266 BSP 3678 SGB 2227.1 R23 -.2613 R13 .9131 LSA 82.2 MSA 12.2 SSA 1.9
BDE .4649 BRA .9477 BC3 1.8418 FSP 1777 SG1 2115.1 SG2 697.4 THA 143.42 EL1 41.0 EL2 7.0 ALF 168.70

LAUNCH DATE JUL 23 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 448.515 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.055 GAL -1.18 AZL 88.41 HCA 141.61 SMA 202.98 ECC .25203 INC 1.5909 V1 29.314
RP 231.95 LAP .99 LOP 81.63 VP 22.147 GAP 12.11 AZP 91.25 TAL 354.13 TAP 135.74 RCA 151.82 APO 254.14 V2 23.708
RC 159.785 GL 13.72 GP -18.53 ZAL 97.89 ZAP 137.73 ETS 203.58 ZAE 159.82 ETE 272.61 ZAC 65.06 ETC 283.73 LVI .96

PLANETOCENTRIC CONIC

C3 14.972 VHL 3.869 DLA 27.14 RAL 30.82 RAD 6640.5 VEL 11.620 PTH 6.66 VHP 3.342 DPA -2.00 RAP 46.63 ECC 1.2464

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 27 7	3627.73	-47.48	140.18	268.18	93.47	12 27 35	2627.7	-40.59	107.69
60.00	11 29 47	3620.61	-40.21	139.59	268.22	87.03	12 30 7	2620.6	-37.00	108.94
70.00	11 34 35	3606.45	-33.16	137.55	267.33	81.33	12 34 42	2606.4	-33.31	108.81
80.00	11 46 19	3569.58	-26.81	133.31	265.88	76.34	12 45 49	2569.6	-29.86	106.30
90.00	12 31 31	3423.50	-23.42	121.59	264.87	73.67	13 28 35	2423.5	-27.98	95.50
100.00	14 29 11	3044.05	-26.81	94.68	265.88	76.34	15 19 55	2044.0	-29.86	67.67
110.00	16 34 1	2653.27	-33.16	66.47	267.33	81.33	17 18 15	1653.3	-33.31	37.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4517 TRA -.8272 TC3 .9719 BAU .3851 SGT 1705.2 SGR 1461.1 SG3 1130.8 ST 39.3 SR 11.8 SS 74.7
RDE .0744 RRA .4128 RC3-1.6603 FAU .24784 RRT -.7970 RRF .9488 RTF -.8229 CRT -.8573 CRS -.7016 CST .9843
FDE 3.3455 FRA 2.9299 FC-14.3309 BSP 3623 SGB 2245.5 R23 -.2512 R13 .9218 LSA 84.4 MSA 12.1 SSA 1.9
BDE .4578 BRA .9245 BC3 1.9238 FSP 1841 SG1 2131.7 SG2 706.0 THA 140.51 EL1 40.6 EL2 5.9 ALF 165.20

LAUNCH DATE JUL 23 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 452.255 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.036 GAL -1.16 AZL 88.33 HCA 142.62 SMA 202.60 ECC .25060 INC 1.6723 V1 29.314
RP 232.33 LAP 1.02 LOP 82.63 VP 22.077 GAP 11.85 AZP 91.33 TAL 354.20 TAP 136.82 RCA 151.83 APO 253.37 V2 23.670
RC 162.693 GL 14.46 GP -19.30 ZAL 97.73 ZAP 136.28 ETS 203.43 ZAE 159.04 ETE 269.01 ZAC 64.37 ETC 283.85 LVI 1.61

PLANETOCENTRIC CONIC

C3 14.900 VHL 3.860 DLA 27.79 RAL 30.38 RAD 6640.5 VEL 11.617 PTH 6.66 VHP 3.280 DPA -2.83 RAP 46.59 ECC 1.2452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 21 58	3641.28	-47.53	141.49	268.25	92.47	12 22 39	2641.3	-41.01	108.72
60.00	11 23 8	3638.14	-40.14	141.07	268.11	86.03	12 23 47	2638.1	-37.34	110.30
70.00	11 25 19	3631.73	-32.89	139.47	267.03	80.22	12 25 51	2631.7	-33.53	110.75
80.00	11 31 5	3613.59	-26.07	136.37	265.30	74.90	12 31 19	2613.6	-29.81	109.57
90.00	12 5 38	3501.85	-21.82	126.78	263.90	71.55	13 4 0	2501.8	-27.45	101.17
100.00	14 13 57	3088.06	-26.07	97.74	265.30	74.90	15 5 25	2088.1	-29.81	70.94
110.00	16 24 45	2678.54	-32.89	68.39	267.03	80.22	17 9 24	1678.5	-33.53	39.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4567 TRA -.8150 TC3 .9044 BAU .3950 SGT 1678.4 SGR 1547.4 SG3 1174.8 ST 39.6 SR 13.9 SS 78.3
RDE .1153 RRA .4256 RC3-1.7644 FAU .25582 RRT -.7868 RRF .9559 RTF -.8386 CRT -.9318 CRS -.8121 CST .9837
FDE 3.5733 FRA 2.9841 FC-14.8642 BSP 3775 SGB 2282.9 R23 -.2551 R13 .9258 LSA 88.0 MSA 11.9 SSA 1.8
BDE .4710 BRA .9194 BC3 1.9827 FSP 1938 SG1 2158.7 SG2 742.6 THA 137.95 EL1 41.7 EL2 4.8 ALF 161.70

LAUNCH DATE JUL 23 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 456.001 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 33.019 GAL -1.14 AZL 88.24 HCA 143.62 SMA 202.24 ECC .24925 INC 1.7570 V1 29.314
RP 232.70 LAP 1.04 LOP 83.63 VP 22.010 GAP 11.59 AZP 91.41 TAL 354.27 TAP 137.89 RCA 151.83 APO 252.64 V2 23.631
RC 165.610 GL 15.23 GP -20.10 ZAL 97.58 ZAP 134.79 ETS 203.26 ZAE 158.16 ETE 265.55 ZAC 63.66 ETC 283.98 LVI 2.29

PLANETOCENTRIC CONIC

C3 14.845 VHL 3.853 DLA 28.47 RAL 29.94 RAD 6640.5 VEL 11.615 PTH 6.66 VHP 3.221 DPA -3.69 RAP 46.53 ECC 1.2443

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 16 34	3655.88	-47.56	142.90	268.37	91.38	12 17 30	2655.9	-41.45	109.84
60.00	11 16 6	3657.10	-40.04	142.68	268.03	84.95	12 17 4	2657.1	-37.70	111.79
70.00	11 15 15	3659.65	-32.55	141.58	266.73	79.02	12 16 14	2659.7	-33.74	112.90
80.00	11 12 40	3667.78	-25.05	140.08	264.61	73.20	12 13 47	2667.8	-29.63	113.59
86.62	10 49 16	3743.37	-16.41	143.10	262.09	67.90	11 51 39	2743.4	-25.92	110.55
100.00	13 55 31	3142.25	-25.05	101.44	264.61	73.20	14 47 54	2142.2	-29.63	74.96
110.00	16 14 41	2706.47	-32.55	70.49	266.73	79.02	16 59 47	1706.5	-33.74	41.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4514 TRA -.7926 TC3 .8529 BAU .4090 SGT 1637.1 SGR 1640.2 SG3 1218.4 ST 39.1 SR 16.3 SS 81.6
RDE .1580 RRA .4366 RC3-1.8759 FAU .26414 RRT -.7813 RRF .9621 RTF -.7984 CRT -.9711 CRS -.8802 CST .9618
FDE 3.8002 FRA 3.0149 FC-15.4043 BSP 3832 SGB 2317.4 R23 -.2468 R13 .9329 LSA 91.2 MSA 11.8 SSA 1.8
BDE .4783 BRA .9049 BC3 2.0607 FSP 2018 SG1 2187.1 SG2 766.3 THA 134.93 EL1 42.2 EL2 3.6 ALF 157.82

LAUNCH DATE JUL 23 1973 FLIGHT TIME 192.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 459.753 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	33.002	GAL	-1.13	AZL	88.15	HCA	144.62	SMA	201.90	ECC	.24798	INC	1.8456
RP	233.07	LAP	1.07	LOP	84.63	VP	21.943	GAP	11.33	AZP	91.80	TAL	354.33	TAP	138.95	RCA	151.83	APO	251.97
RC	168.537	GL	16.03	GP	-20.94	ZAL	97.44	ZAP	133.27	ETS	203.08	ZAE	157.17	ETE	262.26	ZAC	62.92	ETC	284.12

V1	29.314																		
V2	23.593																		
LVI	2.98																		

PLANETOCENTRIC CONIC

C3	14.808	VHL	3.848	DLA	29.17	RAL	29.80	RAD	6640.4	VEL	11.613	PTH	6.68	VHP	3.167	DPA	-4.60	RAP	46.46

ECC	1.2437																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 10 54	3671.62	-47.58	144.42	268.53	90.21	12 12 6	2671.6	-41.91	111.07
60.00	11 8 38	3677.66	-39.90	144.41	267.98	83.78	12 9 56	2677.7	-38.06	113.41
70.00	11 4 12	3690.76	-32.12	143.90	266.41	77.71	12 5 42	2690.8	-33.92	115.31
80.00	10 48 5	3741.50	-23.51	145.01	263.69	71.05	11 50 26	2741.5	-29.17	119.02
82.52	10 14 7	3850.55	-18.86	151.17	261.80	67.32	11 18 17	2850.5	-26.56	126.58
100.00	13 30 57	3215.97	-23.51	106.38	263.69	71.05	14 24 33	2216.0	-29.17	80.39
110.00	16 3 38	2737.58	-32.12	72.82	266.41	77.71	16 49 16	1737.6	-33.92	44.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4429	TRA	-.7698	TC3	.7949	BAU	.4246	SGT	1591.1	SGR	1739.2	SG3	1261.1	ST	38.4	SR	19.1	SS	85.0
RDE	.2033	RRA	.4478	RC3	-1.9919	FAU	.27236	RRT	-.7732	RRF	.9675	RTF	-.7861	CRT	-.9894	CRS	-.9221	CST	.9592
FDE	4.0299	FRA	3.0386	FC	-15.9231	BSP	3890	SGB	2357.2	R23	-.2354	R13	.9403	LSA	94.4	MSA	11.7	SSA	1.7
BDE	.4674	BRA	.6904	BC3	2.1447	FSP	2095	SG1	2220.8	SG2	790.2	THA	131.71	EL1	42.8	EL2	2.5	ALF	153.69

LAUNCH DATE JUL 23 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 463.508 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	32.987	GAL	-1.11	AZL	88.06	HCA	145.61	SMA	201.59	ECC	.24679	INC	1.9385
RP	233.44	LAP	1.09	LOP	85.63	VP	21.879	GAP	11.07	AZP	91.60	TAL	354.38	TAP	140.00	RCA	151.84	APO	251.34
RC	171.472	GL	16.86	GP	-21.81	ZAL	97.31	ZAP	131.73	ETS	202.88	ZAE	156.08	ETE	259.15	ZAC	62.15	ETC	284.28

V1	29.314																		
V2	23.554																		
LVI	3.71																		

PLANETOCENTRIC CONIC

C3	14.789	VHL	3.846	DLA	29.91	RAL	29.05	RAD	6640.4	VEL	11.612	PTH	6.65	VHP	3.117	DPA	-5.56	RAP	46.37

ECC	1.2434																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 4 56	3688.56	-47.57	146.06	268.75	88.95	12 6 25	2688.6	-42.39	112.42
60.00	11 0 39	3699.99	-39.72	146.28	267.94	82.52	12 2 19	2700.0	-38.42	115.20
70.00	10 51 55	3725.76	-31.58	146.49	266.07	76.26	11 54 1	2725.8	-34.06	118.03
79.82	9 51 15	3917.73	-19.32	156.35	261.53	66.71	10 56 33	2917.7	-27.23	131.72
79.82	9 51 15	3917.73	-19.32	156.35	261.53	66.71	10 56 33	2917.7	-27.23	131.72
79.82	9 51 15	3917.73	-19.32	156.35	261.53	66.71	10 56 33	2917.7	-27.23	131.72
110.00	15 51 22	2772.57	-31.58	75.40	266.07	76.26	16 37 34	1772.6	-34.06	46.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4333	TRA	-.7450	TC3	.7324	BAU	.4421	SGT	1540.7	SGR	1844.7	SG3	1303.0	ST	37.6	SR	22.4	SS	88.5
RDE	.2529	RRA	.4583	RC3	-2.1126	FAU	.28043	RRT	-.7626	RRF	.9721	RTF	-.7719	CRT	-.9960	CRS	-.9489	CST	.9564
FDE	4.2735	FRA	3.0490	FC	-16.4159	BSP	3963	SGB	2403.5	R23	-.2203	R13	.9480	LSA	98.0	MSA	11.7	SSA	1.7
BDE	.5018	BRA	.6747	BC3	2.2360	FSP	2173	SG1	2261.9	SG2	812.8	THA	128.32	EL1	43.7	EL2	1.7	ALF	149.27

LAUNCH DATE JUL 23 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 467.268 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	32.972	GAL	-1.10	AZL	87.96	HCA	146.60	SMA	201.29	ECC	.24568	INC	2.0357
RP	233.80	LAP	1.12	LOP	86.62	VP	21.816	GAP	10.81	AZP	91.70	TAL	354.43	TAP	141.03	RCA	151.84	APO	250.75
RC	174.413	GL	17.73	GP	-22.71	ZAL	97.19	ZAP	130.16	ETS	202.67	ZAE	154.88	ETE	256.23	ZAC	61.35	ETC	284.44

V1	29.314																		
V2	23.517																		
LVI	4.47																		

PLANETOCENTRIC CONIC

C3	14.789	VHL	3.846	DLA	30.69	RAL	28.59	RAD	6640.4	VEL	11.612	PTH	6.65	VHP	3.071	DPA	-6.55	RAP	46.27

ECC	1.2434																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 58 38	3706.81	-47.53	147.83	269.01	87.59	12 0 25	2706.8	-42.88	113.89
60.00	10 52 5	3724.29	-39.48	148.30	267.92	81.16	11 54 9	2724.3	-38.78	117.17
70.00	10 38 3	3765.73	-30.90	149.40	265.67	74.67	11 40 49	2765.7	-34.15	121.15
77.56	9 32 38	3971.19	-19.79	160.56	261.29	66.05	10 38 49	2971.2	-27.92	135.90
77.56	9 32 38	3971.19	-19.79	160.56	261.29	66.05	10 38 49	2971.2	-27.92	135.90
77.56	9 32 38	3971.19	-19.79	160.56	261.29	66.05	10 38 49	2971.2	-27.92	135.90
110.00	15 37 29	2812.55	-30.90	78.32	265.67	74.67	16 24 22	1812.6	-34.15	50.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4210	TRA	-.7206	TC3	.6611	BAU	.4609	SGT	1486.9	SGR	1956.0	SG3	1342.8	ST	36.5	SR	26.0	SS	92.0
RDE	.3063	RRA	.4694	RC3	-2.2356	FAU	.28799	RRT	-.7481	RRF	.9761	RTF	-.7641	CRT	-.9958	CRS	-.9658	CST	.9527
FDE	4.5224	FRA	3.0548	FC	-16.8582	BSP	4043	SGB	2457.0	R23	-.2030	R13	.9555	LSA	101.6	MSA	11.7	SSA	1.6
BDE	.5206	BRA	.8600	BC3	2.3313	FSP	2245	SG1	2310.7	SG2	835.2	THA	124.82	EL1	44.8	EL2	1.9	ALF	144.60

LAUNCH DATE JUL 23 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 471.032 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	32.958	GAL	-1.09	AZL	87.86	HCA	147.59	SMA	201.02	ECC	.24463	INC	2.1379
RP	234.17	LAP	1.15	LOP	87.61	VP	21.755	GAP	10.56	AZP	91.81	TAL	354.47	TAP	142.06	RCA	151.84	APO	250.19
RC	177.360	GL	18.63	GP	-23.66	ZAL	97.09	ZAP	128.56	ETS	202.44	ZAE	153.60	ETE	253.49	ZAC	60.53	ETC	284.62

V1	29.314																		
V2	23.479																		
LVI	5.25																		

PLANETOCENTRIC CONIC

C3	14.809	VHL	3.848	DLA	31.50	RAL	28.13	RAD	6640.4	VEL	11.613	PTH	6.65	VHP	3.029	DPA	-7.59	RAP	46.17

ECC	1.2437																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 51 56	3726.46	-47.46	149.72	269.31	86.13	11 54 3	2726.5	-43.39	115.50
60.00	10 42 49	3750.81	-39.18	150.49	267.90	79.71	11 45 20	2750.8	-39.13	119.33
70.00	10 21 57	3812.49	-30.01	152.75	265.18	72.87	11 25 30	2812.5	-34.13	124.80
75.51	9 16 17	4017.19	-20.27	164.26	261.08	65.36	10 23 14	3017.2	-28.64	139.56
75.51	9 16 17	4017.19	-20.27	164.26	261.08	65.36	10 23 14	3017.2	-28.64	139.56
75.51	9 16 17	4017.19	-20.27	164.26	261.08	65.36	10 23 14	3017.2	-28.64	139.56
110.00	15 21 24	2859.31	-30.01	81.67	265.18	72.87	16 9 3	1859.3	-34.13	53.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4036	TRA	-.6932	TC3	.5910	BAU	.4827	SGT	1425.8	SGR	2074.8	SG3	1381.1	ST	35.1	SR	29.9	SS	95.4
RDE	.3628	RRA	.4789	RC3	-2.3651	FAU	.29559	RRT	-.7318	RRF	.9796	RTF	-.7346	CRT	-.9915	CRS	-.9766	CST	.9478
FDE	4.7696	FRA	3.0409	FC	-17.2804	BSP	4096	SGB	2517.5	R23	-.1823	R13	.9628	LSA	105.3	MSA	11.7	SSA	1.5
BDE	.5427	BRA	.8425	BC3	2.4378	FSP	2300	SG1	2369.3	SG2	851.0	THA	121.16	EL1	46.0	EL2	3.0	ALF	139.62

LAUNCH DATE JUL 23 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 474.799 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.946 GAL -1.08 AZL 87.75 HCA 148.58 SMA 200.76 ECC .24366 INC 2.2455 V1 29.314
RP 234.53 LAP 1.17 LOP 88.60 VP 21.686 GAP 10.30 AZP 91.92 TAL 354.50 TAP 143.08 RCA 151.84 APO 249.68 V2 23.442
RC 180.313 GL 19.57 GP -24.64 ZAL 96.99 ZAP 126.93 ETS 202.18 ZAE 152.22 ETE 250.93 ZAC 59.67 ETC 284.81 LVI 6.07

PLANETOCENTRIC CONIC

C3 14.849 VHL 3.853 DLA 32.35 RAL 27.65 RAD 6640.5 VEL 11.615 PTH 6.66 VHP 2.991 DPA -8.67 RAP 46.06 ECC 1.2444

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 44 49	3747.64	-47.34	151.76	269.64	84.57	11 47 16	2747.6	-43.91	117.27
60.00	10 32 45	3779.86	-38.80	152.87	267.87	78.13	11 35 44	2779.9	-39.47	121.73
70.00	10 2 27	3869.53	-28.80	156.75	264.53	70.79	11 6 56	2869.5	-33.95	129.24
73.60	9 1 26	4058.30	-20.76	167.63	260.90	64.62	10 9 4	3058.3	-29.39	142.90
73.60	9 1 26	4058.30	-20.76	167.63	260.90	64.62	10 9 4	3058.3	-29.39	142.90
73.60	9 1 26	4058.30	-20.76	167.63	260.90	64.62	10 9 4	3058.3	-29.39	142.90
110.00	15 1 53	2916.35	-28.80	85.67	264.53	70.79	15 50 30	1916.3	-33.95	58.16

DIFFERENTIAL CORRECTIONS

TDE -.3791 TRA -.6610 TC3 .5273 BAU .5078
RDE .4225 RRA .4863 RC3-2.5029 FAU .30339
FDE 5.0107 FRA 3.0034 FC-17.6880 BSP 4130
BDE .5677 BRA .8207 BC3 2.5579 FSP 2341

MID-COURSE EXECUTION ACCURACY

SGT 1355.1 SGR 2201.9 SG3 1417.8
RRT -.7151 RRF .9825 RTF -.7145
SGB 2585.5 R23 -.1587 R13 .9698
SG1 2440.1 SG2 854.8 THA 117.39

ORBIT DETERMINATION ACCURACY

ST 33.2 SR 34.1 SS 98.6
CRT -.9840 CRS -.9837 CST .9407
LSA 108.8 MSA 11.7 SSA 1.5
EL1 47.3 EL2 4.2 ALF 134.22

LAUNCH DATE JUL 23 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 478.567 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.934 GAL -1.07 AZL 87.64 HCA 149.56 SMA 200.52 ECC .24275 INC 2.3590 V1 29.314
RP 234.89 LAP 1.20 LOP 89.58 VP 21.638 GAP 10.05 AZP 92.03 TAL 354.53 TAP 144.09 RCA 151.85 APO 249.20 V2 23.405
RC 183.270 GL 20.55 GP -25.66 ZAL 96.90 ZAP 125.29 ETS 201.91 ZAE 150.76 ETE 248.55 ZAC 58.79 ETC 285.01 LVI 6.92

PLANETOCENTRIC CONIC

C3 14.913 VHL 3.862 DLA 33.24 RAL 27.17 RAD 6640.5 VEL 11.617 PTH 6.66 VHP 2.958 DPA -9.79 RAP 45.94 ECC 1.2454

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 37 12	3770.54	-47.17	153.94	270.02	82.89	11 40 2	2770.5	-44.44	119.22
60.00	10 21 41	3811.97	-38.32	155.46	267.82	76.43	11 25 13	2812.0	-39.77	124.41
70.00	9 36 28	3946.05	-26.97	161.95	263.54	68.20	10 42 15	2946.1	-33.43	135.16
71.75	8 47 39	4095.96	-21.27	170.79	260.76	63.83	9 55 55	3096.0	-30.16	146.02
71.75	8 47 39	4095.96	-21.27	170.79	260.76	63.83	9 55 55	3096.0	-30.16	146.02
71.75	8 47 39	4095.96	-21.27	170.79	260.76	63.83	9 55 55	3096.0	-30.16	146.02
110.00	14 35 55	2992.87	-26.97	90.87	263.54	68.20	15 25 48	1992.9	-33.43	64.07

DIFFERENTIAL CORRECTIONS

TDE -.3732 TRA -.6492 TC3 .3980 BAU .5282
RDE .4964 RRA .5013 RC3-2.6192 FAU .30765
FDE 5.3211 FRA 3.0124 FC-17.8603 BSP 4391
BDE .6210 BRA .8202 BC3 2.6493 FSP 2439

MID-COURSE EXECUTION ACCURACY

SGT 1314.4 SGR 2329.2 SG3 1448.8
RRT -.6709 RRF .9850 RTF -.6700
SGB 2674.5 R23 -.1428 R13 .9747
SG1 2517.9 SG2 901.7 THA 114.00

ORBIT DETERMINATION ACCURACY

ST 32.6 SR 39.3 SS 103.1
CRT -.9760 CRS -.9889 CST .9362
LSA 114.4 MSA 11.8 SSA 1.4
EL1 50.8 EL2 5.5 ALF 129.60

LAUNCH DATE JUL 23 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 482.338 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.922 GAL -1.06 AZL 87.52 HCA 150.54 SMA 200.30 ECC .24191 INC 2.4789 V1 29.314
RP 235.24 LAP 1.22 LOP 90.57 VP 21.581 GAP 9.80 AZP 92.16 TAL 354.54 TAP 145.08 RCA 151.85 APO 248.76 V2 23.369
RC 186.232 GL 21.57 GP -26.72 ZAL 96.83 ZAP 123.63 ETS 201.60 ZAE 149.22 ETE 246.32 ZAC 57.87 ETC 285.23 LVI 7.81

PLANETOCENTRIC CONIC

C3 14.999 VHL 3.873 DLA 34.18 RAL 26.67 RAD 6640.5 VEL 11.621 PTH 6.66 VHP 2.929 DPA -10.96 RAP 45.83 ECC 1.2468

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 29 0	3795.28	-46.93	156.29	270.41	81.10	11 32 15	2795.3	-44.97	121.37
60.00	10 9 24	3847.62	-37.71	158.30	267.73	74.60	11 13 32	2847.6	-40.03	127.40
69.96	8 34 36	4131.09	-21.78	173.79	260.64	62.99	9 43 28	3131.1	-30.96	148.99
69.96	8 34 36	4131.09	-21.78	173.79	260.64	62.99	9 43 28	3131.1	-30.96	148.99
69.96	8 34 36	4131.09	-21.78	173.79	260.64	62.99	9 43 28	3131.1	-30.96	148.99
69.96	8 34 36	4131.09	-21.78	173.79	260.64	62.99	9 43 28	3131.1	-30.96	148.99
69.96	8 34 36	4131.09	-21.78	173.79	260.64	62.99	9 43 28	3131.1	-30.96	148.99

DIFFERENTIAL CORRECTIONS

TDE -.3498 TRA -.6254 TC3 .2997 BAU .5549
RDE .5697 RRA .5112 RC3-2.7510 FAU .31303
FDE 5.5880 FRA 2.9763 FC-18.0681 BSP 4551
BDE .6685 BRA .8077 BC3 2.7673 FSP 2497

MID-COURSE EXECUTION ACCURACY

SGT 1253.9 SGR 2467.1 SG3 1477.7
RRT -.6314 RRF .9872 RTF -.6285
SGB 2767.4 R23 -.1217 R13 .9797
SG1 2610.4 SG2 919.0 THA 110.43

ORBIT DETERMINATION ACCURACY

ST 30.8 SR 44.4 SS 106.7
CRT -.9645 CRS -.9921 CST .9264
LSA 119.0 MSA 11.9 SSA 1.3
EL1 53.7 EL2 6.7 ALF 124.42

LAUNCH DATE JUL 23 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 486.112 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.912 GAL -1.06 AZL 87.39 HCA 151.52 SMA 200.09 ECC .24112 INC 2.6060 V1 29.314
RP 235.59 LAP 1.24 LOP 91.54 VP 21.526 GAP 9.55 AZP 92.29 TAL 354.55 TAP 146.07 RCA 151.85 APO 248.34 V2 23.332
RC 189.197 GL 22.64 GP -27.82 ZAL 96.76 ZAP 121.94 ETS 201.26 ZAE 147.61 ETE 244.25 ZAC 56.92 ETC 285.46 LVI 8.72

PLANETOCENTRIC CONIC

C3 15.111 VHL 3.887 DLA 35.15 RAL 26.15 RAD 6640.6 VEL 11.626 PTH 6.67 VHP 2.905 DPA -12.18 RAP 45.71 ECC 1.2487

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 20 7	3822.08	-46.62	158.80	270.81	79.19	11 23 49	2822.1	-45.49	123.74
60.00	9 55 34	3887.72	-36.94	161.42	267.55	72.60	11 0 22	2887.7	-40.22	130.80
68.19	8 22 13	4164.02	-22.30	176.67	260.55	62.09	9 31 37	3164.0	-31.80	151.85
68.19	8 22 13	4164.02	-22.30	176.67	260.55	62.09	9 31 37	3164.0	-31.80	151.85
68.19	8 22 13	4164.02	-22.30	176.67	260.55	62.09	9 31 37	3164.0	-31.80	151.85
68.19	8 22 13	4164.02	-22.30	176.67	260.55	62.09	9 31 37	3164.0	-31.80	151.85
68.19	8 22 13	4164.02	-22.30	176.67	260.55	62.09	9 31 37	3164.0	-31.80	151.85

DIFFERENTIAL CORRECTIONS

TDE -.3235 TRA -.6000 TC3 .1959 BAU .5836
RDE .6504 RRA .5192 RC3-2.8824 FAU .31754
FDE 5.8630 FRA 2.9191 FC-18.1920 BSP 4716
BDE .7264 BRA .7935 BC3 2.8890 FSP 2542

MID-COURSE EXECUTION ACCURACY

SGT 1191.8 SGR 2610.9 SG3 1502.5
RRT -.5819 RRF .9890 RTF -.5774
SGB 2870.1 R23 -.1006 R13 .9839
SG1 2714.4 SG2 932.3 THA 106.93

ORBIT DETERMINATION ACCURACY

ST 28.8 SR 50.1 SS 110.4
CRT -.9499 CRS -.9944 CST .9136
LSA 124.0 MSA 11.9 SSA 1.2
EL1 57.2 EL2 7.9 ALF 119.30

LAUNCH DATE JUL 23 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 489.888 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.902 GAL -1.05 AZL 87.26 HCA 152.49 SMA 199.90 ECC .24039 INC 2.7408 V1 29.314
RP 235.94 LAP 1.27 LOP 92.52 VP 21.473 GAP 9.30 AZP 92.43 TAL 354.56 TAP 147.05 RCA 151.85 APO 247.96 V2 23.297
RC 192.165 GL 23.75 GP -28.95 ZAL 96.70 ZAP 120.24 ETS 200.90 ZAE 145.92 ETE 242.30 ZAC 55.95 ETC 285.71 LVI 9.66

PLANETOCENTRIC CONIC

C3 15.251 VHL 3.905 DLA 36.18 RAL 25.61 RAD 6640.6 VEL 11.632 PTH 6.67 VHP 2.886 DPA -13.43 RAP 45.59 ECC 1.2510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 10 27	3851.23	-46.22	161.50	271.20	77.15	11 14 38	2851.2	-46.00	126.37
60.00	9 39 39	3933.63	-35.95	164.92	267.25	70.41	10 45 13	2933.6	-40.30	134.70
66.43	8 10 15	4195.46	-22.83	179.48	260.49	61.13	9 20 10	3195.5	-32.66	154.65
66.43	8 10 15	4195.46	-22.83	179.48	260.49	61.13	9 20 10	3195.5	-32.66	154.65
66.43	8 10 15	4195.46	-22.83	179.48	260.49	61.13	9 20 10	3195.5	-32.66	154.65
66.43	8 10 15	4195.46	-22.83	179.48	260.49	61.13	9 20 10	3195.5	-32.66	154.65
66.43	8 10 15	4195.46	-22.83	179.48	260.49	61.13	9 20 10	3195.5	-32.66	154.65

DIFFERENTIAL CORRECTIONS
TDE -.2937 TRA -.5756 TC3 .0847 BAU .6141
RDE .7587 RRA .5265 RC3-3.0105 FAU .32086
FDE 6.1401 FRA 2.8506 FC-18.2136 BSP 4901
BDE .7950 BRA .7801 BC3 3.0117 FSP 2578

MID-COURSE EXECUTION ACCURACY
SGT 1133.5 SGR 2760.3 SG3 1522.1
RRT -.5190 RRF .9906 RTF -.5130
SGB 2984.0 R23 -.0809 R13 .9873
SG1 2830.5 SG2 944.9 THA 103.57

ORBIT DETERMINATION ACCURACY
ST 26.7 SR 56.2 SS 114.1
CRT -.9305 CRS -.9960 CST .8958
LSA 129.4 MSA 12.1 SSA 1.2
EL1 61.5 EL2 8.9 ALF 114.37

LAUNCH DATE JUL 23 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 493.666 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.893 GAL -1.05 AZL 87.12 HCA 153.46 SMA 199.73 ECC .23971 INC 2.8643 V1 29.314
RP 236.29 LAP 1.29 LOP 93.49 VP 21.420 GAP 9.06 AZP 92.58 TAL 354.55 TAP 148.01 RCA 151.85 APO 247.60 V2 23.261
RC 195.134 GL 24.92 GP -30.13 ZAL 96.64 ZAP 118.53 ETS 200.49 ZAE 144.17 ETE 240.48 ZAC 54.94 ETC 285.98 LVI 10.67

PLANETOCENTRIC CONIC

C3 15.423 VHL 3.927 DLA 37.26 RAL 25.04 RAD 6640.7 VEL 11.639 PTH 6.68 VHP 2.872 DPA -14.73 RAP 45.48 ECC 1.2538

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 59 49	3883.05	-45.69	164.39	271.57	74.97	11 4 32	2883.1	-46.48	129.29
60.00	9 20 46	3987.70	-34.64	168.91	266.73	67.97	10 27 13	2987.7	-40.21	139.30
64.66	7 58 38	4225.56	-23.36	182.24	260.46	60.11	9 9 4	3225.6	-33.55	157.41
64.66	7 58 38	4225.56	-23.36	182.24	260.46	60.11	9 9 4	3225.6	-33.55	157.41
64.66	7 58 38	4225.56	-23.36	182.24	260.46	60.11	9 9 4	3225.6	-33.55	157.41
64.66	7 58 38	4225.56	-23.36	182.24	260.46	60.11	9 9 4	3225.6	-33.55	157.41
64.66	7 58 38	4225.56	-23.36	182.24	260.46	60.11	9 9 4	3225.6	-33.55	157.41

DIFFERENTIAL CORRECTIONS
TDE -.2561 TRA -.5487 TC3 -.0218 BAU .6480
RDE .8318 RRA .5304 RC3-3.1426 FAU .32367
FDE 6.3958 FRA 2.7543 FC-18.1798 BSP 5077
BDE .8704 BRA .7632 BC3 3.1427 FSP 2593

MID-COURSE EXECUTION ACCURACY
SGT 1073.1 SGR 2917.3 SG3 1537.0
RRT -.4437 RRF .9919 RTF -.4358
SGB 3108.4 R23 -.0626 R13 .9900
SG1 2960.5 SG2 947.7 THA 100.34

ORBIT DETERMINATION ACCURACY
ST 24.0 SR 62.5 SS 117.4
CRT -.9016 CRS -.9971 CST .8677
LSA 134.6 MSA 12.2 SSA 1.1
EL1 66.3 EL2 9.8 ALF 109.55

LAUNCH DATE JUL 23 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 497.445 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.885 GAL -1.05 AZL 86.96 HCA 154.43 SMA 199.56 ECC .23909 INC 3.0373 V1 29.314
RP 236.63 LAP 1.31 LOP 94.46 VP 21.370 GAP 8.81 AZP 92.74 TAL 354.54 TAP 148.97 RCA 151.85 APO 247.28 V2 23.226
RC 198.104 GL 26.15 GP -31.35 ZAL 96.60 ZAP 116.82 ETS 200.05 ZAE 142.37 ETE 238.77 ZAC 53.89 ETC 286.28 LVI 11.70

PLANETOCENTRIC CONIC

C3 15.629 VHL 3.953 DLA 38.39 RAL 24.45 RAD 6640.8 VEL 11.648 PTH 6.69 VHP 2.864 DPA -16.08 RAP 45.38 ECC 1.2572

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 48 3	3918.01	-45.03	167.50	271.87	72.66	10 53 21	2918.0	-46.90	132.56
60.00	8 57 3	4054.94	-32.82	173.68	265.83	65.17	10 4 38	3054.9	-39.82	144.97
62.88	7 47 17	4254.67	-23.89	184.96	260.47	59.01	8 58 12	3254.7	-34.47	160.15
62.88	7 47 17	4254.67	-23.89	184.96	260.47	59.01	8 58 12	3254.7	-34.47	160.15
62.88	7 47 17	4254.67	-23.89	184.96	260.47	59.01	8 58 12	3254.7	-34.47	160.15
62.88	7 47 17	4254.67	-23.89	184.96	260.47	59.01	8 58 12	3254.7	-34.47	160.15
62.88	7 47 17	4254.67	-23.89	184.96	260.47	59.01	8 58 12	3254.7	-34.47	160.15

DIFFERENTIAL CORRECTIONS
TDE -.2205 TRA -.5285 TC3 -.1509 BAU .6818
RDE .9379 RRA .5363 RC3-3.2587 FAU .32441
FDE 6.6718 FRA 2.6647 FC-17.9704 BSP 5348
BDE .9635 BRA .7529 BC3 3.2622 FSP 2626

MID-COURSE EXECUTION ACCURACY
SGT 1035.1 SGR 3077.3 SG3 1544.7
RRT -.3441 RRF .9931 RTF -.3355
SGB 3246.7 R23 -.0462 R13 .9920
SG1 3100.1 SG2 964.8 THA 97.31

ORBIT DETERMINATION ACCURACY
ST 21.7 SR 69.7 SS 121.1
CRT -.8625 CRS -.9979 CST .8293
LSA 140.9 MSA 12.3 SSA 1.0
EL1 72.2 EL2 10.6 ALF 105.36

LAUNCH DATE JUL 23 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 501.225 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.878 GAL -1.05 AZL 86.80 HCA 155.39 SMA 199.41 ECC .23852 INC 3.2012 V1 29.314
RP 236.98 LAP 1.33 LOP 95.43 VP 21.320 GAP 8.57 AZP 92.91 TAL 354.52 TAP 149.92 RCA 151.85 APO 246.97 V2 23.191
RC 201.073 GL 27.43 GP -32.61 ZAL 96.55 ZAP 115.09 ETS 199.58 ZAE 140.51 ETE 237.16 ZAC 52.82 ETC 286.59 LVI 12.77

PLANETOCENTRIC CONIC

C3 15.874 VHL 3.984 DLA 39.58 RAL 23.81 RAD 6640.9 VEL 11.658 PTH 6.70 VHP 2.861 DPA -17.46 RAP 45.29 ECC 1.2612

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 34 52	3956.68	-44.19	170.84	272.07	70.20	10 40 49	2956.7	-47.26	136.23
60.00	8 22 41	4151.18	-29.88	180.13	264.08	61.59	9 31 52	3151.2	-38.74	152.92
61.07	7 36 8	4282.86	-24.43	187.67	260.50	57.84	8 47 31	3282.9	-35.42	162.89
61.07	7 36 8	4282.86	-24.43	187.67	260.50	57.84	8 47 31	3282.9	-35.42	162.89
61.07	7 36 8	4282.86	-24.43	187.67	260.50	57.84	8 47 31	3282.9	-35.42	162.89
61.07	7 36 8	4282.86	-24.43	187.67	260.50	57.84	8 47 31	3282.9	-35.42	162.89
61.07	7 36 8	4282.86	-24.43	187.67	260.50	57.84	8 47 31	3282.9	-35.42	162.89

DIFFERENTIAL CORRECTIONS
TDE -.1748 TRA -.5047 TC3 -.2719 BAU .7184
RDE 1.0505 RRA .5371 RC3-3.3741 FAU .32424
FDE 6.9210 FRA 2.5421 FC-17.6836 BSP 5601
BDE 1.0649 BRA .7370 BC3 3.3850 FSP 2634

MID-COURSE EXECUTION ACCURACY
SGT 998.5 SGR 3242.7 SG3 1545.8
RRT -.2288 RRF .9941 RTF -.2192
SGB 3392.9 R23 -.0314 R13 .9936
SG1 3251.5 SG2 969.4 THA 94.42

ORBIT DETERMINATION ACCURACY
ST 18.9 SR 77.1 SS 124.4
CRT -.7957 CRS -.9985 CST .7623
LSA 147.0 MSA 12.5 SSA .9
EL1 78.6 EL2 11.2 ALF 101.27

LAUNCH DATE JUL 23 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 505.806 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	32.870	GAL	-1.06	AZL	86.62	HCA	156.35	SNA	199.27	ECC	.23799	INC	3.3769	V1	29.314
RP	237.31	LAP	1.35	LOP	96.39	VP	21.272	GAP	8.32	AZP	93.09	TAL	354.50	TAP	150.85	RCA	151.85	APO	246.70	V2	23.157
RC	204.040	GL	28.79	GP	-33.91	ZAL	96.51	ZAP	113.37	ETS	199.05	ZAE	138.60	ETE	235.63	ZAC	51.71	ETC	286.92	LVI	13.88

PLANETOCENTRIC CONIC

C3	16.163	VHL	4.020	DLA	40.83	RAL	23.13	RAD	6641.1	VEL	11.671	PTH	6.71	VHP	2.865	DPA	-18.89	RAP	45.22	ECC	1.2660

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 19 52	3998.90	-43.13	174.45	272.10	67.58	10 26 32	2999.9	-47.50	140.38
59.23	7 25 5	4310.43	-24.95	190.39	260.56	56.58	8 36 55	3310.4	-36.40	165.65
59.23	7 25 5	4310.43	-24.95	190.39	260.56	56.58	8 36 55	3310.4	-36.40	165.65
59.23	7 25 5	4310.43	-24.95	190.39	260.56	56.58	8 36 55	3310.4	-36.40	165.65
59.23	7 25 5	4310.43	-24.95	190.39	260.56	56.58	8 36 55	3310.4	-36.40	165.65
59.23	7 25 5	4310.43	-24.95	190.39	260.56	56.58	8 36 55	3310.4	-36.40	165.65
59.23	7 25 5	4310.43	-24.95	190.39	260.56	56.58	8 36 55	3310.4	-36.40	165.65

DIFFERENTIAL CORRECTIONS

TDE	-.1182	TRA	-.4770	TC3	-.3812	BAU	.7591												
RDE	1.1686	RRA	.5313	RC3	-3.4923	FAU	.32372												
FDE	7.1330	FRA	2.3829	FC	-17.3392	BSP	5801												
BDE	1.1745	BRA	.7140	BC3	3.5130	FSP	2600												

MID-COURSE EXECUTION ACCURACY

SGT	964.1	SGR	3414.7	SG3	1540.4														
RRT	-.0968	RRF	.9949	RTF	-.0855														
SGB	3548.2	R23	-.0191	R13	.9948														
SG1	3416.0	SG2	959.2	THA	91.70														

ORBIT DETERMINATION ACCURACY

ST	15.9	SR	84.7	SS	127.0														
CRT	-.6694	CRS	-.9989	CST	.6347														
LSA	153.0	MSA	12.5	SSA	.8														
EL1	85.4	EL2	11.7	ALF	97.30														

LAUNCH DATE JUL 23 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 508.787 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	32.864	GAL	-1.06	AZL	86.43	HCA	157.31	SNA	199.15	ECC	.23751	INC	3.5661	V1	29.314
RP	237.65	LAP	1.38	LOP	97.35	VP	21.225	GAP	8.08	AZP	93.29	TAL	354.47	TAP	151.78	RCA	151.85	APO	246.44	V2	23.123
RC	207.005	GL	30.21	GP	-35.25	ZAL	96.48	ZAP	111.65	ETS	198.49	ZAE	136.65	ETE	234.18	ZAC	50.57	ETC	287.28	LVI	15.03

PLANETOCENTRIC CONIC

C3	16.504	VHL	4.063	DLA	42.14	RAL	22.40	RAD	6641.2	VEL	11.685	PTH	6.72	VHP	2.875	DPA	-20.36	RAP	45.17	ECC	1.2716

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 2 28	4049.04	-41.78	178.40	271.89	64.78	10 9 57	3049.0	-47.57	145.13
57.36	7 14 5	4337.52	-25.47	193.13	260.65	55.22	8 26 22	3337.5	-37.40	168.47
57.36	7 14 5	4337.52	-25.47	193.13	260.65	55.22	8 26 22	3337.5	-37.40	168.47
57.36	7 14 5	4337.52	-25.47	193.13	260.65	55.22	8 26 22	3337.5	-37.40	168.47
57.36	7 14 5	4337.52	-25.47	193.13	260.65	55.22	8 26 22	3337.5	-37.40	168.47
57.36	7 14 5	4337.52	-25.47	193.13	260.65	55.22	8 26 22	3337.5	-37.40	168.47
57.36	7 14 5	4337.52	-25.47	193.13	260.65	55.22	8 26 22	3337.5	-37.40	168.47

DIFFERENTIAL CORRECTIONS

TDE	-.0663	TRA	-.4621	TC3	-.5203	BAU	.7977												
RDE	1.3076	RRA	.5317	RC3	-3.5777	FAU	.31952												
FDE	7.3770	FRA	2.2557	FC	-16.7608	BSP	6145												
BDE	1.3093	BRA	.7044	BC3	3.6153	FSP	2603												

MID-COURSE EXECUTION ACCURACY

SGT	979.7	SGR	3588.0	SG3	1526.4														
RRT	.0477	RRF	.9957	RTF	.0586														
SGB	3719.3	R23	-.0073	R13	.9957														
SG1	3588.3	SG2	978.5	THA	89.19														

ORBIT DETERMINATION ACCURACY

ST	14.0	SR	93.6	SS	130.3														
CRT	-.4798	CRS	-.9992	CST	.4450														
LSA	160.5	MSA	12.8	SSA	.8														
EL1	93.8	EL2	12.3	ALF	94.16														

LAUNCH DATE JUL 23 1973 FLIGHT TIME 220.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 512.569 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	32.858	GAL	-1.07	AZL	86.23	HCA	158.27	SNA	199.03	ECC	.23708	INC	3.7706	V1	29.314
RP	237.98	LAP	1.40	LOP	98.31	VP	21.179	GAP	7.84	AZP	93.50	TAL	354.43	TAP	152.70	RCA	151.84	APO	246.21	V2	23.090
RC	209.985	GL	31.70	GP	-36.63	ZAL	96.45	ZAP	109.95	ETS	197.88	ZAE	134.66	ETE	232.79	ZAC	49.40	ETC	287.67	LVI	16.22

PLANETOCENTRIC CONIC

C3	16.903	VHL	4.111	DLA	43.52	RAL	21.61	RAD	6641.4	VEL	11.702	PTH	6.74	VHP	2.893	DPA	-21.86	RAP	45.14	ECC	1.2782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 41 40	4106.27	-40.03	182.76	271.28	61.76	9 50 6	3106.3	-47.39	150.65
55.43	7 3 3	4364.26	-25.97	195.89	260.76	53.77	8 15 47	3364.3	-38.42	171.35
55.43	7 3 3	4364.26	-25.97	195.89	260.76	53.77	8 15 47	3364.3	-38.42	171.35
55.43	7 3 3	4364.26	-25.97	195.89	260.76	53.77	8 15 47	3364.3	-38.42	171.35
55.43	7 3 3	4364.26	-25.97	195.89	260.76	53.77	8 15 47	3364.3	-38.42	171.35
55.43	7 3 3	4364.26	-25.97	195.89	260.76	53.77	8 15 47	3364.3	-38.42	171.35
55.43	7 3 3	4364.26	-25.97	195.89	260.76	53.77	8 15 47	3364.3	-38.42	171.35

DIFFERENTIAL CORRECTIONS

TDE	-.0015	TRA	-.4428	TC3	-.6411	BAU	.8406												
RDE	1.4551	RRA	.5239	RC3	-3.6642	FAU	.31505												
FDE	7.5781	FRA	2.0889	FC	-16.1356	BSP	6455												
BDE	1.4551	BRA	.6860	BC3	3.7198	FSP	2571												

MID-COURSE EXECUTION ACCURACY

SGT	1001.0	SGR	3768.8	SG3	1505.8														
RRT	.1928	RRF	.9963	RTF	.2039														
SGB	3899.4	R23	.0022	R13	.9964														
SG1	3774.1	SG2	980.8	THA	86.86														

ORBIT DETERMINATION ACCURACY

ST	12.8	SR	102.6	SS	132.9														
CRT	-.1522	CRS	-.9994	CST	.1188														
LSA	167.9	MSA	13.0	SSA	.7														
EL1	102.6	EL2	12.6	ALF	91.10														

LAUNCH DATE JUL 23 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 516.351 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	32.853	GAL	-1.07	AZL	86.01	HCA	159.22	SNA	198.92	ECC	.23668	INC	3.9921	V1	29.314
RP	238.30	LAP	1.42	LOP	99.27	VP	21.135	GAP	7.60	AZP	93.73	TAL	354.39	TAP	153.61	RCA	151.84	APO	246.00	V2	23.056
RC	212.919	GL	33.28	GP	-38.05	ZAL	96.41	ZAP	108.26	ETS	197.23	ZAE	132.65	ETE	231.46	ZAC	48.19	ETC	288.09	LVI	17.48

PLANETOCENTRIC CONIC

C3	17.372	VHL	4.166	DLA	44.97	RAL	20.74	RAD	6641.6	VEL	11.722	PTH	6.75	VHP	2.918	DPA	-23.41	RAP	45.14	ECC	1.2859

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 15 28	4176.19	-37.65	187.76	270.00	58.43	9 25 4	3176.2	-46.78	157.29
53.46	6 51 54	4390.85	-26.44	198.70	260.89	52.20	8 5 5	3390.8	-39.46	174.33
53.46	6 51 54	4390.85	-26.44	198.70	260.89	52.20	8 5 5	3390.8	-39.46	174.33
53.46	6 51 54	4390.85	-26.44	198.70	260.89	52.20	8 5 5	3390.8	-39.46	174.33
53.46	6 51 54	4390.85	-26.44	198.70	260.89	52.20	8 5 5	3390.8	-39.46	174.33
53.46	6 51 54	4390.85	-26.44	198.70	260.89	52.20	8 5 5	3390.8	-39.46	174.33
53.46	6 51 54	4390.85	-26.44	198.70	260.89	52.20	8 5 5	3390.8	-39.46	174.33

DIFFERENTIAL CORRECTIONS

TDE	.0715	TRA	-.4253	TC3	-.7604	BAU	.8858												
RDE	1.6151	RRA	.5098	RC3	-3.7374	FAU	.30906												
FDE	7.7469	FRA	1.8988	FC	-15.4019	BSP	6772												
BDE	1.6167	BRA	.6639	BC3	3.8139	FSP	2521												

MID-COURSE EXECUTION ACCURACY

SGT	1046.0	SGR	3951.8	SG3	1476.0														
RRT	.3325	RRF	.9968	RTF	.3434														
SGB	4087.9	R23	.0105	R13	.9969														
SG1	3968.1	SG2	982.5	THA	84.64														

ORBIT DETERMINATION ACCURACY

ST	13.4	SR	112.1	SS	135.0														
CRT	.2443	CRS	-.9995	CST	-.2723														
LSA	175.5	MSA	13.1	SSA	.6														
EL1	112.1	EL2	13.0	ALF	88.31														

LAUNCH DATE JUL 23 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 520.132 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.848 GAL -1.08 AZL 85.77 HCA 160.17 SMA 198.83 ECC .23632 INC 4.2334 V1 29.314
RP 238.63 LAP 1.44 LOP 100.22 VP 21.091 GAP 7.37 AZP 93.98 TAL 354.34 TAP 154.51 RCA 151.84 APO 245.82 V2 23.024
RC 215.868 GL 34.94 GP -39.51 ZAL 96.37 ZAP 106.59 ETS 196.53 ZAE 130.61 ETE 230.18 ZAC 48.96 ETC 288.54 LVI 18.73

PLANETOCENTRIC CONIC

C3 17.922 VHL 4.233 DLA 46.49 RAL 19.78 RAD 6641.9 VEL 11.745 PTH 6.77 VHP 2.952 DPA -24.99 RAP 45.18 ECC 1.2949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 38 7	4272.41	-34.03	194.10	267.38	54.49	8 49 19	3272.4	-45.28	166.08
51.43	6 40 34	4417.37	-26.88	201.57	261.03	50.52	7 54 12	3417.4	-40.50	177.42
51.43	6 40 34	4417.37	-26.88	201.57	261.03	50.52	7 54 12	3417.4	-40.50	177.42
51.43	6 40 34	4417.37	-26.88	201.57	261.03	50.52	7 54 12	3417.4	-40.50	177.42
51.43	6 40 34	4417.37	-26.88	201.57	261.03	50.52	7 54 12	3417.4	-40.50	177.42
51.43	6 40 34	4417.37	-26.88	201.57	261.03	50.52	7 54 12	3417.4	-40.50	177.42
51.43	6 40 34	4417.37	-26.88	201.57	261.03	50.52	7 54 12	3417.4	-40.50	177.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1542 TRA -.4102 TC3 -.8766 BAU .9310 SGT 1115.6 SGR 4134.2 SG3 1436.7 ST 16.0 SR 122.2 SS 136.8
RDE 1.7917 RRA .4930 RC3-3.7854 FAU .30071 RRT .4561 RRF .9973 RTF .4665 CRT .5594 CRS -.9997 CST -.5800
FDE 7.6892 FRA 1.7055 FC-14.5261 BSP 7118 SGB 4282.1 R23 .0177 R13 .9972 LSA 183.7 MSA 13.3 SSA .6
BDE 1.7983 BRA .6413 BC3 3.8856 FSP 2462 SG1 4167.3 SG2 984.9 THA 82.57 EL1 122.5 EL2 13.2 ALF 85.76

LAUNCH DATE JUL 23 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 523.914 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.843 GAL -1.09 AZL 85.50 HCA 161.12 SMA 198.74 ECC .23601 INC 4.4972 V1 29.314
RP 238.95 LAP 1.45 LOP 101.17 VP 21.049 GAP 7.13 AZP 94.26 TAL 354.28 TAP 155.40 RCA 151.84 APO 245.65 V2 22.991
RC 218.810 GL 36.69 GP -41.01 ZAL 96.33 ZAP 104.95 ETS 195.77 ZAE 128.55 ETE 228.94 ZAC 45.68 ETC 289.03 LVI 20.04

PLANETOCENTRIC CONIC

C3 18.569 VHL 4.309 DLA 48.09 RAL 18.71 RAD 6642.2 VEL 11.772 PTH 6.80 VHP 2.995 DPA -26.60 RAP 45.26 ECC 1.3056

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.33	6 28 59	4443.99	-27.27	204.50	261.17	48.72	7 43 3	3444.0	-41.54	180.65
49.33	6 28 59	4443.99	-27.27	204.50	261.17	48.72	7 43 3	3444.0	-41.54	180.65
49.33	6 28 59	4443.99	-27.27	204.50	261.17	48.72	7 43 3	3444.0	-41.54	180.65
49.33	6 28 59	4443.99	-27.27	204.50	261.17	48.72	7 43 3	3444.0	-41.54	180.65
49.33	6 28 59	4443.99	-27.27	204.50	261.17	48.72	7 43 3	3444.0	-41.54	180.65
49.33	6 28 59	4443.99	-27.27	204.50	261.17	48.72	7 43 3	3444.0	-41.54	180.65
49.33	6 28 59	4443.99	-27.27	204.50	261.17	48.72	7 43 3	3444.0	-41.54	180.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .2468 TRA -.3979 TC3 -.9843 BAU .9791 SGT 1206.1 SGR 4320.4 SG3 1389.4 ST 20.3 SR 132.8 SS 138.0
RDE 1.9844 RRA .4686 RC3-3.8193 FAU .29116 RRT .5602 RRF .9977 RTF .5701 CRT .7440 CRS -.9998 CST -.7583
FDE 7.9905 FRA 1.4933 FC-13.5747 BSP 7472 SGB 4485.6 R23 .0236 R13 .9975 LSA 192.1 MSA 13.5 SSA .5
BDE 1.9997 BRA .6147 BC3 3.9441 FSP 2386 SG1 4375.8 SG2 986.4 THA 80.63 EL1 133.6 EL2 13.5 ALF 83.44

LAUNCH DATE JUL 23 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 527.695 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.839 GAL -1.10 AZL 85.21 HCA 162.06 SMA 198.66 ECC .23573 INC 4.7868 V1 29.314
RP 239.26 LAP 1.47 LOP 102.12 VP 21.008 GAP 6.89 AZP 94.56 TAL 354.22 TAP 156.28 RCA 151.83 APO 245.49 V2 22.960
RC 221.744 GL 38.55 GP -42.55 ZAL 96.28 ZAP 103.34 ETS 194.97 ZAE 126.49 ETE 227.73 ZAC 44.38 ETC 289.57 LVI 21.41

PLANETOCENTRIC CONIC

C3 19.333 VHL 4.397 DLA 49.77 RAL 17.51 RAD 6642.5 VEL 11.805 PTH 6.83 VHP 3.050 DPA -26.24 RAP 45.38 ECC 1.3182

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.17	6 17 1	4470.87	-27.60	207.51	261.29	46.78	7 31 31	3470.9	-42.56	184.05
47.17	6 17 1	4470.87	-27.60	207.51	261.29	46.78	7 31 31	3470.9	-42.56	184.05
47.17	6 17 1	4470.87	-27.60	207.51	261.29	46.78	7 31 31	3470.9	-42.56	184.05
47.17	6 17 1	4470.87	-27.60	207.51	261.29	46.78	7 31 31	3470.9	-42.56	184.05
47.17	6 17 1	4470.87	-27.60	207.51	261.29	46.78	7 31 31	3470.9	-42.56	184.05
47.17	6 17 1	4470.87	-27.60	207.51	261.29	46.78	7 31 31	3470.9	-42.56	184.05
47.17	6 17 1	4470.87	-27.60	207.51	261.29	46.78	7 31 31	3470.9	-42.56	184.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .3508 TRA -.3868 TC3-1.0827 BAU 1.0294 SGT 1315.7 SGR 4507.5 SG3 1333.3 ST 25.7 SR 143.7 SS 138.6
RDE 2.1955 RRA .4358 RC3-3.8326 FAU .28006 RRT .6453 RRF .9980 RTF .6245 CRT .8434 CRS -.9998 CST -.8533
FDE 8.0470 FRA 1.2671 FC-12.5413 BSP 7820 SGB 4695.5 R23 .0287 R13 .9977 LSA 200.8 MSA 13.7 SSA .5
BDE 2.2233 BRA .5840 BC3 3.9826 FSP 2289 SG1 4590.7 SG2 986.8 THA 78.81 EL1 145.4 EL2 13.7 ALF 81.33

LAUNCH DATE JUL 23 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 531.476 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.836 GAL -1.11 AZL 84.89 HCA 163.00 SMA 198.60 ECC .23548 INC 5.1067 V1 29.314
RP 239.57 LAP 1.49 LOP 103.07 VP 20.968 GAP 6.66 AZP 94.88 TAL 354.15 TAP 157.16 RCA 151.83 APO 245.36 V2 22.928
RC 224.672 GL 40.51 GP -44.13 ZAL 96.23 ZAP 101.78 ETS 194.12 ZAE 124.42 ETE 226.55 ZAC 43.05 ETC 290.15 LVI 22.81

PLANETOCENTRIC CONIC

C3 20.240 VHL 4.499 DLA 51.54 RAL 16.15 RAD 6642.9 VEL 11.843 PTH 6.86 VHP 3.116 DPA -29.91 RAP 45.56 ECC 1.3331

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.93	6 4 31	4498.25	-27.84	210.60	261.36	44.70	7 19 29	3498.3	-43.54	187.65
44.93	6 4 31	4498.25	-27.84	210.60	261.36	44.70	7 19 29	3498.3	-43.54	187.65
44.93	6 4 31	4498.25	-27.84	210.60	261.36	44.70	7 19 29	3498.3	-43.54	187.65
44.93	6 4 31	4498.25	-27.84	210.60	261.36	44.70	7 19 29	3498.3	-43.54	187.65
44.93	6 4 31	4498.25	-27.84	210.60	261.36	44.70	7 19 29	3498.3	-43.54	187.65
44.93	6 4 31	4498.25	-27.84	210.60	261.36	44.70	7 19 29	3498.3	-43.54	187.65
44.93	6 4 31	4498.25	-27.84	210.60	261.36	44.70	7 19 29	3498.3	-43.54	187.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4677 TRA -.3832 TC3-1.1699 BAU 1.0807 SGT 1441.7 SGR 4692.9 SG3 1268.2 ST 32.1 SR 155.2 SS 138.5
RDE 2.4287 RRA .3938 RC3-3.8188 FAU .26713 RRT .7134 RRF .9983 RTF .7219 CRT .8986 CRS -.9999 CST -.9056
FDE 8.0571 FRA 1.0314 FC-11.4260 BSP 8189 SGB 4909.4 R23 .0330 R13 .9979 LSA 210.0 MSA 13.8 SSA .4
BDE 2.4733 BRA .5495 BC3 3.9940 FSP 2181 SG1 4809.4 SG2 985.8 THA 77.09 EL1 157.9 EL2 13.8 ALF 79.40

LAUNCH DATE JUL 23 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 12 1974

HELIOCENTRIC CONIC DISTANCE 535.255 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.833 GAL -1.13 AZL 84.54 HCA 163.94 SMA 198.54 ECC .23527 INC 5.4619 V1 29.314
RP 239.88 LAP 1.51 LOP 104.01 VP 20.929 GAP 6.43 AZP 95.25 TAL 354.08 TAP 158.02 RCA 151.83 APO 245.24 V2 22.897
RC 227.591 GL 42.58 GP -45.74 ZAL 96.16 ZAP 100.27 ETS 193.23 ZAE 122.35 ETE 225.39 ZAC 41.68 ETC 290.78 LVI 24.26

PLANETOCENTRIC CONIC

C3 21.323 VHL 4.618 DLA 53.39 RAL 14.59 RAD 6643.4 VEL 11.888 PTH 6.90 VHP 3.197 DPA -31.61 RAP 45.80 ECC 1.3509

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.63	5 51 21	4526.31	-27.98	213.78	261.36	42.48	7 6 47	3526.3	-44.46	191.47
42.63	5 51 21	4526.31	-27.98	213.78	261.36	42.48	7 6 47	3526.3	-44.46	191.47
42.63	5 51 21	4526.31	-27.98	213.78	261.36	42.48	7 6 47	3526.3	-44.46	191.47
42.63	5 51 21	4526.31	-27.98	213.78	261.36	42.48	7 6 47	3526.3	-44.46	191.47
42.63	5 51 21	4526.31	-27.98	213.78	261.36	42.48	7 6 47	3526.3	-44.46	191.47
42.63	5 51 21	4526.31	-27.98	213.78	261.36	42.48	7 6 47	3526.3	-44.46	191.47
42.63	5 51 21	4526.31	-27.98	213.78	261.36	42.48	7 6 47	3526.3	-44.46	191.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .5981 TRA -.3830 TC3-1.2441 BAU 1.1345 SGT 1583.0 SGR 4877.5 SG3 1195.0 ST 39.0 SR 167.0 SS 137.5
RDE 2.6849 RRA .3408 RC3-3.7804 FAU .25279 RRT .7666 RRF .9986 RTF .7745 CRT .9304 CRS -.9999 CST -.9355
FDE 8.0089 FRA .7891 FC-10.2637 BSP 9554 SGB 5128.0 R23 .0366 R13 .9980 LSA 219.3 NSA 14.0 SSA .4
BDE 2.7507 BRA .5127 BC3 3.9799 FSP 2057 SG1 5032.4 SG2 985.2 THA 75.46 EL1 170.9 EL2 14.0 ALF 77.65

LAUNCH DATE JUL 23 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC DISTANCE 539.034 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.830 GAL -1.14 AZL 84.14 HCA 164.87 SMA 198.48 ECC .23509 INC 5.8589 V1 29.314
RP 240.18 LAP 1.53 LOP 104.95 VP 20.892 GAP 6.19 AZP 95.66 TAL 354.00 TAP 158.88 RCA 151.82 APO 245.14 V2 22.866
RC 230.502 GL 44.78 GP -47.40 ZAL 96.08 ZAP 98.81 ETS 192.28 ZAE 120.29 ETE 224.25 ZAC 40.28 ETC 291.47 LVI 25.75

PLANETOCENTRIC CONIC

C3 22.625 VHL 4.757 DLA 55.32 RAL 12.78 RAD 6644.0 VEL 11.942 PTH 6.95 VHP 3.293 DPA -33.33 RAP 46.11 ECC 1.3723

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.25	5 37 18	4555.31	-27.98	217.05	261.23	40.11	6 53 13	3555.3	-45.29	195.54
40.25	5 37 18	4555.31	-27.98	217.05	261.23	40.11	6 53 13	3555.3	-45.29	195.54
40.25	5 37 18	4555.31	-27.98	217.05	261.23	40.11	6 53 13	3555.3	-45.29	195.54
40.25	5 37 18	4555.31	-27.98	217.05	261.23	40.11	6 53 13	3555.3	-45.29	195.54
40.25	5 37 18	4555.31	-27.98	217.05	261.23	40.11	6 53 13	3555.3	-45.29	195.54
40.25	5 37 18	4555.31	-27.98	217.05	261.23	40.11	6 53 13	3555.3	-45.29	195.54
40.25	5 37 18	4555.31	-27.98	217.05	261.23	40.11	6 53 13	3555.3	-45.29	195.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .7435 TRA -.3885 TC3-1.3031 BAU 1.1899 SGT 1736.5 SGR 5058.5 SG3 1113.8 ST 46.5 SR 179.0 SS 135.5
RDE 2.9679 RRA .2751 RC3-3.7118 FAU .23686 RRT .8083 RRF .9988 RTF .8157 CRT .9500 CRS -.9999 CST -.9537
FDE 7.8984 FRA .5452 FC3-9.0635 BSP 8937 SGB 5348.2 R23 .0396 R13 .9981 LSA 228.9 NSA 14.1 SSA .3
BDE 3.0596 BRA .4760 BC3 3.9339 FSP 1923 SG1 5257.0 SG2 983.9 THA 73.91 EL1 184.4 EL2 14.1 ALF 76.06

LAUNCH DATE JUL 23 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 16 1974

HELIOCENTRIC CONIC DISTANCE 542.810 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.828 GAL -1.16 AZL 83.69 HCA 165.81 SMA 198.44 ECC .23493 INC 6.3056 V1 29.314
RP 240.48 LAP 1.54 LOP 105.89 VP 20.855 GAP 5.98 AZP 96.11 TAL 353.92 TAP 159.73 RCA 151.82 APO 245.06 V2 22.836
RC 233.405 GL 47.11 GP -49.08 ZAL 95.97 ZAP 97.42 ETS 191.29 ZAE 118.26 ETE 223.13 ZAC 38.86 ETC 292.23 LVI 27.28

PLANETOCENTRIC CONIC

C3 24.205 VHL 4.920 DLA 57.34 RAL 10.65 RAD 6644.7 VEL 12.008 PTH 7.00 VHP 3.409 DPA -35.06 RAP 46.49 ECC 1.3984

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.79	5 22 6	4585.47	-27.82	220.40	260.89	37.60	6 38 32	3585.5	-45.98	199.87
37.79	5 22 6	4585.47	-27.82	220.40	260.89	37.60	6 38 32	3585.5	-45.98	199.87
37.79	5 22 6	4585.47	-27.82	220.40	260.89	37.60	6 38 32	3585.5	-45.98	199.87
37.79	5 22 6	4585.47	-27.82	220.40	260.89	37.60	6 38 32	3585.5	-45.98	199.87
37.79	5 22 6	4585.47	-27.82	220.40	260.89	37.60	6 38 32	3585.5	-45.98	199.87
37.79	5 22 6	4585.47	-27.82	220.40	260.89	37.60	6 38 32	3585.5	-45.98	199.87
37.79	5 22 6	4585.47	-27.82	220.40	260.89	37.60	6 38 32	3585.5	-45.98	199.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .9048 TRA -.4009 TC3-1.3430 BAU 1.2484 SGT 1898.6 SGR 5239.0 SG3 1026.4 ST 54.3 SR 191.3 SS 132.8
RDE 3.2824 RRA .1926 RC3-3.6164 FAU .21982 RRT .8415 RRF .9989 RTF .8485 CRT .9627 CRS -.9999 CST -.9656
FDE 7.7211 FRA .3003 FC3-7.8622 BSP 9306 SGB 5372.5 R23 .0418 R13 .9982 LSA 238.5 NSA 14.2 SSA .3
BDE 3.4048 BRA .4447 BC3 3.8577 FSP 1773 SG1 5485.7 SG2 979.5 THA 72.46 EL1 198.4 EL2 14.2 ALF 74.64

LAUNCH DATE JUL 23 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 18 1974

HELIOCENTRIC CONIC DISTANCE 546.585 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.826 GAL -1.17 AZL 83.19 HCA 166.73 SMA 198.40 ECC .23481 INC 6.8124 V1 29.314
RP 240.78 LAP 1.56 LOP 106.83 VP 20.820 GAP 5.73 AZP 96.63 TAL 353.83 TAP 160.57 RCA 151.81 APO 244.99 V2 22.807
RC 236.297 GL 49.59 GP -50.80 ZAL 95.85 ZAP 96.10 ETS 190.27 ZAE 116.25 ETE 222.02 ZAC 37.42 ETC 293.06 LVI 28.84

PLANETOCENTRIC CONIC

C3 26.143 VHL 5.113 DLA 59.43 RAL 8.11 RAD 6645.5 VEL 12.087 PTH 7.07 VHP 3.548 DPA -36.80 RAP 46.96 ECC 1.4303

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.27	5 5 27	4617.11	-27.45	223.81	260.26	34.97	6 22 24	3617.1	-46.48	204.48
35.27	5 5 27	4617.11	-27.45	223.81	260.26	34.97	6 22 24	3617.1	-46.48	204.48
35.27	5 5 27	4617.11	-27.45	223.81	260.26	34.97	6 22 24	3617.1	-46.48	204.48
35.27	5 5 27	4617.11	-27.45	223.81	260.26	34.97	6 22 24	3617.1	-46.48	204.48
35.27	5 5 27	4617.11	-27.45	223.81	260.26	34.97	6 22 24	3617.1	-46.48	204.48
35.27	5 5 27	4617.11	-27.45	223.81	260.26	34.97	6 22 24	3617.1	-46.48	204.48
35.27	5 5 27	4617.11	-27.45	223.81	260.26	34.97	6 22 24	3617.1	-46.48	204.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.0824 TRA -.4216 TC3-1.3643 BAU 1.3077 SGT 2069.0 SGR 5411.5 SG3 932.3 ST 62.3 SR 203.5 SS 128.3
RDE 3.6304 RRA .0930 RC3-3.4839 FAU .20120 RRT .8677 RRF .9991 RTF .8743 CRT .9711 CRS -.9999 CST -.9734
FDE 7.4651 FRA .0661 FC3-6.6628 BSP 9709 SGB 5793.5 R23 .0435 R13 .9982 LSA 248.1 NSA 14.3 SSA .2
BDE 3.7883 BRA .4318 BC3 3.7415 FSP 1620 SG1 5711.0 SG2 974.7 THA 71.08 EL1 212.3 EL2 14.2 ALF 73.38

LAUNCH DATE JUL 23 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 20 1974

HELIOCENTRIC CONIC DISTANCE 550.387 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	32.824	GAL	-1.19	AZL	82.61	HCA	167.66	SMA	198.37	ECC	.23472	INC	7.3923	V1	29.314
RP	241.07	LAP	1.58	LOP	107.76	VP	20.785	GAP	5.50	AZP	97.22	TAL	353.74	TAP	161.40	RCA	151.81	APO	244.93	V2	22.777
RC	239.179	GL	52.21	GP	-52.54	ZAL	95.70	ZAP	94.86	ETS	189.21	ZAE	114.29	ETE	220.91	ZAC	35.95	ETC	293.98	LVI	30.44

PLANETOCENTRIC CONIC

C3	28.549	VHL	5.343	DLA	61.59	RAL	5.05	RAD	6646.4	VEL	12.186	PTH	7.15	VHP	3.714	DPA	-38.54	RAP	47.53	ECC	1.4698

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.70	4 46 48	4650.67	-26.83	227.27	259.18	32.22	6 4 19	3650.7	-46.73	209.33
32.70	4 46 48	4650.67	-26.83	227.27	259.18	32.22	6 4 19	3650.7	-46.73	209.33
32.70	4 46 48	4650.67	-26.83	227.27	259.18	32.22	6 4 19	3650.7	-46.73	209.33
32.70	4 46 48	4650.67	-26.83	227.27	259.18	32.22	6 4 19	3650.7	-46.73	209.33
32.70	4 46 48	4650.67	-26.83	227.27	259.18	32.22	6 4 19	3650.7	-46.73	209.33
32.70	4 46 48	4650.67	-26.83	227.27	259.18	32.22	6 4 19	3650.7	-46.73	209.33
32.70	4 46 48	4650.67	-26.83	227.27	259.18	32.22	6 4 19	3650.7	-46.73	209.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2732	TRA	-.4538	TC3	-1.3653	BAU	1.3725	SGT	2244.7	SGR	5578.8	SG3	833.8	ST	70.0	SR	215.0	SS	122.4
RDE	4.0088	RRA	-.0332	RC3	-3.3268	FAU	.18199	RRT	.8890	RRF	.9992	RTF	.8954	CRT	.9768	CRS	-1.0000	CST	-.9787
FDE	7.1114	FRA	-.1622	FC3	-5.5187	BSP	10032	SGB	6013.5	R23	.0443	R13	.9983	LSA	256.7	NSA	14.3	SSA	.2
BDE	4.2061	BRA	.4550	BC3	3.5960	FSP	1445	SG1	5935.3	SG2	966.3	THA	69.76	EL1	225.7	EL2	14.3	ALF	72.28

LAUNCH DATE JUL 23 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 22 1974

HELIOCENTRIC CONIC DISTANCE 554.127 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	32.823	GAL	-1.21	AZL	81.94	HCA	168.58	SMA	198.35	ECC	.23465	INC	8.0631	V1	29.314
RP	241.36	LAP	1.59	LOP	108.69	VP	20.752	GAP	5.27	AZP	97.91	TAL	353.65	TAP	162.23	RCA	151.80	APO	244.89	V2	22.749
RC	242.049	GL	55.00	GP	-54.29	ZAL	95.52	ZAP	93.72	ETS	186.13	ZAE	112.37	ETE	219.82	ZAC	34.47	ETC	294.99	LVI	32.07

PLANETOCENTRIC CONIC

C3	31.577	VHL	5.619	DLA	63.79	RAL	1.30	RAD	6647.6	VEL	12.309	PTH	7.24	VHP	3.915	DPA	-40.27	RAP	48.19	ECC	1.5197

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.10	4 25 36	4686.48	-25.92	230.72	257.47	29.41	5 43 42	3686.5	-46.66	214.37
30.10	4 25 36	4686.48	-25.92	230.72	257.47	29.41	5 43 42	3686.5	-46.66	214.37
30.10	4 25 36	4686.48	-25.92	230.72	257.47	29.41	5 43 42	3686.5	-46.66	214.37
30.10	4 25 36	4686.48	-25.92	230.72	257.47	29.41	5 43 42	3686.5	-46.66	214.37
30.10	4 25 36	4686.48	-25.92	230.72	257.47	29.41	5 43 42	3686.5	-46.66	214.37
30.10	4 25 36	4686.48	-25.92	230.72	257.47	29.41	5 43 42	3686.5	-46.66	214.37
30.10	4 25 36	4686.48	-25.92	230.72	257.47	29.41	5 43 42	3686.5	-46.66	214.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4749	TRA	-.4969	TC3	-1.3426	BAU	1.4384	SGT	2419.5	SGR	5740.2	SG3	731.5	ST	77.2	SR	225.9	SS	115.1
RDE	4.4277	RRA	-.1843	RC3	-3.1317	FAU	.16154	RRT	.9063	RRF	.9992	RTF	.9127	CRT	.9807	CRS	-1.0000	CST	-.9824
FDE	6.6666	FRA	-.3644	FC3	-4.4288	BSP	10457	SGB	6229.3	R23	.0440	R13	.9984	LSA	264.6	NSA	14.3	SSA	.2
BDE	4.6669	BRA	.5300	BC3	3.4074	FSP	1279	SG1	6155.9	SG2	953.3	THA	68.55	EL1	238.3	EL2	14.3	ALF	71.41

LAUNCH DATE JUL 23 1973 FLIGHT TIME 244.00 ARRIVAL DATE MAR 24 1974

HELIOCENTRIC CONIC DISTANCE 557.893 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	32.822	GAL	-1.22	AZL	81.15	HCA	169.50	SMA	198.33	ECC	.23461	INC	8.8477	V1	29.314
RP	241.64	LAP	1.61	LOP	109.62	VP	20.719	GAP	5.04	AZP	98.70	TAL	353.58	TAP	163.05	RCA	151.80	APO	244.86	V2	22.720
RC	244.907	GL	57.96	GP	-56.06	ZAL	95.31	ZAP	92.67	ETS	187.03	ZAE	110.52	ETE	218.75	ZAC	32.99	ETC	296.11	LVI	33.71

PLANETOCENTRIC CONIC

C3	35.453	VHL	5.954	DLA	66.00	RAL	356.61	RAD	6649.1	VEL	12.464	PTH	7.36	VHP	4.157	DPA	-41.98	RAP	48.97	ECC	1.5835

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.51	4 0 56	4725.01	-24.65	234.10	254.83	26.59	5 19 41	3725.0	-46.18	219.50
27.51	4 0 56	4725.01	-24.65	234.10	254.83	26.59	5 19 41	3725.0	-46.18	219.50
27.51	4 0 56	4725.01	-24.65	234.10	254.83	26.59	5 19 41	3725.0	-46.18	219.50
27.51	4 0 56	4725.01	-24.65	234.10	254.83	26.59	5 19 41	3725.0	-46.18	219.50
27.51	4 0 56	4725.01	-24.65	234.10	254.83	26.59	5 19 41	3725.0	-46.18	219.50
27.51	4 0 56	4725.01	-24.65	234.10	254.83	26.59	5 19 41	3725.0	-46.18	219.50
27.51	4 0 56	4725.01	-24.65	234.10	254.83	26.59	5 19 41	3725.0	-46.18	219.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6722	TRA	-.5559	TC3	-1.2977	BAU	1.5116	SGT	2589.7	SGR	5895.6	SG3	828.1	ST	82.9	SR	234.6	SS	105.6
RDE	4.8665	RRA	-.3762	RC3	-2.9133	FAU	.14081	RRT	.9213	RRF	.9992	RTF	.9278	CRT	.9832	CRS	-1.0000	CST	-.9848
FDE	6.0957	FRA	-.5469	FC3	-3.4385	BSP	10808	SGB	6439.3	R23	.0421	R13	.9985	LSA	269.9	NSA	14.3	SSA	.2
BDE	5.1458	BRA	.6713	BC3	3.1893	FSP	1100	SG1	6371.5	SG2	931.6	THA	67.46	EL1	248.4	EL2	14.3	ALF	70.78

LAUNCH DATE JUL 23 1973 FLIGHT TIME 292.00 ARRIVAL DATE MAY 11 1974

HELIOCENTRIC CONIC DISTANCE 648.875 EARTH TO MARS

RL	151.98	LAL	-.00	LOL	300.00	VL	32.867	GAL	-2.14	AZL	99.20	HCA	191.53	SMA	199.21	ECC	.23984	INC	9.1990	V1	29.314
RP	246.98	LAP	1.83	LOP	131.39	VP	20.211	GAP	-.13	AZP	80.98	TAL	348.88	TAP	180.42	RCA	151.43	APO	246.99	V2	22.191
RC	308.047	GL	-57.93	GP	52.02	ZAL	100.04	ZAP	75.56	ETS	201.75	ZAE	93.14	ETE	178.46	ZAC	138.82	ETC	291.82	LVI	-72.98

PLANETOCENTRIC CONIC

C3	38.395	VHL	6.196	DLA	-38.14	RAL	63.80	RAD	6650.1	VEL	12.581	PTH	7.45	VHP	3.905	DPA	51.28	RAP	345.69	ECC	1.6319

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 33 4	2461.37	-5.47	64.78	294.68	137.34	19 14 5	1461.4	12.89	48.95
60.00	20 40 13	2122.04	5.50	44.75	305.10	129.99	21 15 35	1122.0	20.93	25.72
63.26	22 24 4	1824.47	15.58	27.84	312.99	125.27	22 54 29	824.5	28.59	5.95
63.26	22 24 4	1824.47	15.58	27.84	312.99	125.27	22 54 29	824.5	28.59	5.95
63.26	22 24 4	1824.47	15.58	27.84	312.99	125.27	22 54 29	824.5	28.59	5.95
63.26	22 24 4	1824.47	15.58	27.84	312.99	125.27	22 54 29	824.5	28.59	5.95
63.26	22 24 4	1824.47	15.58	27.84	312.99	125.27	22 54 29	824.5	28.59	5.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.7406	TRA	3.8525	TC3	-3.4071	BAU	2.1189	SGT	7092.8	SGR	5250.1	SG3	699.0	ST	185.9	SR	112.7	SS	53.1
RDE	2.0720	RRA	-3.3541	RC3	2.3306	FAU	.17166	RRT	-.9851	RRF	-.9980	RTF	.9807	CRT	-.9841	CRS	.9985	CST	-.9728
FDE	-2.7897	FRA	5.0881	FC3	-3.8707	BSP	15196	SGB	8824.5	R23	.1255	R13	-.9901	LSA	222.9	NSA	19.7	SSA	.3
BDE	4.2762	BRA	5.1080	BC3	4.1280	FSP	1241	SG1	8794.4	SG2	727.7	THA	143.61	EL1	216.7	EL2	17.2	ALF	148.97

LAUNCH DATE JUL 23 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 13 1974

HELIOCENTRIC CONIC DISTANCE 652.615 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.871 GAL -2.19 AZL 98.57 HCA 192.41 SMA 199.28 ECC .24023 INC 8.5697 V1 29.314
RP 247.14 LAP 1.84 LOP 132.28 VP 20.200 GAP -.34 AZP 81.63 TAL 348.67 TAP 181.08 RCA 151.41 APO 247.16 V2 22.176
RC 310.395 GL -55.58 GP 50.15 ZAL 100.73 ZAP 74.18 ETS 202.23 ZAE 92.23 ETE 179.66 ZAC 137.12 ETC 291.08 LVI -71.40

PLANETOCENTRIC CONIC

C3 35.204 VHL 5.933 DLA -35.91 RAL 62.89 RAD 6649.0 VEL 12.454 PTH 7.35 VHP 3.728 DPA 49.68 RAP 347.27 ECC 1.5794

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 11 48	2500.80	-7.44	66.45	291.19	137.13	18 53 29	1500.8	10.94	50.66
60.00	20 0 0	2212.55	1.52	49.09	299.74	130.28	20 36 52	1212.5	17.29	30.60
66.88	22 39 20	1747.03	15.59	21.57	310.21	122.77	23 8 27	747.0	27.64	359.17
66.88	22 39 20	1747.03	15.59	21.57	310.21	122.77	23 8 27	747.0	27.64	359.17
66.88	22 39 20	1747.03	15.59	21.57	310.21	122.77	23 8 27	747.0	27.64	359.17
66.88	22 39 20	1747.03	15.59	21.57	310.21	122.77	23 8 27	747.0	27.64	359.17
66.88	22 39 20	1747.03	15.59	21.57	310.21	122.77	23 8 27	747.0	27.64	359.17

DIFFERENTIAL CORRECTIONS

TDE-3.5890 TRA 3.8334 TC3-3.7624 BAU 2.1033
RDE 1.8810 RRA-3.1624 RC3 2.4114 FAU .18911
FDE-2.9180 FRA 5.5862 FC3-4.6504 BSP 15286
BDE 4.0520 BRA 4.9695 BC3 4.4689 FSP 1396

MID-COURSE EXECUTION ACCURACY

SGT 7268.8 SGR 5069.9 SG3 786.0
RRT -.9851 RRF -.9979 RTF .9807
SGB 8862.2 R23 .1295 R13 -.9895
SG1 8833.2 SG2 716.8 THA 145.24

ORBIT DETERMINATION ACCURACY

ST 186.5 SR 107.1 SS 55.7
CRT -.9838 CRS .9982 CST -.9713
LSA 221.2 MSA 19.7 SSA .3
EL1 214.4 EL2 16.7 ALF 150.34

LAUNCH DATE JUL 23 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC DISTANCE 656.357 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.875 GAL -2.23 AZL 98.02 HCA 193.29 SMA 199.36 ECC .24064 INC 8.0229 V1 29.314
RP 247.29 LAP 1.84 LOP 133.17 VP 20.190 GAP -.55 AZP 82.19 TAL 348.45 TAP 181.74 RCA 151.38 APO 247.33 V2 22.161
RC 312.717 GL -53.38 GP 48.32 ZAL 101.41 ZAP 72.82 ETS 202.62 ZAE 91.28 ETE 180.76 ZAC 135.45 ETC 290.42 LVI -69.79

PLANETOCENTRIC CONIC

C3 32.633 VHL 5.712 DLA -33.80 RAL 62.14 RAD 6648.0 VEL 12.351 PTH 7.27 VHP 3.580 DPA 48.12 RAP 348.74 ECC 1.5370

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 53 56	2536.26	-9.20	67.97	288.37	136.89	18 36 12	1536.3	9.18	52.21
60.00	19 30 58	2277.94	-1.36	52.21	295.86	130.28	20 8 56	1277.9	14.58	34.00
70.00	22 16 56	1787.85	11.51	22.10	305.31	122.38	22 46 44	787.9	23.74	.41
70.67	22 58 18	1661.45	15.43	14.72	307.77	120.45	23 26 0	661.4	26.59	351.93
70.67	22 58 18	1661.45	15.43	14.72	307.77	120.45	23 26 0	661.4	26.59	351.93
70.67	22 58 18	1661.45	15.43	14.72	307.77	120.45	23 26 0	661.4	26.59	351.93
110.00	3 20 18	6122.71	11.51	288.93	305.31	122.38	5 2 21	5122.7	23.74	267.23

DIFFERENTIAL CORRECTIONS

TDE-3.4510 TRA 3.8210 TC3-4.1191 BAU 2.0963
RDE 1.7106 RRA-2.9864 RC3 2.4741 FAU .20559
FDE-3.0013 FRA 6.0390 FC3-5.4543 BSP 15320
BDE 3.8517 BRA 4.8496 BC3 4.8050 FSP 1536

MID-COURSE EXECUTION ACCURACY

SGT 7442.9 SGR 4891.4 SG3 868.4
RRT -.9851 RRF -.9977 RTF .9807
SGB 8906.3 R23 .1332 R13 -.9889
SG1 8878.3 SG2 704.9 THA 146.84

ORBIT DETERMINATION ACCURACY

ST 186.5 SR 101.5 SS 57.6
CRT -.9835 CRS .9978 CST -.9694
LSA 219.1 MSA 19.8 SSA .3
EL1 211.7 EL2 16.2 ALF 151.67

LAUNCH DATE JUL 23 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 17 1974

HELIOCENTRIC CONIC DISTANCE 660.098 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.879 GAL -2.28 AZL 97.54 HCA 194.17 SMA 199.43 ECC .24105 INC 7.5436 V1 29.314
RP 247.44 LAP 1.84 LOP 134.06 VP 20.180 GAP -.76 AZP 82.68 TAL 348.23 TAP 182.40 RCA 151.36 APO 247.51 V2 22.147
RC 315.013 GL -51.31 GP 46.54 ZAL 102.09 ZAP 71.47 ETS 202.94 ZAE 90.30 ETE 181.76 ZAC 133.82 ETC 289.83 LVI -68.20

PLANETOCENTRIC CONIC

C3 30.532 VHL 5.526 DLA -31.79 RAL 61.52 RAD 6647.2 VEL 12.266 PTH 7.21 VHP 3.456 DPA 46.59 RAP 350.10 ECC 1.5025

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 38 38	2568.94	-10.82	69.38	286.08	136.62	18 21 26	1568.9	7.56	53.61
60.00	19 7 53	2331.41	-3.71	54.77	292.85	130.16	19 46 45	1331.4	12.32	36.72
70.00	21 16 7	1953.88	5.32	30.98	299.63	123.79	21 48 41	953.9	18.54	10.49
74.84	23 22 42	1561.48	15.13	6.88	305.62	118.30	23 48 43	561.5	25.47	343.79
74.84	23 22 42	1561.48	15.13	6.88	305.62	118.30	23 48 43	561.5	25.47	343.79
74.84	23 22 42	1561.48	15.13	6.88	305.62	118.30	23 48 43	561.5	25.47	343.79
110.00	2 19 30	1000.70	5.32	319.90	299.63	123.79	2 36 10	.7	18.54	299.40

DIFFERENTIAL CORRECTIONS

TDE-3.3167 TRA 3.8233 TC3-4.4641 BAU 2.0909
RDE 1.5535 RRA-2.8284 RC3 2.5123 FAU .22042
FDE-3.0320 FRA 6.4553 FC3-6.2501 BSP 15450
BDE 3.6625 BRA 4.7557 BC3 5.1224 FSP 1676

MID-COURSE EXECUTION ACCURACY

SGT 7610.5 SGR 4712.6 SG3 944.9
RRT -.9851 RRF -.9976 RTF .9806
SGB 8951.4 R23 .1366 R13 -.9882
SG1 8924.6 SG2 691.7 THA 148.41

ORBIT DETERMINATION ACCURACY

ST 185.8 SR 95.8 SS 58.8
CRT -.9830 CRS .9973 CST -.9669
LSA 216.2 MSA 20.0 SSA .4
EL1 208.5 EL2 15.7 ALF 152.95

LAUNCH DATE JUL 23 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC DISTANCE 663.840 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.883 GAL -2.32 AZL 97.12 HCA 195.05 SMA 199.51 ECC .24148 INC 7.1195 V1 29.314
RP 247.58 LAP 1.84 LOP 134.94 VP 20.172 GAP -.97 AZP 83.12 TAL 348.00 TAP 183.05 RCA 151.34 APO 247.69 V2 22.133
RC 317.282 GL -49.36 GP 44.83 ZAL 102.74 ZAP 70.14 ETS 203.19 ZAE 89.28 ETE 182.68 ZAC 132.23 ETC 289.30 LVI -66.63

PLANETOCENTRIC CONIC

C3 28.799 VHL 5.366 DLA -29.89 RAL 61.00 RAD 6646.5 VEL 12.196 PTH 7.15 VHP 3.355 DPA 45.11 RAP 351.36 ECC 1.4740

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 25 19	2599.52	-12.33	70.72	284.21	136.33	18 8 39	1599.5	6.03	54.90
60.00	18 48 42	2377.71	-5.74	56.99	290.46	129.96	19 28 19	1377.7	10.34	39.02
70.00	20 41 44	2045.19	1.85	35.76	296.18	124.11	21 15 49	1045.2	15.43	15.73
79.91	0 1 10	1431.01	14.74	356.87	303.73	116.30	0 25 1	431.0	24.31	333.56
79.91	0 1 10	1431.01	14.74	356.87	303.73	116.30	0 25 1	431.0	24.31	333.56
79.91	0 1 10	1431.01	14.74	356.87	303.73	116.30	0 25 1	431.0	24.31	333.56
110.00	1 45 6	1092.01	1.85	324.68	296.18	124.11	2 3 18	92.0	15.43	304.65

DIFFERENTIAL CORRECTIONS

TDE-3.1936 TRA 3.8295 TC3-4.8054 BAU 2.0918
RDE 1.4148 RRA-2.6813 RC3 2.5350 FAU .23414
FDE-3.0300 FRA 6.8255 FC3-7.0387 BSP 15540
BDE 3.4929 BRA 4.6749 BC3 5.4331 FSP 1800

MID-COURSE EXECUTION ACCURACY

SGT 7775.9 SGR 4537.3 SG3 1015.6
RRT -.9851 RRF -.9973 RTF .9806
SGB 9002.9 R23 .1395 R13 -.9876
SG1 8977.4 SG2 677.0 THA 149.92

ORBIT DETERMINATION ACCURACY

ST 184.7 SR 90.4 SS 59.5
CRT -.9826 CRS .9966 CST -.9641
LSA 213.2 MSA 20.1 SSA .4
EL1 205.1 EL2 15.1 ALF 154.17

LAUNCH DATE JUL 23 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC DISTANCE 667.581 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.887 GAL -2.37 AZL 96.74 HCA 195.93 SMA 199.59 ECC .24191 INC 6.7417 V1 29.314
RP 247.71 LAP 1.85 LOP 135.63 VP 20.164 GAP -1.18 AZP 83.51 TAL 347.77 TAP 183.70 RCA 151.31 APO 247.88 V2 22.120
RC 319.522 GL -47.52 GP 43.18 ZAL 103.39 ZAP 68.84 ETS 203.39 ZAE 88.24 ETE 183.53 ZAC 130.69 ETC 288.83 LVI -68.10

PLANETOCENTRIC CONIC

C3 27.354 VHL 5.230 DLA -28.08 RAL 60.57 RAD 6646.0 VEL 12.137 PTH 7.11 VHP 3.269 DPA 43.69 RAP 352.54 ECC 1.4502

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 13 38	2628.43	-13.75	71.99	282.68	136.01	17 57 26	1628.4	4.58	56.12
60.00	18 32 18	2419.15	-7.54	59.00	288.53	129.71	19 12 37	1419.2	8.55	41.06
70.00	20 15 52	2114.60	-.81	39.38	293.61	124.15	20 51 6	1114.6	12.97	19.60
80.00	22 29 54	1694.91	6.23	11.88	297.95	119.26	22 58 9	694.9	17.68	350.37
90.00	0 52 3	1249.16	11.57	341.92	300.78	115.99	1 12 52	249.2	21.29	319.11
100.00	1 16 42	1169.38	6.23	333.25	297.95	119.26	1 36 11	169.4	17.68	311.73
110.00	1 19 14	1161.42	-.81	328.30	293.61	124.15	1 38 35	161.4	12.97	308.52

DIFFERENTIAL CORRECTIONS

TDE-3.0756 TRA 3.8453 TC3-5.1356 BAU 2.0952
RDE 1.2888 RRA-2.5478 RC3 2.5395 FAU .24633
FDE-2.9894 FRA 7.1610 FC3-7.7962 BSP 15672
BDE 3.3347 BRA 4.6128 BC3 5.7292 FSP 1917

MID-COURSE EXECUTION ACCURACY

SGT 7937.6 SGR 4365.4 SG3 1080.1
RRT -.9850 RRF -.9971 RTF .9805
SGB 9058.8 R23 .1420 R13 -.9869
SG1 9034.6 SG2 662.3 THA 151.39

ORBIT DETERMINATION ACCURACY

ST 183.2 SR 85.2 SS 59.7
CRT -.9821 CRS .9957 CST -.9606
LSA 209.7 MSA 20.3 SSA .4
EL1 201.5 EL2 14.6 ALF 155.33

LAUNCH DATE JUL 23 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 23 1974

HELIOCENTRIC CONIC DISTANCE 671.322 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.891 GAL -2.42 AZL 96.40 HCA 196.80 SMA 199.68 ECC .24236 INC 6.4028 V1 29.314
RP 247.84 LAP 1.85 LOP 136.71 VP 20.157 GAP -1.39 AZP 83.87 TAL 347.54 TAP 184.34 RCA 151.28 APO 248.07 V2 22.107
RC 321.734 GL -45.79 GP 41.60 ZAL 104.03 ZAP 67.57 ETS 203.54 ZAE 87.18 ETE 184.29 ZAC 129.20 ETC 288.41 LVI -65.61

PLANETOCENTRIC CONIC

C3 26.141 VHL 5.113 DLA -26.36 RAL 60.23 RAD 6645.5 VEL 12.087 PTH 7.07 VHP 3.197 DPA 42.32 RAP 353.63 ECC 1.4302

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 3 16	2655.94	-15.10	73.23	281.43	135.67	17 47 32	1655.9	3.20	57.28
60.00	18 18 3	2457.02	-9.18	60.85	286.97	129.42	18 59 0	1457.0	6.91	42.91
70.00	19 54 50	2172.44	-3.01	42.41	291.60	124.04	20 31 3	1172.4	10.87	22.77
80.00	21 54 1	1799.39	2.72	17.65	295.16	119.75	22 24 1	799.4	14.62	356.62
90.00	23 44 59	1441.56	5.62	352.93	296.76	117.76	24 9 0	441.6	16.54	331.22
100.00	0 40 49	1273.87	2.72	339.02	295.16	119.75	1 2 3	273.9	14.62	317.99
110.00	0 58 12	1219.26	-3.01	331.32	291.60	124.04	1 18 32	219.3	10.87	311.68

DIFFERENTIAL CORRECTIONS

TDE-2.9645 TRA 3.8673 TC3-5.4565 BAU 2.1019
RDE 1.1765 RRA-2.4245 RC3 2.5297 FAU .25718
FDE-2.9226 FRA 7.4586 FC3-8.5171 BSP 15810
BDE 3.1694 BRA 4.5645 BC3 6.0144 FSP 2022

MID-COURSE EXECUTION ACCURACY

SGT 8097.1 SGR 4198.1 SG3 1138.4
RRT -.9849 RRF -.9967 RTF .9804
SGB 9120.7 R23 .1440 R13 -.9863
SG1 9097.7 SG2 646.7 THA 152.80

ORBIT DETERMINATION ACCURACY

ST 181.4 SR 80.2 SS 59.6
CRT -.9816 CRS .9946 CST -.9567
LSA 206.1 MSA 20.5 SSA .5
EL1 197.9 EL2 14.0 ALF 156.42

LAUNCH DATE JUL 23 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 25 1974

HELIOCENTRIC CONIC DISTANCE 675.063 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.895 GAL -2.47 AZL 96.10 HCA 197.68 SMA 199.76 ECC .24282 INC 6.0968 V1 29.314
RP 247.97 LAP 1.85 LOP 137.59 VP 20.181 GAP -1.59 AZP 84.19 TAL 347.30 TAP 184.98 RCA 151.25 APO 248.27 V2 22.095
RC 323.917 GL -44.15 GP 40.08 ZAL 104.66 ZAP 66.32 ETS 203.64 ZAE 86.11 ETE 184.99 ZAC 127.76 ETC 288.04 LVI -62.17

PLANETOCENTRIC CONIC

C3 25.116 VHL 5.012 DLA -24.72 RAL 59.95 RAD 6645.0 VEL 12.045 PTH 7.03 VHP 3.136 DPA 41.01 RAP 354.66 ECC 1.4133

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 54 1	2682.24	-16.37	74.42	280.41	135.32	17 38 43	1682.2	1.88	58.38
60.00	18 5 30	2492.11	-10.70	62.58	285.70	129.09	18 47 2	1492.1	5.37	44.60
70.00	19 37 4	2222.91	-4.93	45.05	290.00	123.84	20 14 7	1222.9	9.01	25.49
80.00	21 27 36	1876.97	.09	21.91	293.12	119.66	21 58 53	877.0	12.23	1.14
90.00	23 11 3	1543.29	2.37	358.63	294.39	118.19	23 36 47	543.3	13.71	337.34
100.00	0 14 23	1351.45	.09	343.28	293.12	119.86	0 36 55	351.4	12.23	322.51
110.00	0 40 26	1269.72	-4.93	333.97	290.00	123.84	1 1 36	269.7	9.01	314.40

DIFFERENTIAL CORRECTIONS

TDE-2.8623 TRA 3.8906 TC3-5.7718 BAU 2.1134
RDE 1.0778 RRA-2.3080 RC3 2.5103 FAU .26701
FDE-2.8379 FRA 7.7123 FC3-9.2037 BSP 15904
BDE 3.0585 BRA 4.5236 BC3 6.2940 FSP 2109

MID-COURSE EXECUTION ACCURACY

SGT 8255.6 SGR 4035.8 SG3 1190.5
RRT -.9848 RRF -.9964 RTF .9804
SGB 9189.3 R23 .1453 R13 -.9857
SG1 9167.7 SG2 630.3 THA 154.16

ORBIT DETERMINATION ACCURACY

ST 179.6 SR 75.6 SS 59.2
CRT -.9814 CRS .9932 CST -.9525
LSA 202.5 MSA 20.7 SSA .5
EL1 194.3 EL2 13.4 ALF 157.45

LAUNCH DATE JUL 23 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 27 1974

HELIOCENTRIC CONIC DISTANCE 678.803 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.900 GAL -2.52 AZL 95.82 HCA 196.56 SMA 199.85 ECC .24329 INC 5.8193 V1 29.314
RP 248.09 LAP 1.85 LOP 138.47 VP 20.145 GAP -1.80 AZP 84.48 TAL 347.06 TAP 185.62 RCA 151.23 APO 248.47 V2 22.084
RC 326.069 GL -42.59 GP 38.63 ZAL 105.28 ZAP 65.11 ETS 203.71 ZAE 85.02 ETE 185.63 ZAC 126.38 ETC 287.70 LVI -60.78

PLANETOCENTRIC CONIC

C3 24.245 VHL 4.924 DLA -23.17 RAL 59.73 RAD 6644.7 VEL 12.009 PTH 7.00 VHP 3.085 DPA 39.76 RAP 355.63 ECC 1.3990

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 45 42	2707.48	-17.59	75.58	279.59	134.95	17 30 49	1707.5	.61	59.43
60.00	17 54 19	2524.97	-12.10	64.22	284.68	128.74	18 36 24	1525.0	3.93	46.18
70.00	19 21 40	2268.17	-6.64	47.44	288.72	123.58	19 59 29	1268.2	7.32	27.90
80.00	21 6 13	1940.97	-2.08	25.42	291.54	119.79	21 38 34	941.0	10.20	4.80
90.00	22 45 35	1620.48	-.11	2.94	292.63	118.28	23 12 36	620.5	11.44	341.88
100.00	23 49 5	1415.44	-2.08	346.79	291.54	119.79	24 12 41	415.4	10.20	326.17
110.00	0 25 3	1314.99	-6.64	336.36	288.72	123.58	0 46 58	315.0	7.32	316.82

DIFFERENTIAL CORRECTIONS

TDE-2.7615 TRA 3.9230 TC3-6.0697 BAU 2.1248
RDE .9875 RRA-2.2018 RC3 2.4762 FAU .27518
FDE-2.7266 FRA 7.9387 FC3-9.8261 BSP 16074
BDE 2.9327 BRA 4.4987 BC3 6.5554 FSP 2194

MID-COURSE EXECUTION ACCURACY

SGT 8408.8 SGR 3877.2 SG3 1236.0
RRT -.9847 RRF -.9960 RTF .9803
SGB 9259.6 R23 .1462 R13 -.9852
SG1 9239.3 SG2 614.1 THA 155.46

ORBIT DETERMINATION ACCURACY

ST 177.3 SR 71.1 SS 58.5
CRT -.9811 CRS .9914 CST -.9475
LSA 198.7 MSA 20.9 SSA .5
EL1 190.6 EL2 12.8 ALF 158.41

LAUNCH DATE JUL 23 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 29 1974

HELIOCENTRIC CONIC DISTANCE 682.542 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.904 GAL -2.57 AZL 95.57 HCA 199.44 SMA 199.93 ECC .24377 INC 5.5661 V1 29.314
RP 248.20 LAP 1.85 LOP 139.35 VP 20.140 GAP -2.00 AZP 84.75 TAL 346.81 TAP 186.25 RCA 151.20 APO 248.67 V2 22.073
RC 328.191 GL -41.12 GP 37.25 ZAL 105.90 ZAP 63.93 ETS 203.75 ZAE 83.94 ETE 186.21 ZAC 125.05 ETC 287.40 LVI -59.44

PLANETOCENTRIC CONIC

C3 23.501 VHL 4.848 DLA -21.68 RAL 59.56 RAD 6644.4 VEL 11,978 PTH 6.98 VHP 3.043 DPA 38.57 RAP 356.54 ECC 1.3868

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 38 11	2731.76	-18.76	76.72	278.95	134.87	17 23 43	1731.8	-.61	60.49
60.00	17 44 18	2585.95	-13.42	65.76	283.85	128.37	18 26 54	1586.0	2.57	47.67
70.00	19 8 8	2309.52	-8.19	49.64	287.69	123.27	19 46 37	1309.5	5.76	30.09
80.00	20 48 10	1996.44	-3.95	28.48	290.30	119.62	21 21 26	996.4	8.39	7.93
90.00	22 24 48	1684.75	-2.19	6.53	291.27	118.20	22 52 52	684.7	9.50	345.60
100.00	23 31 2	1470.91	-3.95	349.84	290.30	119.62	23 55 33	470.9	8.39	329.30
110.00	0 11 30	1356.34	-8.19	338.55	287.69	123.27	0 34 6	356.3	5.76	319.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.6674 TRA 3.9581 TC3-6.3599 BAU 2.1398 SGT 8561.8 SGR 3725.2 SG3 1276.1 ST 175.0 SR 67.1 SS 57.6
RDE .9082 RRA-2.1027 RC3 2.4348 FAU .28231 RRT -.9846 RRF -.9955 RTF .9802 CRT -.9811 CRS .9891 CST -.9420
FDE-2.6057 FRA 8.1328 FC-10.3995 BSP 16225 SGB 9337.1 R23 .1464 R13 -.9847 LSA 195.0 MSA 21.1 SSA .6
BDE 2.8178 BRA 4.4620 BC3 6.8100 FSP 2265 SG1 9310.0 SG2 598.2 THA 156.71 EL1 187.1 EL2 12.2 ALF 159.30

LAUNCH DATE JUL 23 1973 FLIGHT TIME 312.00 ARRIVAL DATE MAY 31 1974

HELIOCENTRIC CONIC DISTANCE 686.281 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.908 GAL -2.63 AZL 95.33 HCA 200.31 SMA 200.02 ECC .24426 INC 5.3342 V1 29.314
RP 248.30 LAP 1.85 LOP 140.23 VP 20.136 GAP -2.21 AZP 85.00 TAL 346.56 TAP 186.87 RCA 151.16 APO 248.88 V2 22.062
RC 330.283 GL -39.73 GP 35.93 ZAL 106.50 ZAP 62.79 ETS 203.76 ZAE 82.84 ETE 186.74 ZAC 123.77 ETC 287.13 LVI -58.15

PLANETOCENTRIC CONIC

C3 22.865 VHL 4.782 DLA -20.26 RAL 59.44 RAD 6644.1 VEL 11.952 PTH 6.95 VHP 3.008 DPA 37.44 RAP 357.41 ECC 1.3763

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 31 23	2755.18	-19.87	77.83	278.45	134.17	17 17 18	1755.2	-1.78	61.42
60.00	17 35 15	2585.34	-14.65	67.28	283.21	127.97	18 18 20	1585.3	1.28	49.07
70.00	18 56 4	2347.78	-9.62	51.68	286.87	122.93	19 35 12	1347.8	4.31	32.10
80.00	20 32 30	2045.96	-5.61	31.21	289.32	119.37	21 6 36	1046.0	6.76	10.70
90.00	22 7 7	1740.74	-3.98	9.66	290.21	118.02	22 36 8	740.7	7.77	348.80
100.00	23 15 22	1520.43	-5.61	352.58	289.32	119.37	23 40 42	520.4	6.76	332.07
110.00	23 55 30	1394.60	-9.62	340.60	286.87	122.93	24 18 45	394.6	4.31	321.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.5776 TRA 3.9963 TC3-6.6389 BAU 2.1564 SGT 8712.3 SGR 3577.5 SG3 1310.2 ST 172.6 SR 63.3 SS 56.6
RDE .8369 RRA-2.0099 RC3 2.3850 FAU .28820 RRT -.9844 RRF -.9949 RTF .9801 CRT -.9812 CRS .9861 CST -.9358
FDE-2.4705 FRA 8.2955 FC-10.9123 BSP 16374 SGB 9418.2 R23 .1463 R13 -.9841 LSA 191.2 MSA 21.3 SSA .6
BDE 2.7101 BRA 4.4733 BC3 7.0543 FSP 2325 SG1 9400.2 SG2 583.1 THA 157.90 EL1 183.5 EL2 11.5 ALF 160.13

LAUNCH DATE JUL 23 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 2 1974

HELIOCENTRIC CONIC DISTANCE 690.019 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.913 GAL -2.68 AZL 95.12 HCA 201.19 SMA 200.11 ECC .24476 INC 5.1208 V1 29.314
RP 248.40 LAP 1.85 LOP 141.11 VP 20.133 GAP -2.41 AZP 85.22 TAL 346.31 TAP 187.49 RCA 151.13 APO 249.09 V2 22.052
RC 332.344 GL -38.40 GP 34.67 ZAL 107.10 ZAP 61.68 ETS 203.74 ZAE 81.75 ETE 187.22 ZAC 122.55 ETC 286.88 LVI -56.92

PLANETOCENTRIC CONIC

C3 22.319 VHL 4.724 DLA -18.91 RAL 59.37 RAD 6643.9 VEL 11.929 PTH 6.93 VHP 2.979 DPA 36.37 RAP 358.24 ECC 1.3673

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 25 12	2777.80	-20.94	78.91	278.08	133.75	17 11 30	1777.8	-2.92	62.37
60.00	17 27 2	2613.35	-15.82	68.73	282.71	127.56	18 10 35	1613.3	.05	50.41
70.00	18 45 13	2383.52	-10.93	53.61	286.23	122.56	19 24 56	1383.5	2.95	33.97
80.00	20 18 40	2091.02	-7.11	33.72	288.54	119.08	20 53 31	1091.0	5.26	13.20
90.00	21 51 43	1790.88	-5.58	12.48	289.38	117.77	22 21 34	790.9	6.19	351.64
100.00	23 1 32	1565.49	-7.11	355.09	288.54	119.08	23 27 38	565.5	5.26	334.57
110.00	23 44 39	1430.34	-10.93	342.53	286.23	122.56	24 8 30	430.3	2.95	322.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.4912 TRA 4.0396 TC3-6.9050 BAU 2.1744 SGT 8860.7 SGR 3436.1 SG3 1338.1 ST 170.2 SR 59.9 SS 55.8
RDE .7743 RRA-1.9237 RC3 2.3292 FAU .29304 RRT -.9842 RRF -.9943 RTF .9801 CRT -.9816 CRS .9825 CST -.9292
FDE-2.3310 FRA 8.4333 FC-11.3669 BSP 16550 SGB 9503.7 R23 .1451 R13 -.9837 LSA 187.5 MSA 21.6 SSA .6
BDE 2.6088 BRA 4.4742 BC3 7.2873 FSP 2377 SG1 9486.7 SG2 567.6 THA 159.03 EL1 180.1 EL2 10.8 ALF 160.88

LAUNCH DATE JUL 23 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 4 1974

HELIOCENTRIC CONIC DISTANCE 693.756 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.918 GAL -2.73 AZL 94.92 HCA 202.06 SMA 200.20 ECC .24527 INC 4.9239 V1 29.314
RP 248.50 LAP 1.85 LOP 141.99 VP 20.130 GAP -2.62 AZP 85.44 TAL 346.05 TAP 188.11 RCA 151.10 APO 249.31 V2 22.043
RC 334.376 GL -37.14 GP 33.47 ZAL 107.69 ZAP 60.60 ETS 203.70 ZAE 80.67 ETE 187.66 ZAC 121.38 ETC 286.66 LVI -55.74

PLANETOCENTRIC CONIC

C3 21.849 VHL 4.674 DLA -17.61 RAL 59.33 RAD 6643.7 VEL 11.910 PTH 6.92 VHP 2.956 DPA 35.36 RAP 359.04 ECC 1.3596

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 19 33	2799.68	-21.97	79.98	277.82	133.33	17 6 12	1799.7	-4.02	63.29
60.00	17 19 32	2640.13	-16.93	70.13	282.34	127.14	18 3 33	1640.1	-1.13	51.69
70.00	18 35 23	2417.16	-12.16	55.45	285.75	122.16	19 15 40	1417.2	1.67	35.73
80.00	20 6 19	2132.58	-8.47	36.04	287.95	118.74	20 41 51	1132.6	3.87	15.50
90.00	21 38 4	1836.58	-7.02	15.06	288.73	117.46	22 8 41	836.6	4.74	354.21
100.00	22 49 11	1607.05	-8.47	357.41	287.95	118.74	23 15 58	607.1	3.87	336.86
110.00	23 34 50	1463.98	-12.16	344.37	285.75	122.16	23 59 14	464.0	1.67	324.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.4080 TRA 4.0858 TC3-7.1593 BAU 2.1936 SGT 9006.6 SGR 3299.1 SG3 1362.7 ST 167.6 SR 56.6 SS 54.4
RDE .7176 RRA-1.8433 RC3 2.2669 FAU .29666 RRT -.9839 RRF -.9936 RTF .9800 CRT -.9822 CRS .9780 CST -.9216
FDE-2.1809 FRA 8.5475 FC-11.7546 BSP 16727 SGB 9591.8 R23 .1439 R13 -.9832 LSA 183.8 MSA 21.8 SSA .7
BDE 2.5126 BRA 4.4824 BC3 7.5096 FSP 2421 SG1 9575.8 SG2 554.1 THA 160.11 EL1 176.6 EL2 10.1 ALF 161.58

LAUNCH DATE JUL 23 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 8 1974

HELIOCENTRIC CONIC DISTANCE 697.493 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.922 GAL -2.79 AZL 94.74 HCA 202.94 SMA 200.29 ECC .24579 INC 4.7413 V1 29.314
RP 248.59 LAP 1.85 LOP 142.87 VP 20.128 GAP -2.82 AZP 85.63 TAL 345.79 TAP 188.73 RCA 151.06 APO 249.53 V2 22.034
RC 336.377 GL -35.94 GP 32.33 ZAL 108.28 ZAP 59.55 ETS 203.65 ZAE 79.58 ETE 186.05 ZAC 120.26 ETC 286.46 LVI -54.61

PLANETOCENTRIC CONIC

C3 21.446 VHL 4.631 DLA -16.37 RAL 59.32 RAD 6643.5 VEL 11.893 PTH 6.90 VHP 2.937 DPA 34.40 RAP 359.80 ECC 1.3530

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 14 22	2820.86	-22.95	81.03	277.67	132.89	17 1 23	1820.9	-5.08	64.18
60.00	17 12 41	2665.82	-17.98	71.49	282.09	126.70	17 57 7	1665.8	-2.26	52.92
70.00	18 26 26	2449.00	-13.31	57.20	285.39	121.75	19 7 15	1449.0	.45	37.39
80.00	19 55 9	2171.31	-9.73	38.23	287.49	118.37	20 31 21	1171.3	2.56	17.63
90.00	21 25 50	1878.80	-8.34	17.46	288.24	117.12	21 57 9	878.8	3.39	356.58
100.00	22 38 1	1645.78	-9.73	359.60	287.49	118.37	23 5 27	645.8	2.56	339.00
110.00	23 25 52	1495.82	-13.31	346.12	285.39	121.75	23 50 48	495.8	.45	326.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.3294 TRA 4.1346 TC3-7.4048 BAU 2.2150 SGT 9152.6 SGR 3169.0 SG3 1382.1 ST 165.1 SR 53.7 SS 53.3
RDE .6684 RRA-1.7679 RC3 2.2026 FAU .29959 RRT -.9836 RRF -.9928 RTF .9799 CRT -.9831 CRS .9725 CST -.9139
FDE-2.0337 FRA 8.6390 FC-12.0937 BSP 16897 SGB 9685.7 R23 .1417 R13 -.9828 LSA 180.3 MSA 22.1 SSA .7
BDE 2.4234 BRA 4.4967 BC3 7.7255 FSP 2454 SG1 9670.6 SG2 540.8 THA 161.13 EL1 173.4 EL2 9.4 ALF 162.20

LAUNCH DATE JUL 23 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 8 1974

HELIOCENTRIC CONIC DISTANCE 701.228 EARTH TO MARS

RL 151.98 LAL -.00 LOL 300.00 VL 32.927 GAL -2.85 AZL 94.57 HCA 203.81 SMA 200.38 ECC .24632 INC 4.5715 V1 29.314
RP 248.67 LAP 1.84 LOP 143.75 VP 20.127 GAP -3.02 AZP 85.82 TAL 345.52 TAP 189.34 RCA 151.03 APO 249.75 V2 22.026
RC 338.347 GL -34.79 GP 31.24 ZAL 108.86 ZAP 58.54 ETS 203.58 ZAE 78.51 ETE 188.41 ZAC 119.18 ETC 286.28 LVI -53.53

PLANETOCENTRIC CONIC

C3 21.101 VHL 4.594 DLA -15.19 RAL 59.34 RAD 6643.3 VEL 11.879 PTH 6.89 VHP 2.923 DPA 33.50 RAP .54 ECC 1.3473

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 9 38	2841.45	-23.90	82.07	277.60	132.45	16 56 59	1841.4	-6.11	65.05
60.00	17 6 22	2690.53	-18.98	72.81	281.93	126.24	17 51 13	1690.5	-3.35	54.10
70.00	18 18 14	2479.29	-14.38	58.88	285.14	121.32	18 59 33	1479.3	-.71	38.97
80.00	19 45 0	2207.68	-10.90	40.30	287.17	117.97	20 21 48	1207.7	1.33	19.63
90.00	21 14 44	1918.19	-9.55	19.72	287.88	116.74	21 46 43	918.2	2.13	358.78
100.00	22 27 52	1682.15	-10.90	1.66	287.17	117.97	22 55 54	682.2	1.33	340.99
110.00	23 17 40	1526.11	-14.38	347.80	285.14	121.32	23 43 6	526.1	-.71	327.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.2541 TRA 4.1850 TC3-7.6408 BAU 2.2381 SGT 9297.2 SGR 3044.1 SG3 1397.3 ST 162.7 SR 51.1 SS 52.1
RDE .6245 RRA-1.6967 RC3 2.1361 FAU .30175 RRT -.9832 RRF -.9919 RTF .9798 CRT -.9843 CRS .9658 CST -.9053
FDE-1.8833 FRA 8.7075 FC-12.3805 BSP 17063 SGB 9782.9 R23 .1391 R13 -.9824 LSA 176.9 MSA 22.3 SSA .8
BDE 2.3390 BRA 4.5159 BC3 7.9338 FSP 2478 SG1 9768.6 SG2 528.4 THA 162.10 EL1 170.3 EL2 8.6 ALF 162.78

LAUNCH DATE JUL 24 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 324.648 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 38.347 GAL -3.28 AZL 90.23 HCA 101.53 SMA 266.93 ECC .43370 INC .2250 V1 29.317
RP 217.98 LAP -.22 LOP 42.49 VP 26.841 GAP 23.57 AZP 89.95 TAL 349.24 TAP 90.77 RCA 151.16 APO 382.70 V2 25.208
RC 74.281 GL -1.27 GP -5.07 ZAL 107.17 ZAP 173.83 ETS 237.06 ZAE 166.46 ETE 339.87 ZAC 79.02 ETC 283.17 LVI -13.04

PLANETOCENTRIC CONIC

C3 39.113 VHL 6.254 DLA 16.01 RAL 46.04 RAD 6650.4 VEL 12.609 PTH 7.47 VHP 8.700 DPA 9.42 RAP 38.49 ECC 1.6437

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 14 41	3622.57	-47.46	139.69	295.61	93.86	14 15 4	2622.6	-40.43	107.30
60.00	13 36 2	3565.76	-40.30	134.93	295.96	90.20	14 35 27	2565.8	-35.81	104.77
70.00	14 7 20	3473.59	-34.06	127.29	295.79	87.32	15 5 14	2473.6	-31.60	98.83
80.00	14 55 48	3321.72	-29.52	115.43	295.45	85.34	15 51 10	2321.7	-28.46	88.06
90.00	16 8 18	3087.74	-27.80	98.07	295.28	84.59	16 59 45	2087.7	-27.25	71.07
100.00	17 38 40	2796.19	-29.52	76.80	295.45	85.34	18 25 16	1796.2	-28.46	49.43
110.00	19 6 47	2520.41	-34.06	56.21	295.79	87.32	19 48 47	1520.4	-31.60	27.75

DIFFERENTIAL CORRECTIONS

TDE -.3850 TRA-1.2972 TC3 .1689 BAU .0958
RDE -.6128 RRA .2463 RC3 -.0707 FAU .05292
FDE .3610 FRA 1.0316 FC3-1.1712 BSP 2009
BDE .7237 BRA 1.3204 BC3 .1831 FSP 193

MID-COURSE EXECUTION ACCURACY

SGT 1302.9 SGR 614.9 SG3 155.1
RRT -.1384 RRF .1583 RTF -.7019
SGB 1440.7 R23 -.0345 R13 .7038
SG1 1306.5 SG2 607.3 THA 175.23

ORBIT DETERMINATION ACCURACY

ST 25.6 SR 28.3 SS 16.7
CRT .5935 CRS .6539 CST .9929
LSA 37.4 MSA 18.3 SSA 1.2
EL1 34.1 EL2 17.1 ALF 49.80

LAUNCH DATE JUL 24 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 326.865 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 35.209 GAL -3.15 AZL 90.19 HCA 102.87 SMA 261.79 ECC .42245 INC .1885 V1 29.317
RP 218.35 LAP -.18 LOP 43.63 VP 26.621 GAP 23.20 AZP 89.96 TAL 349.37 TAP 92.04 RCA 151.19 APO 372.38 V2 25.168
RC 75.647 GL -1.09 GP -5.22 ZAL 106.93 ZAP 173.27 ETS 232.56 ZAE 165.69 ETE 339.99 ZAC 78.80 ETC 283.13 LVI -12.79

PLANETOCENTRIC CONIC

C3 37.268 VHL 6.105 DLA 16.12 RAL 45.75 RAD 6649.7 VEL 12.536 PTH 7.41 VHP 8.447 DPA 9.42 RAP 38.92 ECC 1.6133

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 13 4	3612.64	-47.41	138.73	294.21	94.59	14 13 17	2612.6	-40.11	106.56
60.00	13 34 16	3556.22	-40.30	134.11	294.67	90.75	14 33 32	2556.2	-35.59	104.06
70.00	14 5 24	3464.58	-34.09	126.59	294.57	87.74	15 3 8	2464.6	-31.45	98.17
80.00	14 53 41	3313.29	-29.57	114.81	294.26	85.66	15 48 54	2313.3	-28.36	87.45
90.00	16 6 5	3079.59	-27.85	97.48	294.10	84.89	16 57 24	2079.6	-27.18	70.49
100.00	17 36 32	2787.76	-29.57	76.18	294.26	85.66	18 23 0	1787.8	-28.36	48.82
110.00	19 4 50	2511.40	-34.09	55.51	294.57	87.74	19 46 41	1511.4	-31.45	27.09

DIFFERENTIAL CORRECTIONS

TDE -.3846 TRA-1.2910 TC3 .1922 BAU .1036
RDE -.5969 RRA .2457 RC3 -.0792 FAU .05497
FDE .3797 FRA 1.0661 FC3-1.2770 BSP 2069
BDE .7101 BRA 1.3142 BC3 .2079 FSP 208

MID-COURSE EXECUTION ACCURACY

SGT 1332.7 SGR 617.1 SG3 164.9
RRT -.1498 RRF .1708 RTF -.7109
SGB 1468.7 R23 -.0367 R13 .7129
SG1 1336.8 SG2 608.3 THA 174.99

ORBIT DETERMINATION ACCURACY

ST 26.1 SR 28.2 SS 17.4
CRT .5923 CRS .6580 CST .9924
LSA 38.0 MSA 18.5 SSA 1.3
EL1 34.4 EL2 17.3 ALF 48.71

LAUNCH DATE JUL 24 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 329.233 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 35.077 GAL -3.06 AZL 90.15 HCA 103.80 SMA 257.11 ECC .41181 INC .1518 V1 29.317
RP 218.71 LAP -.15 LOP 44.76 VP 26.409 GAP 22.84 AZP 89.96 TAL 349.51 TAP 93.31 RCA 151.23 APO 362.99 V2 25.127
RC 77.098 GL -.90 GP -5.37 ZAL 106.68 ZAP 172.67 ETS 228.77 ZAE 164.99 ETE 340.00 ZAC 78.58 ETC 283.10 LVI -12.54

PLANETOCENTRIC CONIC

C3 35.556 VHL 5.963 DLA 16.24 RAL 45.44 RAD 6649.1 VEL 12.468 PTH 7.36 VHP 8.202 DPA 9.40 RAP 39.34 ECC 1.5852

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 11 22	3603.14	-47.35	137.82	292.83	95.29	14 11 25	2603.1	-39.81	105.86
60.00	13 32 24	3547.13	-40.28	133.34	293.39	91.27	14 31 31	2547.1	-35.37	103.39
70.00	14 3 21	3456.04	-34.11	125.92	293.35	88.13	15 0 57	2456.0	-31.31	97.55
80.00	14 51 26	3305.35	-29.61	114.23	293.08	85.97	15 46 31	2305.3	-28.27	86.88
90.00	16 3 44	3071.96	-27.90	96.92	292.92	85.16	16 54 56	2072.0	-27.10	69.94
100.00	17 34 18	2779.82	-29.61	75.59	293.08	85.97	18 20 37	1779.8	-28.27	48.25
110.00	19 2 47	2502.86	-34.11	54.84	293.35	88.13	19 44 30	1502.9	-31.31	26.47

DIFFERENTIAL CORRECTIONS

TDE -.3852 TRA-1.2846 TC3 .2194 BAU .1125
RDE -.5813 RRA .2453 RC3 -.0886 FAU .05716
FDE .3999 FRA 1.1016 FC3-1.3919 BSP 2134
BDE .6973 BRA 1.3078 BC3 .2367 FSP 224

MID-COURSE EXECUTION ACCURACY

SGT 1363.2 SGR 619.2 SG3 179.3
RRT -.1617 RRF .1842 RTF -.7208
SGB 1497.2 R23 -.0390 R13 .7230
SG1 1367.8 SG2 609.0 THA 174.76

ORBIT DETERMINATION ACCURACY

ST 26.7 SR 28.2 SS 18.1
CRT .5920 CRS .6624 CST .9920
LSA 38.6 MSA 18.6 SSA 1.3
EL1 34.7 EL2 17.5 ALF 47.93

LAUNCH DATE JUL 24 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 331.732 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 34.953 GAL -2.96 AZL 90.12 HCA 104.93 SMA 252.84 ECC .40176 INC .1145 V1 29.317
RP 219.08 LAP -.11 LOP 45.89 VP 26.205 GAP 22.48 AZP 89.97 TAL 349.66 TAP 94.59 RCA 151.26 APO 354.43 V2 25.087
RC 78.631 GL -.69 GP -5.53 ZAL 106.41 ZAP 172.03 ETS 225.57 ZAE 164.33 ETE 339.92 ZAC 78.35 ETC 283.07 LVI -12.28

PLANETOCENTRIC CONIC

C3 33.967 VHL 5.828 DLA 16.36 RAL 45.11 RAD 6648.5 VEL 12.405 PTH 7.32 VHP 7.965 DPA 9.38 RAP 39.76 ECC 1.5590

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 9 34	3594.08	-47.29	136.95	291.47	95.96	14 9 28	2594.1	-39.51	105.19
60.00	13 30 26	3538.50	-40.27	132.61	292.13	91.77	14 29 25	2538.5	-35.16	102.75
70.00	14 1 11	3447.99	-34.12	125.30	292.15	88.50	14 58 39	2448.0	-31.17	96.96
80.00	14 49 4	3297.93	-29.64	113.68	291.90	86.25	15 44 2	2297.9	-28.18	86.35
90.00	16 1 16	3064.86	-27.94	96.41	291.76	85.42	16 52 21	2064.9	-27.03	69.44
100.00	17 31 56	2772.41	-29.64	75.05	291.90	86.25	18 18 8	1772.4	-28.18	47.72
110.00	19 0 37	2494.80	-34.12	54.21	292.15	88.50	19 42 12	1494.8	-31.17	25.88

DIFFERENTIAL CORRECTIONS

TDE -.3864 TRA-1.2783 TC3 .2474 BAU .1210
RDE -.5659 RRA .2451 RC3 -.0989 FAU .05946
FDE .4214 FRA 1.1379 FC3-1.5155 BSP 2199
BDE .6852 BRA 1.3015 BC3 .2664 FSP 241

MID-COURSE EXECUTION ACCURACY

SGT 1393.8 SGR 621.2 SG3 186.3
RRT -.1742 RRF .1985 RTF -.7298
SGB 1525.9 R23 -.0419 R13 .7322
SG1 1399.0 SG2 609.4 THA 174.52

ORBIT DETERMINATION ACCURACY

ST 27.3 SR 28.1 SS 18.7
CRT .5921 CRS .6668 CST .9916
LSA 39.2 MSA 18.7 SSA 1.3
EL1 35.0 EL2 17.7 ALF 46.30

LAUNCH DATE JUL 24 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 334.381 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	34.835	GAL	-2.87	AZL	90.08	HCA	106.06	SMA	248.94	ECC	.39225	INC	.0769	V1	29.317
RP	219.45	LAP	-.08	LOP	47.02	VP	26.008	GAP	22.12	AZP	89.98	TAL	349.81	TAP	95.87	RCA	151.29	APO	346.59	V2	25.046
RC	80.245	GL	-.48	GP	-5.70	ZAL	106.13	ZAP	171.36	ETS	222.86	ZAE	163.74	ETE	339.78	ZAC	78.11	ETC	283.04	LVI	-12.02

PLANETOCENTRIC CONIC

C3	32.491	VHL	5.700	DLA	16.48	RAL	44.77	RAD	6648.0	VEL	12.345	PTH	7.27	VHP	7.737	DPA	9.35	RAP	40.16	ECC	1.5347

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 7 40	3585.48	-47.23	136.13	290.14	96.59	14 7 26	2585.5	-39.22	104.57
60.00	13 28 23	3530.35	-40.25	131.91	290.89	92.24	14 27 13	2530.3	-34.96	102.15
70.00	13 58 55	3440.44	-34.14	124.71	290.96	88.85	14 56 16	2440.4	-31.04	98.41
80.00	14 46 35	3291.06	-29.67	113.17	290.75	86.52	15 41 26	2291.1	-28.10	85.85
90.00	15 58 41	3058.33	-27.97	95.93	290.61	85.65	16 49 40	2058.3	-26.96	68.97
100.00	17 29 27	2765.54	-29.67	74.54	290.75	86.52	18 15 33	1765.5	-28.10	47.22
110.00	18 58 22	2487.26	-34.14	53.62	290.96	88.85	19 39 49	1487.3	-31.04	25.33

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3879	TRA	-1.2710	TC3	.2776	BAU	.1297	SGT	1423.8	SGR	623.1	SG3	198.0			ST	27.9	SR	27.9	SS	19.5
RDE	-.5508	RRA	.2452	RC3	-.1101	FAU	.06189	RRT	-.1875	RRF	.2139	RTF	-.7387			CRT	.5926	CRS	.6712	CST	.9912
FDE	.4442	FRA	1.1750	FC3	-1.6491	BSP	2259	SGB	1554.2	R23	-.0451	R13	.7413			LSA	39.8	MSA	18.8	SSA	1.3
BDE	.6736	BRA	1.2944	BC3	.2986	FSP	259	SG1	1429.6	SG2	609.6	THA	174.26			EL1	35.3	EL2	17.8	ALF	45.05

LAUNCH DATE JUL 24 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 337.074 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	34.723	GAL	-2.77	AZL	90.04	HCA	107.19	SMA	245.36	ECC	.38326	INC	.0383	V1	29.317
RP	219.62	LAP	-.04	LOP	48.14	VP	25.819	GAP	21.77	AZP	89.99	TAL	349.97	TAP	97.16	RCA	151.33	APO	339.40	V2	25.005
RC	81.936	GL	-.25	GP	-5.87	ZAL	105.84	ZAP	170.66	ETS	220.54	ZAE	163.20	ETE	339.51	ZAC	77.87	ETC	283.01	LVI	-11.75

PLANETOCENTRIC CONIC

C3	31.119	VHL	5.578	DLA	16.62	RAL	44.41	RAD	6647.4	VEL	12.290	PTH	7.23	VHP	7.516	DPA	9.30	RAP	40.56	ECC	1.5121

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 5 41	3577.36	-47.16	135.36	288.84	97.18	14 5 19	2577.4	-38.95	103.98
60.00	13 26 13	3522.69	-40.23	131.26	289.66	92.68	14 24 56	2522.7	-34.77	101.59
70.00	13 56 33	3433.43	-34.15	124.16	289.79	89.17	14 53 46	2433.4	-30.91	95.90
80.00	14 43 59	3284.76	-29.70	112.70	289.60	86.76	15 38 44	2284.8	-28.02	85.40
90.00	15 55 59	3052.39	-28.00	95.50	289.48	85.86	16 46 51	2052.4	-26.90	68.55
100.00	17 26 51	2759.24	-29.70	74.07	289.60	86.76	18 12 50	1759.2	-28.02	46.77
110.00	18 55 59	2480.25	-34.15	53.08	289.79	89.17	19 37 19	1480.3	-30.91	24.82

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3892	TRA	-1.2637	TC3	.3086	BAU	.1381	SGT	1453.6	SGR	625.1	SG3	210.3			ST	28.5	SR	27.8	SS	20.2
RDE	-.5358	RRA	.2455	RC3	-.1223	FAU	.06444	RRT	-.2019	RRF	.2303	RTF	-.7470			CRT	.5927	CRS	.6755	CST	.9907
FDE	.4684	FRA	1.2135	FC3	-1.7926	BSP	2320	SGB	1582.3	R23	-.0483	R13	.7498			LSA	40.5	MSA	18.8	SSA	1.4
BDE	.6622	BRA	1.2873	BC3	.3320	FSP	278	SG1	1460.2	SG2	609.5	THA	173.99			EL1	35.5	EL2	18.0	ALF	43.79

LAUNCH DATE JUL 24 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 339.893 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	34.617	GAL	-2.68	AZL	90.00	HCA	108.30	SMA	242.07	ECC	.37475	INC	.0000	V1	29.317
RP	220.19	LAP	-.00	LOP	49.26	VP	25.636	GAP	21.42	AZP	90.00	TAL	350.14	TAP	98.44	RCA	151.36	APO	332.79	V2	24.964
RC	83.701	GL	-.02	GP	-6.05	ZAL	105.54	ZAP	169.94	ETS	218.56	ZAE	162.73	ETE	339.19	ZAC	77.63	ETC	282.99	LVI	-11.48

PLANETOCENTRIC CONIC

C3	29.842	VHL	5.463	DLA	16.75	RAL	44.03	RAD	6646.9	VEL	12.238	PTH	7.19	VHP	7.302	DPA	9.25	RAP	40.96	ECC	1.4911

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 3 37	3569.70	-47.09	134.63	287.56	97.74	14 3 7	2569.7	-38.69	103.44
60.00	13 23 58	3515.53	-40.20	130.66	288.46	93.09	14 22 34	2515.5	-34.58	101.07
70.00	13 54 4	3426.94	-34.15	123.65	288.63	89.47	14 51 11	2426.9	-30.80	95.44
80.00	14 41 16	3279.02	-29.72	112.28	288.47	86.99	15 35 55	2279.0	-27.94	84.99
90.00	15 53 8	3047.02	-28.03	95.11	288.35	86.06	16 43 55	2047.0	-26.84	68.17
100.00	17 24 8	2753.49	-29.72	73.64	288.47	86.99	18 10 1	1753.5	-27.94	46.36
110.00	18 53 30	2473.76	-34.15	52.57	288.63	89.47	19 34 44	1473.8	-30.80	24.35

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3808	TRA	-1.2460	TC3	.3549	BAU	.1515	SGT	1473.9	SGR	627.0	SG3	223.2			ST	28.6	SR	27.6	SS	21.1
RDE	-.5208	RRA	.2464	RC3	-.1353	FAU	.06696	RRT	-.2245	RRF	.2468	RTF	-.7644			CRT	.5855	CRS	.6813	CST	.9889
FDE	.4982	FRA	1.2565	FC3	-1.9426	BSP	2259	SGB	1601.7	R23	-.0411	R13	.7672			LSA	40.8	MSA	18.9	SSA	1.4
BDE	.6452	BRA	1.2701	BC3	.3799	FSP	303	SG1	1482.0	SG2	607.6	THA	173.44			EL1	35.4	EL2	18.1	ALF	43.28

LAUNCH DATE JUL 24 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 342.797 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	34.517	GAL	-2.60	AZL	89.96	HCA	109.42	SMA	239.05	ECC	.36670	INC	.0305	V1	29.317
RP	220.57	LAP	.03	LOP	50.38	VP	25.460	GAP	21.07	AZP	90.01	TAL	350.31	TAP	99.73	RCA	151.39	APO	326.70	V2	24.923
RC	85.536	GL	.23	GP	-6.24	ZAL	105.22	ZAP	169.20	ETS	216.85	ZAE	162.31	ETE	338.80	ZAC	77.37	ETC	282.96	LVI	-11.21

PLANETOCENTRIC CONIC

C3	28.656	VHL	5.353	DLA	16.90	RAL	43.65	RAD	6646.5	VEL	12.190	PTH	7.15	VHP	7.095	DPA	9.18	RAP	41.34	ECC	1.4716

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 1 29	3562.57	-47.03	133.95	286.32	98.25	14 0 51	2562.6	-38.44	102.93
60.00	13 21 38	3508.93	-40.18	130.10	287.29	93.47	14 20 7	2508.9	-34.41	100.60
70.00	13 51 29	3421.06	-34.15	123.19	287.50	89.75	14 48 30	2421.1	-30.69	95.01
80.00	14 38 25	3273.94	-29.74	111.90	287.36	87.18	15 32 59	2273.9	-27.88	84.63
90.00	15 50 10	3042.34	-28.05	94.77	287.25	86.23	16 40 53	2042.3	-26.79	67.83
100.00	17 21 17	2748.41	-29.74	73.27	287.36	87.18	18 7 6	1748.4	-27.88	46.00
110.00	18 50 55	2467.88	-34.15	52.11	287.50	89.75	19 32 3	1467.9	-30.69	23.93

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3862	TRA	-1.2416	TC3	.3843	BAU	.1580	SGT	1506.4	SGR	629.2	SG3	237.0			ST	29.4	SR	27.4	SS	21.9
RDE	-.5064	RRA	.2470	RC3	-.1500	FAU	.06987	RRT	-.2383	RRF	.2660	RTF	-.7683			CRT	.5885	CRS	.6850	CST	.9868
FDE	.5244	FRA	1.2953	FC3	-2.1109	BSP	2367	SGB	1632.5	R23	-.0487	R13	.7715			LSA	41.6	MSA	18.9	SSA	1.4
BDE	.6368	BRA	1.2660	BC3	.4125	FSP	323	SG1	1515.3	SG2	607.5	THA	173.22			EL1	35.8	EL2	18.2	ALF	41.69

LAUNCH DATE JUL 24 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 345.779 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	34.422	GAL	-2.51	AZL	89.93	HCA	110.53	SMA	236.25	ECC	.38908	INC	.0720	V1	29.317
RP	220.95	LAP	.07	LOP	51.49	VP	25.290	GAP	20.73	AZP	90.03	TAL	350.48	TAP	101.01	RCA	151.42	APO	321.08	V2	24.682
RC	87.440	GL	.48	GP	-6.44	ZAL	104.90	ZAP	168.44	ETS	215.36	ZAE	161.95	ETE	338.33	ZAC	77.12	ETC	282.93	LVI	-10.92

PLANETOCENTRIC CONIC

C3 27.553 VHL 5.249 DLA 17.05 RAL 43.25 RAD 6646.0 VEL 12.145 PTH 7.11 VHP 6.896 DPA 9.10 RAP 41.71 ECC 1.4535

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 59 15	3555.95	-46.96	133.33	285.10	98.73	13 58 31	2556.0	-38.21	102.46
60.00	13 19 12	3502.86	-40.15	129.58	286.14	93.82	14 17 35	2502.9	-34.25	100.16
70.00	13 48 47	3415.75	-34.15	122.78	286.39	89.99	14 45 43	2415.8	-30.59	94.63
80.00	14 35 28	3269.48	-29.75	111.57	286.27	87.36	15 29 57	2269.5	-27.82	84.31
90.00	15 47 4	3038.32	-28.07	94.48	286.16	86.37	16 37 43	2038.3	-26.74	67.55
100.00	17 18 19	2743.95	-29.75	72.94	286.27	87.36	18 4 3	1744.0	-27.82	45.68
110.00	18 48 14	2462.57	-34.15	51.70	286.39	89.99	19 29 16	1462.6	-30.59	23.55

DIFFERENTIAL CORRECTIONS

TDE	-.3905	TRA	-1.2357	TC3	.4163	BAU	.1651												
RDE	-.4921	RRA	.2480	RC3	-.1658	FAU	.07291												
FDE	.5529	FRA	1.3352	FC3	-2.2910	BSP	2456												
BDE	.6282	BRA	1.2603	BC3	.4481	FSP	344												

MID-COURSE EXECUTION ACCURACY

SGT	1537.2	SGR	631.6	SG3	251.5						
RRT	-.2539	RRF	.2862	RTF	-.7731						
SGB	1661.9	R23	-.0554	R13	.7767						
SG1	1547.1	SG2	607.0	THA	172.95						

ORBIT DETERMINATION ACCURACY

ST	30.0	SR	27.2	SS	22.7		
CRT	.5905	CRS	.6886	CST	.9865		
LSA	42.4	MSA	18.9	SSA	1.4		
EL1	36.2	EL2	18.2	ALF	40.20		

LAUNCH DATE JUL 24 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 348.830 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	34.331	GAL	-2.43	AZL	89.89	HCA	111.64	SMA	233.67	ECC	.35187	INC	.1117	V1	29.317
RP	221.33	LAP	.10	LOP	52.60	VP	25.126	GAP	20.39	AZP	90.04	TAL	350.66	TAP	102.30	RCA	151.44	APO	315.89	V2	24.840
RC	89.407	GL	.75	GP	-6.65	ZAL	104.57	ZAP	167.67	ETS	214.06	ZAE	161.65	ETE	337.79	ZAC	76.85	ETC	282.91	LVI	-10.64

PLANETOCENTRIC CONIC

C3 26.526 VHL 5.150 DLA 17.21 RAL 42.84 RAD 6645.6 VEL 12.103 PTH 7.08 VHP 6.703 DPA 9.00 RAP 42.08 ECC 1.4366

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 56 57	3549.85	-46.89	132.75	283.93	99.17	13 56 7	2549.9	-38.00	102.04
60.00	13 16 40	3497.35	-40.12	129.12	285.01	94.13	14 14 58	2497.3	-34.11	99.77
70.00	13 45 59	3411.04	-34.15	122.41	285.30	90.21	14 42 50	2411.0	-30.50	94.29
80.00	14 32 22	3265.67	-29.76	111.29	285.19	87.50	15 26 48	2265.7	-27.77	84.04
90.00	15 43 51	3034.97	-28.08	94.23	285.09	86.50	16 34 26	2035.0	-26.70	67.31
100.00	17 15 14	2740.14	-29.76	72.66	285.19	87.50	18 0 54	1740.1	-27.77	45.41
110.00	18 45 26	2457.86	-34.15	51.33	285.30	90.21	19 26 24	1457.9	-30.50	23.21

DIFFERENTIAL CORRECTIONS

TDE	-.3946	TRA	-1.2285	TC3	.4502	BAU	.1723												
RDE	-.4778	RRA	.2492	RC3	-.1830	FAU	.07608												
FDE	.5843	FRA	1.3766	FC3	-2.4831	BSP	2540												
BDE	.6197	BRA	1.2535	BC3	.4659	FSP	369												

MID-COURSE EXECUTION ACCURACY

SGT	1566.7	SGR	634.3	SG3	266.8						
RRT	-.2709	RRF	.3073	RTF	-.7783						
SGB	1690.3	R23	-.0615	R13	.7823						
SG1	1577.8	SG2	606.3	THA	172.65						

ORBIT DETERMINATION ACCURACY

ST	30.7	SR	26.9	SS	23.5		
CRT	.5922	CRS	.6930	CST	.9881		
LSA	43.2	MSA	18.8	SSA	1.8		
EL1	36.5	EL2	18.2	ALF	38.74		

LAUNCH DATE JUL 24 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 351.945 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	34.246	GAL	-2.35	AZL	89.85	HCA	112.74	SMA	231.27	ECC	.34505	INC	.1515	V1	29.317
RP	221.71	LAP	.14	LOP	53.70	VP	24.967	GAP	20.05	AZP	90.06	TAL	350.84	TAP	103.59	RCA	151.47	APO	311.07	V2	24.799
RC	91.436	GL	1.03	GP	-6.87	ZAL	104.24	ZAP	166.87	ETS	212.93	ZAE	161.40	ETE	337.17	ZAC	76.58	ETC	282.89	LVI	-10.34

PLANETOCENTRIC CONIC

C3 25.570 VHL 5.057 DLA 17.38 RAL 42.42 RAD 6645.2 VEL 12.064 PTH 7.05 VHP 6.516 DPA 8.90 RAP 42.43 ECC 1.4208

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 54 34	3544.28	-46.83	132.23	282.78	99.57	13 53 38	2544.3	-37.80	101.65
60.00	13 14 3	3492.39	-40.10	128.70	283.92	94.42	14 12 16	2492.4	-33.98	99.41
70.00	13 43 5	3406.94	-34.15	122.09	284.23	90.40	14 39 52	2406.9	-30.42	94.00
80.00	14 29 10	3262.53	-29.77	111.05	284.14	87.63	15 23 32	2262.5	-27.72	83.82
90.00	15 40 29	3032.31	-28.09	94.04	284.05	86.59	16 31 1	2032.3	-26.67	67.12
100.00	17 12 2	2737.00	-29.77	72.42	284.14	87.63	17 57 39	1737.0	-27.72	45.18
110.00	18 42 31	2453.76	-34.15	51.01	284.23	90.40	19 23 25	1453.8	-30.42	22.92

DIFFERENTIAL CORRECTIONS

TDE	-.3981	TRA	-1.2199	TC3	.4669	BAU	.1601												
RDE	-.4636	RRA	.2506	RC3	-.2016	FAU	.07943												
FDE	.6184	FRA	1.4191	FC3	-2.6894	BSP	2610												
BDE	.6111	BRA	1.2454	BC3	.5270	FSP	394												

MID-COURSE EXECUTION ACCURACY

SGT	1594.9	SGR	637.2	SG3	283.0						
RRT	-.2896	RRF	.3295	RTF	-.[illegible]40						
SGB	1717.5	R23	-.0670	R13	.7885						
SG1	1607.4	SG2	605.2	THA	172.30						

ORBIT DETERMINATION ACCURACY

ST	31.3	SR	26.6	SS	24.4		
CRT	.5933	CRS	.6973	CST	.9875		
LSA	44.0	MSA	18.7	SSA	1.5		
EL1	36.9	EL2	18.2	ALF	37.34		

LAUNCH DATE JUL 24 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 355.117 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	34.164	GAL	-2.27	AZL	89.81	HCA	113.85	SMA	229.05	ECC	.33858	INC	.1914	V1	29.317
RP	222.09	LAP	.18	LOP	54.80	VP	24.814	GAP	19.72	AZP	90.08	TAL	351.03	TAP	104.87	RCA	151.50	APO	306.60	V2	24.757
RC	93.523	GL	1.32	GP	-7.09	ZAL	103.90	ZAP	166.06	ETS	211.93	ZAE	161.21	ETE	336.48	ZAC	76.31	ETC	282.87	LVI	-10.05

PLANETOCENTRIC CONIC

C3 24.680 VHL 4.968 DLA 17.56 RAL 41.99 RAD 6644.9 VEL 12.027 PTH 7.02 VHP 6.335 DPA 8.77 RAP 42.78 ECC 1.4062

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 52 7	3539.25	-46.77	131.76	281.67	99.93	13 51 6	2539.2	-37.63	101.30
60.00	13 11 21	3488.02	-40.08	128.33	282.85	94.67	14 9 29	2488.0	-33.86	99.10
70.00	13 40 4	3403.46	-34.15	121.82	283.19	90.56	14 36 48	2403.5	-30.36	93.75
80.00	14 25 50	3260.08	-29.78	110.87	283.11	87.72	15 20 10	2260.1	-27.69	83.64
90.00	15 36 59	3030.39	-28.10	93.90	283.02	86.66	16 27 29	2030.4	-26.65	66.98
100.00	17 8 41	2734.55	-29.78	72.24	283.11	87.72	17 54 16	1734.5	-27.69	45.01
110.00	18 39 31	2450.28	-34.15	50.74	283.19	90.56	19 20 21	1450.3	-30.36	22.67

DIFFERENTIAL CORRECTIONS

TDE	-.4013	TRA	-1.2111	TC3	.5247	BAU	.1879												
RDE	-.4495	RRA	.2523	RC3	-.2217	FAU	.08297												
FDE	.6547	FRA	1.4632	FC3	-2.9104	BSP	2678												
BDE	.6026	BRA	1.2371	BC3	.5696	FSP	422												

MID-COURSE EXECUTION ACCURACY

SGT	1622.4	SGR	640.7	SG3	300.1						
RRT	-.3098	RRF	.3531	RTF	-.7896						
SGB	1744.4	R23	-.0726	R13	.7945						
SG1	1636.5	SG2	604.0	THA	171.92						

ORBIT DETERMINATION ACCURACY

ST	31.9	SR	26.3	SS	25.4		
CRT	.5938	CRS	.7012	CST	.9869		
LSA	44.8	MSA	18.6	SSA	1.5		
EL1	37.2	EL2	18.2	ALF	35.96		

LAUNCH DATE JUL 24 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 358.341 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	34.087	GAL	-2.19	AZL	89.77	HCA	114.94	SMA	226.99	ECC	.33246	INC	.2320	V1	29.317
RP	222.48	LAP	.21	LOP	55.90	VP	24.666	GAP	19.39	AZP	90.10	TAL	351.21	TAP	106.15	RCA	151.52	APO	302.45	V2	24.715
RC	95.665	GL	1.62	GP	-7.33	ZAL	103.56	ZAP	165.22	ETS	211.05	ZAE	161.06	ETE	335.68	ZAC	76.02	ETC	282.85	LVI	-9.74

PLANETOCENTRIC CONIC

C3	23.851	VHL	4.884	DLA	17.75	RAL	41.55	RAD	6644.5	VEL	11.993	PTH	6.99	VHP	6.160	DPA	8.64	RAP	43.11	ECC	1.3925

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 49 35	3534.76	-46.72	131.34	280.60	100.25	13 48 30	2534.8	-37.46	100.99
60.00	13 8 34	3484.22	-40.05	128.01	281.82	94.88	14 6 38	2484.2	-33.76	98.83
70.00	13 36 57	3400.63	-34.15	121.60	282.18	90.69	14 33 38	2400.6	-30.30	93.55
80.00	14 22 22	3258.33	-29.78	110.74	282.11	87.79	15 16 40	2258.3	-27.67	83.52
90.00	15 33 20	3029.20	-28.10	93.81	282.02	86.70	16 23 50	2029.2	-26.64	66.90
100.00	17 5 13	2732.80	-29.78	72.11	282.11	87.79	17 50 46	1732.8	-27.67	44.89
110.00	18 36 24	2447.45	-34.15	50.52	282.18	90.69	19 17 11	1447.4	-30.30	22.46

DIFFERENTIAL CORRECTIONS

TDE	-.4043	TRA	-1.2014	TC3	.5627	BAU	.1955												
RDE	-.4355	RRA	.2543	RC3	-.2434	FAU	.08663												
FDE	.6938	FRA	1.5086	FC3	-3.1444	BSP	2740												
BDE	.5942	BRA	1.2280	BC3	.6131	FSP	451												

MID-COURSE EXECUTION ACCURACY

SGT	1648.4	SGR	644.7	SG3	318.0						
RRT	-.3312	RRF	.3777	RTF	-.7951						
SGB	1770.0	R23	-.0781	R13	.8005						
SG1	1664.3	SG2	602.5	THA	171.50						

ORBIT DETERMINATION ACCURACY

ST	32.5	SR	26.0	SS	26.4						
CRT	.5938	CRS	.7048	CST	.9862						
LSA	45.6	MSA	18.5	SSA	1.6						
EL1	37.4	EL2	18.1	ALF	34.59						

LAUNCH DATE JUL 24 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 361.613 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	34.014	GAL	-2.12	AZL	89.73	HCA	116.03	SMA	225.07	ECC	.32666	INC	.2733	V1	29.317
RP	222.86	LAP	.25	LOP	56.99	VP	24.522	GAP	19.06	AZP	90.12	TAL	351.40	TAP	107.43	RCA	151.55	APO	298.59	V2	24.673
RC	97.860	GL	1.94	GP	-7.58	ZAL	103.21	ZAP	164.38	ETS	210.26	ZAE	160.96	ETE	334.80	ZAC	75.73	ETC	282.84	LVI	-9.43

PLANETOCENTRIC CONIC

C3	23.078	VHL	4.804	DLA	17.94	RAL	41.11	RAD	6644.2	VEL	11.961	PTH	6.96	VHP	5.991	DPA	8.48	RAP	43.43	ECC	1.3798

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 46 59	3530.82	-46.67	130.97	279.56	100.53	13 45 50	2530.8	-37.32	100.72
60.00	13 5 41	3481.02	-40.04	127.74	280.81	95.07	14 3 42	2481.0	-33.67	98.60
70.00	13 33 44	3398.45	-34.15	121.43	281.19	90.79	14 30 22	2398.4	-30.26	93.39
80.00	14 18 46	3257.31	-29.79	110.67	281.13	87.83	15 13 3	2257.3	-27.65	83.45
90.00	15 29 33	3028.79	-28.10	93.78	281.04	86.72	16 20 2	2028.8	-26.63	66.87
100.00	17 1 38	2731.79	-29.79	72.04	281.13	87.83	17 47 9	1731.8	-27.65	44.81
110.00	18 33 10	2445.26	-34.15	50.35	281.19	90.79	19 13 56	1445.3	-30.26	22.31

DIFFERENTIAL CORRECTIONS

TDE	-.4070	TRA	-1.1910	TC3	.6026	BAU	.2033												
RDE	-.4215	RRA	.2565	RC3	-.2669	FAU	.09054												
FDE	.7352	FRA	1.5541	FC3	-3.3964	BSP	2797												
BDE	.5859	BRA	1.2183	BC3	.6591	FSP	482												

MID-COURSE EXECUTION ACCURACY

SGT	1673.4	SGR	649.5	SG3	337.0						
RRT	-.3538	RRF	.4036	RTF	-.8004						
SGB	1795.0	R23	-.0838	R13	.8063						
SG1	1691.4	SG2	601.0	THA	171.04						

ORBIT DETERMINATION ACCURACY

ST	33.0	SR	25.6	SS	27.4						
CRT	.5933	CRS	.7081	CST	.9855						
LSA	46.5	MSA	18.3	SSA	1.6						
EL1	37.7	EL2	18.1	ALF	33.25						

LAUNCH DATE JUL 24 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 364.929 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.945	GAL	-2.04	AZL	89.68	HCA	117.12	SMA	223.28	ECC	.32117	INC	.3151	V1	29.317
RP	223.25	LAP	.28	LOP	58.08	VP	24.384	GAP	18.73	AZP	90.14	TAL	351.58	TAP	108.71	RCA	151.57	APO	295.00	V2	24.631
RC	100.104	GL	2.26	GP	-7.84	ZAL	102.86	ZAP	163.51	ETS	209.57	ZAE	160.91	ETE	333.84	ZAC	75.43	ETC	282.82	LVI	-9.11

PLANETOCENTRIC CONIC

C3	22.359	VHL	4.729	DLA	18.15	RAL	40.66	RAD	6643.9	VEL	11.931	PTH	6.94	VHP	5.827	DPA	8.31	RAP	43.74	ECC	1.3680

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 44 18	3527.44	-46.63	130.65	278.56	100.77	13 43 6	2527.4	-37.20	100.49
60.00	13 2 43	3478.42	-40.02	127.52	279.84	95.21	14 0 42	2478.4	-33.60	98.42
70.00	13 30 24	3396.93	-34.14	121.31	280.23	90.86	14 27 1	2396.9	-30.23	93.28
80.00	14 15 2	3257.05	-29.79	110.65	280.17	87.84	15 9 19	2257.0	-27.65	83.43
90.00	15 25 37	3029.17	-28.10	93.81	280.08	86.71	16 16 6	2029.2	-26.64	66.90
100.00	16 57 54	2731.52	-29.79	72.02	280.17	87.84	17 43 25	1731.5	-27.65	44.79
110.00	18 29 50	2443.75	-34.14	50.23	280.23	90.86	19 10 34	1443.8	-30.23	22.20

DIFFERENTIAL CORRECTIONS

TDE	-.4099	TRA	-1.1806	TC3	.6419	BAU	.2108												
RDE	-.4074	RRA	.2590	RC3	-.2922	FAU	.09462												
FDE	.7801	FRA	1.6020	FC3	-3.6637	BSP	2849												
BDE	.5779	BRA	1.2087	BC3	.7053	FSP	514												

MID-COURSE EXECUTION ACCURACY

SGT	1697.5	SGR	655.0	SG3	357.0						
RRT	-.3775	RRF	.4306	RTF	-.8953						
SGB	1819.5	R23	-.0899	R13	.8119						
SG1	1718.0	SG2	599.4	THA	170.55						

ORBIT DETERMINATION ACCURACY

ST	33.6	SR	25.2	SS	28.5						
CRT	.5923	CRS	.7110	CST	.9847						
LSA	47.3	MSA	18.2	SSA	1.6						
EL1	37.9	EL2	18.0	ALF	31.88						

LAUNCH DATE JUL 24 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 368.284 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.879	GAL	-1.97	AZL	89.64	HCA	118.21	SMA	221.62	ECC	.31597	INC	.3577	V1	29.317
RP	223.64	LAP	.32	LOP	59.17	VP	24.249	GAP	18.41	AZP	90.17	TAL	351.77	TAP	109.98	RCA	151.59	APO	291.64	V2	24.590
RC	102.397	GL	2.60	GP	-8.11	ZAL	102.51	ZAP	162.62	ETS	208.95	ZAE	160.90	ETE	332.76	ZAC	75.12	ETC	282.81	LVI	-8.79

PLANETOCENTRIC CONIC

C3	21.689	VHL	4.657	DLA	18.37	RAL	40.20	RAD	6643.6	VEL	11.903	PTH	6.91	VHP	5.669	DPA	8.13	RAP	44.04	ECC	1.3569

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 41 34	3524.63	-46.59	130.39	277.60	100.97	13 40 19	2524.6	-37.10	100.30
60.00	12 59 40	3476.43	-40.01	127.35	278.90	95.33	13 57 37	2476.4	-33.54	98.28
70.00	13 26 57	3396.10	-34.14	121.24	279.30	90.90	14 23 35	2396.1	-30.21	93.22
80.00	14 11 9	3257.55	-29.79	110.68	279.24	87.82	15 5 27	2257.5	-27.66	83.46
90.00	15 21 32	3030.37	-28.10	93.90	279.15	86.66	16 12 2	2030.4	-26.65	66.98
100.00	16 54 1	2732.02	-29.79	72.05	279.24	87.82	17 39 33	1732.0	-27.66	44.83
110.00	18 26 24	2442.92	-34.14	50.16	279.30	90.90	19 7 6	1442.9	-30.21	22.14

DIFFERENTIAL CORRECTIONS

TDE	-.4134	TRA	-1.1691	TC3	.6822	BAU	.2184												
RDE	-.3932	RRA	.2617	RC3	-.3194	FAU	.09888												
FDE	.8289	FRA	1.6502	FC3	-3.9470	BSP	2903												
BDE	.5705	BRA	1.1980	BC3	.7533	FSP	549												

MID-COURSE EXECUTION ACCURACY

SGT	1720.2	SGR	661.5	SG3	377.9						
RRT	-.4017	RRF	.4583	RTF	-.8103						
SGB	1843.0	R23	-.0960	R13	.8175						
SG1	1743.4	SG2	597.7	THA	170.04						

ORBIT DETERMINATION ACCURACY

ST	34.1	SR	24.7	SS	29.6						
CRT	.5915	CRS	.7136	CST	.9840						
LSA	48.2	MSA	18.0	SSA	1.6						
EL1	38.2	EL2	17.8	ALF	30.50						

LAUNCH DATE JUL 24 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 371.677 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.816	GAL	-1.91	AZL	89.60	HCA	119.29	SMA	220.87	ECC	.31105	INC	.4009	V1	29.317
RP	224.03	LAP	.35	LOP	60.25	VP	24.120	GAP	18.09	AZP	90.20	TAL	351.96	TAP	111.25	RCA	151.61	APO	288.52	V2	24.548
RC	104.735	GL	2.96	GP	-8.39	ZAL	102.16	ZAP	161.72	ETS	208.39	ZAE	160.92	ETE	331.89	ZAC	74.81	ETC	282.81	LVI	-8.46

PLANETOCENTRIC CONIC

C3	21.065	VHL	4.590	DLA	18.60	RAL	39.74	RAD	6643.3	VEL	11.877	PTH	6.89	VHP	5.516	DPA	7.92	RAP	44.33	ECC	1.3467

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 38 45	3522.40	-46.57	130.18	276.68	101.12	13 37 28	2522.4	-37.02	100.15
60.00	12 56 32	3475.07	-40.00	127.23	277.99	95.41	13 54 27	2475.1	-33.51	98.18
70.00	13 23 24	3395.96	-34.14	121.23	278.39	90.90	14 20 0	2396.0	-30.21	93.21
80.00	14 7 9	3258.84	-29.78	110.78	278.33	87.97	15 1 28	2258.8	-27.67	83.55
90.00	15 17 17	3032.41	-28.09	94.05	278.24	86.59	16 7 50	2032.4	-26.68	67.13
100.00	16 50 1	2733.31	-29.78	72.15	278.33	87.77	17 35 34	1733.3	-27.67	44.92
110.00	18 22 50	2442.78	-34.14	50.15	278.39	90.80	19 3 33	1442.8	-30.21	22.13

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4161	TRA	-1.1576	TC3	.7219	BAU	.2258	SGT	1741.7	SGR	669.2	SG3	400.0	ST	34.6	SR	24.2	SS	30.8
RDE	-.3790	RRA	.2646	RC3	-.3487	FAU	.10338	RRT	-.4271	RRF	.4871	RTF	-.8146	CRT	.5892	CRS	.7157	CST	.9832
FDE	.8801	FRA	1.6994	FC3	-4.2488	BSP	2954	SGB	1865.9	R23	-.1026	R13	.8226	LSA	49.2	MSA	17.8	SSA	1.7
BDE	.5628	BRA	1.1875	BC3	.8017	FSP	585	SG1	1768.1	SG2	596.0	THA	168.47	EL1	38.4	EL2	17.7	ALF	29.13

LAUNCH DATE JUL 24 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 375.102 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.757	GAL	-1.84	AZL	89.55	HCA	120.37	SMA	218.61	ECC	.30638	INC	.4447	V1	29.317
RP	224.42	LAP	.38	LOP	61.33	VP	23.994	GAP	17.78	AZP	90.22	TAL	352.14	TAP	112.51	RCA	151.63	APO	285.59	V2	24.506
RC	107.119	GL	3.32	GP	-8.69	ZAL	101.81	ZAP	160.80	ETS	207.90	ZAE	160.99	ETE	330.29	ZAC	74.48	ETC	282.80	LVI	-8.12

PLANETOCENTRIC CONIC

C3	20.484	VHL	4.526	DLA	18.84	RAL	39.28	RAD	6643.1	VEL	11.853	PTH	6.87	VHP	5.368	DPA	7.70	RAP	44.60	ECC	1.3371

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 35 53	3520.74	-46.54	130.03	275.80	101.24	13 34 33	2520.7	-36.96	100.03
60.00	12 53 18	3474.34	-39.99	127.17	277.12	95.45	13 51 12	2474.3	-33.49	98.13
70.00	13 19 43	3396.54	-34.14	121.28	277.52	90.88	14 16 20	2396.5	-30.22	93.26
80.00	14 2 59	3260.95	-29.78	110.94	277.46	87.69	14 57 20	2260.9	-27.70	83.70
90.00	15 12 53	3035.33	-28.08	94.26	277.36	86.48	16 3 26	2035.3	-26.71	67.35
100.00	16 45 51	2735.42	-29.78	72.30	277.46	87.69	17 31 26	1735.4	-27.70	45.07
110.00	18 19 10	2443.36	-34.14	50.20	277.52	90.88	18 59 53	1443.4	-30.22	22.17

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4196	TRA	-1.1451	TC3	.7610	BAU	.2330	SGT	1761.5	SGR	678.0	SG3	423.1	ST	35.1	SR	23.7	SS	32.1
RDE	-.3645	RRA	.2678	RC3	-.3801	FAU	.10808	RRT	-.4527	RRF	.5163	RTF	-.8187	CRT	.5871	CRS	.7173	CST	.9824
FDE	.9360	FRA	1.7493	FC3	-4.5681	BSP	3005	SGB	1887.5	R23	-.1097	R13	.8276	LSA	50.1	MSA	17.5	SSA	1.7
BDE	.5558	BRA	1.1760	BC3	.8507	FSP	624	SG1	1791.4	SG2	594.5	THA	168.87	EL1	38.6	EL2	17.5	ALF	27.73

LAUNCH DATE JUL 24 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 378.558 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.701	GAL	-1.78	AZL	89.51	HCA	121.44	SMA	217.26	ECC	.30197	INC	.4895	V1	29.317
RP	224.81	LAP	.42	LOP	62.40	VP	23.872	GAP	17.47	AZP	90.26	TAL	352.32	TAP	113.77	RCA	151.65	APO	282.86	V2	24.464
RC	109.544	GL	3.70	GP	-9.00	ZAL	101.47	ZAP	159.86	ETS	207.45	ZAE	161.08	ETE	328.87	ZAC	74.14	ETC	282.80	LVI	-7.78

PLANETOCENTRIC CONIC

C3	19.943	VHL	4.466	DLA	19.09	RAL	38.81	RAD	6642.8	VEL	11.830	PTH	6.88	VHP	5.225	DPA	7.46	RAP	44.86	ECC	1.3282

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 56	3519.66	-46.53	129.93	274.96	101.32	13 31 36	2519.7	-36.92	99.96
60.00	12 49 59	3474.24	-39.99	127.16	276.28	95.45	13 47 54	2474.2	-33.48	98.12
70.00	13 15 56	3397.84	-34.15	121.38	276.68	90.82	14 12 34	2397.8	-30.25	93.35
80.00	13 58 40	3263.89	-29.77	111.16	276.61	87.57	14 53 4	2263.9	-27.74	83.91
90.00	15 8 17	3039.15	-28.06	94.54	276.50	86.34	15 58 56	2039.2	-26.75	67.61
100.00	16 41 32	2738.36	-29.77	72.52	276.61	87.57	17 27 10	1738.4	-27.74	45.28
110.00	18 15 22	2444.66	-34.15	50.30	276.68	90.82	18 56 7	1444.7	-30.25	22.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4229	TRA	-1.1333	TC3	.7990	BAU	.2399	SGT	1780.8	SGR	688.6	SG3	447.5	ST	35.6	SR	23.1	SS	33.4
RDE	-.3499	RRA	.2715	RC3	-.4140	FAU	.11303	RRT	-.4790	RRF	.5465	RTF	-.8225	CRT	.5835	CRS	.7175	CST	.9816
FDE	.9956	FRA	1.8023	FC3	-4.9068	BSP	3057	SGB	1909.3	R23	-.1174	R13	.8324	LSA	51.2	MSA	17.3	SSA	1.7
BDE	.5489	BRA	1.1653	BC3	.8999	FSP	666	SG1	1814.8	SG2	593.1	THA	168.23	EL1	38.8	EL2	17.2	ALF	26.30

LAUNCH DATE JUL 24 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 382.043 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.648	GAL	-1.72	AZL	89.46	HCA	122.51	SMA	215.99	ECC	.29779	INC	.5350	V1	29.317
RP	225.20	LAP	.45	LOP	63.47	VP	23.753	GAP	17.16	AZP	90.29	TAL	352.50	TAP	115.02	RCA	151.67	APO	280.31	V2	24.422
RC	112.011	GL	4.09	GP	-9.33	ZAL	101.13	ZAP	158.89	ETS	207.05	ZAE	161.19	ETE	327.31	ZAC	73.80	ETC	282.80	LVI	-7.42

PLANETOCENTRIC CONIC

C3	19.439	VHL	4.409	DLA	19.36	RAL	38.35	RAD	6642.6	VEL	11.809	PTH	6.83	VHP	5.087	DPA	7.19	RAP	45.10	ECC	1.3199

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 55	3519.18	-46.52	129.88	274.15	101.35	13 28 34	2519.2	-36.90	99.93
60.00	12 46 35	3474.80	-40.00	127.21	275.47	95.42	13 44 30	2474.8	-33.50	98.16
70.00	13 12 2	3399.89	-34.15	121.54	275.87	90.72	14 8 41	2399.9	-30.29	93.49
80.00	13 54 12	3267.71	-29.76	111.44	275.78	87.43	14 48 39	2267.7	-27.79	84.19
90.00	15 3 31	3043.92	-28.04	94.88	275.67	86.17	15 54 15	2043.9	-26.81	67.95
100.00	16 37 3	2742.18	-29.76	72.81	275.78	87.43	17 22 46	1742.2	-27.79	45.55
110.00	18 11 28	2446.71	-34.15	50.46	275.87	90.72	18 52 15	1446.7	-30.29	22.41

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4264	TRA	-1.1202	TC3	.8362	BAU	.2468	SGT	1797.7	SGR	700.6	SG3	472.9	ST	36.1	SR	22.5	SS	34.7
RDE	-.3351	RRA	.2752	RC3	-.4502	FAU	.11820	RRT	-.5052	RRF	.5766	RTF	-.8257	CRT	.5793	CRS	.7171	CST	.9808
FDE	1.0590	FRA	1.8537	FC3	-5.2641	BSP	3100	SGB	1929.4	R23	-.1257	R13	.8368	LSA	52.2	MSA	17.0	SSA	1.8
BDE	.5423	BRA	1.1535	BC3	.9496	FSP	708	SG1	1836.3	SG2	591.9	THA	167.55	EL1	39.0	EL2	17.0	ALF	24.87

LAUNCH DATE JUL 24 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 385.553 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.597	GAL	-1.66	AZL	89.42	HCA	123.58	SMA	214.80	ECC	.29363	INC	.5816	V1	29.317
RP	225.59	LAP	.48	LOP	64.54	VP	23.639	GAP	16.85	AZP	90.32	TAL	352.68	TAP	116.26	RCA	151.69	APO	277.92	V2	24.380
RC	114.516	GL	4.49	GP	-9.67	ZAL	100.79	ZAP	157.91	ETS	206.69	ZAE	161.33	ETE	325.60	ZAC	73.44	ETC	282.81	LVI	-7.06

PLANETOCENTRIC CONIC

C3	18.971	VHL	4.356	DLA	19.64	RAL	37.88	RAD	6642.4	VEL	11.789	PTH	6.81	VHP	4.953	DPA	6.91	RAP	45.33	ECC	1.3122

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 50	3519.29	-46.52	129.89	273.39	101.34	13 25 30	2519.3	-36.90	99.94
60.00	12 43 5	3476.03	-40.00	127.31	274.71	95.35	13 41 1	2476.0	-33.53	98.25
70.00	13 7 59	3402.70	-34.15	121.76	275.09	90.59	14 4 42	2402.7	-30.34	93.69
80.00	13 49 33	3272.42	-29.74	111.79	274.99	87.24	14 44 5	2272.4	-27.86	84.52
90.00	14 58 33	3049.66	-28.01	95.30	274.87	85.96	15 49 23	2049.7	-26.87	68.35
100.00	16 32 25	2746.89	-29.74	73.16	274.99	87.24	17 18 12	1746.9	-27.86	45.89
110.00	18 7 26	2449.52	-34.15	50.68	275.09	90.59	18 48 15	1449.5	-30.34	22.61

DIFFERENTIAL CORRECTIONS

TDE	-.4303	TRA	-1.1067	TC3	.8742	BAU	.2541	SGT	1813.7	SGR	714.7	SG3	499.9	ST	36.6	SR	21.8	SS	36.2
RDE	-.3198	RRA	.2792	RC3	-.4893	FAU	.12370	RRT	-.5318	RRF	.6070	RTF	-.8292	CRT	.5740	CRS	.7160	CST	.9800
FDE	1.1292	FRA	1.9065	FC3	-5.6451	BSP	3142	SGB	1949.5	R23	-.1338	R13	.8414	LSA	53.4	MSA	16.7	SSA	1.8
BDE	.5361	BRA	1.1414	BC3	1.0018	FSP	753	SG1	1857.7	SG2	590.9	THA	166.81	EL1	39.2	EL2	16.7	ALF	23.38

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE JUL 24 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 389.088 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.549	GAL	-1.60	AZL	89.37	HCA	124.64	SMA	213.69	ECC	.29007	INC	.6292	V1	29.317
RP	225.98	LAP	.52	LOP	65.60	VP	23.527	GAP	16.55	AZP	90.36	TAL	352.86	TAP	117.50	RCA	151.70	APO	275.67	V2	24.338
RC	117.057	GL	4.91	GP	-10.02	ZAL	100.45	ZAP	156.90	ETS	206.36	ZAE	161.49	ETE	323.72	ZAC	73.07	ETC	282.82	LVI	-6.69

PLANETOCENTRIC CONIC

C3	18.534	VHL	4.305	DLA	19.93	RAL	37.41	RAD	6642.2	VEL	11.771	PTH	6.80	VHP	4.824	DPA	6.60	RAP	45.54	ECC	1.3080

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 23 41	3519.98	-46.53	129.96	272.67	101.29	13 22 21	2520.0	-36.93	99.98
60.00	12 39 29	3477.89	-40.02	127.47	273.97	95.24	13 37 27	2477.9	-33.58	98.38
70.00	13 3 49	3406.25	-34.15	122.04	274.33	90.43	14 0 35	2406.3	-30.41	93.95
80.00	13 44 43	3278.02	-29.72	112.20	274.22	87.02	14 39 21	2278.0	-27.93	84.92
90.00	14 53 23	3056.39	-27.98	95.79	274.09	85.72	15 44 19	2056.4	-26.94	68.83
100.00	16 27 35	2752.49	-29.72	73.57	274.22	87.02	17 13 28	1752.5	-27.93	46.29
110.00	18 3 15	2453.07	-34.15	50.95	274.33	90.43	18 44 8	1453.1	-30.41	22.87

DIFFERENTIAL CORRECTIONS

TDE	-.4217	TRA	-1.0801	TC3	.9338	BAU	.2662	SGT	1816.4	SGR	730.9	SG3	527.8	ST	36.3	SR	21.1	SS	37.7
RDE	-.3044	RRA	.2834	RC3	-.5312	FAU	.12941	RRT	-.5677	RRF	.6371	RTF	-.8398	CRT	.5603	CRS	.7130	CST	.9777
FDE	1.2004	FRA	1.9580	FC3	-6.0447	BSP	3042	SGB	1958.0	R23	-.1274	R13	.8526	LSA	53.9	MSA	16.5	SSA	1.8
BDE	.5201	BRA	1.1167	BC3	1.0743	FSP	800	SG1	1868.6	SG2	584.9	THA	165.70	EL1	38.6	EL2	16.4	ALF	22.36

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE JUL 24 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 392.644 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.504	GAL	-1.55	AZL	89.32	HCA	125.70	SMA	212.65	ECC	.28652	INC	.6778	V1	29.317
RP	226.37	LAP	.55	LOP	66.66	VP	23.419	GAP	16.25	AZP	90.40	TAL	353.03	TAP	118.73	RCA	151.72	APO	273.58	V2	24.297
RC	119.633	GL	5.34	GP	-10.40	ZAL	100.13	ZAP	155.88	ETS	206.07	ZAE	161.66	ETE	321.69	ZAC	72.68	ETC	282.83	LVI	-6.30

PLANETOCENTRIC CONIC

C3	18.131	VHL	4.258	DLA	20.24	RAL	36.94	RAD	6642.0	VEL	11.754	PTH	6.78	VHP	4.699	DPA	6.28	RAP	45.74	ECC	1.2984

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 28	3521.33	-46.55	130.08	271.99	101.20	13 19 10	2521.3	-36.98	100.07
60.00	12 35 48	3480.48	-40.03	127.69	273.27	95.10	13 33 49	2480.5	-33.66	98.57
70.00	12 59 31	3410.66	-34.15	122.38	273.62	90.23	13 56 22	2410.7	-30.49	94.26
80.00	13 39 43	3284.65	-29.70	112.69	273.48	86.77	14 34 27	2284.6	-28.02	85.40
90.00	14 47 59	3064.24	-27.94	96.36	273.34	85.44	15 39 5	2064.2	-27.02	69.39
100.00	16 22 35	2759.12	-29.70	74.06	273.48	86.77	17 8 34	1759.1	-28.02	46.76
110.00	17 58 57	2457.48	-34.15	51.30	273.62	90.23	18 39 55	1457.5	-30.49	23.18

DIFFERENTIAL CORRECTIONS

TDE	-.4304	TRA	-1.0718	TC3	.9555	BAU	.2704	SGT	1833.2	SGR	749.4	SG3	557.2	ST	37.0	SR	20.4	SS	39.3
RDE	-.2883	RRA	.2883	RC3	-.5756	FAU	.13531	RRT	-.5894	RRF	.6668	RTF	-.8389	CRT	.5536	CRS	.7079	CST	.9775
FDE	1.2808	FRA	2.0151	FC3	-6.4611	BSP	3141	SGB	1980.4	R23	-.1431	R13	.8537	LSA	55.4	MSA	16.1	SSA	1.8
BDE	.5180	BRA	1.1099	BC3	1.1155	FSP	850	SG1	1891.5	SG2	586.8	THA	164.97	EL1	39.1	EL2	16.1	ALF	20.57

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE JUL 24 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 396.220 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.461	GAL	-1.50	AZL	89.27	HCA	126.76	SMA	211.67	ECC	.28317	INC	.7275	V1	29.317
RP	226.76	LAP	.58	LOP	67.72	VP	23.314	GAP	15.95	AZP	90.44	TAL	353.20	TAP	119.95	RCA	151.73	APO	271.61	V2	24.255
RC	122.240	GL	5.79	GP	-10.79	ZAL	99.81	ZAP	154.83	ETS	205.80	ZAE	161.83	ETE	319.47	ZAC	72.29	ETC	282.85	LVI	-5.91

PLANETOCENTRIC CONIC

C3	17.756	VHL	4.214	DLA	20.56	RAL	36.47	RAD	6641.8	VEL	11.738	PTH	6.77	VHP	4.579	DPA	5.93	RAP	45.93	ECC	1.2922

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 17 11	3523.29	-46.58	130.27	271.36	101.06	13 15 54	2523.3	-37.05	100.21
60.00	12 32 1	3483.77	-40.05	127.97	272.62	94.91	13 30 5	2483.8	-33.75	98.80
70.00	12 55 4	3415.89	-34.15	122.79	272.93	89.98	13 52 0	2415.9	-30.59	94.64
80.00	13 34 30	3292.28	-29.67	113.26	272.77	86.47	14 29 22	2292.3	-28.11	85.94
90.00	14 42 21	3073.23	-27.89	97.01	272.62	85.11	15 33 34	2073.2	-27.11	70.03
100.00	16 17 22	2766.75	-29.67	74.63	272.77	86.47	17 3 28	1766.8	-28.11	47.31
110.00	17 54 31	2462.71	-34.15	51.71	272.93	89.98	18 35 33	1462.7	-30.59	23.56

DIFFERENTIAL CORRECTIONS

TDE	-.4377	TRA	-1.0609	TC3	.9789	BAU	.2755	SGT	1846.2	SGR	770.5	SG3	588.0	ST	37.7	SR	19.6	SS	41.0
RDE	-.2716	RRA	.2933	RC3	-.6231	FAU	.14149	RRT	-.6114	RRF	.6957	RTF	-.8388	CRT	.5438	CRS	.7009	CST	.9771
FDE	1.3673	FRA	2.0714	FC3	-6.8988	BSP	3226	SGB	2000.5	R23	-.1572	R13	.8557	LSA	56.9	MSA	15.8	SSA	1.9
BDE	.5152	BRA	1.1007	BC3	1.1604	FSP	903	SG1	1911.9	SG2	588.7	THA	164.14	EL1	39.5	EL2	15.7	ALF	18.83

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE JUL 24 1973 FLIGHT TIME 160.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 399.815 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.420	GAL	-1.45	AZL	89.22	HCA	127.81	SMA	210.76	ECC	.27999	INC	.7785	V1	29.317
RP	227.15	LAP	.62	LOP	68.77	VP	23.213	GAP	15.65	AZP	90.48	TAL	353.36	TAP	121.17	RCA	151.75	APO	269.77	V2	24.214
RC	124.878	GL	6.25	GP	-11.20	ZAL	99.50	ZAP	153.76	ETS	205.55	ZAE	162.00	ETE	317.06	ZAC	71.88	ETC	282.87	LVI	-5.51

PLANETOCENTRIC CONIC

C3	17.408	VHL	4.172	DLA	20.90	RAL	36.01	RAD	6641.7	VEL	11.723	PTH	6.75	VHP	4.463	DPA	5.55	RAP	46.10	ECC	1.2865

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 13 49	3525.87	-46.61	130.51	270.77	100.88	13 12 35	2525.9	-37.14	100.38
60.00	12 28 8	3487.76	-40.07	128.31	272.00	94.68	13 26 16	2487.8	-33.85	99.08
70.00	12 50 28	3421.96	-34.15	123.26	272.28	89.70	13 47 30	2422.0	-30.70	95.08
80.00	13 29 4	3300.97	-29.63	113.90	272.09	86.14	14 24 5	2301.0	-28.22	86.57
90.00	14 36 27	3083.40	-27.83	97.75	271.92	84.75	15 27 51	2083.4	-27.21	70.76
100.00	16 11 56	2775.44	-29.63	75.27	272.09	86.14	16 58 11	1775.4	-28.22	47.93
110.00	17 49 55	2468.78	-34.15	52.18	272.28	89.70	18 31 4	1468.8	-30.70	23.99

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4424	TRA	-1.0477	TC3	1.0029	BAU	.2812	SGT	1855.1	SGR	794.5	SG3	619.9	ST	38.2	SR	18.7	SS	42.7
RDE	-.2546	RRA	.2987	RC3	-.6738	FAU	.14792	RRT	-.6340	RRF	.7238	RTF	-.8394	CRT	.5291	CRS	.6905	CST	.9765
FDE	1.4566	FRA	2.1285	FC3	-7.3563	BSP	3281	SGB	2018.0	R23	-.1695	R13	.8586	LSA	58.2	MSA	15.5	SSA	1.9
BDE	.5104	BRA	1.0895	BC3	1.2082	FSP	958	SG1	1929.7	SG2	590.7	THA	163.19	EL1	39.7	EL2	15.3	ALF	17.15

LAUNCH DATE JUL 24 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 403.426 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.381	GAL	-1.40	AZL	89.17	HCA	128.86	SMA	209.90	ECC	.27698	INC	.8307	V1	29.317
RP	227.54	LAP	.65	LOP	69.82	VP	23.114	GAP	15.36	AZP	90.52	TAL	353.52	TAP	122.37	RCA	151.76	APO	268.03	V2	24.172
RC	127.544	GL	6.72	GP	-11.62	ZAL	99.20	ZAP	152.66	ETS	205.33	ZAE	162.16	ETE	314.45	ZAC	71.46	ETC	282.90	LVI	-5.10

PLANETOCENTRIC CONIC

C3	17.086	VHL	4.134	DLA	21.25	RAL	35.54	RAD	6641.5	VEL	11.710	PTH	6.74	VHP	4.351	DPA	5.15	RAP	46.25	ECC	1.2812

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 23	3529.09	-46.65	130.81	270.22	100.65	13 9 12	2529.1	-37.26	100.60
60.00	12 24 8	3492.49	-40.10	128.70	271.41	94.41	13 22 20	2492.5	-33.98	99.42
70.00	12 45 43	3428.92	-34.15	123.81	271.66	89.38	13 42 52	2428.9	-30.83	95.58
80.00	13 23 24	3310.77	-29.58	114.63	271.43	85.76	14 18 35	2310.8	-28.33	87.27
90.00	14 30 17	3094.83	-27.75	98.58	271.25	84.34	15 21 52	2094.8	-27.32	71.58
100.00	16 6 16	2785.24	-29.58	75.99	271.43	85.76	16 52 41	1785.2	-28.33	48.64
110.00	17 45 9	2475.74	-34.15	52.72	271.66	89.38	18 26 25	1475.7	-30.83	24.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4467	TRA	-1.0325	TC3	1.0266	BAU	.2875	SGT	1860.6	SGR	821.6	SG3	653.3	ST	38.6	SR	17.8	SS	44.6
RDE	-.2368	RRA	.3042	RC3	-.7283	FAU	.15471	RRT	-.6558	RRF	.7507	RTF	-.8401	CRT	.5107	CRS	.6773	CST	.9758
FDE	1.5541	FRA	2.1828	FC3	-7.8391	BSP	3324	SGB	2033.9	R23	-.1812	R13	.8619	LSA	59.7	MSA	15.1	SSA	1.9
BDE	.5056	BRA	1.0764	BC3	1.2587	FSP	1015	SG1	1945.5	SG2	593.1	THA	162.13	EL1	39.8	EL2	14.8	ALF	15.42

LAUNCH DATE JUL 24 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 407.054 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.345	GAL	-1.36	AZL	89.12	HCA	129.90	SMA	209.09	ECC	.27414	INC	.8842	V1	29.317
RP	227.93	LAP	.68	LOP	70.86	VP	23.018	GAP	15.07	AZP	90.57	TAL	353.67	TAP	123.57	RCA	151.77	APO	266.41	V2	24.131
RC	130.237	GL	7.21	GP	-12.07	ZAL	98.90	ZAP	151.54	ETS	205.12	ZAE	162.29	ETE	311.63	ZAC	71.02	ETC	282.93	LVI	-4.67

PLANETOCENTRIC CONIC

C3	16.789	VHL	4.097	DLA	21.63	RAL	35.08	RAD	6641.4	VEL	11.697	PTH	6.73	VHP	4.243	DPA	4.72	RAP	46.38	ECC	1.2763

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 6 52	3532.97	-46.70	131.17	269.72	100.37	13 5 45	2533.0	-37.40	100.87
60.00	12 20 1	3497.96	-40.13	129.17	270.87	94.10	13 18 19	2498.0	-34.13	99.81
70.00	12 40 47	3436.79	-34.14	124.42	271.07	89.02	13 38 4	2436.8	-30.97	96.15
80.00	13 17 28	3321.75	-29.52	115.44	270.80	85.34	14 12 50	2321.7	-28.46	88.06
90.00	14 23 47	3107.63	-27.66	99.51	270.60	83.89	15 15 35	2107.6	-27.43	72.50
100.00	16 0 20	2796.22	-29.52	76.80	270.80	85.34	16 46 56	1796.2	-28.46	49.43
110.00	17 40 13	2483.61	-34.14	53.34	271.07	89.02	18 21 37	1483.6	-30.97	25.07

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4497	TRA	-1.0177	TC3	1.0456	BAU	.2935	SGT	1863.6	SGR	851.8	SG3	687.7	ST	39.0	SR	16.8	SS	46.5
RDE	-.2184	RRA	.3103	RC3	-.7856	FAU	.16159	RRT	-.6766	RRF	.7761	RTF	-.8405	CRT	.4853	CRS	.6584	CST	.9750
FDE	1.6564	FRA	2.2412	FC3	-8.3326	BSP	3364	SGB	2049.1	R23	-.1925	R13	.8653	LSA	61.1	MSA	14.8	SSA	2.0
BDE	.4999	BRA	1.0640	BC3	1.3078	FSP	1075	SG1	1960.4	SG2	596.3	THA	160.99	EL1	39.9	EL2	14.4	ALF	13.63

LAUNCH DATE JUL 24 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 410.697 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.310	GAL	-1.32	AZL	89.06	HCA	130.94	SMA	208.33	ECC	.27145	INC	.9394	V1	29.317
RP	228.32	LAP	.71	LOP	71.90	VP	22.924	GAP	14.78	AZP	90.62	TAL	353.82	TAP	124.78	RCA	151.78	APO	264.89	V2	24.090
RC	132.954	GL	7.72	GP	-12.54	ZAL	98.62	ZAP	150.39	ETS	204.93	ZAE	162.40	ETE	308.62	ZAC	70.56	ETC	282.97	LVI	-4.23

PLANETOCENTRIC CONIC

C3	16.515	VHL	4.064	DLA	22.01	RAL	34.62	RAD	6641.2	VEL	11.686	PTH	6.72	VHP	4.140	DPA	4.27	RAP	46.50	ECC	1.2718

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 3 16	3537.51	-46.75	131.59	269.26	100.05	13 2 14	2537.5	-37.56	101.18
60.00	12 15 46	3504.20	-40.16	129.70	270.36	93.74	13 14 11	2504.2	-34.29	100.26
70.00	12 35 40	3445.62	-34.13	125.11	270.51	88.61	13 33 5	2445.6	-31.13	96.79
80.00	13 11 16	3333.98	-29.45	116.34	270.20	84.87	14 6 50	2334.0	-28.59	88.95
90.00	14 16 57	3121.90	-27.56	100.54	269.98	83.38	15 8 59	2121.9	-27.55	73.53
100.00	15 54 8	2808.45	-29.45	77.71	270.20	84.87	16 40 56	1808.4	-28.59	50.32
110.00	17 35 6	2492.43	-34.13	54.03	270.51	88.61	18 16 38	1492.4	-31.13	25.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4536	TRA	-1.0011	TC3	1.0617	BAU	.2998	SGT	1863.2	SGR	885.4	SG3	723.5	ST	39.3	SR	15.8	SS	46.6
RDE	-.1988	RRA	.3166	RC3	-.8466	FAU	.16874	RRT	-.6957	RRF	.7998	RTF	-.8408	CRT	.4538	CRS	.6336	CST	.9744
FDE	1.7698	FRA	2.2974	FC3	-8.8456	BSP	3399	SGB	2062.9	R23	-.2035	R13	.8690	LSA	62.8	MSA	14.5	SSA	2.0
BDE	.4952	BRA	1.0500	BC3	1.3579	FSP	1138	SG1	1973.6	SG2	600.5	THA	159.75	EL1	40.1	EL2	13.8	ALF	11.75

LAUNCH DATE JUL 24 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 414.352 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.278	GAL	-1.28	AZL	89.00	HCA	131.98	SMA	207.62	ECC	.26891	INC	.9959	V1	29.317
RP	228.70	LAP	.74	LOP	72.94	VP	22.833	GAP	14.50	AZP	90.67	TAL	353.96	TAP	125.94	RCA	151.79	APO	263.45	V2	24.049
RC	135.694	GL	8.25	GP	-13.03	ZAL	98.34	ZAP	149.22	ETS	204.76	ZAE	162.47	ETE	305.40	ZAC	70.09	ETC	283.02	LVI	-3.78

PLANETOCENTRIC CONIC

C3	16.263	VHL	4.033	DLA	22.42	RAL	34.16	RAD	6641.1	VEL	11.675	PTH	6.71	VHP	4.040	DPA	3.79	RAP	46.60	ECC	1.2676

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 59 35	3542.72	-46.82	132.08	268.84	99.68	12 58 38	2542.7	-37.75	101.54
60.00	12 11 24	3511.23	-40.19	130.29	269.89	93.34	13 9 55	2511.2	-34.47	100.76
70.00	12 30 21	3455.44	-34.11	125.88	269.99	88.16	13 27 56	2455.4	-31.30	97.50
80.00	13 4 45	3347.55	-29.37	117.34	269.62	84.35	14 0 32	2347.5	-28.73	89.93
90.00	14 9 43	3137.77	-27.43	101.68	269.37	82.82	15 2 1	2137.8	-27.67	74.67
100.00	15 47 37	2822.02	-29.37	78.71	269.62	84.35	16 34 39	1822.0	-28.73	51.30
110.00	17 29 47	2502.25	-34.11	54.80	269.99	88.16	18 11 29	1502.3	-31.30	26.42

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4561	TRA	-.9842	TC3	1.0750	BAU	.3065	SGT	1860.1	SGR	923.0	SG3	760.7			ST	39.6	SR	14.7	SS	50.7
RDE	-.1785	RRA	.3232	RC3	-.9118	FAU	.17622	RRT	-.7134	RRF	.8221	RTF	-.8408			CRT	.4117	CRS	.5998	CST	.9735
FDE	1.8882	FRA	2.3532	FC3	-9.3807	BSP	3424	SGB	2076.5	R23	-.2141	R13	.8727			LSA	64.4	MSA	14.2	SSA	2.0
BDE	.4898	BRA	1.0359	BC3	1.4096	FSP	1202	SG1	1986.2	SG2	605.7	THA	158.40			EL1	40.1	EL2	13.3	ALF	9.80

LAUNCH DATE JUL 24 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 418.020 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.247	GAL	-1.24	AZL	88.95	HCA	133.01	SMA	206.96	ECC	.26651	INC	1.0542	V1	29.317
RP	229.09	LAP	.77	LOP	73.98	VP	22.745	GAP	14.21	AZP	90.72	TAL	354.10	TAP	127.11	RCA	151.80	APO	262.11	V2	24.008
RC	138.457	GL	8.79	GP	-13.54	ZAL	98.08	ZAP	148.02	ETS	204.59	ZAE	162.49	ETE	302.00	ZAC	69.61	ETC	283.07	LVI	-3.31

PLANETOCENTRIC CONIC

C3	16.032	VHL	4.004	DLA	22.85	RAL	33.71	RAD	6641.0	VEL	11.665	PTH	6.70	VHP	3.944	DPA	3.28	RAP	46.69	ECC	1.2639

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 55 48	3548.63	-46.88	132.64	268.48	99.26	12 54 57	2548.6	-37.96	101.95
60.00	12 6 53	3519.08	-40.21	130.96	269.45	92.89	13 5 33	2519.1	-34.67	101.33
70.00	12 24 48	3466.30	-34.08	126.72	269.49	87.66	13 22 35	2466.3	-31.48	98.30
80.00	12 57 53	3362.57	-29.26	118.44	269.07	83.78	13 53 55	2362.6	-28.88	91.02
90.00	14 2 2	3155.41	-27.27	102.95	268.79	82.21	14 54 38	2155.4	-27.79	75.95
100.00	15 40 45	2837.04	-29.26	79.81	269.07	83.78	16 28 2	1837.0	-28.88	52.39
110.00	17 24 15	2513.12	-34.08	55.64	269.49	87.66	18 6 8	1513.1	-31.48	27.22

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4584	TRA	-.9675	TC3	1.0840	BAU	.3133	SGT	1854.9	SGR	964.6	SG3	799.2			ST	39.8	SR	13.7	SS	52.9
RDE	-.1570	RRA	.3304	RC3	-.9808	FAU	.18388	RRT	-.7294	RRF	.8426	RTF	-.8403			CRT	.3556	CRS	.5532	CST	.9727
FDE	2.0145	FRA	2.4111	FC3	-9.9296	BSP	3448	SGB	2090.8	R23	-.2243	R13	.8767			LSA	66.1	MSA	13.9	SSA	2.0
BDE	.4846	BRA	1.0224	BC3	1.4618	FSP	1269	SG1	1999.1	SG2	612.3	THA	156.94			EL1	40.1	EL2	12.7	ALF	7.73

LAUNCH DATE JUL 24 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 421.700 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.217	GAL	-1.21	AZL	88.89	HCA	134.04	SMA	206.33	ECC	.26424	INC	1.1144	V1	29.317
RP	229.48	LAP	.80	LOP	75.01	VP	22.659	GAP	13.93	AZP	90.77	TAL	354.22	TAP	128.27	RCA	151.81	APO	260.85	V2	23.967
RC	141.241	GL	9.35	GP	-14.08	ZAL	97.82	ZAP	146.79	ETS	204.43	ZAE	162.45	ETE	298.44	ZAC	69.10	ETC	283.12	LVI	-2.83

PLANETOCENTRIC CONIC

C3	15.822	VHL	3.978	DLA	23.29	RAL	33.26	RAD	6640.9	VEL	11.656	PTH	6.69	VHP	3.852	DPA	2.73	RAP	46.76	ECC	1.2604

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 55	3555.25	-46.95	133.26	268.15	98.78	12 51 10	2555.3	-38.19	102.41
60.00	12 2 14	3527.78	-40.24	131.70	269.06	92.39	13 1 1	2527.8	-34.89	101.96
70.00	12 19 2	3478.27	-34.05	127.66	269.03	87.11	13 17 0	2478.3	-31.67	99.18
80.00	12 50 37	3379.17	-29.13	119.66	268.53	83.15	13 46 57	2379.2	-29.03	92.23
90.00	13 53 51	3175.02	-27.08	104.35	268.22	81.53	14 46 46	2175.0	-27.91	77.37
100.00	15 33 29	2853.65	-29.13	81.03	268.53	83.15	16 21 3	1853.6	-29.03	53.60
110.00	17 18 28	2525.09	-34.05	56.57	269.03	87.11	18 0 33	1525.1	-31.67	28.10

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4604	TRA	-.9493	TC3	1.0884	BAU	.3205	SGT	1845.6	SGR	1010.3	SG3	838.8			ST	40.0	SR	12.6	SS	55.2
RDE	-.1342	RRA	.3376	RC3	-1.0540	FAU	.19181	RRT	-.7434	RRF	.8614	RTF	-.8094			CRT	.2814	CRS	.4895	CST	.9718
FDE	2.1505	FRA	2.4654	FC3	-10.4953	BSP	3474	SGB	2104.0	R23	-.2337	R13	.8809			LSA	67.9	MSA	13.6	SSA	2.0
BDE	.4796	BRA	1.0076	BC3	1.5151	FSP	1338	SG1	2010.5	SG2	620.4	THA	155.35			EL1	40.2	EL2	12.0	ALF	5.58

LAUNCH DATE JUL 24 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 425.391 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.190	GAL	-1.17	AZL	88.82	HCA	135.07	SMA	205.74	ECC	.26210	INC	1.1764	V1	29.317
RP	229.86	LAP	.83	LOP	76.03	VP	22.576	GAP	13.85	AZP	90.83	TAL	354.35	TAP	129.42	RCA	151.82	APO	259.66	V2	23.927
RC	144.046	GL	9.92	GP	-14.64	ZAL	97.58	ZAP	145.53	ETS	204.28	ZAE	162.34	ETE	294.72	ZAC	68.57	ETC	283.19	LVI	-2.33

PLANETOCENTRIC CONIC

C3	15.630	VHL	3.953	DLA	23.76	RAL	32.81	RAD	6640.8	VEL	11.648	PTH	6.69	VHP	3.764	DPA	2.16	RAP	46.81	ECC	1.2572

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 47 55	3562.58	-47.03	133.95	267.87	98.25	12 47 18	2562.6	-38.45	102.93
60.00	11 57 24	3537.32	-40.27	132.51	268.70	91.84	12 56 21	2537.3	-35.13	102.66
70.00	12 12 59	3491.38	-34.00	128.68	268.59	86.51	13 11 11	2491.4	-31.88	100.14
80.00	12 42 55	3397.47	-28.98	121.00	268.02	82.46	13 39 33	2397.5	-29.18	93.57
90.00	13 45 4	3196.80	-26.85	105.90	267.66	80.78	14 38 21	2196.8	-28.02	78.96
100.00	15 25 47	2871.94	-28.98	82.36	268.02	82.46	16 13 39	1871.9	-29.18	54.94
110.00	17 12 26	2538.20	-34.00	57.59	268.59	86.51	17 54 44	1538.2	-31.88	29.06

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4488	TRA	-.9186	TC3	1.1198	BAU	.3330	SGT	1822.8	SGR	1061.7	SG3	880.0			ST	39.2	SR	11.6	SS	57.3
RDE	-.1114	RRA	.3442	RC3	-1.1341	FAU	.20041	RRT	-.7657	RRF	.8786	RTF	-.8456			CRT	.1816	CRS	.4071	CST	.9694
FDE	2.2819	FRA	2.5081	FC3	-11.1006	BSP	3354	SGB	2109.4	R23	-.2264	R13	.8904			LSA	69.1	MSA	13.3	SSA	2.0
BDE	.4624	BRA	.9809	BC3	1.5938	FSP	1399	SG1	2017.2	SG2	617.1	THA	153.27			EL1	39.2	EL2	11.4	ALF	3.35

LAUNCH DATE JUL 24 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 429.089 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.163	GAL	-1.14	AZL	88.76	HCA	136.09	SMA	205.19	ECC	.26008	INC	1.2405	V1	29.317
RP	230.25	LAP	.86	LOP	77.06	VP	22.495	GAP	13.38	AZP	90.89	TAL	354.47	TAP	130.56	RCA	151.82	APO	258.55	V2	23.887
RC	146.870	GL	10.52	GP	-15.23	ZAL	97.35	ZAP	144.25	ETS	204.13	ZAE	162.18	ETE	290.91	ZAC	68.03	ETC	283.26	LVI	-1.82

PLANETOCENTRIC CONIC

C3	15.458	VHL	3.932	DLA	24.25	RAL	32.36	RAD	6640.7	VEL	11.641	PTH	6.68	VHP	3.680	DPA	1.55	RAP	46.84	ECC	1.2844

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 43 49	3570.71	-47.10	134.72	267.65	97.66	12 43 20	2570.7	-38.72	103.51
60.00	11 52 24	3547.84	-40.28	133.40	268.38	91.23	12 51 32	2547.8	-35.39	103.44
70.00	12 6 40	3505.80	-33.93	129.80	268.18	85.85	13 5 6	2505.8	-32.09	101.21
80.00	12 34 43	3417.78	-28.79	122.48	267.52	81.71	13 31 41	2417.8	-29.33	95.06
90.00	13 35 34	3221.26	-26.58	107.64	267.12	79.96	14 29 16	2221.3	-28.12	80.74
100.00	15 17 35	2892.25	-28.79	83.84	267.52	81.71	16 5 47	1892.3	-29.33	56.43
110.00	17 6 6	2552.62	-33.93	58.72	268.18	85.85	17 48 39	1552.6	-32.09	30.13

DIFFERENTIAL CORRECTIONS

TDE	-.4603	TRA	-.9101	TC3	1.0878	BAU	.3368												
RDE	-.0846	RRA	.3532	RC3	-1.2134	FAU	.20828												
FDE	2.4468	FRA	2.5702	FC	-11.6648	BSP	3494												
BDE	.4680	BRA	.9782	BC3	1.6296	FSP	1482												

MID-COURSE EXECUTION ACCURACY

SGT	1815.8	SGR	1115.5	SG3	921.4														
RRT	-.7674	RRF	.8937	RTF	-.8373														
SGB	2131.1	R23	-.2467	R13	.8908														
SG1	2033.1	SG2	638.7	THA	151.72														

ORBIT DETERMINATION ACCURACY

ST	40.0	SR	10.6	SS	60.1														
CRT	.0460	CRS	.2791	CST	.9697														
LSA	71.8	MSA	13.0	SSA	2.0														
EL1	40.0	EL2	10.6	ALF	.78														

LAUNCH DATE JUL 24 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 432.798 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.139	GAL	-1.11	AZL	88.69	HCA	137.11	SMA	204.67	ECC	.25817	INC	1.3068	V1	29.317
RP	230.63	LAP	.89	LOP	78.08	VP	22.416	GAP	13.10	AZP	90.96	TAL	354.57	TAP	131.69	RCA	151.83	APO	257.51	V2	23.847
RC	149.713	GL	11.14	GP	-15.84	ZAL	97.13	ZAP	142.94	ETS	203.98	ZAE	161.88	ETE	287.02	ZAC	67.46	ETC	283.33	LVI	-1.28

PLANETOCENTRIC CONIC

C3	15.304	VHL	3.912	DLA	24.75	RAL	31.92	RAD	6640.7	VEL	11.634	PTH	6.67	VHP	3.600	DPA	.91	RAP	46.86	ECC	1.2519

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 39 35	3579.61	-47.18	135.57	267.47	97.01	12 39 14	2579.6	-39.03	104.14
60.00	11 47 12	3559.31	-40.30	134.38	268.10	90.57	12 46 31	2559.3	-35.66	104.29
70.00	12 0 1	3521.55	-33.85	131.02	267.80	85.13	12 58 42	2521.5	-32.32	102.39
80.00	12 25 55	3440.26	-28.55	124.11	267.04	80.88	13 23 15	2440.3	-29.47	96.72
90.00	13 25 13	3248.75	-26.23	109.56	266.56	79.04	14 19 22	2248.7	-28.21	82.74
100.00	15 8 47	2914.73	-28.55	85.47	267.04	80.88	15 57 22	1914.7	-29.47	58.09
110.00	16 59 27	2568.36	-33.85	59.94	267.80	85.13	17 42 15	1568.4	-32.32	31.30

DIFFERENTIAL CORRECTIONS

TDE	-.4638	TRA	-.8945	TC3	1.0692	BAU	.3442												
RDE	-.0569	RRA	.3621	RC3	-1.2991	FAU	.21665												
FDE	2.6141	FRA	2.6260	FC	-12.2559	BSP	3553												
BDE	.4672	BRA	.9650	BC3	1.6825	FSP	1561												

MID-COURSE EXECUTION ACCURACY

SGT	1800.7	SGR	1175.2	SG3	964.2														
RRT	-.7732	RRF	.9074	RTF	-.8326														
SGB	2150.2	R23	-.2563	R13	.8946														
SG1	2047.9	SG2	655.3	THA	149.82														

ORBIT DETERMINATION ACCURACY

ST	40.3	SR	9.8	SS	62.9														
CRT	-.1263	CRS	.1104	CST	.9690														
LSA	74.2	MSA	12.8	SSA	2.0														
EL1	40.3	EL2	9.7	ALF	178.13														

LAUNCH DATE JUL 24 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 436.515 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.115	GAL	-1.09	AZL	88.62	HCA	138.13	SMA	204.18	ECC	.25637	INC	1.3754	V1	29.317
RP	231.01	LAP	.92	LOP	79.10	VP	22.339	GAP	12.83	AZP	91.02	TAL	354.68	TAP	132.81	RCA	151.84	APO	256.53	V2	23.807
RC	152.572	GL	11.78	GP	-16.48	ZAL	96.92	ZAP	141.59	ETS	203.84	ZAE	161.51	ETE	283.10	ZAC	66.88	ETC	283.42	LVI	-.73

PLANETOCENTRIC CONIC

C3	15.167	VHL	3.895	DLA	25.29	RAL	31.48	RAD	6640.6	VEL	11.628	PTH	6.67	VHP	3.523	DPA	.23	RAP	46.86	ECC	1.2496

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 35 12	3589.29	-47.26	136.49	267.34	96.31	12 35 1	2589.3	-39.35	104.84
60.00	11 41 47	3571.76	-40.30	135.44	267.86	89.85	12 41 18	2571.8	-35.95	105.22
70.00	11 53 0	3538.71	-33.74	132.35	267.44	84.35	12 51 58	2538.7	-32.55	103.67
80.00	12 16 25	3465.21	-28.27	125.91	266.56	79.97	13 14 10	2465.2	-29.61	98.56
90.00	13 13 47	3279.92	-25.81	111.76	266.03	78.03	14 8 27	2279.9	-28.26	85.02
100.00	14 59 17	2939.68	-28.27	87.27	266.56	79.97	15 46 16	1939.7	-29.61	59.93
110.00	16 52 26	2585.52	-33.74	61.26	267.44	84.35	17 35 31	1585.5	-32.55	32.59

DIFFERENTIAL CORRECTIONS

TDE	-.4528	TRA	-.8650	TC3	1.0740	BAU	.3565												
RDE	-.0293	RRA	.3694	RC3	-1.3921	FAU	.22563												
FDE	2.7714	FRA	2.6607	FC	-12.8786	BSP	3479												
BDE	.4537	BRA	.9406	BC3	1.7582	FSP	1627												

MID-COURSE EXECUTION ACCURACY

SGT	1767.6	SGR	1240.5	SG3	1007.6														
RRT	-.7864	RRF	.9196	RTF	-.8344														
SGB	2159.5	R23	-.2500	R13	.9031														
SG1	2056.6	SG2	658.7	THA	147.35														

ORBIT DETERMINATION ACCURACY

ST	39.5	SR	9.4	SS	65.3														
CRT	-.3247	CRS	-.0844	CST	.9666														
LSA	75.8	MSA	12.6	SSA	2.0														
EL1	39.6	EL2	8.9	ALF	175.34														

LAUNCH DATE JUL 24 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 440.238 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.093	GAL	-1.06	AZL	88.55	HCA	139.14	SMA	203.73	ECC	.25468	INC	1.4465	V1	29.317
RP	231.39	LAP	.95	LOP	80.11	VP	22.264	GAP	12.56	AZP	91.09	TAL	354.77	TAP	133.92	RCA	151.84	APO	255.61	V2	23.767
RC	155.447	GL	12.43	GP	-17.15	ZAL	96.73	ZAP	140.22	ETS	203.69	ZAE	161.04	ETE	279.20	ZAC	66.27	ETC	283.51	LVI	-.16

PLANETOCENTRIC CONIC

C3	15.048	VHL	3.879	DLA	25.84	RAL	31.04	RAD	6640.5	VEL	11.623	PTH	6.66	VHP	3.450	DPA	-.48	RAP	46.85	ECC	1.2477

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 30 41	3599.66	-47.33	137.51	267.26	95.53	12 30 41	2599.9	-39.70	105.62
60.00	11 36 8	3585.33	-40.29	136.59	267.65	89.07	12 35 53	2585.3	-36.25	106.24
70.00	11 45 34	3557.51	-33.60	133.80	267.11	83.50	12 44 52	2557.5	-32.78	105.09
80.00	12 6 3	3493.21	-27.92	127.91	266.09	78.97	13 4 16	2493.2	-29.72	100.63
90.00	13 0 55	3315.97	-25.28	114.27	265.46	76.88	13 56 11	2316.0	-28.28	87.66
100.00	14 48 55	2967.68	-27.92	89.28	266.09	78.97	15 38 23	1967.7	-29.72	62.00
110.00	16 45 0	2604.33	-33.60	62.72	267.11	83.50	17 28 25	1604.3	-32.78	34.01

DIFFERENTIAL CORRECTIONS

TDE	-.4615	TRA	-.8551	TC3	1.0233	BAU	.3627												
RDE	.0033	RRA	.3799	RC3	-1.4842	FAU	.23380												
FDE	2.9675	FRA	2.7198	FC	-13.4504	BSP	3609												
BDE	.4616	BRA	.9357	BC3	1.8028	FSP	1716												

MID-COURSE EXECUTION ACCURACY

SGT	1750.5	SGR	1309.4	SG3	1051.2														
RRT	-.7819	RRF	.9303	RTF	-.8234														
SGB	2186.1	R23	-.2635	R13	.9053														
SG1	2074.8	SG2	688.7	THA	145.32														

ORBIT DETERMINATION ACCURACY

ST	40.1	SR	9.5	SS	68.5														
CRT	-.5437	CRS	-.3236	CST	.9666														
LSA	78.9	MSA	12.4	SSA	2.0														
EL1	40.4	EL2	7.9	ALF	172.35														

LAUNCH DATE JUL 24 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 443.969 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.073	GAL	-1.04	AZL	88.48	HCA	140.15	SMA	203.30	ECC	.25309	INC	1.5203	V1	29.317
RP	231.77	LAP	.97	LOP	81.12	VP	22.191	GAP	12.29	AZP	91.17	TAL	354.86	TAP	135.02	RCA	151.85	APO	254.75	V2	23.728
RC	158.336	GL	13.12	GP	-17.85	ZAL	96.54	ZAP	138.82	ETS	203.54	ZAE	160.46	ETE	275.36	ZAC	65.64	ETC	283.61	LVI	.43

PLANETOCENTRIC CONIC

C3	14.946	VHL	3.866	DLA	26.43	RAL	30.60	RAD	6640.5	VEL	11.619	PTH	6.66	VHP	3.381	DPA	-1.22	RAP	46.82	ECC	1.2460

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 25 59	3611.29	-47.40	138.60	267.23	94.69	12 26 10	2611.3	-40.07	106.46
60.00	11 30 13	3600.01	-40.27	137.84	267.48	88.22	12 30 13	2600.0	-36.57	107.36
70.00	11 37 40	3578.04	-33.43	135.38	266.79	82.58	12 37 18	2578.0	-33.02	106.64
80.00	11 54 38	3524.78	-27.49	130.16	265.61	77.87	12 53 23	2524.8	-29.81	102.98
90.00	12 46 5	3358.53	-24.59	117.19	264.84	75.57	13 42 4	2358.5	-28.22	90.77
100.00	14 37 30	2999.26	-27.49	91.53	265.61	77.87	15 27 29	1999.3	-29.81	64.34
110.00	16 37 7	2624.85	-33.43	64.29	266.79	82.58	17 20 51	1624.9	-33.02	35.56

DIFFERENTIAL CORRECTIONS

TDE	-.4576	TRA	-.8318	TC3	.9954	BAU	.3739
RDE	.0365	RRA	.3882	RC3	-1.5843	FAU	.24259
FDE	3.1572	FRA	2.7527	FC	-14.0515	BSP	3634
BDE	.4590	BRA	.9180	BC3	1.8710	FSP	1795

MID-COURSE EXECUTION ACCURACY

SGT	1716.8	SGR	1384.3	SG3	1095.2				
RRT	-.7843	RRF	.9397	RTF	-.8182				
SGB	2205.4	R23	-.2615	R13	.9120				
SG1	2089.4	SG2	705.6	THA	142.73				

ORBIT DETERMINATION ACCURACY

ST	39.7	SR	10.2	SS	71.4		
CRT	-.7245	CRS	-.5315	CST	.9650		
LSA	81.4	MSA	12.2	SSA	2.0		
EL1	40.4	EL2	6.9	ALF	169.16		

LAUNCH DATE JUL 24 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 447.706 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.053	GAL	-1.02	AZL	88.40	HCA	141.16	SMA	202.90	ECC	.25159	INC	1.5972	V1	29.317
RP	232.14	LAP	1.00	LOP	82.13	VP	22.120	GAP	12.03	AZP	91.24	TAL	354.95	TAP	136.11	RCA	151.85	APO	253.94	V2	23.689
RC	161.238	GL	13.83	GP	-18.58	ZAL	96.37	ZAP	137.39	ETS	203.38	ZAE	159.77	ETE	271.61	ZAC	64.98	ETC	283.72	LVI	1.05

PLANETOCENTRIC CONIC

C3	14.861	VHL	3.855	DLA	27.03	RAL	30.16	RAD	6640.5	VEL	11.615	PTH	6.66	VHP	3.316	DPA	-2.01	RAP	46.77	ECC	1.2446

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 21 6	3623.63	-47.46	139.79	267.24	93.78	12 21 30	2623.6	-40.46	107.38
60.00	11 24 0	3615.88	-40.23	139.19	267.34	87.31	12 24 16	2615.9	-36.90	108.58
70.00	11 29 14	3600.49	-33.22	137.09	266.49	81.59	12 29 14	2600.5	-33.25	108.35
80.00	11 41 50	3560.91	-26.95	132.71	265.09	76.63	12 41 11	2560.9	-29.86	105.66
90.00	12 28 12	3411.06	-23.65	120.75	264.14	74.03	13 25 3	2411.1	-28.04	94.60
100.00	14 24 42	3035.38	-26.95	94.07	265.09	76.63	15 15 17	2035.4	-29.86	67.03
110.00	16 28 40	2647.31	-33.22	66.01	266.49	81.59	17 12 47	1647.3	-33.25	37.27

DIFFERENTIAL CORRECTIONS

TDE	-.4447	TRA	-.8021	TC3	.9804	BAU	.3886
RDE	.0706	RRA	.3960	RC3	-1.6926	FAU	.25195
FDE	3.3428	FRA	2.7743	FC	-14.6778	BSP	3570
BDE	.4503	BRA	.8945	BC3	1.9560	FSP	1857

MID-COURSE EXECUTION ACCURACY

SGT	1673.2	SGR	1466.5	SG3	1140.3				
RRT	-.7907	RRF	.9480	RTF	-.8167				
SGB	2224.9	R23	-.2499	R13	.9210				
SG1	2107.6	SG2	712.7	THA	139.75				

ORBIT DETERMINATION ACCURACY

ST	38.7	SR	11.4	SS	74.1		
CRT	-.8506	CRS	-.6881	CST	.9623		
LSA	83.4	MSA	12.0	SSA	1.9		
EL1	39.9	EL2	5.8	ALF	165.64		

LAUNCH DATE JUL 24 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 451.448 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.035	GAL	-1.00	AZL	88.32	HCA	142.16	SMA	202.52	ECC	.25018	INC	1.6772	V1	29.317
RP	232.51	LAP	1.03	LOP	83.13	VP	22.051	GAP	11.76	AZP	91.32	TAL	355.02	TAP	137.18	RCA	151.85	APO	253.19	V2	23.650
RC	164.150	GL	14.56	GP	-19.34	ZAL	96.22	ZAP	135.93	ETS	203.21	ZAE	158.98	ETE	268.01	ZAC	64.30	ETC	283.84	LVI	1.69

PLANETOCENTRIC CONIC

C3	14.793	VHL	3.846	DLA	27.67	RAL	29.72	RAD	6640.4	VEL	11.612	PTH	6.65	VHP	3.254	DPA	-2.83	RAP	46.71	ECC	1.2435

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 16 1	3636.99	-47.51	141.08	267.31	92.79	12 16 38	2637.0	-40.88	108.39
60.00	11 17 29	3633.11	-40.16	140.65	267.23	86.32	12 18 2	2633.1	-37.25	109.91
70.00	11 20 9	3625.23	-32.96	138.98	266.20	80.50	12 20 34	2625.2	-33.48	110.25
80.00	11 27 8	3603.30	-26.25	135.66	264.54	75.23	12 27 11	2603.3	-29.83	108.81
90.00	12 4 20	3483.00	-22.22	125.54	263.24	72.04	13 2 23	2483.0	-27.60	99.81
100.00	14 10 0	3077.78	-26.25	97.03	264.54	75.23	15 1 17	2077.8	-29.83	70.18
110.00	16 19 35	2672.04	-32.96	67.89	266.20	80.50	17 4 7	1672.0	-33.48	39.17

DIFFERENTIAL CORRECTIONS

TDE	-.4502	TRA	-.7922	TC3	.9053	BAU	.3976
RDE	.1113	RRA	.4082	RC3	-1.7951	FAU	.25969
FDE	3.5737	FRA	2.8290	FC	-15.1983	BSP	3733
BDE	.4638	BRA	.8912	BC3	2.0105	FSP	1957

MID-COURSE EXECUTION ACCURACY

SGT	1648.4	SGR	1551.1	SG3	1183.6				
RRT	-.7784	RRF	.9551	RTF	-.8204				
SGB	2261.9	R23	-.2546	R13	.9250				
SG1	2133.5	SG2	751.3	THA	137.19				

ORBIT DETERMINATION ACCURACY

ST	39.1	SR	13.4	SS	77.6		
CRT	-.9300	CRS	-.8060	CST	.9617		
LSA	87.1	MSA	11.9	SSA	1.9		
EL1	41.0	EL2	4.7	ALF	162.08		

LAUNCH DATE JUL 24 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 455.196 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.017	GAL	-.98	AZL	88.24	HCA	143.16	SMA	202.17	ECC	.24885	INC	1.7605	V1	29.317
RP	232.89	LAP	1.06	LOP	84.13	VP	21.984	GAP	11.50	AZP	91.41	TAL	355.09	TAP	138.25	RCA	151.86	APO	252.48	V2	23.612
RC	167.073	GL	15.32	GP	-20.14	ZAL	96.07	ZAP	134.44	ETS	203.03	ZAE	158.09	ETE	264.56	ZAC	63.60	ETC	283.98	LVI	2.35

PLANETOCENTRIC CONIC

C3	14.742	VHL	3.839	DLA	28.34	RAL	29.29	RAD	6640.4	VEL	11.610	PTH	6.65	VHP	3.197	DPA	-3.70	RAP	46.64	ECC	1.2426

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 10 43	3651.36	-47.55	142.46	267.43	91.72	12 11 34	2651.4	-41.32	109.49
60.00	11 10 34	3651.72	-40.07	142.22	267.16	85.25	12 11 26	2651.7	-37.60	111.36
70.00	11 10 19	3652.48	-32.64	141.04	265.91	79.33	12 11 12	2652.5	-33.69	112.35
80.00	11 9 34	3654.84	-25.30	139.20	263.89	73.60	12 10 29	2654.8	-29.69	112.63
88.15	10 55 31	3700.32	-18.37	139.93	261.30	68.04	11 57 11	2700.3	-25.83	115.37
100.00	13 52 26	3129.31	-25.30	100.57	263.89	73.60	14 44 35	2129.3	-29.69	74.00
110.00	16 9 45	2699.30	-32.64	69.95	265.91	79.33	16 54 45	1699.3	-33.69	41.26

DIFFERENTIAL CORRECTIONS

TDE	-.4448	TRA	-.7698	TC3	.8530	BAU	.4120
RDE	.1535	RRA	.4174	RC3	-1.9083	FAU	.26830
FDE	3.8001	FRA	2.8492	FC	-15.7568	BSP	3791
BDE	.4706	BRA	.8756	BC3	2.0903	FSP	2038

MID-COURSE EXECUTION ACCURACY

SGT	1604.1	SGR	1643.3	SG3	1227.6				
RRT	-.7722	RRF	.9614	RTF	-.7895				
SGB	2296.4	R23	-.2453	R13	.9325				
SG1	2161.8	SG2	774.8	THA	134.10				

ORBIT DETERMINATION ACCURACY

ST	38.5	SR	15.8	SS	81.0		
CRT	-.9708	CRS	-.8773	CST	.9597		
LSA	90.3	MSA	11.8	SSA	1.8		
EL1	41.5	EL2	3.5	ALF	158.17		

LAUNCH DATE JUL 24 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 458.948 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	33.001	GAL	-.96	AZL	88.15	HCA	144.16	SMA	201.84	ECC	.24761	INC	1.8476	V1	29.317
RP	233.25	LAP	1.08	LOP	85.13	VP	21.918	GAP	11.24	AZP	91.50	TAL	355.15	TAP	139.31	RCA	151.86	APO	251.82	V2	23.573
RC	170.003	GL	16.11	GP	-20.96	ZAL	95.94	ZAP	132.92	ETS	202.84	ZAE	157.08	ETE	261.28	ZAC	62.87	ETC	284.12	LVI	3.04

PLANETOCENTRIC CONIC

C3	14.707	VHL	3.835	DLA	29.03	RAL	28.84	RAD	6640.4	VEL	11.609	PTH	6.65	VHP	3.143	DPA	-4.60	RAP	46.55	ECC	1.2420

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 5 9	3666.82	-47.57	143.96	267.59	90.57	12 6 16	2666.8	-41.77	110.70
60.00	11 3 15	3671.88	-39.94	143.92	267.10	84.11	12 4 27	2671.9	-37.96	112.95
70.00	10 59 34	3682.75	-32.23	143.30	265.61	78.04	12 0 57	2682.8	-33.88	114.69
80.00	10 46 50	3722.85	-23.92	143.77	263.05	71.57	11 48 53	2722.9	-29.31	117.65
83.15	10 12 34	3832.97	-18.81	149.86	261.00	67.47	11 16 27	2833.0	-26.45	125.26
100.00	13 29 41	3197.32	-23.92	105.14	263.05	71.57	14 22 59	2197.3	-29.31	79.02
110.00	15 59 0	2729.57	-32.23	72.22	265.61	78.04	16 44 30	1729.6	-33.88	43.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4370	TRA	-.7482	TC3	.7934	BAU	.4277	SGT	1559.2	SGR	1742.1	SG3	1271.1	ST	37.9	SR	18.6	SS	84.4
RDE	.1987	RRA	.4277	RC3	-2.0251	FAU	.27667	RRT	-.7633	RRF	.9668	RTF	-.7764	CRT	-.9894	CRS	-.9211	CST	.9572
FDE	4.0335	FRA	2.8722	FC	-16.2857	BSP	3853	SGB	2338.0	R23	-.2331	R13	.9402	LSA	93.6	MSA	11.8	SSA	1.8
BDE	.4801	BRA	.8618	BC3	2.1750	FSP	2117	SG1	2197.3	SG2	798.6	THA	130.86	ELI	42.1	EL2	2.4	ALF	153.99

LAUNCH DATE JUL 24 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 462.705 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.986	GAL	-.95	AZL	88.06	HCA	145.15	SMA	201.53	ECC	.24645	INC	1.9387	V1	29.317
RP	233.62	LAP	1.11	LOP	86.13	VP	21.854	GAP	10.98	AZP	91.59	TAL	355.20	TAP	140.35	RCA	151.86	APO	251.20	V2	23.536
RC	172.941	GL	16.92	GP	-21.82	ZAL	95.82	ZAP	131.37	ETS	202.63	ZAE	155.98	ETE	258.18	ZAC	62.11	ETC	284.27	LVI	3.75

PLANETOCENTRIC CONIC

C3	14.691	VHL	3.833	DLA	29.76	RAL	28.40	RAD	6640.4	VEL	11.608	PTH	6.65	VHP	3.094	DPA	-5.54	RAP	46.46	ECC	1.2418

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 59 18	3683.46	-47.57	145.57	267.81	89.33	12 0 41	2683.5	-42.25	112.01
60.00	10 55 27	3693.73	-39.77	145.76	267.07	82.87	11 57 0	2693.7	-38.32	114.70
70.00	10 47 40	3716.68	-31.73	145.82	265.28	76.63	11 49 37	2716.7	-34.03	117.33
80.00	10 6 31	3846.64	-21.02	151.82	261.51	68.29	11 10 38	2846.6	-28.10	126.64
80.33	9 48 38	3903.81	-19.26	155.30	260.74	66.87	10 53 42	2903.8	-27.11	130.66
100.00	12 49 23	3321.11	-21.02	113.19	261.51	68.29	13 44 44	2321.1	-28.10	88.01
110.00	15 47 7	2763.50	-31.73	74.74	265.28	76.63	16 33 10	1763.5	-34.03	46.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4269	TRA	-.7256	TC3	.7264	BAU	.4449	SGT	1509.5	SGR	1846.6	SG3	1313.1	ST	37.0	SR	21.8	SS	87.8
RDE	.2473	RRA	.4374	RC3	-2.1458	FAU	.28479	RRT	-.7509	RRF	.9715	RTF	-.7604	CRT	-.9957	CRS	-.9483	CST	.9542
FDE	4.2738	FRA	2.8826	FC	-16.7825	BSP	3925	SGB	2385.0	R23	-.2180	R13	.9479	LSA	97.0	MSA	11.7	SSA	1.7
BDE	.4934	BRA	.8473	BC3	2.2654	FSP	2194	SG1	2238.8	SG2	822.2	THA	127.44	EL1	42.9	EL2	1.7	ALF	149.55

LAUNCH DATE JUL 24 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 466.466 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.972	GAL	-.94	AZL	87.97	HCA	146.14	SMA	201.24	ECC	.24536	INC	2.0340	V1	29.317
RP	233.99	LAP	1.13	LOP	87.12	VP	21.792	GAP	10.73	AZP	91.69	TAL	355.24	TAP	141.39	RCA	151.87	APO	250.62	V2	23.498
RC	175.886	GL	17.78	GP	-22.72	ZAL	95.71	ZAP	129.80	ETS	202.41	ZAE	154.78	ETE	255.27	ZAC	61.33	ETC	284.43	LVI	4.50

PLANETOCENTRIC CONIC

C3	14.693	VHL	3.833	DLA	30.52	RAL	27.95	RAD	6640.4	VEL	11.608	PTH	6.65	VHP	3.048	DPA	-6.53	RAP	46.35	ECC	1.2418

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 53 7	3701.34	-47.54	147.30	268.06	88.00	11 54 49	2701.3	-42.74	113.45
60.00	10 47 5	3717.46	-39.55	147.74	267.05	81.54	11 49 2	2717.5	-38.69	116.61
70.00	10 34 18	3755.22	-31.08	148.64	264.91	75.08	11 36 53	2755.2	-34.13	120.33
78.02	9 29 31	3958.99	-19.73	159.62	260.50	66.23	10 35 30	2959.0	-27.79	134.95
78.02	9 29 31	3958.99	-19.73	159.62	260.50	66.23	10 35 30	2959.0	-27.79	134.95
78.02	9 29 31	3958.99	-19.73	159.62	260.50	66.23	10 35 30	2959.0	-27.79	134.95
110.00	15 33 44	2802.04	-31.08	77.56	264.91	75.08	16 20 26	1802.0	-34.13	49.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4131	TRA	-.7017	TC3	.6572	BAU	.4646	SGT	1455.2	SGR	1958.1	SG3	1353.9	ST	35.9	SR	25.3	SS	91.2
RDE	.2991	RRA	.4467	RC3	-2.2719	FAU	.29283	RRT	-.7360	RRF	.9755	RTF	-.7521	CRT	-.9951	CRS	-.9653	CST	.9501
FDE	4.5165	FRA	2.8819	FC	-17.2545	BSP	3985	SGB	2439.6	R23	-.1995	R13	.9556	LSA	100.5	MSA	11.7	SSA	1.6
BDE	.5100	BRA	.8318	BC3	2.3650	FSP	2258	SG1	2289.5	SG2	842.5	THA	123.87	EL1	43.9	EL2	2.0	ALF	144.82

LAUNCH DATE JUL 24 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 470.230 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.958	GAL	-.93	AZL	87.87	HCA	147.13	SMA	200.97	ECC	.24433	INC	2.1343	V1	29.317
RP	234.35	LAP	1.16	LOP	88.11	VP	21.732	GAP	10.47	AZP	91.79	TAL	355.28	TAP	142.41	RCA	151.87	APO	250.08	V2	23.461
RC	178.836	GL	18.66	GP	-23.65	ZAL	95.61	ZAP	128.20	ETS	202.16	ZAE	153.49	ETE	252.55	ZAC	60.52	ETC	284.61	LVI	5.27

PLANETOCENTRIC CONIC

C3	14.713	VHL	3.836	DLA	31.32	RAL	27.49	RAD	6640.4	VEL	11.609	PTH	6.65	VHP	3.006	DPA	-7.56	RAP	46.23	ECC	1.2421

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 46 35	3720.58	-47.48	149.15	268.36	86.57	11 48 35	2720.6	-43.24	115.02
60.00	10 38 4	3743.31	-39.27	149.88	267.04	80.12	11 40 27	2743.3	-39.04	118.72
70.00	10 18 54	3799.94	-30.26	151.86	264.46	73.34	11 22 14	2799.9	-34.15	123.82
75.96	9 12 55	4005.99	-20.20	163.38	260.30	65.55	10 19 41	3006.0	-28.50	138.67
75.96	9 12 55	4005.99	-20.20	163.38	260.30	65.55	10 19 41	3006.0	-28.50	138.67
75.96	9 12 55	4005.99	-20.20	163.38	260.30	65.55	10 19 41	3006.0	-28.50	138.67
110.00	15 18 21	2846.76	-30.26	80.78	264.46	73.34	16 5 47	1846.8	-34.15	52.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3958	TRA	-.6751	TC3	.5808	BAU	.4856	SGT	1393.3	SGR	2073.9	SG3	1391.5	ST	34.5	SR	29.2	SS	94.6
RDE	.3551	RRA	.4545	RC3	-2.3993	FAU	.30023	RRT	-.7170	RRF	.9790	RTF	-.7199	CRT	-.9903	CRS	-.9765	CST	.9449
FDE	4.7657	FRA	2.8625	FC	-17.6655	BSP	4070	SGB	2498.4	R23	-.1784	R13	.9629	LSA	104.2	MSA	11.7	SSA	1.6
BDE	.5318	BRA	.8138	BC3	2.4686	FSP	2328	SG1	2346.3	SG2	858.4	THA	120.17	EL1	45.1	EL2	3.1	ALF	139.76

LAUNCH DATE JUL 24 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 473.999 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.946 GAL -.92 AZL 87.76 HCA 148.12 SMA 200.72 ECC .24338 INC 2.2396 V1 29.317
RP 234.71 LAP 1.18 LOP 89.09 VP 21.673 GAP 10.22 AZP 91.90 TAL 355.31 TAP 143.43 RCA 151.87 APO 249.57 V2 23.424
RC 181.791 GL 19.58 GP -24.62 ZAL 95.52 ZAP 126.58 ETS 201.89 ZAE 152.10 ETE 250.00 ZAC 59.68 ETC 284.80 LVI 6.07

PLANETOCENTRIC CONIC

C3 14.754 VHL 3.841 DLA 32.15 RAL 27.02 RAD 6640.4 VEL 11.611 PTH 6.65 VHP 2.969 DPA -8.63 RAP 46.11 ECC 1.2428

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 39 37	3741.28	-47.38	151.15	268.69	85.04	11 41 59	2741.3	-43.76	116.74
60.00	10 28 17	3771.56	-38.92	152.19	267.03	78.58	11 31 8	2771.6	-39.38	121.04
70.00	10 0 31	3853.71	-29.15	155.65	263.86	71.35	11 4 45	2853.7	-34.02	128.01
74.04	9 57 54	4047.78	-20.68	166.79	260.12	64.82	10 5 22	3047.8	-29.23	142.05
74.04	9 57 54	4047.78	-20.68	166.79	260.12	64.82	10 5 22	3047.8	-29.23	142.05
74.04	9 57 54	4047.78	-20.68	166.79	260.12	64.82	10 5 22	3047.8	-29.23	142.05
110.00	14 59 57	2900.53	-29.15	84.57	263.86	71.35	15 48 18	1900.5	-34.02	56.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3712 TRA -.6442 TC3 .5173 BAU .5110 SGT 1323.8 SGR 2200.6 SG3 1429.4 ST 32.5 SR 33.3 SS 97.9
RDE .4140 RRA .4607 RC3-2.5385 FAU .30828 RRT -.6996 RRF .9820 RTF -.6989 CRT -.9822 CRS -.9837 CST .9374
FDE 5.0079 FRA 2.8244 FC-18.0898 BSP 4084 SGB 2568.2 R23 -.1544 R13 .9699 LSA 107.7 MSA 11.7 SSA 1.5
BDE .5560 BRA .7920 BC3 2.5906 FSP 2360 SG1 2419.8 SG2 860.3 THA 116.42 EL1 46.3 EL2 4.4 ALF 134.28

LAUNCH DATE JUL 24 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 477.767 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.934 GAL -.91 AZL 87.65 HCA 149.10 SMA 200.49 ECC .24249 INC 2.3506 V1 29.317
RP 235.06 LAP 1.21 LOP 90.08 VP 21.615 GAP 9.97 AZP 92.02 TAL 355.33 TAP 144.43 RCA 151.87 APO 249.11 V2 23.387
RC 184.750 GL 20.54 GP -25.62 ZAL 95.45 ZAP 124.94 ETS 201.60 ZAE 150.64 ETE 247.64 ZAC 58.81 ETC 285.00 LVI 6.90

PLANETOCENTRIC CONIC

C3 14.816 VHL 3.849 DLA 33.02 RAL 26.55 RAD 6640.4 VEL 11.613 PTH 6.65 VHP 2.936 DPA -9.74 RAP 45.98 ECC 1.2438

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 32 13	3763.63	-47.23	153.28	269.07	83.40	11 34 56	2763.6	-44.29	118.63
60.00	10 17 35	3802.69	-38.47	154.72	267.00	76.92	11 20 58	2802.7	-39.69	123.63
70.00	9 36 50	3923.46	-27.53	160.43	263.00	68.94	10 42 14	2923.5	-33.61	133.42
72.20	8 44 1	4085.93	-21.18	169.96	259.97	64.05	9 52 7	3085.9	-29.99	145.19
72.20	8 44 1	4085.93	-21.18	169.96	259.97	64.05	9 52 7	3085.9	-29.99	145.19
72.20	8 44 1	4085.93	-21.18	169.96	259.97	64.05	9 52 7	3085.9	-29.99	145.19
110.00	14 36 17	2970.28	-27.53	89.35	263.00	68.94	15 25 47	1970.3	-33.61	62.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3641 TRA -.6343 TC3 .3840 BAU .5314 SGT 1284.1 SGR 2325.7 SG3 1460.1 ST 31.9 SR 36.4 SS 102.2
RDE .4856 RRA .4744 RC3-2.6549 FAU .31265 RRT -.6510 RRF .9845 RTF -.6501 CRT -.9736 CRS -.9888 CST .9321
FDE 5.3106 FRA 2.8341 FC-18.2690 BSP 4363 SGB 2656.7 R23 -.1382 R13 .9748 LSA 113.1 MSA 11.8 SSA 1.4
BDE .6069 BRA .7920 BC3 2.6826 FSP 2466 SG1 2496.7 SG2 908.0 THA 112.98 EL1 49.6 EL2 5.6 ALF 129.60

LAUNCH DATE JUL 24 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 481.539 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.923 GAL -.90 AZL 87.53 HCA 150.07 SMA 200.27 ECC .24167 INC 2.4676 V1 29.317
RP 235.42 LAP 1.23 LOP 91.06 VP 21.559 GAP 9.72 AZP 92.14 TAL 355.35 TAP 145.42 RCA 151.87 APO 248.67 V2 23.351
RC 187.714 GL 21.54 GP -26.66 ZAL 95.38 ZAP 123.28 ETS 201.28 ZAE 149.10 ETE 245.43 ZAC 57.91 ETC 285.21 LVI 7.77

PLANETOCENTRIC CONIC

C3 14.901 VHL 3.860 DLA 33.94 RAL 26.06 RAD 6640.5 VEL 11.617 PTH 6.66 VHP 2.908 DPA -10.89 RAP 45.85 ECC 1.2452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 24 14	3787.73	-47.01	155.57	269.46	81.65	11 27 22	2787.7	-44.82	120.71
60.00	10 5 45	3837.12	-37.90	157.47	266.93	75.13	11 9 42	2837.1	-39.96	126.52
70.00	8 57 42	4039.68	-24.46	168.06	261.30	65.38	10 5 1	3039.7	-32.38	142.25
70.41	8 30 58	4121.29	-21.68	172.97	259.85	63.23	9 39 39	3121.3	-30.78	148.17
70.41	8 30 58	4121.29	-21.68	172.97	259.85	63.23	9 39 39	3121.3	-30.78	148.17
70.41	8 30 58	4121.29	-21.68	172.97	259.85	63.23	9 39 39	3121.3	-30.78	148.17
110.00	13 57 8	3086.50	-24.46	96.98	261.30	65.38	14 48 35	2086.5	-32.38	71.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3420 TRA -.6107 TC3 .2830 BAU .5581 SGT 1224.4 SGR 2461.8 SG3 1489.9 ST 30.2 SR 43.6 SS 106.0
RDE .5588 RRA .4818 RC3-2.7871 FAU .31818 RRT -.6081 RRF .9867 RTF -.6054 CRT -.9816 CRS -.9921 CST .9224
FDE 5.5863 FRA 2.7905 FC-18.4863 BSP 4506 SGB 2749.5 R23 -.1163 R13 .9799 LSA 117.9 MSA 11.9 SSA 1.3
BDE .6551 BRA .7779 BC3 2.8014 FSP 2517 SG1 2589.6 SG2 924.0 THA 109.39 EL1 52.6 EL2 6.9 ALF 124.37

LAUNCH DATE JUL 24 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 485.314 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.913 GAL -.90 AZL 87.41 HCA 151.05 SMA 200.07 ECC .24090 INC 2.5915 V1 29.317
RP 235.77 LAP 1.25 LOP 92.03 VP 21.505 GAP 9.47 AZP 92.27 TAL 355.36 TAP 146.41 RCA 151.87 APO 248.27 V2 23.315
RC 190.680 GL 22.59 GP -27.74 ZAL 95.32 ZAP 121.60 ETS 200.94 ZAE 147.48 ETE 243.36 ZAC 56.99 ETC 285.45 LVI 8.66

PLANETOCENTRIC CONIC

C3 15.010 VHL 3.874 DLA 34.89 RAL 25.55 RAD 6640.5 VEL 11.622 PTH 6.66 VHP 2.884 DPA -12.09 RAP 45.72 ECC 1.2470

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 15 38	3813.79	-46.73	158.03	269.87	79.78	11 19 12	2813.8	-45.34	123.00
60.00	9 52 30	3875.66	-37.18	160.49	266.79	73.19	10 57 5	2875.7	-40.17	129.77
68.65	8 18 33	4154.49	-22.20	175.86	259.76	62.36	9 27 47	3154.5	-31.60	151.04
68.65	8 18 33	4154.49	-22.20	175.86	259.76	62.36	9 27 47	3154.5	-31.60	151.04
68.65	8 18 33	4154.49	-22.20	175.86	259.76	62.36	9 27 47	3154.5	-31.60	151.04
68.65	8 18 33	4154.49	-22.20	175.86	259.76	62.36	9 27 47	3154.5	-31.60	151.04
68.65	8 18 33	4154.49	-22.20	175.86	259.76	62.36	9 27 47	3154.5	-31.60	151.04

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3149 TRA -.5875 TC3 .1747 BAU .5865 SGT 1165.0 SGR 2602.5 SG3 1514.4 ST 28.2 SR 49.0 SS 109.6
RDE .6369 RRA .4884 RC3-2.9174 FAU .32267 RRT -.5535 RRF .9886 RTF -.5488 CRT -.9458 CRS -.9944 CST .9084
FDE 5.8550 FRA 2.7344 FC-18.6111 BSP 4680 SGB 2851.3 R23 -.0953 R13 .9840 LSA 122.7 MSA 12.0 SSA 1.3
BDE .7105 BRA .7640 BC3 2.9227 FSP 2566 SG1 2692.7 SG2 937.9 THA 105.89 EL1 56.0 EL2 8.0 ALF 119.19

LAUNCH DATE JUL 24 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 489.090 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.904	GAL	-.90	AZL	87.28	HCA	152.02	SMA	199.88	ECC	.24019	INC	2.7228	V1	29.317
RP	236.12	LAP	1.28	LOP	93.01	VP	21.452	GAP	9.22	AZP	92.41	TAL	355.36	TAP	147.38	RCA	151.87	APO	247.89	V2	23.279
RC	193.649	GL	23.68	GP	-28.86	ZAL	95.28	ZAP	119.91	ETS	200.55	ZAE	148.80	ETE	241.43	ZAC	56.03	ETC	285.69	LVI	9.60

PLANETOCENTRIC CONIC

C3	15.145	VHL	3.892	DLA	35.90	RAL	25.02	RAD	6640.6	VEL	11.627	PTH	6.67	VHP	2.865	DPA	-13.33	RAP	45.59	ECC	1.2493

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 6 17	3842.07	-46.35	160.65	270.27	77.78	11 18 20	2842.1	-45.85	125.54
60.00	9 37 22	3919.47	-36.87	163.85	266.53	71.07	10 42 41	2919.5	-40.29	133.49
66.91	8 6 35	4186.08	-22.71	178.66	259.70	61.42	9 16 22	3186.1	-32.44	153.83
66.91	8 6 35	4186.08	-22.71	178.66	259.70	61.42	9 16 22	3186.1	-32.44	153.83
66.91	8 6 35	4186.08	-22.71	178.66	259.70	61.42	9 16 22	3186.1	-32.44	153.83
66.91	8 6 35	4186.08	-22.71	178.66	259.70	61.42	9 16 22	3186.1	-32.44	153.83
66.91	8 6 35	4186.08	-22.71	178.66	259.70	61.42	9 16 22	3186.1	-32.44	153.83

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.2835	TRA	-.3650	TC3	.0592	BAU	.6166	SGT	1109.3	SGR	2747.9	SG3	1533.6			ST	25.9	SR	54.9	SS	113.1
RDE	.7212	RRA	.4943	RC3	-3.0449	FAU	.32604	RRT	-.4838	RRF	.9902	RTF	-.4777			CRT	-.9242	CRS	-.9960	CST	.0881
FDE	6.1189	FRA	2.6677	FC	-18.6370	BSP	4852	SGB	2963.4	R23	-.0797	R13	.9873			LSA	127.7	MSA	12.1	SSA	1.2
BDE	.7750	BRA	.7507	BC3	3.0455	FSP	2597	SG1	2806.8	SG2	950.5	THA	102.51			EL1	60.0	EL2	9.1	ALF	114.18

LAUNCH DATE JUL 24 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 492.868 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.895	GAL	-.90	AZL	87.14	HCA	152.99	SMA	199.71	ECC	.23953	INC	2.8624	V1	29.317
RP	236.46	LAP	1.30	LOP	93.98	VP	21.400	GAP	8.97	AZP	92.55	TAL	355.35	TAP	148.34	RCA	151.87	APO	247.54	V2	23.244
RC	196.619	GL	24.82	GP	-30.01	ZAL	95.24	ZAP	118.20	ETS	200.14	ZAE	144.06	ETE	239.62	ZAC	55.05	ETC	285.96	LVI	10.56

PLANETOCENTRIC CONIC

C3	15.311	VHL	3.913	DLA	36.95	RAL	24.47	RAD	6640.7	VEL	11.634	PTH	6.67	VHP	2.851	DPA	-14.61	RAP	45.47	ECC	1.2520

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 56 4	3872.87	-45.87	163.47	270.65	75.66	11 0 37	2872.9	-46.33	128.35
60.00	9 19 37	3970.47	-35.08	167.65	266.10	68.73	10 25 47	2970.5	-40.26	137.83
65.16	7 55 0	4216.31	-23.24	181.41	259.67	60.43	9 5 17	3216.3	-33.31	156.57
65.16	7 55 0	4216.31	-23.24	181.41	259.67	60.43	9 5 17	3216.3	-33.31	156.57
65.16	7 55 0	4216.31	-23.24	181.41	259.67	60.43	9 5 17	3216.3	-33.31	156.57
65.16	7 55 0	4216.31	-23.24	181.41	259.67	60.43	9 5 17	3216.3	-33.31	156.57
65.16	7 55 0	4216.31	-23.24	181.41	259.67	60.43	9 5 17	3216.3	-33.31	156.57

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.2473	TRA	-.5400	TC3	-.0511	BAU	.6502	SGT	1054.4	SGR	2902.7	SG3	1549.6			ST	23.4	SR	61.2	SS	116.5
RDE	.8134	RRA	.4970	RC3	-3.1760	FAU	.32906	RRT	-.4029	RRF	.9916	RTF	-.3951			CRT	-.8937	CRS	-.9971	CST	.8566
FDE	6.3834	FRA	2.5758	FC	-18.6064	BSP	5048	SGB	3088.3	R23	-.0575	R13	.9899			LSA	133.1	MSA	12.2	SSA	1.1
BDE	.8502	BRA	.7339	BC3	3.1764	FSP	2622	SG1	2937.3	SG2	953.7	THA	99.32			EL1	64.8	EL2	9.9	ALF	109.34

LAUNCH DATE JUL 24 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 496.647 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.887	GAL	-.90	AZL	86.99	HCA	153.96	SMA	199.58	ECC	.23892	INC	3.0112	V1	29.317
RP	236.81	LAP	1.32	LOP	94.95	VP	21.350	GAP	8.73	AZP	92.71	TAL	355.34	TAP	149.30	RCA	151.87	APO	247.23	V2	23.209
RC	199.589	GL	26.02	GP	-31.20	ZAL	95.21	ZAP	116.49	ETS	199.69	ZAE	142.26	ETE	237.92	ZAC	54.03	ETC	286.24	LVI	11.57

PLANETOCENTRIC CONIC

C3	15.509	VHL	3.938	DLA	38.05	RAL	23.69	RAD	6640.8	VEL	11.643	PTH	6.68	VHP	2.842	DPA	-15.93	RAP	45.36	ECC	1.2552

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 44 46	3906.59	-45.26	166.49	270.98	73.41	10 49 53	2906.6	-46.78	131.49
60.00	8 57 50	4032.51	-33.45	172.11	265.36	66.07	10 5 2	3032.5	-39.98	143.09
63.40	7 43 43	4245.43	-23.76	184.12	259.68	59.36	8 54 29	3245.4	-34.22	159.28
63.40	7 43 43	4245.43	-23.76	184.12	259.68	59.36	8 54 29	3245.4	-34.22	159.28
63.40	7 43 43	4245.43	-23.76	184.12	259.68	59.36	8 54 29	3245.4	-34.22	159.28
63.40	7 43 43	4245.43	-23.76	184.12	259.68	59.36	8 54 29	3245.4	-34.22	159.28
63.40	7 43 43	4245.43	-23.76	184.12	259.68	59.36	8 54 29	3245.4	-34.22	159.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.2096	TRA	-.5212	TC3	-.1788	BAU	.6640	SGT	1819.9	SGR	3060.7	SG3	1558.5			ST	21.0	SR	68.1	SS	120.1
RDE	.9155	RRA	.5023	RC3	-3.2943	FAU	.32996	RRT	-.2994	RRF	.9928	RTF	-.2907			CRT	-.8493	CRS	-.9979	CST	.8146
FDE	6.6523	FRA	2.4993	FC	-18.4189	BSP	5316	SGB	3226.1	R23	-.0414	R13	.9919			LSA	139.2	MSA	12.4	SSA	1.0
BDE	.9392	BRA	.7239	BC3	3.2991	FSP	2657	SG1	3077.5	SG2	967.8	THA	96.32			EL1	70.5	EL2	10.7	ALF	108.02

LAUNCH DATE JUL 24 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 500.427 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.879	GAL	-.90	AZL	86.83	HCA	154.92	SMA	199.40	ECC	.23836	INC	3.1701	V1	29.317
RP	237.14	LAP	1.34	LOP	95.91	VP	21.301	GAP	8.48	AZP	92.87	TAL	355.32	TAP	150.24	RCA	151.87	APO	246.93	V2	23.174
RC	202.557	GL	27.27	GP	-32.43	ZAL	95.19	ZAP	114.78	ETS	199.20	ZAE	140.41	ETE	236.32	ZAC	52.98	ETC	286.55	LVI	12.61

PLANETOCENTRIC CONIC

C3	15.744	VHL	3.968	DLA	39.21	RAL	23.27	RAD	6640.9	VEL	11.653	PTH	6.69	VHP	2.839	DPA	-17.29	RAP	45.25	ECC	1.2591

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 32 11	3943.74	-44.48	169.73	271.22	71.01	10 37 55	2943.7	-47.15	135.00
60.00	8 28 16	4115.70	-31.01	177.80	263.99	62.85	9 36 52	3115.7	-39.21	150.02
61.62	7 32 39	4273.62	-24.29	186.81	259.71	58.22	8 43 52	3273.6	-35.15	162.00
61.62	7 32 39	4273.62	-24.29	186.81	259.71	58.22	8 43 52	3273.6	-35.15	162.00
61.62	7 32 39	4273.62	-24.29	186.81	259.71	58.22	8 43 52	3273.6	-35.15	162.00
61.62	7 32 39	4273.62	-24.29	186.81	259.71	58.22	8 43 52	3273.6	-35.15	162.00
61.62	7 32 39	4273.62	-24.29	186.81	259.71	58.22	8 43 52	3273.6	-35.15	162.00

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.1648	TRA	-.4999	TC3	-.3044	BAU	.7205	SGT	991.5	SGR	3223.0	SG3	1560.6			ST	18.4	SR	75.4	SS	123.4
RDE	1.0250	RRA	.5023	RC3	-3.4095	FAU	.32989	RRT	-.1786	RRF	.9938	RTF	-.1690			CRT	-.7765	CRS	-.9984	CST	.7416
FDE	6.9032	FRA	2.3800	FC	-18.1404	BSP	5553	SGB	3372.0	R23	-.0267	R13	.9935			LSA	145.3	MSA	12.5	SSA	1.0
BDE	1.0381	BRA	.7087	BC3	3.4230	FSP	2659	SG1	3228.3	SG2	973.9	THA	93.46			EL1	76.8	EL2	11.4	ALF	100.94

LAUNCH DATE JUL 24 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC — DISTANCE 504.209 — EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.872 GAL -.90 AZL 86.66 HCA 155.88 SMA 199.27 ECC .23785 INC 3.3402 V1 29.317
RP 237.48 LAP 1.36 LOP 96.87 VP 21.253 GAP 8.24 AZP 93.05 TAL 355.30 TAP 151.18 RCA 151.87 APO 246.66 V2 23.140
RC 205.523 GL 28.59 GP -33.70 ZAL 95.17 ZAP 113.07 ETS 198.67 ZAE 138.51 ETE 234.79 ZAC 51.90 ETC 286.67 LVI 13.68

PLANETOCENTRIC CONIC

C3 16.021 VHL 4.003 DLA 40.43 RAL 22.61 RAD 6641.0 VEL 11.665 PTH 6.70 VHP 2.841 DPA -18.69 RAP 45.16 ECC 1.2637

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 17 57	3985.05	-43.51	173.23	271.32	68.46	10 24 22	2985.1	-47.43	138.95
59.82	7 21 41	4301.14	-24.81	189.49	259.76	57.00	8 33 22	3301.1	-36.10	164.73
59.82	7 21 41	4301.14	-24.81	189.49	259.76	57.00	8 33 22	3301.1	-36.10	164.73
59.82	7 21 41	4301.14	-24.81	189.49	259.76	57.00	8 33 22	3301.1	-36.10	164.73
59.82	7 21 41	4301.14	-24.81	189.49	259.76	57.00	8 33 22	3301.1	-36.10	164.73
59.82	7 21 41	4301.14	-24.81	189.49	259.76	57.00	8 33 22	3301.1	-36.10	164.73
59.82	7 21 41	4301.14	-24.81	189.49	259.76	57.00	8 33 22	3301.1	-36.10	164.73

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.1078 TRA -.4732 TC3 -.4157 BAU .7609 — SGT 962.5 SGR 3390.7 SG3 1556.0 — ST 15.4 SR 82.8 SS 126.0
RDE 1.1383 RRA .4942 RC3-3.5284 FAU .32958 — RRT -.0424 RRF .9947 RTF -.0312 — CRT -.6363 CRS -.9989 CST .6001
FDE 7.1110 FRA 2.2205 FC-17.8101 BSP 5756 — SGB 3524.7 R23 -.0147 R13 .9946 — LSA 151.0 MSA 12.6 SSA .9
BDE 1.1434 BRA .6843 BC3 3.5529 FSP 2628 — SG1 3391.0 SG2 961.5 THA 90.75 — EL1 83.4 EL2 11.8 ALF 96.90

LAUNCH DATE JUL 24 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC — DISTANCE 507.990 — EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.866 GAL -.91 AZL 86.48 HCA 156.84 SMA 199.14 ECC .23738 INC 3.5231 V1 29.317
RP 237.81 LAP 1.39 LOP 97.83 VP 21.206 GAP 8.00 AZP 93.24 TAL 355.26 TAP 152.10 RCA 151.87 APO 246.42 V2 23.106
RC 208.485 GL 29.97 GP -35.01 ZAL 95.15 ZAP 111.36 ETS 198.10 ZAE 136.58 ETE 233.35 ZAC 50.80 ETC 287.22 LVI 14.80

PLANETOCENTRIC CONIC

C3 16.345 VHL 4.043 DLA 41.70 RAL 21.91 RAD 6641.2 VEL 11.678 PTH 6.71 VHP 2.850 DPA -20.13 RAP 45.09 ECC 1.2690

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 1 35	4031.67	-42.27	177.02	271.21	65.74	10 8 47	3031.7	-47.57	143.45
57.97	7 10 48	4328.15	-25.32	192.20	259.85	55.69	8 22 56	3328.2	-37.09	167.50
57.97	7 10 48	4328.15	-25.32	192.20	259.85	55.69	8 22 56	3328.2	-37.09	167.50
57.97	7 10 48	4328.15	-25.32	192.20	259.85	55.69	8 22 56	3328.2	-37.09	167.50
57.97	7 10 48	4328.15	-25.32	192.20	259.85	55.69	8 22 56	3328.2	-37.09	167.50
57.97	7 10 48	4328.15	-25.32	192.20	259.85	55.69	8 22 56	3328.2	-37.09	167.50
57.97	7 10 48	4328.15	-25.32	192.20	259.85	55.69	8 22 56	3328.2	-37.09	167.50

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.0553 TRA -.4600 TC3 -.5557 BAU .7998 — SGT 985.2 SGR 3561.0 SG3 1543.5 — ST 13.7 SR 91.3 SS 129.2
RDE 1.2713 RRA .4937 RC3-3.6176 FAU .32583 — RRT .1011 RRF .9954 RTF .1119 — CRT -.4277 CRS -.9992 CST .3915
FDE 7.3497 FRA 2.1016 FC-17.2578 BSP 6111 — SGB 3694.6 R23 -.0031 R13 .9955 — LSA 158.3 MSA 12.9 SSA .8
BDE 1.2725 BRA .6748 BC3 3.6601 FSP 2639 — SG1 3562.5 SG2 979.7 THA 88.27 — EL1 91.5 EL2 12.3 ALF 93.74

LAUNCH DATE JUL 24 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC — DISTANCE 511.772 — EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.860 GAL -.91 AZL 86.28 HCA 157.79 SMA 199.03 ECC .23696 INC 3.7204 V1 29.317
RP 238.14 LAP 1.41 LOP 98.79 VP 21.161 GAP 7.76 AZP 93.45 TAL 355.22 TAP 153.01 RCA 151.87 APO 246.19 V2 23.073
RC 211.443 GL 31.42 GP -36.36 ZAL 95.14 ZAP 109.67 ETS 197.48 ZAE 134.61 ETE 231.97 ZAC 49.65 ETC 287.60 LVI 15.96

PLANETOCENTRIC CONIC

C3 16.725 VHL 4.090 DLA 43.04 RAL 21.15 RAD 6641.3 VEL 11.695 PTH 6.73 VHP 2.866 DPA -21.61 RAP 45.05 ECC 1.2752

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 42 17	4085.34	-40.69	181.19	270.76	62.83	9 50 22	3085.3	-47.49	148.64
56.09	6 59 54	4354.76	-25.82	194.92	259.96	54.28	8 12 29	3354.8	-38.09	170.33
56.09	6 59 54	4354.76	-25.82	194.92	259.96	54.28	8 12 29	3354.8	-38.09	170.33
56.09	6 59 54	4354.76	-25.82	194.92	259.96	54.28	8 12 29	3354.8	-38.09	170.33
56.09	6 59 54	4354.76	-25.82	194.92	259.96	54.28	8 12 29	3354.8	-38.09	170.33
56.09	6 59 54	4354.76	-25.82	194.92	259.96	54.28	8 12 29	3354.8	-38.09	170.33
56.09	6 59 54	4354.76	-25.82	194.92	259.96	54.28	8 12 29	3354.8	-38.09	170.33

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .0091 TRA -.4431 TC3 -.6815 BAU .8418 — SGT 1016.1 SGR 3736.1 SG3 1523.5 — ST 12.8 SR 100.1 SS 131.8
RDE 1.4130 RRA .4864 RC3-3.7024 FAU .32128 — RRT .2427 RRF .9961 RTF .2435 — CRT -.0871 CRS -.9994 CST .0529
FDE 7.5515 FRA 1.9500 FC-16.6305 BSP 6407 — SGB 3871.8 R23 .0064 R13 .9961 — LSA 165.5 MSA 13.0 SSA .7
BDE 1.4130 BRA .6580 BC3 3.7646 FSP 2605 — SG1 3744.9 SG2 983.4 THA 85.94 — EL1 100.1 EL2 12.7 ALF 90.65

LAUNCH DATE JUL 24 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC — DISTANCE 515.554 — EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.855 GAL -.92 AZL 86.07 HCA 158.74 SMA 198.93 ECC .23658 INC 3.9337 V1 29.317
RP 238.47 LAP 1.43 LOP 99.75 VP 21.117 GAP 7.52 AZP 93.67 TAL 355.18 TAP 153.92 RCA 151.87 APO 245.99 V2 23.040
RC 214.394 GL 32.95 GP -37.74 ZAL 95.14 ZAP 107.99 ETS 196.82 ZAE 132.62 ETE 230.64 ZAC 48.48 ETC 288.01 LVI 17.16

PLANETOCENTRIC CONIC

C3 17.169 VHL 4.144 DLA 44.45 RAL 20.31 RAD 6641.5 VEL 11.713 PTH 6.75 VHP 2.890 DPA -23.12 RAP 45.03 ECC 1.2826

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 18 33	4149.43	-38.59	185.89	269.78	59.66	9 27 43	3149.4	-47.07	154.77
54.15	6 48 55	4381.17	-26.30	197.69	260.08	52.77	8 1 57	3381.2	-39.10	173.25
54.15	6 48 55	4381.17	-26.30	197.69	260.08	52.77	8 1 57	3381.2	-39.10	173.25
54.15	6 48 55	4381.17	-26.30	197.69	260.08	52.77	8 1 57	3381.2	-39.10	173.25
54.15	6 48 55	4381.17	-26.30	197.69	260.08	52.77	8 1 57	3381.2	-39.10	173.25
54.15	6 48 55	4381.17	-26.30	197.69	260.08	52.77	8 1 57	3381.2	-39.10	173.25
54.15	6 48 55	4381.17	-26.30	197.69	260.08	52.77	8 1 57	3381.2	-39.10	173.25

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .0812 TRA -.4261 TC3 -.8039 BAU .8861 — SGT 1066.7 SGR 3913.4 SG3 1495.1 — ST 13.6 SR 109.3 SS 134.1
RDE 1.5670 RRA .4696 RC3-3.7761 FAU .31541 — RRT .3779 RRF .9966 RTF .3883 — CRT .2981 CRS -.9995 CST -.3260
FDE 7.7259 FRA 1.7593 FC-15.9046 BSP 6723 — SGB 4056.2 R23 .0147 R13 .9966 — LSA 173.0 MSA 13.2 SSA .7
BDE 1.5691 BRA .6341 BC3 3.8607 FSP 2559 — SG1 3935.5 SG2 982.1 THA 83.73 — EL1 109.4 EL2 13.0 ALF 87.84

LAUNCH DATE JUL 24 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC DISTANCE 519.336 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.850	GAL	-.93	AZL	85.83	HCA	159.69	SMA	198.84	ECC	.23623	INC	4.1654	V1	29.317
RP	238.79	LAP	1.44	LOP	100.70	VP	21.074	GAP	7.29	AZP	93.91	TAL	355.13	TAP	154.82	RCA	151.86	APO	245.81	V2	23.088
RC	217.340	GL	34.56	GP	-39.16	ZAL	95.13	ZAP	106.34	ETS	196.11	ZAE	130.60	ETE	229.36	ZAC	47.28	ETC	288.44	LVI	18.40

PLANETOCENTRIC CONIC

C3	17.688	VHL	4.206	DLA	45.93	RAL	19.40	RAD	6641.8	VEL	11.735	PTH	6.77	VHP	2.921	DPA	-24.66	RAP	45.05	ECC	1.2911

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 46 49	4232.34	-35.58	191.54	267.82	56.04	8 57 21	3232.3	-46.00	162.48
52.17	6 37 48	4407.45	-26.74	200.51	260.22	51.15	7 51 15	3407.5	-40.13	176.26
52.17	6 37 48	4407.45	-26.74	200.51	260.22	51.15	7 51 15	3407.5	-40.13	176.26
52.17	6 37 48	4407.45	-26.74	200.51	260.22	51.15	7 51 15	3407.5	-40.13	176.26
52.17	6 37 48	4407.45	-26.74	200.51	260.22	51.15	7 51 15	3407.5	-40.13	176.26
52.17	6 37 48	4407.45	-26.74	200.51	260.22	51.15	7 51 15	3407.5	-40.13	176.26
52.17	6 37 48	4407.45	-26.74	200.51	260.22	51.15	7 51 15	3407.5	-40.13	176.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1626	TRA	-.4136	TC3	-.9224	BAU	.9318	SGT	1143.4	SGR	4093.6	SG3	1458.4	ST	16.5	SR	119.0	SS	135.9
RDE	1.7348	RRA	.4533	RC3	-3.8310	FAU	.30770	RRT	.4923	RRF	.9971	RTF	.5023	CRT	.5875	CRS	-.9997	CST	-.6079
FDE	7.8677	FRA	1.5803	FC	-15.0602	BSP	7048	SGB	4250.3	R23	.0215	R13	.9970	LSA	180.9	MSA	13.4	SSA	.6
BDE	1.7424	BRA	.6137	BC3	3.9405	FSP	2496	SG1	4134.5	SG2	985.4	THA	81.70	EL1	119.4	EL2	13.3	ALF	85.29

LAUNCH DATE JUL 24 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 523.117 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.846	GAL	-.94	AZL	85.58	HCA	160.64	SMA	198.75	ECC	.23592	INC	4.4181	V1	29.317
RP	239.10	LAP	1.46	LOP	101.65	VP	21.032	GAP	7.05	AZP	94.17	TAL	355.07	TAP	155.70	RCA	151.86	APO	245.64	V2	22.975
RC	220.278	GL	36.26	GP	-40.62	ZAL	95.12	ZAP	104.71	ETS	195.35	ZAE	128.57	ETE	228.13	ZAC	46.05	ETC	288.91	LVI	19.68

PLANETOCENTRIC CONIC

C3	18.297	VHL	4.277	DLA	47.48	RAL	18.38	RAD	6642.1	VEL	11.761	PTH	6.79	VHP	2.982	DPA	-26.24	RAP	45.10	ECC	1.3011

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 44 16	4389.47	-29.17	201.04	262.29	50.59	7 57 25	3389.5	-42.53	175.99
50.12	6 26 26	4433.78	-27.14	203.39	260.36	49.41	7 40 20	3433.8	-41.16	179.41
50.12	6 26 26	4433.78	-27.14	203.39	260.36	49.41	7 40 20	3433.8	-41.16	179.41
50.12	6 26 26	4433.78	-27.14	203.39	260.36	49.41	7 40 20	3433.8	-41.16	179.41
50.12	6 26 26	4433.78	-27.14	203.39	260.36	49.41	7 40 20	3433.8	-41.16	179.41
50.12	6 26 26	4433.78	-27.14	203.39	260.36	49.41	7 40 20	3433.8	-41.16	179.41
50.12	6 26 26	4433.78	-27.14	203.39	260.36	49.41	7 40 20	3433.8	-41.16	179.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2540	TRA	-.4025	TC3	-1.0329	BAU	.9800	SGT	1238.2	SGR	4274.9	SG3	1413.0	ST	20.8	SR	129.1	SS	137.0
RDE	1.9166	RRA	.4274	RC3	-3.8709	FAU	.29865	RRT	.5901	RRF	.9975	RTF	.5996	CRT	.7575	CRS	-.9997	CST	-.7717
FDE	7.9682	FRA	1.3735	FC	-14.1310	BSP	7389	SGB	4450.6	R23	.0273	R13	.9972	LSA	188.9	MSA	13.5	SSA	.5
BDE	1.9333	BRA	.5871	BC3	4.0064	FSP	2421	SG1	4340.3	SG2	984.5	THA	79.77	EL1	130.1	EL2	13.5	ALF	82.95

LAUNCH DATE JUL 24 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC DISTANCE 526.899 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.842	GAL	-.95	AZL	85.30	HCA	161.58	SMA	198.68	ECC	.23565	INC	4.6950	V1	29.317
RP	239.42	LAP	1.48	LOP	102.60	VP	20.992	GAP	6.81	AZP	94.46	TAL	355.00	TAP	156.58	RCA	151.86	APO	245.50	V2	22.944
RC	223.209	GL	38.06	GP	-42.12	ZAL	95.11	ZAP	103.12	ETS	194.55	ZAE	126.53	ETE	226.92	ZAC	44.78	ETC	289.42	LVI	21.00

PLANETOCENTRIC CONIC

C3	19.013	VHL	4.360	DLA	49.12	RAL	17.24	RAD	6642.4	VEL	11.791	PTH	6.81	VHP	3.012	DPA	-27.84	RAP	45.21	ECC	1.3129

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.01	6 14 44	4460.35	-27.48	206.34	260.49	47.55	7 29 5	3460.3	-42.17	182.71
48.01	6 14 44	4460.35	-27.48	206.34	260.49	47.55	7 29 5	3460.3	-42.17	182.71
48.01	6 14 44	4460.35	-27.48	206.34	260.49	47.55	7 29 5	3460.3	-42.17	182.71
48.01	6 14 44	4460.35	-27.48	206.34	260.49	47.55	7 29 5	3460.3	-42.17	182.71
48.01	6 14 44	4460.35	-27.48	206.34	260.49	47.55	7 29 5	3460.3	-42.17	182.71
48.01	6 14 44	4460.35	-27.48	206.34	260.49	47.55	7 29 5	3460.3	-42.17	182.71
48.01	6 14 44	4460.35	-27.48	206.34	260.49	47.55	7 29 5	3460.3	-42.17	182.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.3562	TRA	-.3953	TC3	-1.1356	BAU	1.0288	SGT	1352.7	SGR	4456.4	SG3	1358.9	ST	26.3	SR	139.8	SS	137.8
RDE	2.1182	RRA	.3971	RC3	-3.8848	FAU	.28755	RRT	.6677	RRF	.9979	RTF	.6168	CRT	.8493	CRS	-.9998	CST	-.8592
FDE	8.0368	FRA	1.1661	FC	-13.0936	BSP	7752	SGB	4657.1	R23	.0323	R13	.9974	LSA	197.6	MSA	13.7	SSA	.5
BDE	2.1479	BRA	.3603	BC3	4.0474	FSP	2334	SG1	4551.6	SG2	985.9	THA	77.97	EL1	141.6	EL2	13.7	ALF	80.83

LAUNCH DATE JUL 24 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC DISTANCE 530.679 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.839	GAL	-.96	AZL	85.00	HCA	162.52	SMA	198.61	ECC	.23542	INC	4.9999	V1	29.317
RP	239.73	LAP	1.50	LOP	103.54	VP	20.952	GAP	6.58	AZP	94.77	TAL	354.93	TAP	157.45	RCA	151.86	APO	245.37	V2	22.912
RC	226.132	GL	39.95	GP	-43.66	ZAL	95.09	ZAP	101.57	ETS	193.70	ZAE	124.48	ETE	225.75	ZAC	43.48	ETC	289.97	LVI	22.36

PLANETOCENTRIC CONIC

C3	19.858	VHL	4.456	DLA	50.83	RAL	15.95	RAD	6642.8	VEL	11.827	PTH	6.85	VHP	3.074	DPA	-29.48	RAP	45.36	ECC	1.3268

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.83	6 2 36	4487.27	-27.75	209.36	260.58	45.54	7 17 23	3487.3	-43.16	186.19
45.83	6 2 36	4487.27	-27.75	209.36	260.58	45.54	7 17 23	3487.3	-43.16	186.19
45.83	6 2 36	4487.27	-27.75	209.36	260.58	45.54	7 17 23	3487.3	-43.16	186.19
45.83	6 2 36	4487.27	-27.75	209.36	260.58	45.54	7 17 23	3487.3	-43.16	186.19
45.83	6 2 36	4487.27	-27.75	209.36	260.58	45.54	7 17 23	3487.3	-43.16	186.19
45.83	6 2 36	4487.27	-27.75	209.36	260.58	45.54	7 17 23	3487.3	-43.16	186.19
45.83	6 2 36	4487.27	-27.75	209.36	260.58	45.54	7 17 23	3487.3	-43.16	186.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.4705	TRA	-.3913	TC3	-1.2262	BAU	1.0795	SGT	1481.4	SGR	4638.4	SG3	1296.8	ST	32.6	SR	150.9	SS	137.9
RDE	2.3392	RRA	.3575	RC3	-3.8769	FAU	.27499	RRT	.7300	RRF	.9982	RTF	.7381	CRT	.9011	CRS	-.9999	CST	-.9081
FDE	8.0584	FRA	.9467	FC	-11.9883	BSP	8123	SGB	4869.2	R23	.0364	R13	.9976	LSA	206.5	MSA	13.9	SSA	.4
BDE	2.3860	BRA	.5300	BC3	4.0662	FSP	2232	SG1	4768.6	SG2	984.8	THA	76.28	EL1	153.7	EL2	13.9	ALF	78.90

LAUNCH DATE JUL 24 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 13 1974

HELIOCENTRIC CONIC DISTANCE 534.459 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.836	GAL	-.98	AZL	84.66	HCA	163.46	SMA	198.86	ECC	.23521	INC	5.3373	V1	29.317
RP	240.03	LAP	1.52	LOP	104.48	VP	20.914	GAP	6.35	AZP	95.12	TAL	354.86	TAP	158.32	RCA	151.85	APO	245.26	V2	22.882
RC	229.048	GL	41.96	GP	-45.23	ZAL	95.06	ZAP	100.07	ETS	192.81	ZAE	122.44	ETE	224.60	ZAC	42.15	ETC	290.58	LVI	23.77

PLANETOCENTRIC CONIC

C3	20.863	VHL	4.568	DLA	52.62	RAL	14.49	RAD	6643.2	VEL	11.869	PTH	6.88	VHP	3.149	DPA	-31.13	RAP	45.57	ECC	1.3434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.58	5 49 50	4514.82	-27.93	212.47	260.61	43.40	7 5 5	3514.8	-44.09	189.88
43.58	5 49 50	4514.82	-27.93	212.47	260.61	43.40	7 5 5	3514.8	-44.09	189.88
43.58	5 49 50	4514.82	-27.93	212.47	260.61	43.40	7 5 5	3514.8	-44.09	189.88
43.58	5 49 50	4514.82	-27.93	212.47	260.61	43.40	7 5 5	3514.8	-44.09	189.88
43.58	5 49 50	4514.82	-27.93	212.47	260.61	43.40	7 5 5	3514.8	-44.09	189.88
43.58	5 49 50	4514.82	-27.93	212.47	260.61	43.40	7 5 5	3514.8	-44.09	189.88
43.58	5 49 50	4514.82	-27.93	212.47	260.61	43.40	7 5 5	3514.8	-44.09	189.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.5978	TRA	-.3923	TC3	-1.3045	BAU	1.1314	SGT	1624.5	SGR	4818.1	SG3	1225.9	ST	39.5	SR	162.3	SS	137.2
RDE	2.5825	RRA	.3094	RC3	-3.8410	FAU	.26070	RRT	.7783	RRF	.9984	RTF	.7858	CRT	.9314	CRS	-.9999	CST	-.9365
FDE	8.0285	FRA	.7248	FC	-10.8177	BSP	8506	SGB	5084.6	R23	.0400	R13	.9977	LSA	215.7	MSA	14.0	SSA	.4
BDE	2.6508	BRA	.4996	BC3	4.0564	FSP	2118	SG1	4988.3	SG2	985.2	THA	74.68	EL1	166.5	EL2	14.0	ALF	77.15

LAUNCH DATE JUL 24 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 15 1974

HELIOCENTRIC CONIC DISTANCE 536.237 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.833	GAL	-.99	AZL	84.29	HCA	164.39	SMA	198.51	ECC	.23504	INC	5.7129	V1	29.317
RP	240.34	LAP	1.54	LOP	105.42	VP	20.877	GAP	6.11	AZP	95.50	TAL	354.78	TAP	159.17	RCA	151.85	APO	245.16	V2	22.851
RC	231.955	GL	44.08	GP	-46.84	ZAL	95.02	ZAP	98.63	ETS	191.86	ZAE	120.42	ETE	223.47	ZAC	40.80	ETC	291.23	LVI	25.22

PLANETOCENTRIC CONIC

C3	22.066	VHL	4.697	DLA	54.49	RAL	12.79	RAD	6643.7	VEL	11.919	PTH	6.93	VHP	3.239	DPA	-32.81	RAP	45.85	ECC	1.3631

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.26	5 36 18	4543.14	-27.98	215.67	260.53	41.12	6 52 1	3543.1	-44.94	193.80
41.26	5 36 18	4543.14	-27.98	215.67	260.53	41.12	6 52 1	3543.1	-44.94	193.80
41.26	5 36 18	4543.14	-27.98	215.67	260.53	41.12	6 52 1	3543.1	-44.94	193.80
41.26	5 36 18	4543.14	-27.98	215.67	260.53	41.12	6 52 1	3543.1	-44.94	193.80
41.26	5 36 18	4543.14	-27.98	215.67	260.53	41.12	6 52 1	3543.1	-44.94	193.80
41.26	5 36 18	4543.14	-27.98	215.67	260.53	41.12	6 52 1	3543.1	-44.94	193.80
41.26	5 36 18	4543.14	-27.98	215.67	260.53	41.12	6 52 1	3543.1	-44.94	193.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.7389	TRA	-.3990	TC3	-1.3672	BAU	1.1868	SGT	1778.8	SGR	4996.1	SG3	1147.6	ST	46.8	SR	173.9	SS	135.5
RDE	2.8467	RRA	.2471	RC3	-3.7836	FAU	.24539	RRT	.8170	RRF	.9986	RTF	.8240	CRT	.9502	CRS	-.9999	CST	-.9541
FDE	7.9299	FRA	.4926	FC3	-9.6275	BSP	8864	SGB	5303.3	R23	.0429	R13	.9978	LSA	224.9	MSA	14.2	SSA	.3
BDE	2.9410	BRA	.4693	BC3	4.0231	FSP	1982	SG1	5211.3	SG2	983.5	THA	73.16	EL1	179.5	EL2	14.1	ALF	75.98

LAUNCH DATE JUL 24 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 17 1974

HELIOCENTRIC CONIC DISTANCE 542.014 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.831	GAL	-1.01	AZL	83.87	HCA	165.32	SMA	198.48	ECC	.23490	INC	6.1341	V1	29.317
RP	240.63	LAP	1.55	LOP	106.36	VP	20.841	GAP	5.88	AZP	95.94	TAL	354.69	TAP	160.02	RCA	151.85	APO	245.08	V2	22.821
RC	234.852	GL	46.33	GP	-48.48	ZAL	94.97	ZAP	97.25	ETS	190.88	ZAE	118.41	ETE	222.35	ZAC	39.41	ETC	291.95	LVI	26.70

PLANETOCENTRIC CONIC

C3	23.516	VHL	4.849	DLA	56.45	RAL	10.81	RAD	6644.4	VEL	11.979	PTH	6.98	VHP	3.347	DPA	-34.51	RAP	46.20	ECC	1.3870

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.87	5 21 45	4572.52	-27.89	218.94	260.28	38.71	6 37 58	3572.5	-45.68	197.97
38.87	5 21 45	4572.52	-27.89	218.94	260.28	38.71	6 37 58	3572.5	-45.68	197.97
38.87	5 21 45	4572.52	-27.89	218.94	260.28	38.71	6 37 58	3572.5	-45.68	197.97
38.87	5 21 45	4572.52	-27.89	218.94	260.28	38.71	6 37 58	3572.5	-45.68	197.97
38.87	5 21 45	4572.52	-27.89	218.94	260.28	38.71	6 37 58	3572.5	-45.68	197.97
38.87	5 21 45	4572.52	-27.89	218.94	260.28	38.71	6 37 58	3572.5	-45.68	197.97
38.87	5 21 45	4572.52	-27.89	218.94	260.28	38.71	6 37 58	3572.5	-45.68	197.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8955	TRA	-.4116	TC3	-1.4116	BAU	1.2436	SGT	1941.1	SGR	5172.1	SG3	1062.7	ST	54.6	SR	185.7	SS	132.9
RDE	3.1410	RRA	.1712	RC3	-3.6952	FAU	.22857	RRT	.8477	RRF	.9988	RTF	.8643	CRT	.9627	CRS	-.9999	CST	-.9656
FDE	7.7735	FRA	.2629	FC3	-8.4147	BSP	9262	SGB	5524.4	R23	.0450	R13	.9979	LSA	234.3	MSA	14.2	SSA	.3
BDE	3.2662	BRA	.4458	BC3	3.9556	FSP	1843	SG1	5436.8	SG2	979.5	THA	71.74	EL1	193.0	EL2	14.2	ALF	74.12

LAUNCH DATE JUL 24 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 19 1974

HELIOCENTRIC CONIC DISTANCE 545.789 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.830	GAL	-1.03	AZL	83.39	HCA	166.25	SMA	198.43	ECC	.23478	INC	6.6096	V1	29.317
RP	240.93	LAP	1.57	LOP	107.30	VP	20.806	GAP	5.65	AZP	96.42	TAL	354.60	TAP	160.85	RCA	151.84	APO	245.02	V2	22.792
RC	237.739	GL	48.71	GP	-50.15	ZAL	94.90	ZAP	95.94	ETS	189.86	ZAE	116.43	ETE	221.25	ZAC	38.00	ETC	292.74	LVI	28.23

PLANETOCENTRIC CONIC

C3	25.283	VHL	5.028	DLA	58.48	RAL	8.48	RAD	6645.1	VEL	12.052	PTH	7.04	VHP	3.475	DPA	-36.21	RAP	46.64	ECC	1.4161

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.42	5 5 54	4603.24	-27.61	222.29	259.78	36.16	6 22 37	3603.2	-46.25	202.41
36.42	5 5 54	4603.24	-27.61	222.29	259.78	36.16	6 22 37	3603.2	-46.25	202.41
36.42	5 5 54	4603.24	-27.61	222.29	259.78	36.16	6 22 37	3603.2	-46.25	202.41
36.42	5 5 54	4603.24	-27.61	222.29	259.78	36.16	6 22 37	3603.2	-46.25	202.41
36.42	5 5 54	4603.24	-27.61	222.29	259.78	36.16	6 22 37	3603.2	-46.25	202.41
36.42	5 5 54	4603.24	-27.61	222.29	259.78	36.16	6 22 37	3603.2	-46.25	202.41
36.42	5 5 54	4603.24	-27.61	222.29	259.78	36.16	6 22 37	3603.2	-46.25	202.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0672	TRA	-.4326	TC3	-1.4372	BAU	1.3022	SGT	2111.1	SGR	5343.5	SG3	971.4	ST	62.5	SR	197.6	SS	129.1
RDE	3.4663	RRA	.0808	RC3	-3.5745	FAU	.21041	RRT	.8716	RRF	.9990	RTF	.8779	CRT	.9709	CRS	-.9999	CST	-.9732
FDE	7.5447	FRA	.0438	FC3	-7.2049	BSP	9643	SGB	5745.5	R23	.0468	R13	.9980	LSA	243.7	MSA	14.4	SSA	.3
BDE	3.6268	BRA	.4401	BC3	3.8526	FSP	1690	SG1	5661.8	SG2	976.6	THA	70.39	EL1	206.7	EL2	14.3	ALF	72.85

LAUNCH DATE JUL 24 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 21 1974

HELIOCENTRIC CONIC DISTANCE 549.562 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.826	GAL	-1.04	AZL	82.85	HCA	167.17	SMA	198.40	ECC	.23470	INC	7.1511
RP	241.22	LAP	1.58	LOP	108.23	VP	20.772	GAP	5.42	AZP	96.97	TAL	354.51	TAP	161.68	RCA	151.84	APO	244.96
RC	240.615	GL	51.24	GP	-51.85	ZAL	94.81	ZAP	94.71	ETS	188.81	ZAE	114.49	ETE	220.15	ZAC	36.57	ETC	293.61

V1	29.317																		
V2	22.763																		
LVI	29.79																		

PLANETOCENTRIC CONIC

C3	27.458	VHL	5.240	DLA	60.57	RAL	5.67	RAD	6646.0	VEL	12.141	PTH	7.11	VHP	3.628	DPA	-37.92	RAP	47.16

ECC	1.4519																		
V2	22.763																		
LVI	29.79																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.91	4 48 20	4635.65	-27.10	225.69	258.91	33.50	6 5 36	3635.7	-46.60	207.09
33.91	4 48 20	4635.65	-27.10	225.69	258.91	33.50	6 5 36	3635.7	-46.60	207.09
33.91	4 48 20	4635.65	-27.10	225.69	258.91	33.50	6 5 36	3635.7	-46.60	207.09
33.91	4 48 20	4635.65	-27.10	225.69	258.91	33.50	6 5 36	3635.7	-46.60	207.09
33.91	4 48 20	4635.65	-27.10	225.69	258.91	33.50	6 5 36	3635.7	-46.60	207.09
33.91	4 48 20	4635.65	-27.10	225.69	258.91	33.50	6 5 36	3635.7	-46.60	207.09
33.91	4 48 20	4635.65	-27.10	225.69	258.91	33.50	6 5 36	3635.7	-46.60	207.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2525	TRA	-.4631	TC3	-1.4424	BAU	1.3649	SGT	2285.3	SGR	5508.4	SG3	875.0	ST	70.2	SR	208.9	SS	123.8
RDE	3.8190	RRA	-.0370	RC3	-3.4269	FAU	.19143	RRT	.8923	RRF	.9991	RTF	.8983	CRT	.9767	CRS	-1.0000	CST	-.9787
FDE	7.2237	FRA	-.1788	FC3	-6.0357	BSP	9993	SGB	5963.6	R23	.0475	R13	.9981	LSA	252.4	MSA	14.4	SSA	.2
BDE	4.0192	BRA	.4645	BC3	3.7181	FSP	1522	SG1	5884.9	SG2	965.7	THA	69.10	EL1	219.9	EL2	14.3	ALF	71.74

LAUNCH DATE JUL 24 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 23 1974

HELIOCENTRIC CONIC DISTANCE 553.332 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.827	GAL	-1.06	AZL	82.23	HCA	168.10	SMA	198.38	ECC	.23463	INC	7.7735
RP	241.50	LAP	1.60	LOP	109.16	VP	20.739	GAP	5.19	AZP	97.61	TAL	354.41	TAP	162.51	RCA	151.83	APO	244.92
RC	243.479	GL	53.92	GP	-53.57	ZAL	94.70	ZAP	93.57	ETS	187.74	ZAE	112.59	ETE	219.08	ZAC	35.12	ETC	294.56

V1	29.317																		
V2	22.734																		
LVI	31.38																		

PLANETOCENTRIC CONIC

C3	30.173	VHL	5.493	DLA	62.72	RAL	2.27	RAD	6647.1	VEL	12.252	PTH	7.20	VHP	3.811	DPA	-39.62	RAP	47.79

ECC	1.4966																		
V2	22.734																		
LVI	31.38																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.36	4 28 32	4670.10	-26.33	229.10	257.50	30.75	5 46 22	3670.1	-46.67	211.99
31.36	4 28 32	4670.10	-26.33	229.10	257.50	30.75	5 46 22	3670.1	-46.67	211.99
31.36	4 28 32	4670.10	-26.33	229.10	257.50	30.75	5 46 22	3670.1	-46.67	211.99
31.36	4 28 32	4670.10	-26.33	229.10	257.50	30.75	5 46 22	3670.1	-46.67	211.99
31.36	4 28 32	4670.10	-26.33	229.10	257.50	30.75	5 46 22	3670.1	-46.67	211.99
31.36	4 28 32	4670.10	-26.33	229.10	257.50	30.75	5 46 22	3670.1	-46.67	211.99
31.36	4 28 32	4670.10	-26.33	229.10	257.50	30.75	5 46 22	3670.1	-46.67	211.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4483	TRA	-.5053	TC3	-1.4250	BAU	1.4303	SGT	2460.8	SGR	5668.6	SG3	775.0	ST	77.5	SR	219.5	SS	117.1
RDE	4.2061	RRA	-.1771	RC3	-3.2468	FAU	.17146	RRT	.9087	RRF	.9992	RTF	.9145	CRT	.9807	CRS	-1.0000	CST	-.9823
FDE	6.8135	FRA	-.3777	FC3	-4.9195	BSP	10358	SGB	6179.7	R23	.0475	R13	.9982	LSA	260.2	MSA	14.4	SSA	.2
BDE	4.4485	BRA	.5354	BC3	3.5458	FSP	1352	SG1	6105.7	SG2	953.8	THA	67.91	EL1	232.4	EL2	14.3	ALF	70.82

LAUNCH DATE JUL 24 1973 FLIGHT TIME 244.00 ARRIVAL DATE MAR 25 1974

HELIOCENTRIC CONIC DISTANCE 557.099 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.826	GAL	-1.08	AZL	81.50	HCA	169.01	SMA	198.36	ECC	.23460	INC	8.4968
RP	241.78	LAP	1.61	LOP	110.09	VP	20.706	GAP	4.96	AZP	98.34	TAL	354.31	TAP	163.32	RCA	151.83	APO	244.90
RC	246.330	GL	56.77	GP	-55.31	ZAL	94.56	ZAP	92.52	ETS	186.66	ZAE	110.76	ETE	218.01	ZAC	33.65	ETC	295.61

V1	29.317																		
V2	22.706																		
LVI	32.99																		

PLANETOCENTRIC CONIC

C3	33.613	VHL	5.798	DLA	64.89	RAL	358.07	RAD	6648.4	VEL	12.390	PTH	7.30	VHP	4.032	DPA	-41.31	RAP	48.52

ECC	1.5532																		
V2	22.706																		
LVI	32.99																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.81	4 5 46	4707.03	-25.23	232.47	255.32	27.98	5 24 13	3707.0	-46.38	217.02
28.81	4 5 46	4707.03	-25.23	232.47	255.32	27.98	5 24 13	3707.0	-46.38	217.02
28.81	4 5 46	4707.03	-25.23	232.47	255.32	27.98	5 24 13	3707.0	-46.38	217.02
28.81	4 5 46	4707.03	-25.23	232.47	255.32	27.98	5 24 13	3707.0	-46.38	217.02
28.81	4 5 46	4707.03	-25.23	232.47	255.32	27.98	5 24 13	3707.0	-46.38	217.02
28.81	4 5 46	4707.03	-25.23	232.47	255.32	27.98	5 24 13	3707.0	-46.38	217.02
28.81	4 5 46	4707.03	-25.23	232.47	255.32	27.98	5 24 13	3707.0	-46.38	217.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6441	TRA	-.5620	TC3	-1.3656	BAU	1.5007	SGT	2633.3	SGR	5822.8	SG3	672.9	ST	83.6	SR	228.6	SS	108.6
RDE	4.6179	RRA	-.3500	RC3	-3.0386	FAU	.15088	RRT	.9223	RRF	.9992	RTF	.9282	CRT	.9832	CRS	-1.0000	CST	-.9847
FDE	6.2929	FRA	-.5548	FC3	-3.8859	BSP	10707	SGB	6390.6	R23	.0463	R13	.9983	LSA	266.1	MSA	14.4	SSA	.2
BDE	4.9019	BRA	.6621	BC3	3.3396	FSP	1175	SG1	6321.5	SG2	937.2	THA	66.82	EL1	243.0	EL2	14.4	ALF	70.15

LAUNCH DATE JUL 24 1973 FLIGHT TIME 246.00 ARRIVAL DATE MAR 27 1974

HELIOCENTRIC CONIC DISTANCE 560.863 EARTH TO MARS

RL	151.97	LAL	-.00	LOL	300.96	VL	32.826	GAL	-1.10	AZL	80.65	HCA	169.93	SMA	198.35	ECC	.23459	INC	9.3479
RP	242.06	LAP	1.63	LOP	111.02	VP	20.675	GAP	4.73	AZP	99.21	TAL	354.21	TAP	164.14	RCA	151.82	APO	244.88
RC	249.167	GL	59.79	GP	-57.04	ZAL	94.39	ZAP	91.58	ETS	185.57	ZAE	109.00	ETE	216.98	ZAC	32.19	ETC	296.77

V1	29.317																		
V2	22.679																		
LVI	34.61																		

PLANETOCENTRIC CONIC

C3	38.052	VHL	6.169	DLA	67.04	RAL	352.80	RAD	6650.0	VEL	12.567	PTH	7.44	VHP	4.300	DPA	-42.96	RAP	49.36

ECC	1.6282																		
V2	22.679																		
LVI	34.61																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.30	3 39 3	4746.89	-23.76	235.74	252.06	25.23	4 58 10	3746.9	-45.65	222.06
26.30	3 39 3	4746.89	-23.76	235.74	252.06	25.23	4 58 10	3746.9	-45.65	222.06
26.30	3 39 3	4746.89	-23.76	235.74	252.06	25.23	4 58 10	3746.9	-45.65	222.06
26.30	3 39 3	4746.89	-23.76	235.74	252.06	25.23	4 58 10	3746.9	-45.65	222.06
26.30	3 39 3	4746.89	-23.76	235.74	252.06	25.23	4 58 10	3746.9	-45.65	222.06
26.30	3 39 3	4746.89	-23.76	235.74	252.06	25.23	4 58 10	3746.9	-45.65	222.06
26.30	3 39 3	4746.89	-23.76	235.74	252.06	25.23	4 58 10	3746.9	-45.65	222.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8212	TRA	-.6348	TC3	-1.3221	BAU	1.5772	SGT	2793.9	SGR	5973.7	SG3	570.6	ST	87.6	SR	235.0	SS	97.9
RDE	5.0403	RRA	-.5633	RC3	-2.8043	FAU	.12988	RRT	.9340	RRF	.9992	RTF	.9400	CRT	.9845	CRS	-1.0000	CST	-.9861
FDE	5.6499	FRA	-.7006	FC3	-2.9550	BSP	11062	SGB	6594.8	R23	.0435	R13	.9984	LSA	268.9	MSA	14.5	SSA	.2
BDE	5.3592	BRA	.8487	BC3	3.1003	FSP	998	SG1	6531.3	SG2	912.7	THA	65.90	EL1	250.4	EL2	14.4	ALF	69.78

LAUNCH DATE JUL 24 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 14 1974

HELIOCENTRIC CONIC — DISTANCE 651.821 — EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.877 GAL -2.05 AZL 98.94 HCA 191.91 SMA 199.38 ECC .24021 INC 8.9368 V1 29.317
RP 247.22 LAP 1.84 LOP 132.73 VP 20.197 GAP -.41 AZP 81.25 TAL 349.38 TAP 181.29 RCA 151.47 APO 247.24 V2 22.168
RC 311.559 GL -57.11 GP 51.25 ZAL 99.65 ZAP 74.57 ETS 202.58 ZAE 92.07 ETE 179.79 ZAC 138.07 ETC 291.49 LVI -72.27

PLANETOCENTRIC CONIC

C3 36.962 VHL 6.080 DLA -37.41 RAL 63.31 RAD 6649.6 VEL 12.524 PTH 7.40 VHP 3.844 DPA 50.72 RAP 346.53 ECC 1.6083

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 21 8	2472.40	-6.02	65.25	293.19	137.29	19 2 20	1472.4	12.34	49.44
60.00	20 20 43	2153.48	4.12	46.26	302.84	130.13	20 56 37	1153.5	19.66	27.44
64.42	22 24 0	1797.92	15.69	25.74	311.75	124.41	22 53 58	797.9	28.36	3.65
64.42	22 24 0	1797.92	15.69	25.74	311.75	124.41	22 53 58	797.9	28.36	3.65
64.42	22 24 0	1797.92	15.69	25.74	311.75	124.41	22 53 58	797.9	28.36	3.65
64.42	22 24 0	1797.92	15.69	25.74	311.75	124.41	22 53 58	797.9	28.36	3.65
64.42	22 24 0	1797.92	15.69	25.74	311.75	124.41	22 53 58	797.9	28.36	3.65

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-3.8156 TRA 3.8189 TC3-3.6267 BAU 2.1399 — SGT 7273.8 SGR 5141.9 SG3 722.0 — ST 192.3 SR 112.2 SS 54.6
RDE 2.0490 RRA-3.2016 RC3 2.3666 FAU .17666 — RRT -.9851 RRF -.9979 RTF .9804 — CRT -.9853 CRS .9984 CST -.9742
FDE-2.9000 FRA 5.1299 FC3-4.1378 BSP 15380 — SGB 8907.7 R23 .1299 R13 -.9895 — LSA 228.5 MSA 19.2 SSA .3
BDE 4.3309 BRA 4.9834 BC3 4.3306 FSP 1281 — SG1 8878.3 SG2 723.4 THA 144.88 — EL1 222.0 EL2 16.6 ALF 149.92

LAUNCH DATE JUL 24 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 16 1974

HELIOCENTRIC CONIC — DISTANCE 655.561 — EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.881 GAL -2.10 AZL 98.34 HCA 192.79 SMA 199.43 ECC .24061 INC 8.3441 V1 29.317
RP 247.37 LAP 1.84 LOP 133.61 VP 20.188 GAP -.62 AZP 81.86 TAL 349.16 TAP 181.95 RCA 151.44 APO 247.41 V2 22.154
RC 313.869 GL -54.82 GP 49.40 ZAL 100.31 ZAP 73.19 ETS 203.00 ZAE 91.13 ETE 180.91 ZAC 136.39 ETC 290.79 LVI -70.68

PLANETOCENTRIC CONIC

C3 34.033 VHL 5.834 DLA -35.22 RAL 62.48 RAD 6648.5 VEL 12.407 PTH 7.32 VHP 3.680 DPA 49.14 RAP 348.08 ECC 1.5601

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 1 12	2510.35	-7.91	66.86	289.96	137.07	18 43 3	1510.3	10.47	51.09
60.00	19 45 18	2233.09	.62	50.07	298.11	130.30	20 22 31	1233.1	16.45	31.68
68.07	22 40 23	1718.61	15.63	19.33	309.11	121.98	23 9 1	718.6	27.37	356.78
68.07	22 40 23	1718.61	15.63	19.33	309.11	121.98	23 9 1	718.6	27.37	356.78
68.07	22 40 23	1718.61	15.63	19.33	309.11	121.98	23 9 1	718.6	27.37	356.78
68.07	22 40 23	1718.61	15.63	19.33	309.11	121.98	23 9 1	718.6	27.37	356.78
68.07	22 40 23	1718.61	15.63	19.33	309.11	121.98	23 9 1	718.6	27.37	356.78

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-3.6615 TRA 3.7998 TC3-3.9892 BAU 2.1278 — SGT 7447.5 SGR 4961.7 SG3 805.6 — ST 192.5 SR 106.4 SS 57.0
RDE 1.8596 RRA-3.0189 RC3 2.4406 FAU .19355 — RRT -.9851 RRF -.9978 RTF .9804 — CRT -.9850 CRS .9981 CST -.9726
FDE-3.0109 FRA 5.5922 FC3-4.9235 BSP 15459 — SGB 8949.0 R23 .1337 R13 -.9889 — LSA 226.4 MSA 19.3 SSA .3
BDE 4.1067 BRA 4.8531 BC3 4.6766 FSP 1428 — SG1 8920.6 SG2 711.5 THA 146.48 — EL1 219.4 EL2 16.1 ALF 151.27

LAUNCH DATE JUL 24 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC — DISTANCE 659.301 — EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.885 GAL -2.14 AZL 97.83 HCA 193.66 SMA 199.51 ECC .24102 INC 7.8253 V1 29.317
RP 247.51 LAP 1.84 LOP 134.50 VP 20.179 GAP -.83 AZP 82.39 TAL 348.94 TAP 182.60 RCA 151.42 APO 247.59 V2 22.140
RC 316.151 GL -52.67 GP 47.59 ZAL 100.97 ZAP 71.82 ETS 203.34 ZAE 90.15 ETE 181.94 ZAC 134.73 ETC 290.16 LVI -69.08

PLANETOCENTRIC CONIC

C3 31.658 VHL 5.627 DLA -33.15 RAL 61.79 RAD 6647.6 VEL 12.312 PTH 7.24 VHP 3.543 DPA 47.60 RAP 349.51 ECC 1.5210

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 44 20	2544.81	-9.63	68.34	287.35	136.82	18 26 45	1544.8	8.76	52.58
60.00	19 18 38	2293.81	-2.05	52.97	294.57	130.26	19 56 52	1293.8	13.91	34.81
70.00	21 46 22	1858.31	8.91	25.91	302.73	123.11	22 17 20	858.3	21.62	4.78
71.94	23 0 51	1629.62	15.42	12.25	306.79	119.71	23 28 0	629.6	26.29	349.34
71.94	23 0 51	1629.62	15.42	12.25	306.79	119.71	23 28 0	629.6	26.29	349.34
71.94	23 0 51	1629.62	15.42	12.25	306.79	119.71	23 28 0	629.6	26.29	349.34
110.00	2 49 44	6193.17	8.91	292.73	302.73	123.11	4 32 57	5193.2	21.62	271.60

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-3.5170 TRA 3.7925 TC3-4.3466 BAU 2.1206 — SGT 7617.5 SGR 4783.1 SG3 884.3 — ST 192.1 SR 100.6 SS 58.6
RDE 1.6878 RRA-2.8553 RC3 2.4921 FAU .20906 — RRT -.9850 RRF -.9978 RTF .9803 — CRT -.9845 CRS .9977 CST -.9705
FDE-3.0707 FRA 6.0190 FC3-5.7170 BSP 15563 — SGB 8994.7 R23 .1374 R13 -.9882 — LSA 223.8 MSA 19.5 SSA .3
BDE 3.9010 BRA 4.7471 BC3 5.0103 FSP 1568 — SG1 8967.4 SG2 700.2 THA 148.04 — EL1 216.3 EL2 15.7 ALF 152.58

LAUNCH DATE JUL 24 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC — DISTANCE 663.042 — EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.889 GAL -2.19 AZL 97.37 HCA 194.54 SMA 199.59 ECC .24144 INC 7.3685 V1 29.317
RP 247.65 LAP 1.85 LOP 135.38 VP 20.171 GAP -1.03 AZP 82.86 TAL 348.71 TAP 183.25 RCA 151.40 APO 247.78 V2 22.126
RC 318.406 GL -50.65 GP 45.85 ZAL 101.62 ZAP 70.48 ETS 203.62 ZAE 89.14 ETE 182.88 ZAC 133.11 ETC 289.59 LVI -67.50

PLANETOCENTRIC CONIC

C3 29.709 VHL 5.451 DLA -31.18 RAL 61.22 RAD 6646.9 VEL 12.233 PTH 7.18 VHP 3.429 DPA 46.10 RAP 350.84 ECC 1.4889

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 29 48	2576.76	-11.21	69.72	285.23	136.55	18 12 45	1576.8	7.17	53.94
60.00	18 57 3	2344.62	-4.29	55.40	291.81	130.11	19 36 7	1344.6	11.76	37.38
70.00	20 59 29	1984.26	4.17	32.57	298.17	123.93	21 32 34	984.3	17.53	12.25
76.29	23 27 39	1522.95	15.08	3.94	304.75	117.62	23 53 2	523.0	25.15	340.75
76.29	23 27 39	1522.95	15.08	3.94	304.75	117.62	23 53 2	523.0	25.15	340.75
76.29	23 27 39	1522.95	15.08	3.94	304.75	117.62	23 53 2	523.0	25.15	340.75
110.00	2 2 52	1031.07	4.17	321.49	298.17	123.93	2 20 3	31.1	17.53	301.17

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE-3.3822 TRA 3.7925 TC3-4.6983 BAU 2.1187 — SGT 7783.7 SGR 4606.8 SG3 957.4 — ST 191.2 SR 94.9 SS 59.6
RDE 1.5347 RRA-2.7040 RC3 2.5260 FAU .22339 — RRT -.9850 RRF -.9974 RTF .9803 — CRT -.9841 CRS .9972 CST -.9680
FDE-3.0907 FRA 6.4016 FC3-6.5096 BSP 15663 — SGB 9044.8 R23 .1404 R13 -.9875 — LSA 220.7 MSA 19.6 SSA .4
BDE 3.7141 BRA 4.6578 BC3 5.3343 FSP 1697 — SG1 9018.7 SG2 686.2 THA 149.56 — EL1 212.9 EL2 15.1 ALF 153.82

LAUNCH DATE JUL 24 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 666.783 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.893 GAL -2.24 AZL 96.96 HCA 195.42 SMA 199.67 ECC .24188 INC 6.9631 V1 29.317
RP 247.78 LAP 1.85 LOP 136.27 VP 20.163 GAP -1.24 AZP 83.29 TAL 348.48 TAP 183.90 RCA 151.37 APO 247.96 V2 22.113
RC 320.632 GL -48.74 GP 44.16 ZAL 102.26 ZAP 69.16 ETS 203.83 ZAE 88.10 ETE 183.74 ZAC 131.54 ETC 289.09 LVI -68.95

PLANETOCENTRIC CONIC

C3 28.093 VHL 5.300 DLA -29.31 RAL 60.74 RAD 6646.3 VEL 12.167 PTH 7.13 VHP 3.333 DPA 44.65 RAP 352.08 ECC 1.4623

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 17 7	2606.78	-12.69	71.04	283.49	136.25	18 0 34	1606.8	5.67	55.21
60.00	18 38 34	2389.19	-6.24	57.55	289.60	129.90	19 18 43	1389.2	9.85	39.59
70.00	20 28 33	2066.66	1.03	36.88	295.07	124.14	21 3 0	1066.7	14.68	16.94
80.00	23 5 1	1576.37	10.11	5.23	300.59	118.24	23 31 17	576.4	20.86	343.00
81.96	0 12 11	1373.72	14.66	352.59	302.95	115.67	0 35 5	373.7	23.98	329.20
100.00	1 51 49	1050.84	10.11	326.60	300.59	118.24	2 9 19	50.8	20.86	304.37
110.00	1 31 56	1113.48	1.03	325.80	295.07	124.14	1 50 29	113.5	14.68	305.86

DIFFERENTIAL CORRECTIONS

TDE-3.2552 TRA 3.8000 TC3-5.0417 BAU 2.1205
RDE 1.3965 RRA-2.5655 RC3 2.5413 FAU .23628
FDE-3.0711 FRA 6.7455 FC3-7.2816 BSP 15780
BDE 3.5421 BRA 4.5850 BC3 5.6460 FSP 1817

MID-COURSE EXECUTION ACCURACY

SGT 7946.0 SGR 4433.0 SG3 1024.2
RRT -.9849 RRF -.9972 RTF .9802
SGB 9098.9 R23 .1432 R13 -.9869
SG1 9074.0 SG2 672.1 THA 151.04

ORBIT DETERMINATION ACCURACY

ST 189.8 SR 89.4 SS 60.0
CRT -.9836 CRS .9965 CST -.9650
LSA 217.3 MSA 19.8 SSA .4
EL1 209.3 EL2 14.6 ALF 155.01

LAUNCH DATE JUL 24 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 24 1974

HELIOCENTRIC CONIC DISTANCE 670.523 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.897 GAL -2.28 AZL 96.60 HCA 196.29 SMA 199.75 ECC .24232 INC 6.6006 V1 29.317
RP 247.91 LAP 1.85 LOP 137.15 VP 20.157 GAP -1.45 AZP 83.66 TAL 348.25 TAP 184.54 RCA 151.35 APO 248.16 V2 22.101
RC 322.629 GL -46.94 GP 42.54 ZAL 102.89 ZAP 67.87 ETS 203.99 ZAE 87.04 ETE 184.53 ZAC 130.02 ETC 288.64 LVI -64.43

PLANETOCENTRIC CONIC

C3 26.741 VHL 5.171 DLA -27.53 RAL 60.36 RAD 6645.7 VEL 12.112 PTH 7.09 VHP 3.253 DPA 43.26 RAP 353.24 ECC 1.4401

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 5 56	2635.23	-14.09	72.30	282.06	135.93	17 49 51	1635.2	4.24	56.41
60.00	18 23 19	2429.40	-7.99	59.50	287.81	129.63	19 3 48	1429.4	8.11	41.56
70.00	20 4 32	2131.74	-1.46	40.28	292.72	124.13	20 40 4	1131.7	12.35	20.55
80.00	22 12 47	1730.26	5.04	13.84	296.75	119.47	22 41 37	730.3	16.67	352.51
90.00	0 19 46	1333.44	9.01	346.79	298.89	116.92	0 41 59	333.4	19.32	324.51
100.00	0 59 34	1204.73	5.04	335.21	296.75	119.47	1 19 39	204.7	16.67	313.87
110.00	1 7 54	1178.56	-1.46	329.20	292.72	124.13	1 27 33	178.6	12.35	309.46

DIFFERENTIAL CORRECTIONS

TDE-3.1384 TRA 3.8123 TC3-5.3797 BAU 2.1274
RDE 1.2748 RRA-2.4374 RC3 2.5440 FAU .24811
FDE-3.0259 FRA 7.0503 FC3-8.0325 BSP 15862
BDE 3.3675 BRA 4.5249 BC3 5.9509 FSP 1920

MID-COURSE EXECUTION ACCURACY

SGT 8107.9 SGR 4265.3 SG3 1085.5
RRT -.9848 RRF -.9969 RTF .9801
SGB 9161.4 R23 .1454 R13 -.9862
SG1 9137.8 SG2 657.1 THA 152.46

ORBIT DETERMINATION ACCURACY

ST 188.2 SR 84.2 SS 60.1
CRT -.9831 CRS .9956 CST -.9617
LSA 213.8 MSA 20.0 SSA .4
EL1 205.7 EL2 14.1 ALF 156.13

LAUNCH DATE JUL 24 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 26 1974

HELIOCENTRIC CONIC DISTANCE 674.264 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.901 GAL -2.33 AZL 96.27 HCA 197.17 SMA 199.84 ECC .24278 INC 6.2747 V1 29.317
RP 248.03 LAP 1.85 LOP 138.03 VP 20.151 GAP -1.66 AZP 84.00 TAL 348.01 TAP 185.18 RCA 151.32 APO 248.35 V2 22.089
RC 324.997 GL -45.24 GP 40.99 ZAL 103.51 ZAP 66.61 ETS 204.10 ZAE 85.97 ETE 185.24 ZAC 128.55 ETC 288.24 LVI -62.96

PLANETOCENTRIC CONIC

C3 25.602 VHL 5.060 DLA -25.84 RAL 60.05 RAD 6645.2 VEL 12.065 PTH 7.05 VHP 3.185 DPA 41.92 RAP 354.32 ECC 1.4213

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 55 59	2662.36	-15.41	73.52	280.90	135.59	17 40 21	1662.4	2.88	57.55
60.00	18 9 41	2466.34	-9.59	61.31	286.36	129.33	18 50 47	1466.3	6.50	43.36
70.00	19 44 42	2186.96	-3.57	43.17	290.86	123.99	20 21 9	1187.0	10.34	23.55
80.00	21 40 46	1823.70	1.90	18.99	294.26	119.80	22 11 10	823.7	13.88	358.05
90.00	23 28 44	1475.50	4.55	354.84	295.72	117.94	23 53 20	475.5	15.62	333.28
100.00	0 27 34	1298.17	1.90	340.35	294.26	119.80	0 49 12	298.2	13.88	319.41
110.00	0 48 4	1233.78	-3.57	332.08	290.86	123.99	1 8 38	233.8	10.34	312.47

DIFFERENTIAL CORRECTIONS

TDE-3.0237 TRA 3.8342 TC3-5.7020 BAU 2.1350
RDE 1.1628 RRA-2.3206 RC3 2.5290 FAU .25824
FDE-2.9442 FRA 7.3231 FC3-8.7326 BSP 16027
BDE 3.2396 BRA 4.4817 BC3 6.2377 FSP 2022

MID-COURSE EXECUTION ACCURACY

SGT 8263.7 SGR 4099.8 SG3 1140.0
RRT -.9847 RRF -.9965 RTF .9800
SGB 9224.8 R23 .1474 R13 -.9856
SG1 9202.5 SG2 641.9 THA 153.83

ORBIT DETERMINATION ACCURACY

ST 186.1 SR 79.2 SS 59.7
CRT -.9826 CRS .9944 CST -.9576
LSA 209.9 MSA 20.2 SSA .5
EL1 201.7 EL2 13.6 ALF 157.20

LAUNCH DATE JUL 24 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 28 1974

HELIOCENTRIC CONIC DISTANCE 678.003 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.906 GAL -2.39 AZL 95.98 HCA 198.05 SMA 199.92 ECC .24324 INC 5.9797 V1 29.317
RP 248.14 LAP 1.85 LOP 138.91 VP 20.145 GAP -1.86 AZP 84.31 TAL 347.76 TAP 185.81 RCA 151.29 APO 248.55 V2 22.078
RC 327.134 GL -43.63 GP 39.50 ZAL 104.13 ZAP 65.38 ETS 204.17 ZAE 84.89 ETE 185.88 ZAC 127.14 ETC 287.88 LVI -61.54

PLANETOCENTRIC CONIC

C3 24.636 VHL 4.963 DLA -24.23 RAL 59.80 RAD 6644.8 VEL 12.025 PTH 7.01 VHP 3.129 DPA 40.65 RAP 355.34 ECC 1.4055

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 47 5	2680.34	-16.67	74.70	279.97	135.23	17 31 54	1688.3	1.57	58.63
60.00	17 57 38	2500.71	-11.07	63.01	285.18	129.00	18 39 19	1500.7	5.00	45.02
70.00	19 27 48	2235.65	-5.41	45.72	289.38	123.77	20 5 3	1235.6	8.53	26.17
80.00	21 16 14	1896.24	-.56	22.97	292.40	119.85	21 47 51	896.2	11.62	2.25
90.00	22 58 12	1567.38	1.60	359.98	293.60	118.24	23 24 20	567.4	13.01	338.77
100.00	0 3 2	1370.71	-.56	344.34	292.40	119.85	0 25 53	370.7	11.62	323.61
110.00	0 31 10	1282.47	-5.41	334.64	289.38	123.77	0 52 32	282.5	8.53	315.09

DIFFERENTIAL CORRECTIONS

TDE-2.9178 TRA 3.8590 TC3-6.0159 BAU 2.1460
RDE 1.0648 RRA-2.2113 RC3 2.5027 FAU .26713
FDE-2.8478 FRA 7.5588 FC3-9.3870 BSP 16158
BDE 3.1061 BRA 4.4477 BC3 6.5157 FSP 2108

MID-COURSE EXECUTION ACCURACY

SGT 8418.5 SGR 3939.3 SG3 1188.4
RRT -.9845 RRF -.9961 RTF .9799
SGB 9294.6 R23 .1486 R13 -.9850
SG1 9273.5 SG2 626.5 THA 155.14

ORBIT DETERMINATION ACCURACY

ST 183.9 SR 74.5 SS 59.1
CRT -.9822 CRS .9929 CST -.9532
LSA 206.0 MSA 20.4 SSA .5
EL1 198.0 EL2 13.0 ALF 158.19

LAUNCH DATE JUL 24 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 30 1974

HELIOCENTRIC CONIC DISTANCE 681.743 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.910 GAL -2.44 AZL 95.71 HCA 198.92 SMA 200.01 ECC .24371 INC 5.7114 V1 29.317
RP 248.25 LAP 1.85 LOP 139.79 VP 20.141 GAP -2.07 AZP 84.60 TAL 347.52 TAP 186.44 RCA 151.26 APO 248.76 V2 22.067
RC 329.241 GL -42.11 GP 38.08 ZAL 104.74 ZAP 64.19 ETS 204.21 ZAE 83.80 ETE 186.47 ZAC 125.77 ETC 287.56 LVI -60.18

PLANETOCENTRIC CONIC

C3 23.814 VHL 4.880 DLA -22.69 RAL 59.61 RAD 6644.5 VEL 11.991 PTH 6.99 VHP 3.082 DPA 39.43 RAP 356.30 ECC 1.3919

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 39 5	2713.30	-17.87	75.85	279.22	134.86	17 24 18	1713.3	.32	59.67
60.00	17 46 53	2532.98	-12.44	64.62	284.23	128.65	18 29 6	1533.0	3.58	46.57
70.00	19 13 4	2279.62	-7.07	48.05	288.20	123.50	19 51 3	1279.6	6.89	28.51
80.00	20 56 4	1957.23	-2.62	26.32	290.95	119.75	21 28 42	957.2	9.67	5.72
90.00	22 34 28	1639.85	-.74	4.02	291.99	118.27	23 1 48	639.8	10.86	343.00
100.00	23 38 56	1431.71	-2.62	347.69	290.95	119.75	24 2 48	431.7	9.67	327.09
110.00	0 16 26	1326.44	-7.07	336.96	288.20	123.50	0 38 32	326.4	6.89	317.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.8190 TRA 3.8873 TC3-6.3220 BAU 2.1608 SGT 8573.2 SGR 3786.2 SG3 1231.5 ST 181.6 SR 70.3 SS 58.4
RDE .9789 RRA-2.1092 RC3 2.4696 FAU .27512 RRT -.9844 RRF -.9957 RTF .9798 CRT -.9821 CRS .9911 CST -.9484
FDE-2.7399 FRA 7.7602 FC-10.0020 BSP 16282 SGB 9372.0 R23 .1490 R13 -.9845 LSA 202.2 MSA 20.6 SSA .5
BDE 2.9841 BRA 4.4226 BC3 6.7872 FSP 2180 SG1 9352.1 SG2 609.8 THA 156.40 EL1 194.3 EL2 12.4 ALF 159.11

LAUNCH DATE JUL 24 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 1 1974

HELIOCENTRIC CONIC DISTANCE 685.481 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.914 GAL -2.49 AZL 95.47 HCA 199.80 SMA 200.10 ECC .24420 INC 5.4663 V1 29.317
RP 248.35 LAP 1.85 LOP 140.67 VP 20.137 GAP -2.27 AZP 84.86 TAL 347.26 TAP 187.06 RCA 151.24 APO 248.96 V2 22.057
RC 331.317 GL -40.66 GP 36.72 ZAL 105.34 ZAP 63.03 ETS 204.22 ZAE 82.70 ETE 187.01 ZAC 124.47 ETC 287.27 LVI -58.86

PLANETOCENTRIC CONIC

C3 23.110 VHL 4.807 DLA -21.23 RAL 59.47 RAD 6644.2 VEL 11.962 PTH 6.96 VHP 3.042 DPA 38.27 RAP 357.21 ECC 1.3803

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 31 50	2737.33	-19.02	76.98	278.63	134.47	17 17 28	1737.3	-.89	60.68
60.00	17 37 13	2563.48	-13.73	66.17	283.48	128.27	18 19 56	1563.5	2.24	48.03
70.00	19 0 3	2319.98	-8.58	50.19	287.25	123.19	19 38 43	1320.0	5.36	30.64
80.00	20 38 52	2010.70	-4.43	29.26	289.80	119.56	21 12 23	1010.7	7.93	8.73
90.00	22 14 48	1701.24	-2.72	7.45	290.75	118.16	22 43 10	701.2	8.99	346.54
100.00	23 21 44	1485.17	-4.43	350.63	289.80	119.56	23 46 29	485.2	7.93	330.10
110.00	0 3 25	1366.79	-8.58	339.11	287.25	123.19	0 26 12	366.8	5.36	319.56

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.7209 TRA 3.9234 TC3-6.6102 BAU 2.1752 SGT 8721.9 SGR 3635.8 SG3 1268.1 ST 179.0 SR 66.2 SS 57.3
RDE .8994 RRA-2.0160 RC3 2.4227 FAU .28140 RRT -.9842 RRF -.9952 RTF .9797 CRT -.9820 CRS .9886 CST -.9426
FDE-2.6071 FRA 7.9393 FC-10.5415 BSP 16457 SGB 9449.4 R23 .1493 R13 -.9839 LSA 198.2 MSA 20.9 SSA .6
BDE 2.8657 BRA 4.4110 BC3 7.0402 FSP 2249 SG1 9430.6 SG2 595.1 THA 157.60 EL1 190.5 EL2 11.8 ALF 159.97

LAUNCH DATE JUL 24 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 3 1974

HELIOCENTRIC CONIC DISTANCE 689.219 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.919 GAL -2.54 AZL 95.24 HCA 200.67 SMA 200.19 ECC .24469 INC 5.2412 V1 29.317
RP 248.45 LAP 1.85 LOP 141.55 VP 20.134 GAP -2.47 AZP 85.09 TAL 347.01 TAP 187.68 RCA 151.20 APO 249.18 V2 22.048
RC 333.364 GL -39.29 GP 35.43 ZAL 105.94 ZAP 61.90 ETS 204.20 ZAE 81.61 ETE 187.49 ZAC 123.21 ETC 287.01 LVI -57.60

PLANETOCENTRIC CONIC

C3 22.507 VHL 4.744 DLA -19.83 RAL 59.37 RAD 6643.9 VEL 11.937 PTH 6.94 VHP 3.010 DPA 37.16 RAP 358.07 ECC 1.3704

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 25 16	2760.53	-20.13	78.08	278.18	134.07	17 11 17	1760.5	-2.05	61.65
60.00	17 28 28	2592.46	-14.95	67.65	282.89	127.87	18 11 40	1592.5	.96	49.41
70.00	18 48 25	2357.45	-9.97	52.20	286.50	122.84	19 27 42	1357.5	3.94	32.61
80.00	20 23 51	2058.76	-6.03	31.92	288.90	119.30	20 58 10	1058.8	6.34	11.41
90.00	21 57 56	1755.27	-4.45	10.48	289.77	117.96	22 27 11	755.3	7.31	349.62
100.00	23 6 43	1533.23	-6.03	353.29	288.90	119.30	23 32 16	533.2	6.34	332.78
110.00	23 47 51	1404.27	-9.97	341.12	286.50	122.84	24 11 15	404.3	3.94	321.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.6309 TRA 3.9603 TC3-6.8925 BAU 2.1934 SGT 8672.2 SGR 3493.2 SG3 1300.1 ST 176.5 SR 62.5 SS 56.3
RDE .8310 RRA-1.9279 RC3 2.3728 FAU .28700 RRT -.9840 RRF -.9946 RTF .9796 CRT -.9822 CRS .9856 CST -.9366
FDE-2.4745 FRA 8.0866 FC-11.0396 BSP 16599 SGB 9535.1 R23 .1486 R13 -.9834 LSA 194.4 MSA 21.1 SSA .6
BDE 2.7590 BRA 4.4047 BC3 7.2895 FSP 2301 SG1 9517.5 SG2 579.7 THA 158.74 EL1 186.9 EL2 11.1 ALF 160.75

LAUNCH DATE JUL 24 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 5 1974

HELIOCENTRIC CONIC DISTANCE 692.957 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.924 GAL -2.60 AZL 95.03 HCA 201.55 SMA 200.28 ECC .24520 INC 5.0339 V1 29.317
RP 248.54 LAP 1.85 LOP 142.43 VP 20.132 GAP -2.68 AZP 85.32 TAL 346.75 TAP 188.30 RCA 151.17 APO 249.39 V2 22.039
RC 335.380 GL -37.98 GP 34.20 ZAL 106.53 ZAP 60.81 ETS 204.17 ZAE 80.52 ETE 187.93 ZAC 122.01 ETC 286.78 LVI -56.39

PLANETOCENTRIC CONIC

C3 21.989 VHL 4.689 DLA -18.49 RAL 59.32 RAD 6643.7 VEL 11.916 PTH 6.92 VHP 2.983 DPA 36.14 RAP 358.90 ECC 1.3619

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 19 17	2782.96	-21.18	79.16	277.86	133.66	17 5 40	1783.0	-3.18	62.59
60.00	17 20 31	2620.12	-16.10	69.08	282.44	127.46	18 4 11	1620.1	-.25	50.73
70.00	18 37 55	2392.56	-11.26	54.11	285.92	122.46	19 17 48	1392.6	2.60	34.45
80.00	20 10 32	2102.72	-7.49	34.37	288.19	118.99	20 45 34	1102.7	4.87	13.85
90.00	21 43 8	1803.97	-5.99	13.22	289.00	117.69	22 13 12	804.0	5.78	352.38
100.00	22 53 24	1577.19	-7.49	355.74	288.19	118.99	23 19 41	577.2	4.87	335.21
110.00	23 37 22	1439.38	-11.26	343.02	285.92	122.46	24 1 21	439.4	2.60	323.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.5424 TRA 4.0020 TC3-7.1592 BAU 2.2118 SGT 9017.5 SGR 3353.7 SG3 1326.1 ST 173.8 SR 59.1 SS 55.1
RDE .7687 RRA-1.8456 RC3 2.3144 FAU .29125 RRT -.9838 RRF -.9939 RTF .9795 CRT -.9825 CRS .9818 CST -.9296
FDE-2.3282 FRA 8.2077 FC-11.4671 BSP 16778 SGB 9621.0 R23 .1475 R13 -.9829 LSA 190.5 MSA 21.3 SSA .7
BDE 2.6561 BRA 4.4071 BC3 7.5240 FSP 2349 SG1 9604.4 SG2 565.0 THA 159.83 EL1 183.3 EL2 10.4 ALF 161.47

LAUNCH DATE JUL 24 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 7 1974

HELIOCENTRIC CONIC DISTANCE 696.693 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.928 GAL -2.65 AZL 94.84 HCA 202.42 SMA 200.37 ECC .24571 INC 4.8421 V1 29.317
RP 248.63 LAP 1.85 LOP 143.31 VP 20.130 GAP -2.88 AZP 85.52 TAL 346.49 TAP 188.91 RCA 151.14 APO 249.61 V2 22.030
RC 337.366 GL -36.74 GP 33.02 ZAL 107.12 ZAP 59.75 ETS 204.11 ZAE 79.44 ETE 188.33 ZAC 120.86 ETC 286.57 LVI -55.23

PLANETOCENTRIC CONIC

C3 21.543 VHL 4.641 DLA -17.21 RAL 59.30 RAD 6643.5 VEL 11.897 PTH 6.91 VHP 2.962 DPA 35.15 RAP 359.70 ECC 1.3545

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 13 49	2804.67	-22.20	80.23	277.64	133.83	17 0 33	1804.7	-4.27	63.50
60.00	17 13 15	2646.60	-17.19	70.47	282.12	127.03	17 57 21	1646.6	-1.42	52.00
70.00	18 28 24	2425.68	-12.47	55.92	285.48	122.06	19 8 50	1425.7	1.34	36.17
80.00	19 58 35	2143.41	-8.83	36.65	287.65	118.64	20 34 18	1143.4	3.50	16.09
90.00	21 29 58	1848.60	-7.40	15.74	288.42	117.37	22 0 47	848.6	4.36	354.69
100.00	22 41 27	1617.89	-8.83	358.02	287.65	118.64	23 8 25	617.9	3.50	337.46
110.00	23 27 50	1472.50	-12.47	344.83	285.48	122.06	23 52 23	472.5	1.34	325.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.4581 TRA 4.0481 TC3-7.4151 BAU 2.2319 SGT 9162.7 SGR 3221.6 SG3 1348.0 ST 171.1 SR 55.9 SS 53.9
RDE .7141 RRA-1.7696 RC3 2.2525 FAU .29465 RRT -.9835 RRF -.9931 RTF .9794 CRT -.9832 CRS .9772 CST -.9223
FDE-2.1808 FRA 8.3112 FC-11.8413 BSP 16963 SGB 9712.6 R23 .1457 R13 -.9825 LSA 186.7 MSA 21.5 SSA .7
BDE 2.5597 BRA 4.4180 BC3 7.7497 FSP 2389 SG1 9696.9 SG2 551.1 THA 160.86 EL1 179.8 EL2 9.7 ALF 162.13

LAUNCH DATE JUL 24 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 9 1974

HELIOCENTRIC CONIC DISTANCE 700.429 EARTH TO MARS

RL 151.97 LAL -.00 LOL 300.96 VL 32.933 GAL -2.71 AZL 94.66 HCA 203.30 SMA 200.47 ECC .24624 INC 4.6641 V1 29.317
RP 248.71 LAP 1.84 LOP 144.19 VP 20.130 GAP -3.08 AZP 85.71 TAL 346.22 TAP 189.52 RCA 151.11 APO 249.83 V2 22.023
RC 339.321 GL -35.56 GP 31.91 ZAL 107.70 ZAP 58.72 ETS 204.03 ZAE 78.36 ETE 188.70 ZAC 119.75 ETC 286.38 LVI -54.12

PLANETOCENTRIC CONIC

C3 21.159 VHL 4.600 DLA -15.98 RAL 59.31 RAD 6643.4 VEL 11.881 PTH 6.89 VHP 2.945 DPA 34.22 RAP .46 ECC 1.3482

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 8 48	2825.72	-23.18	81.28	277.52	132.79	16 55 54	1825.7	-5.32	64.38
60.00	17 6 35	2672.04	-18.23	71.82	281.90	126.59	17 51 7	1672.0	-2.54	53.21
70.00	18 19 42	2457.09	-13.59	57.65	285.17	121.64	19 0 39	1457.1	.14	37.81
80.00	19 47 46	2181.45	-10.06	38.80	287.25	118.26	20 24 8	1181.4	2.22	18.18
90.00	21 18 8	1889.97	-8.69	18.10	287.98	117.02	21 49 37	890.0	3.03	357.20
100.00	22 30 38	1655.92	-10.06	.17	287.25	118.26	22 58 14	655.9	2.22	339.55
110.00	23 19 9	1503.91	-13.59	346.57	285.17	121.64	23 44 13	503.9	.14	326.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.3783 TRA 4.0954 TC3-7.6623 BAU 2.2541 SGT 9307.1 SGR 3094.6 SG3 1365.5 ST 168.5 SR 53.1 SS 52.7
RDE .6657 RRA-1.6977 RC3 2.1876 FAU .29725 RRT -.9831 RRF -.9923 RTF .9793 CRT -.9840 CRS .9715 CST -.9142
FDE-2.0316 FRA 8.3905 FC-12.1618 BSP 17123 SGB 9808.1 R23 .1434 R13 -.9821 LSA 183.0 MSA 21.8 SSA .7
BDE 2.4697 BRA 4.4333 BC3 7.9684 FSP 2415 SG1 9793.3 SG2 538.2 THA 161.84 EL1 176.4 EL2 9.0 ALF 162.73

LAUNCH DATE JUL 28 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 323.366 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 38.316 GAL -3.03 AZL 90.21 HCA 101.14 SMA 265.69 ECC .43072 INC .2062 V1 29.319
RP 218.16 LAP -.20 LOP 43.06 VP 26.779 GAP 23.47 AZP 89.96 TAL 349.83 TAP 91.08 RCA 151.25 APO 380.13 V2 25.188
RC 74.953 GL -1.16 GP -5.13 ZAL 105.94 ZAP 175.70 ETS 236.23 ZAE 165.87 ETE 340.35 ZAC 78.89 ETC 283.13 LVI -12.87

PLANETOCENTRIC CONIC

C3 38.282 VHL 6.187 DLA 16.02 RAL 45.73 RAD 6650.1 VEL 12.576 PTH 7.44 VHP 8.626 DPA 9.51 RAP 38.91 ECC 1.6300

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 9 28	3617.42	-47.43	139.19	294.77	94.24	14 9 46	2617.4	-40.27	106.92
60.00	13 30 48	3560.66	-40.30	134.49	295.18	90.49	14 30 8	2560.7	-35.69	104.39
70.00	14 2 5	3468.56	-34.08	126.90	295.05	87.55	14 59 54	2468.6	-31.52	98.46
80.00	14 50 31	3316.76	-29.55	115.07	294.73	85.53	15 45 48	2316.8	-28.40	87.70
90.00	16 3 0	3082.82	-27.83	97.71	294.56	84.77	16 54 23	2082.8	-27.21	70.72
100.00	17 33 23	2791.23	-29.55	76.44	294.73	85.53	18 19 55	1791.2	-28.40	49.07
110.00	19 1 31	2515.38	-34.08	55.82	295.05	87.55	19 43 27	1515.4	-31.52	27.38

DIFFERENTIAL CORRECTIONS
TDE -.3784 TRA-1.2723 TC3 .1822 BAU .1007
RDE -.6077 RRA .2445 RC3 -.0742 FAU .05347
FDE .3584 FRA 1.0071 FC3-1.2093 BSP 1993
BDE .7158 BRA 1.2955 BC3 .1967 FSP 195

MID-COURSE EXECUTION ACCURACY
SGT 1294.7 SGR 616.9 SG3 156.7
RRT -.1405 RRF .1601 RTF -.6996
SGB 1434.1 R23 -.0341 R13 .7015
SG1 1298.4 SG2 609.0 THA 175.09

ORBIT DETERMINATION ACCURACY
ST 25.4 SR 28.4 SS 16.5
CRT .5941 CRS .6598 CST .9921
LSA 37.3 MSA 18.2 SSA 1.3
EL1 34.1 EL2 17.0 ALF 50.26

LAUNCH DATE JUL 25 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 325.628 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 35.179 GAL -2.93 AZL 90.17 HCA 102.28 SMA 260.65 ECC .41960 INC .1696 V1 29.319
RP 218.53 LAP -.17 LOP 44.19 VP 26.561 GAP 23.10 AZP 89.96 TAL 350.07 TAP 92.35 RCA 151.28 APO 370.02 V2 25.148
RC 76.362 GL -.99 GP -5.27 ZAL 105.68 ZAP 173.13 ETS 231.87 ZAE 165.14 ETE 340.39 ZAC 78.66 ETC 283.10 LVI -12.63

PLANETOCENTRIC CONIC

C3 36.485 VHL 6.040 DLA 16.13 RAL 45.42 RAD 6649.4 VEL 12.505 PTH 7.39 VHP 8.375 DPA 9.50 RAP 39.33 ECC 1.6004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 7 47	3607.53	-47.38	138.24	293.36	94.97	14 7 54	2607.5	-39.95	106.18
60.00	13 28 57	3551.15	-40.29	133.68	293.87	91.04	14 28 9	2551.2	-35.47	103.68
70.00	14 0 4	3459.57	-34.10	126.20	293.80	87.97	14 57 44	2459.6	-31.37	97.81
80.00	14 48 20	3308.34	-29.59	114.45	293.52	85.85	15 43 28	2308.3	-28.31	87.10
90.00	16 0 43	3074.68	-27.88	97.12	293.36	85.06	16 51 58	2074.7	-27.13	70.14
100.00	17 31 12	2782.81	-29.59	75.81	293.52	85.85	18 17 34	1782.8	-28.31	48.46
110.00	18 59 31	2506.39	-34.10	55.12	293.80	87.97	19 41 17	1506.4	-31.37	26.72

DIFFERENTIAL CORRECTIONS
TDE -.3798 TRA-1.2663 TC3 .2089 BAU .1096
RDE -.5920 RRA .2438 RC3 -.0830 FAU .05558
FDE .3774 FRA 1.0403 FC3-1.3188 BSP 2056
BDE .7034 BRA 1.2896 BC3 .2248 FSP 210

MID-COURSE EXECUTION ACCURACY
SGT 1325.5 SGR 619.2 SG3 166.7
RRT -.1512 RRF .1725 RTF -.7100
SGB 1463.0 R23 -.0367 R13 .7121
SG1 1329.7 SG2 610.1 THA 174.88

ORBIT DETERMINATION ACCURACY
ST 26.0 SR 28.3 SS 17.2
CRT .5948 CRS .6645 CST .9918
LSA 37.9 MSA 18.3 SSA 1.3
EL1 34.4 EL2 17.2 ALF 49.06

LAUNCH DATE JUL 25 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 328.035 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 35.050 GAL -2.84 AZL 90.13 HCA 103.41 SMA 256.07 ECC .40909 INC .1327 V1 29.319
RP 218.69 LAP -.13 LOP 45.33 VP 26.350 GAP 22.74 AZP 89.97 TAL 350.22 TAP 93.63 RCA 151.31 APO 360.83 V2 25.107
RC 77.855 GL -.79 GP -5.43 ZAL 105.41 ZAP 172.52 ETS 228.19 ZAE 164.46 ETE 340.35 ZAC 78.44 ETC 283.07 LVI -12.37

PLANETOCENTRIC CONIC

C3 34.818 VHL 5.901 DLA 16.25 RAL 45.09 RAD 6648.8 VEL 12.439 PTH 7.34 VHP 8.132 DPA 9.49 RAP 39.75 ECC 1.5730

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 6 0	3598.06	-47.32	137.33	291.96	95.66	14 5 58	2598.1	-39.64	105.48
60.00	13 27 1	3542.09	-40.28	132.91	292.58	91.56	14 26 4	2542.1	-35.25	103.01
70.00	13 57 57	3451.06	-34.12	125.53	292.57	88.36	14 55 28	2451.1	-31.22	97.18
80.00	14 46 1	3300.42	-29.63	113.86	292.32	86.16	15 41 2	2300.4	-28.21	86.53
90.00	15 58 19	3067.06	-27.92	96.57	292.18	85.34	16 49 26	2067.1	-27.05	69.59
100.00	17 28 53	2774.89	-29.63	75.23	292.32	86.16	18 15 8	1774.9	-28.21	47.89
110.00	18 57 23	2497.87	-34.12	54.45	292.57	88.36	19 39 1	1497.9	-31.22	26.10

DIFFERENTIAL CORRECTIONS
TDE -.3808 TRA-1.2594 TC3 .2366 BAU .1183
RDE -.5766 RRA .2434 RC3 -.0928 FAU .05782
FDE .3975 FRA 1.0741 FC3-1.4376 BSP 2123
BDE .6911 BRA 1.2827 BC3 .2541 FSP 227

MID-COURSE EXECUTION ACCURACY
SGT 1355.4 SGR 621.4 SG3 177.2
RRT -.1628 RRF .1860 RTF -.[illegible]94
SGB 1491.1 R23 -.0395 R13 .7217
SG1 1360.1 SG2 611.0 THA 174.65

ORBIT DETERMINATION ACCURACY
ST 26.6 SR 28.2 SS 17.8
CRT .5953 CRS .6691 CST .9914
LSA 38.5 MSA 18.5 SSA 1.3
EL1 34.7 EL2 17.4 ALF 47.88

LAUNCH DATE JUL 25 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 330.570 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 34.927 GAL -2.74 AZL 90.10 HCA 104.54 SMA 251.89 ECC .39916 INC .0954 V1 29.319
RP 219.26 LAP -.09 LOP 46.46 VP 26.147 GAP 22.38 AZP 89.98 TAL 350.38 TAP 94.92 RCA 151.35 APO 352.43 V2 25.067
RC 79.428 GL -.58 GP -5.59 ZAL 105.13 ZAP 171.87 ETS 225.08 ZAE 163.84 ETE 340.22 ZAC 78.21 ETC 283.03 LVI -12.11

PLANETOCENTRIC CONIC

C3 33.271 VHL 5.768 DLA 16.37 RAL 44.75 RAD 6648.3 VEL 12.377 PTH 7.29 VHP 7.897 DPA 9.46 RAP 40.16 ECC 1.5476

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 4 8	3589.06	-47.25	136.47	290.59	96.32	14 3 57	2589.1	-39.34	104.83
60.00	13 25 0	3533.50	-40.26	132.18	291.30	92.06	14 23 53	2533.5	-35.04	102.38
70.00	13 55 43	3443.04	-34.13	124.91	291.36	88.73	14 53 7	2443.0	-31.08	96.60
80.00	14 43 35	3293.04	-29.66	113.31	291.13	86.44	15 38 28	2293.0	-28.12	86.00
90.00	15 55 47	3059.99	-27.96	96.05	291.00	85.59	16 46 47	2060.0	-26.98	69.09
100.00	17 26 27	2767.51	-29.66	74.68	291.13	86.44	18 12 35	1767.5	-28.12	47.36
110.00	18 55 10	2489.86	-34.13	53.83	291.36	88.73	19 36 40	1489.9	-31.08	25.52

DIFFERENTIAL CORRECTIONS
TDE -.3815 TRA-1.2525 TC3 .2662 BAU .1270
RDE -.5615 RRA .2433 RC3 -.1034 FAU .06017
FDE .4185 FRA 1.1090 FC3-1.5656 BSP 2182
BDE .6789 BRA 1.2759 BC3 .2856 FSP 244

MID-COURSE EXECUTION ACCURACY
SGT 1385.4 SGR 623.5 SG3 188.4
RRT -.1758 RRF .2007 RTF -.7287
SGB 1519.2 R23 -.0422 R13 .7312
SG1 1390.8 SG2 611.5 THA 174.39

ORBIT DETERMINATION ACCURACY
ST 27.2 SR 28.1 SS 18.5
CRT .5951 CRS .6734 CST .9909
LSA 39.1 MSA 18.6 SSA 1.3
EL1 34.9 EL2 17.6 ALF 46.72

LAUNCH DATE JUL 25 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 333.220 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	34.810	GAL	-2.65	AZL	90.06	HCA	105.67	SMA	248.06	ECC	.38977	INC	.0572	V1	29.310
RP	219.63	LAP	-.06	LOP	47.58	VP	25.952	GAP	22.02	AZP	89.98	TAL	350.54	TAP	96.21	RCA	151.38	APO	344.75	V2	25.026
RC	81.081	GL	-.37	GP	-5.76	ZAL	104.83	ZAP	171.19	ETS	222.44	ZAE	163.27	ETE	340.01	ZAC	77.97	ETC	283.00	LVI	-11.85

PLANETOCENTRIC CONIC

C3	31.835	VHL	5.642	DLA	16.49	RAL	44.38	RAD	6647.7	VEL	12.319	PTH	7.25	VHP	7.670	DPA	9.42	RAP	40.56	ECC	1.5239

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 2 10	3580.51	-47.19	135.66	289.25	96.95	14 1 50	2580.5	-39.06	104.21
60.00	13 22 52	3525.41	-40.24	131.49	290.05	92.52	14 21 37	2525.4	-34.63	101.79
70.00	13 53 24	3435.54	-34.14	124.32	290.16	89.08	14 50 39	2435.5	-30.95	96.06
80.00	14 41 3	3286.21	-29.69	112.81	289.96	86.71	15 35 49	2286.2	-28.04	85.51
90.00	15 53 8	3053.50	-28.00	95.58	289.84	85.82	16 44 2	2053.5	-26.91	68.63
100.00	17 23 55	2760.68	-29.69	74.18	289.96	86.71	18 9 55	1760.7	-28.04	46.87
110.00	18 52 50	2482.36	-34.14	53.24	290.16	89.08	19 36 12	1482.4	-30.95	24.98

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	-.3829	TRA	-1.2451	TC3	.2968	BAU	.1355	SGT	1415.0	SGR	625.6	SG3	200.1	ST	27.7	SR	28.0	SS	19.2
RDE	-.5466	RRA	.2433	RC3	-.1150	FAU	.06264	RRT	-.1891	RRF	.2160	RTF	-.7372	CRT	.5957	CRS	.6781	CST	.9904
FDE	.4413	FRA	1.1444	FC3	-1.7035	BSP	2243	SGB	1547.1	R23	-.0454	R13	.7400	LSA	39.7	MSA	18.7	SSA	1.4
BDE	.6674	BRA	1.2686	BC3	.3183	FSP	262	SG1	1421.0	SG2	611.7	THA	174.13	EL1	35.2	EL2	17.7	ALF	45.49

LAUNCH DATE JUL 25 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 335.972 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	34.700	GAL	-2.56	AZL	90.02	HCA	106.79	SMA	244.55	ECC	.38089	INC	.0156	V1	29.319
RP	220.00	LAP	-.02	LOP	48.70	VP	25.764	GAP	21.67	AZP	89.99	TAL	350.70	TAP	97.49	RCA	151.41	APO	337.70	V2	24.985
RC	82.809	GL	-.14	GP	-5.93	ZAL	104.52	ZAP	170.49	ETS	220.19	ZAE	162.77	ETE	339.73	ZAC	77.73	ETC	282.98	LVI	-11.59

PLANETOCENTRIC CONIC

C3	30.500	VHL	5.523	DLA	16.62	RAL	44.00	RAD	6647.2	VEL	12.265	PTH	7.21	VHP	7.451	DPA	9.38	RAP	40.96	ECC	1.5020

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 7	3572.45	-47.12	134.89	287.94	97.54	13 59 40	2572.5	-38.78	103.63
60.00	13 20 39	3517.81	-40.21	130.85	288.82	92.96	14 19 16	2517.8	-34.64	101.24
70.00	13 50 57	3428.58	-34.15	123.78	288.97	89.40	14 48 6	2428.6	-30.83	95.55
80.00	14 38 23	3279.95	-29.72	112.35	288.81	86.95	15 33 3	2280.0	-27.96	85.06
90.00	15 50 22	3047.59	-28.02	95.15	288.69	86.04	16 41 10	2047.6	-26.85	68.21
100.00	17 21 15	2754.42	-29.72	73.71	288.81	86.95	18 7 9	1754.4	-27.96	46.43
110.00	18 50 24	2475.40	-34.15	52.70	288.97	89.40	19 31 39	1475.4	-30.83	24.47

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	-.3846	TRA	-1.2378	TC3	.3287	BAU	.1438	SGT	1444.7	SGR	627.7	SG3	212.5	ST	28.3	SR	27.9	SS	20.0
RDE	-.5320	RRA	.2436	RC3	-.1277	FAU	.06524	RRT	-.2034	RRF	.2326	RTF	-.7453	CRT	.5963	CRS	.6828	CST	.9899
FDE	.4656	FRA	1.1809	FC3	-1.8519	BSP	2308	SGB	1575.1	R23	-.0488	R13	.7483	LSA	40.3	MSA	18.7	SSA	1.4
BDE	.6564	BRA	1.2615	BC3	.3527	FSP	262	SG1	1451.5	SG2	611.7	THA	173.85	EL1	35.5	EL2	17.9	ALF	44.23

LAUNCH DATE JUL 25 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 338.817 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	34.595	GAL	-2.47	AZL	89.98	HCA	107.91	SMA	241.32	ECC	.37248	INC	.0099	V1	29.319
RP	220.38	LAP	.02	LOP	49.82	VP	25.583	GAP	21.32	AZP	90.00	TAL	350.88	TAP	98.79	RCA	151.43	APO	331.21	V2	24.944
RC	84.610	GL	.10	GP	-6.12	ZAL	104.20	ZAP	169.77	ETS	218.25	ZAE	162.33	ETE	339.37	ZAC	77.49	ETC	282.95	LVI	-11.31

PLANETOCENTRIC CONIC

C3	29.259	VHL	5.409	DLA	16.76	RAL	43.61	RAD	6646.7	VEL	12.215	PTH	7.17	VHP	7.239	DPA	9.32	RAP	41.34	ECC	1.4815

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 57 59	3564.86	-47.05	134.17	286.65	98.09	13 57 24	2564.9	-38.52	103.09
60.00	13 18 19	3510.71	-40.18	130.25	287.60	93.37	14 16 50	2510.7	-34.46	100.73
70.00	13 48 25	3422.15	-34.15	123.28	287.80	89.69	14 45 27	2422.2	-30.71	95.09
80.00	14 35 36	3274.26	-29.74	111.92	287.66	87.17	15 30 10	2274.3	-27.88	84.65
90.00	15 47 28	3042.27	-28.05	94.77	287.55	86.23	16 38 10	2042.3	-26.79	67.83
100.00	17 18 28	2748.73	-29.74	73.29	287.66	87.17	18 4 17	1748.7	-27.88	46.02
110.00	18 47 51	2468.97	-34.15	52.20	287.80	89.69	19 29 0	1469.0	-30.71	24.01

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	-.3767	TRA	-1.2199	TC3	.3756	BAU	.1370	SGT	1464.7	SGR	629.7	SG3	225.6	ST	28.4	SR	27.7	SS	20.8
RDE	-.5172	RRA	.2443	RC3	-.1412	FAU	.06783	RRT	-.2257	RRF	.2491	RTF	-.7524	CRT	.5898	CRS	.6889	CST	.9881
FDE	.4952	FRA	1.2218	FC3	-2.0070	BSP	2251	SGB	1594.4	R23	-.0419	R13	.7653	LSA	40.7	MSA	18.8	SSA	1.4
BDE	.6398	BRA	1.2441	BC3	.4013	FSP	307	SG1	1473.1	SG2	610.0	THA	173.30	EL1	35.4	EL2	18.0	ALF	43.73

LAUNCH DATE JUL 25 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 341.745 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	34.496	GAL	-2.39	AZL	89.95	HCA	109.02	SMA	238.38	ECC	.36454	INC	.0523	V1	29.319
RP	220.76	LAP	.08	LOP	50.93	VP	25.408	GAP	20.98	AZP	90.02	TAL	351.06	TAP	100.08	RCA	151.46	APO	325.24	V2	24.902
RC	86.480	GL	.35	GP	-6.31	ZAL	103.87	ZAP	169.02	ETS	216.58	ZAE	161.94	ETE	338.95	ZAC	77.24	ETC	282.92	LVI	-11.04

PLANETOCENTRIC CONIC

C3	28.106	VHL	5.302	DLA	16.90	RAL	43.21	RAD	6646.3	VEL	12.168	PTH	7.13	VHP	7.034	DPA	9.24	RAP	41.72	ECC	1.4626

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 55 47	3557.81	-46.98	133.50	285.40	98.60	13 55 4	2557.8	-38.28	102.59
60.00	13 15 55	3504.18	-40.16	129.69	286.42	93.74	14 14 19	2504.2	-34.29	100.26
70.00	13 45 46	3416.33	-34.18	122.82	286.66	89.96	14 42 42	2416.3	-30.60	94.67
80.00	14 32 42	3269.23	-29.75	111.55	286.54	87.37	15 27 11	2269.2	-27.81	84.29
90.00	15 44 27	3037.64	-28.07	94.43	286.44	86.40	16 35 4	2037.6	-26.74	67.50
100.00	17 15 34	2743.70	-29.75	72.92	286.54	87.37	18 1 18	1743.7	-27.81	45.66
110.00	18 45 12	2463.15	-34.15	51.74	286.66	89.96	19 26 15	1463.1	-30.60	23.59

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	-.3823	TRA	-1.2155	TC3	.4057	BAU	.1634	SGT	1496.9	SGR	632.0	SG3	239.5	ST	29.2	SR	27.5	SS	21.6
RDE	-.5030	RRA	.2449	RC3	-.1563	FAU	.07081	RRT	-.2394	RRF	.2682	RTF	-.7661	CRT	.5932	CRS	.6933	CST	.9879
FDE	.5219	FRA	1.2583	FC3	-2.1810	BSP	2357	SGB	1624.8	R23	-.0496	R13	.7694	LSA	41.5	MSA	18.8	SSA	1.4
BDE	.6318	BRA	1.2399	BC3	.4348	FSP	327	SG1	1506.0	SG2	609.9	THA	173.09	EL1	35.8	EL2	18.0	ALF	42.14

LAUNCH DATE JUL 25 1973 FLIGHT TIME 128.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 344.748 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	34.402	GAL	-2.30	AZL	89.91	HCA	110.13	SMA	235.61	ECC	.35702	INC	.0915
V1	29.319	RP	221.14	LAP	.09	LOP	52.04	VP	25.239	GAP	20.63	AZP	90.03	TAL	351.24	TAP	101.37	RCA	151.49
APO	319.72	V2	24.861	RC	88.416	GL	.61	GP	-6.51	ZAL	103.53	ZAP	168.26	ETS	215.12	ZAE	161.61	ETE	338.45
ZAC	76.98	ETC	282.90	LVI	-10.76														

PLANETOCENTRIC CONIC

C3	27.035	VHL	5.199	DLA	17.05	RAL	42.79	RAD	6645.8	VEL	12.124	PTH	7.10	VHP	6.836	DPA	9.16	RAP	42.09
ECC	1.4449																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 53 29	3551.27	-46.91	132.89	284.18	99.07	13 52 41	2551.3	-38.05	102.14
60.00	13 13 26	3498.19	-40.13	129.19	285.26	94.09	14 11 44	2498.2	-34.13	99.83
70.00	13 43 1	3411.09	-34.15	122.41	285.54	90.21	14 39 52	2411.1	-30.50	94.29
80.00	14 29 41	3264.82	-29.77	111.22	285.44	87.54	15 24 6	2264.8	-27.76	83.98
90.00	15 41 18	3033.67	-28.09	94.14	285.34	86.54	16 31 51	2033.7	-26.69	67.22
100.00	17 12 33	2739.30	-29.77	72.59	285.44	87.54	17 58 12	1739.3	-27.76	45.35
110.00	18 42 27	2457.90	-34.15	51.33	285.54	90.21	19 23 25	1457.9	-30.50	23.21

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3865	TRA	-1.2091	TC3	.4388	BAU	.1704	SGT	1527.0	SGR	634.6	SG3	254.2	ST	29.8	SR	27.3
SS	22.4	RDE	-.4889	RRA	.2458	RC3	-.1727	FAU	.07390	RRT	-.2552	RRF	.2884	RTF	-.7709	CRT	.5953
CRS	.6974	CST	.9875	FDE	.5505	FRA	1.2964	FC3	-2.3665	BSP	2444	SGB	1653.6	R23	-.0561	R13	.7747	LSA	42.2
MSA	18.7	SSA	1.5	BDE	.6232	BRA	1.2338	BC3	.4716	FSP	349	SG1	1537.2	SG2	609.5	THA	172.81	EL1	36.2
EL2	18.1	ALF	40.68																

LAUNCH DATE JUL 25 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 347.819 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	34.312	GAL	-2.22	AZL	89.87	HCA	111.24	SMA	233.07	ECC	.34990	INC	.1308
V1	29.319	RP	221.52	LAP	.12	LOP	53.15	VP	25.076	GAP	20.29	AZP	90.05	TAL	351.42	TAP	102.66	RCA	151.52
APO	314.62	V2	24.819	RC	90.414	GL	.88	GP	-6.72	ZAL	103.19	ZAP	167.47	ETS	213.85	ZAE	161.34	ETE	337.68
ZAC	76.72	ETC	282.87	LVI	-10.47														

PLANETOCENTRIC CONIC

C3	26.037	VHL	5.103	DLA	17.21	RAL	42.36	RAD	6645.4	VEL	12.083	PTH	7.06	VHP	6.645	DPA	9.06	RAP	42.45
ECC	1.4285																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 51 7	3545.25	-46.84	132.32	283.00	99.50	13 50 13	2545.3	-37.84	101.72
60.00	13 10 51	3492.75	-40.10	128.73	284.13	94.40	14 9 3	2492.7	-33.99	99.44
70.00	13 40 10	3406.44	-34.15	122.05	284.44	90.42	14 36 56	2406.4	-30.41	93.96
80.00	14 26 33	3261.07	-29.78	110.95	284.36	87.68	15 20 54	2261.1	-27.70	83.71
90.00	15 38 1	3030.37	-28.10	93.90	284.26	86.66	16 28 31	2030.4	-26.65	66.98
100.00	17 9 25	2735.54	-29.78	72.31	284.36	87.68	17 55 0	1735.5	-27.70	45.08
110.00	18 39 36	2453.26	-34.15	50.97	284.44	90.42	19 20 29	1453.3	-30.41	22.88

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3903	TRA	-1.2011	TC3	.4746	BAU	.1780	SGT	1555.7	SGR	637.4	SG3	269.7	ST	30.5	SR	27.0
SS	23.2	RDE	-.4749	RRA	.2469	RC3	-.1905	FAU	.07716	RRT	-.2724	RRF	.3097	RTF	-.7764	CRT	.5972
CRS	.7019	CST	.9871	FDE	.5817	FRA	1.3356	FC3	-2.5656	BSP	2521	SGB	1681.2	R23	-.0621	R13	.7806	LSA	43.0
MSA	18.7	SSA	1.5	BDE	.6147	BRA	1.2262	BC3	.5114	FSP	374	SG1	1567.1	SG2	608.9	THA	172.49	EL1	36.5
EL2	18.1	ALF	39.27																

LAUNCH DATE JUL 25 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 350.952 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	34.228	GAL	-2.14	AZL	89.83	HCA	112.34	SMA	230.71	ECC	.34317	INC	.1702
V1	29.319	RP	221.90	LAP	.16	LOP	54.25	VP	24.919	GAP	19.96	AZP	90.06	TAL	351.61	TAP	103.95	RCA	151.54
APO	309.89	V2	24.778	RC	92.473	GL	1.17	GP	-6.93	ZAL	102.84	ZAP	166.67	ETS	212.74	ZAE	161.12	ETE	337.23
ZAC	76.45	ETC	282.85	LVI	-10.18														

PLANETOCENTRIC CONIC

C3	25.109	VHL	5.011	DLA	17.38	RAL	41.93	RAD	6645.0	VEL	12.045	PTH	7.03	VHP	6.459	DPA	8.95	RAP	42.80
ECC	1.4132																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 48 41	3539.76	-46.78	131.80	281.85	99.89	13 47 41	2539.8	-37.64	101.34
60.00	13 8 10	3487.87	-40.07	128.31	283.03	94.68	14 6 18	2487.9	-33.86	99.09
70.00	13 37 12	3402.41	-34.15	121.74	283.37	90.61	14 33 55	2402.4	-30.33	93.67
80.00	14 23 17	3257.99	-29.78	110.72	283.30	87.80	15 17 35	2258.0	-27.66	83.49
90.00	15 34 36	3027.77	-28.11	93.71	283.21	86.76	16 25 4	2027.8	-26.62	66.80
100.00	17 6 9	2732.46	-29.78	72.09	283.30	87.80	17 51 41	1732.5	-27.66	44.86
110.00	18 36 39	2449.23	-34.15	50.65	283.37	90.61	19 17 28	1449.2	-30.33	22.59

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3940	TRA	-1.1927	TC3	.5117	BAU	.1856	SGT	1583.6	SGR	640.5	SG3	286.1	ST	31.1	SR	26.7
SS	24.1	RDE	-.4609	RRA	.2482	RC3	-.2096	FAU	.08056	RRT	-.2911	RRF	.3317	RTF	-.7821	CRT	.5967
CRS	.7067	CST	.9864	FDE	.6164	FRA	1.3760	FC3	-2.7775	BSP	2592	SGB	1708.3	R23	-.0676	R13	.7867	LSA	43.8
MSA	18.6	SSA	1.5	BDE	.6063	BRA	1.2182	BC3	.5529	FSP	399	SG1	1596.4	SG2	607.9	THA	172.14	EL1	36.8
EL2	18.1	ALF	37.87																

LAUNCH DATE JUL 25 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 354.140 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	34.147	GAL	-2.06	AZL	89.79	HCA	113.44	SMA	228.53	ECC	.33679	INC	.2104
V1	29.319	RP	222.28	LAP	.19	LOP	55.35	VP	24.766	GAP	19.62	AZP	90.08	TAL	351.80	TAP	105.24	RCA	151.56
APO	305.50	V2	24.736	RC	94.587	GL	1.46	GP	-7.16	ZAL	102.48	ZAP	165.85	ETS	211.75	ZAE	160.96	ETE	336.50
ZAC	76.17	ETC	282.83	LVI	-9.88														

PLANETOCENTRIC CONIC

C3	24.246	VHL	4.924	DLA	17.56	RAL	41.48	RAD	6644.7	VEL	12.009	PTH	7.00	VHP	6.280	DPA	8.82	RAP	43.13
ECC	1.3990																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 46 10	3534.82	-46.72	131.34	280.74	100.24	13 45 5	2534.8	-37.47	100.99
60.00	13 5 25	3483.57	-40.05	127.95	281.96	94.92	14 3 29	2483.6	-33.74	98.78
70.00	13 34 9	3399.01	-34.15	121.47	282.32	90.76	14 30 48	2399.0	-30.27	93.43
80.00	14 19 54	3255.60	-29.79	110.54	282.26	87.90	15 14 10	2255.6	-27.63	83.32
90.00	15 31 4	3025.90	-28.12	93.57	282.18	86.82	16 21 29	2025.9	-26.60	66.67
100.00	17 2 46	2730.07	-29.79	71.91	282.26	87.90	17 48 16	1730.1	-27.63	44.69
110.00	18 33 35	2445.82	-34.15	50.39	282.32	90.76	19 14 21	1445.8	-30.27	22.35

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3969	TRA	-1.1832	TC3	.5507	BAU	.1935	SGT	1610.2	SGR	644.2	SG3	303.4	ST	31.7	SR	26.4
SS	25.1	RDE	-.4470	RRA	.2498	RC3	-.2304	FAU	.08415	RRT	-.3114	RRF	.3554	RTF	-.7879	CRT	.5993
CRS	.7108	CST	.9858	FDE	.6528	FRA	1.4180	FC3	-3.0048	BSP	2656	SGB	1734.3	R23	-.0729	R13	.7930	LSA	44.6
MSA	18.5	SSA	1.6	BDE	.5978	BRA	1.2093	BC3	.5969	FSP	427	SG1	1624.7	SG2	606.7	THA	171.74	EL1	37.1
EL2	18.1	ALF	36.52																

LAUNCH DATE JUL 23 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 357.379 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	34.071	GAL	-1.99	AZL	89.75	HCA	114.53	SMA	226.50	ECC	.33075	INC	.2509	V1	29.319
RP	222.67	LAP	.23	LOP	56.45	VP	24.619	GAP	19.29	AZP	90.10	TAL	351.99	TAP	106.52	RCA	151.59	APO	301.42	V2	24.694
RC	96.756	GL	1.77	GP	-7.40	ZAL	102.12	ZAP	165.01	ETS	210.88	ZAE	160.84	ETE	335.69	ZAC	75.89	ETC	282.82	LVI	-9.57

PLANETOCENTRIC CONIC

C3	23.441	VHL	4.842	DLA	17.74	RAL	41.03	RAD	6644.3	VEL	11.976	PTH	6.97	VHP	6.107	DPA	8.68	RAP	43.46	ECC	1.3858

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 43 35	3530.42	-46.67	130.93	279.66	100.56	13 42 26	2530.4	-37.31	100.69
60.00	13 2 34	3479.86	-40.03	127.64	280.92	95.13	14 0 34	2479.9	-33.64	98.52
70.00	13 30 59	3396.24	-34.14	121.26	281.30	90.89	14 27 35	2396.2	-30.21	93.23
80.00	14 16 23	3253.91	-29.79	110.41	281.25	87.96	15 10 37	2253.9	-27.61	83.20
90.00	15 27 23	3024.77	-28.12	93.49	281.17	86.87	16 17 47	2024.8	-26.59	66.59
100.00	16 59 15	2728.38	-29.79	71.78	281.25	87.96	17 44 44	1728.4	-27.61	44.57
110.00	18 30 25	2443.06	-34.14	50.17	281.30	90.89	19 11 8	1443.1	-30.21	22.15

DIFFERENTIAL CORRECTIONS

TDE	-.3999	TRA	-1.1734	TC3	.5895	BAU	.2010
RDE	-.4332	RRA	.2516	RC3	-.2527	FAU	.08791
FDE	.6914	FRA	1.4607	FC3	-3.2465	BSP	2714
BDE	.5896	BRA	1.2001	BC3	.6414	FSP	457

MID-COURSE EXECUTION ACCURACY

SGT	1635.7	SGR	648.4	SG3	321.5				
RRT	-.3327	RRF	.3801	RTF	-.7932				
SGB	1759.5	R23	-.0787	R13	.7986				
SG1	1652.1	SG2	605.4	THA	171.31				

ORBIT DETERMINATION ACCURACY

ST	32.2	SR	26.1	SS	26.0
CRT	.5996	CRS	.7145	CST	.9851
LSA	45.4	MSA	18.3	SSA	1.6
EL1	37.3	EL2	18.0	ALF	35.18

LAUNCH DATE JUL 25 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 360.665 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.999	GAL	-1.92	AZL	89.71	HCA	115.62	SMA	224.62	ECC	.32503	INC	.2919	V1	29.319
RP	223.06	LAP	.26	LOP	57.54	VP	24.477	GAP	18.96	AZP	90.13	TAL	352.18	TAP	107.80	RCA	151.61	APO	297.63	V2	24.652
RC	98.976	GL	2.09	GP	-7.65	ZAL	101.76	ZAP	164.16	ETS	210.11	ZAE	160.77	ETE	334.79	ZAC	75.60	ETC	282.80	LVI	-9.26

PLANETOCENTRIC CONIC

C3	22.693	VHL	4.764	DLA	17.94	RAL	40.57	RAD	6644.0	VEL	11.945	PTH	6.95	VHP	5.939	DPA	8.52	RAP	43.78	ECC	1.3735

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 40 56	3526.57	-46.62	130.57	278.62	100.63	13 39 43	2526.6	-37.17	100.43
60.00	12 59 39	3476.74	-40.01	127.37	279.91	95.31	13 57 36	2476.7	-33.55	98.30
70.00	13 27 43	3394.13	-34.14	121.09	280.31	90.99	14 24 17	2394.1	-30.17	93.08
80.00	14 12 45	3252.95	-29.80	110.34	280.26	88.00	15 6 58	2253.0	-27.59	83.14
90.00	15 23 33	3024.41	-28.12	93.46	280.18	86.88	16 13 56	2024.4	-26.58	66.56
100.00	16 55 37	2727.42	-29.88	71.71	280.26	88.00	17 41 4	1727.4	-27.59	44.50
110.00	18 27 9	2440.95	-34.14	50.01	280.31	90.99	19 7 50	1440.9	-30.17	22.00

DIFFERENTIAL CORRECTIONS

TDE	-.4032	TRA	-1.1629	TC3	.6296	BAU	.2087
RDE	-.4194	RRA	.2537	RC3	-.2768	FAU	.09185
FDE	.7341	FRA	1.5045	FC3	-3.5040	BSP	2772
BDE	.5818	BRA	1.1903	BC3	.6878	FSP	488

MID-COURSE EXECUTION ACCURACY

SGT	1660.3	SGR	653.3	SG3	340.6				
RRT	-.3550	RRF	.4057	RTF	-.7986				
SGB	1784.2	R23	-.0844	R13	.8048				
SG1	1678.8	SG2	604.0	THA	170.86				

ORBIT DETERMINATION ACCURACY

ST	32.8	SR	25.7	SS	27.1
CRT	.5999	CRS	.7185	CST	.9843
LSA	46.2	MSA	18.2	SSA	1.6
EL1	37.6	EL2	17.9	ALF	33.81

LAUNCH DATE JUL 25 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 363.993 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.930	GAL	-1.85	AZL	89.67	HCA	116.71	SMA	222.86	ECC	.31962	INC	.3335	V1	29.319
RP	223.44	LAP	.30	LOP	58.63	VP	24.339	GAP	18.64	AZP	90.15	TAL	352.37	TAP	109.08	RCA	151.63	APO	294.09	V2	24.611
RC	101.244	GL	2.41	GP	-7.91	ZAL	101.40	ZAP	163.29	ETS	209.43	ZAE	160.74	ETE	333.79	ZAC	75.30	ETC	282.79	LVI	-8.95

PLANETOCENTRIC CONIC

C3	21.996	VHL	4.690	DLA	18.14	RAL	40.11	RAD	6643.7	VEL	11.916	PTH	6.92	VHP	5.777	DPA	8.35	RAP	44.08	ECC	1.3620

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 38 13	3523.28	-46.58	130.26	277.62	101.06	13 36 56	2523.3	-37.05	100.21
60.00	12 56 38	3474.22	-39.99	127.16	278.93	95.45	13 54 33	2474.2	-33.48	98.12
70.00	13 24 20	3392.68	-34.14	120.98	279.35	91.06	14 20 53	2392.7	-30.14	92.98
80.00	14 8 59	3252.74	-29.80	110.33	279.30	88.01	15 3 12	2252.7	-27.59	83.12
90.00	15 19 35	3024.84	-28.12	93.49	279.22	86.86	16 10 0	2024.8	-26.59	66.59
100.00	16 51 51	2727.21	-29.80	71.70	279.30	88.01	17 37 18	1727.2	-27.59	44.49
110.00	18 23 46	2439.50	-34.14	49.90	279.35	91.06	19 4 26	1439.5	-30.14	21.90

DIFFERENTIAL CORRECTIONS

TDE	-.4059	TRA	-1.1520	TC3	.6695	BAU	.2161
RDE	-.4055	RRA	.2559	RC3	-.3028	FAU	.09601
FDE	.7789	FRA	1.5485	FC3	-3.7789	BSP	2827
BDE	.5738	BRA	1.1801	BC3	.7348	FSP	521

MID-COURSE EXECUTION ACCURACY

SGT	1683.3	SGR	659.0	SG3	360.7				
RRT	-.3785	RRF	.4325	RTF	-.8033				
SGB	1807.7	R23	-.0904	R13	.8102				
SG1	1704.4	SG2	602.5	THA	170.36				

ORBIT DETERMINATION ACCURACY

ST	33.3	SR	25.3	SS	28.2
CRT	.5993	CRS	.7219	CST	.9835
LSA	47.0	MSA	18.0	SSA	1.6
EL1	37.8	EL2	17.8	ALF	32.48

LAUNCH DATE JUL 25 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 367.360 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.865	GAL	-1.78	AZL	89.62	HCA	117.80	SMA	221.22	ECC	.31449	INC	.3759	V1	29.319
RP	223.83	LAP	.33	LOP	59.71	VP	24.206	GAP	18.32	AZP	90.18	TAL	352.56	TAP	110.36	RCA	151.65	APO	290.80	V2	24.569
RC	103.560	GL	2.76	GP	-8.18	ZAL	101.04	ZAP	162.40	ETS	208.81	ZAE	160.75	ETE	332.69	ZAC	74.99	ETC	282.78	LVI	-8.63

PLANETOCENTRIC CONIC

C3	21.346	VHL	4.620	DLA	18.36	RAL	39.64	RAD	6643.4	VEL	11.889	PTH	6.90	VHP	5.620	DPA	8.16	RAP	44.37	ECC	1.3513

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 35 26	3520.55	-46.54	130.01	276.65	101.25	13 34 6	2520.6	-36.95	100.02
60.00	12 53 33	3472.31	-39.98	127.00	277.98	95.56	13 51 25	2472.3	-33.43	97.99
70.00	13 20 51	3391.92	-34.14	120.92	278.41	91.09	14 17 23	2391.9	-30.13	92.93
80.00	14 5 5	3253.29	-29.80	110.37	278.37	87.99	14 59 18	2253.3	-27.60	83.16
90.00	15 15 28	3026.08	-28.12	93.59	278.28	86.82	16 5 54	2026.1	-26.60	66.68
100.00	16 47 57	2727.76	-29.80	71.74	278.37	87.99	17 33 24	1727.8	-27.60	44.53
110.00	18 20 18	2438.74	-34.14	49.84	278.41	91.09	19 0 56	1438.7	-30.13	21.84

DIFFERENTIAL CORRECTIONS

TDE	-.4094	TRA	-1.1409	TC3	.7110	BAU	.2238
RDE	-.3916	RRA	.2584	RC3	-.3309	FAU	.10043
FDE	.8275	FRA	1.5945	FC3	-4.0732	BSP	2874
BDE	.5665	BRA	1.1698	BC3	.7842	FSP	555

MID-COURSE EXECUTION ACCURACY

SGT	1706.4	SGR	665.8	SG3	382.1				
RRT	-.4029	RRF	.4605	RTF	-.8082				
SGB	1831.7	R23	-.0968	R13	.8158				
SG1	1730.3	SG2	601.0	THA	169.83				

ORBIT DETERMINATION ACCURACY

ST	33.8	SR	24.8	SS	29.3
CRT	.5987	CRS	.7248	CST	.9827
LSA	47.9	MSA	17.8	SSA	1.7
EL1	38.1	EL2	17.7	ALF	31.10

LAUNCH DATE JUL 25 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 370.763 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.803	GAL	-1.71	AZL	89.58	HCA	118.87	SMA	219.70	ECC	.30964	INC	.4187
V1	29.319	RP	224.22	LAP	.37	LOP	60.79	VP	24.077	GAP	18.00	AZP	90.20	TAL	352.75	TAP	111.63	RCA	151.67
APO	287.72	V2	24.527	RC	105.921	GL	3.11	GP	-8.47	ZAL	100.68	ZAP	161.49	ETS	208.86	ZAE	160.80	ETE	331.48
ZAC	74.67	ETC	282.77	LVI	-8.30														

PLANETOCENTRIC CONIC

C3	20.742	VHL	4.554	DLA	18.59	RAL	39.16	RAD	6643.2	VEL	11.864	PTH	6.88	VHP	5.468	DPA	7.95	RAP	44.65
ECC	1.3414																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 35	3518.40	-46.51	129.81	275.73	101.40	13 31 13	2518.4	-36.87	99.88
60.00	12 50 22	3471.02	-39.97	126.89	277.07	95.64	13 48 13	2471.0	-33.40	97.90
70.00	13 17 16	3391.84	-34.14	120.91	277.50	91.09	14 13 48	2391.8	-30.13	92.92
80.00	14 1 2	3254.63	-29.79	110.47	277.46	87.93	14 55 17	2254.6	-27.62	83.25
90.00	15 11 12	3028.16	-28.11	93.74	277.37	86.74	16 1 40	2028.2	-26.63	66.83
100.00	16 43 54	2729.10	-29.79	71.84	277.46	87.93	17 29 23	1729.1	-27.62	44.62
110.00	18 16 42	2438.66	-34.14	49.83	277.50	91.09	18 57 21	1438.7	-30.13	21.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4123	TRA	-1.1289	TC3	.7502	BAU	.2308	SGT	1726.5	SGR	673.6	SG3	404.3	ST	34.3	SR	24.3	SS	30.9
RDE	-.3775	RRA	.2611	RC3	-.3609	FAU	.10499	RRT	-.4278	RRF	.4890	RTF	-.8124	CRT	.5972	CRS	.7272	CST	.9818
FDE	.8792	FRA	1.6404	FC3	-4.3821	BSP	2933	SGB	1853.3	R23	-.1036	R13	.8208	LSA	48.8	MSA	17.6	SSA	1.7
BDE	.5590	BRA	1.1587	BC3	.8325	FSP	594	SG1	1753.7	SG2	599.4	THA	169.25	EL1	38.3	EL2	17.5	ALF	29.74

LAUNCH DATE JUL 25 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 374.198 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.745	GAL	-1.65	AZL	89.54	HCA	118.95	SMA	218.27	ECC	.30504	INC	.4625
V1	29.319	RP	224.61	LAP	.40	LOP	61.86	VP	23.952	GAP	17.69	AZP	90.23	TAL	352.94	TAP	112.89	RCA	151.69
APO	284.85	V2	24.485	RC	108.326	GL	3.48	GP	-8.77	ZAL	100.32	ZAP	160.56	ETS	207.77	ZAE	160.88	ETE	330.15
ZAC	74.35	ETC	282.77	LVI	-7.96														

PLANETOCENTRIC CONIC

C3	20.180	VHL	4.492	DLA	18.82	RAL	38.69	RAD	6642.9	VEL	11.840	PTH	6.86	VHP	5.321	DPA	7.72	RAP	44.91
ECC	1.3321																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 40	3516.82	-46.49	129.66	274.85	101.52	13 28 17	2516.8	-36.81	99.77
60.00	12 47 7	3470.36	-39.97	126.84	276.20	95.67	13 44 57	2470.4	-33.38	97.85
70.00	13 13 34	3392.48	-34.14	120.96	276.63	91.06	14 10 6	2392.5	-30.14	92.97
80.00	13 56 51	3256.77	-29.79	110.63	276.58	87.85	14 51 8	2256.8	-27.65	83.41
90.00	15 6 46	3031.10	-28.10	93.95	276.49	86.64	15 57 17	2031.1	-26.66	67.84
100.00	16 39 43	2731.25	-29.79	72.00	276.58	87.85	17 25 14	1731.2	-27.65	44.78
110.00	18 13 0	2439.29	-34.14	49.88	276.63	91.06	18 53 40	1439.3	-30.14	21.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4158	TRA	-1.1166	TC3	.7897	BAU	.2380	SGT	1746.0	SGR	682.7	SG3	427.7	ST	34.8	SR	23.8	SS	31.7
RDE	-.3633	RRA	.2641	RC3	-.3931	FAU	.10979	RRT	-.4533	RRF	.5182	RTF	-.8164	CRT	.5954	CRS	.7291	CST	.9810
FDE	.9352	FRA	1.6873	FC3	-4.7103	BSP	2979	SGB	1874.7	R23	-.1107	R13	.8258	LSA	49.8	MSA	17.4	SSA	1.7
BDE	.5521	BRA	1.1474	BC3	.8821	FSP	632	SG1	1776.8	SG2	598.0	THA	168.65	EL1	38.5	EL2	17.3	ALF	28.35

LAUNCH DATE JUL 25 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 377.664 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.690	GAL	-1.59	AZL	89.49	HCA	121.02	SMA	216.93	ECC	.30069	INC	.5071
V1	29.319	RP	225.00	LAP	.43	LOP	62.94	VP	23.831	GAP	17.37	AZP	90.26	TAL	353.13	TAP	114.15	RCA	151.70
APO	282.16	V2	24.443	RC	110.773	GL	3.86	GP	-9.08	ZAL	99.97	ZAP	159.61	ETS	207.33	ZAE	161.00	ETE	328.69
ZAC	74.01	ETC	282.77	LVI	-7.61														

PLANETOCENTRIC CONIC

C3	19.657	VHL	4.434	DLA	19.07	RAL	38.21	RAD	6642.7	VEL	11.818	PTH	6.84	VHP	5.180	DPA	7.48	RAP	45.16
ECC	1.3235																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 41	3515.83	-46.48	129.57	274.00	101.59	13 25 17	2515.8	-36.78	99.70
60.00	12 43 46	3470.34	-39.97	126.84	275.36	95.67	13 41 36	2470.3	-33.38	97.85
70.00	13 9 45	3393.83	-34.14	121.07	275.78	91.00	14 6 19	2393.8	-30.17	93.06
80.00	13 52 31	3259.75	-29.78	110.85	275.73	87.73	14 46 51	2259.8	-27.69	83.62
90.00	15 2 10	3034.95	-28.08	94.23	275.63	86.50	15 52 45	2034.9	-26.70	67.31
100.00	16 35 23	2734.22	-29.78	72.22	275.73	87.73	17 20 58	1734.2	-27.69	44.99
110.00	18 9 11	2440.65	-34.14	49.98	275.78	91.00	18 49 52	1440.6	-30.17	21.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4195	TRA	-1.1043	TC3	.8291	BAU	.2452	SGT	1764.8	SGR	693.4	SG3	452.4	ST	35.3	SR	23.2	SS	33.0
RDE	-.3488	RRA	.2673	RC3	-.4278	FAU	.11487	RRT	-.4783	RRF	.5480	RTF	-.8203	CRT	.5928	CRS	.7303	CST	.9802
FDE	.9958	FRA	1.7357	FC3	-5.0592	BSP	3025	SGB	1896.1	R23	-.1183	R13	.8307	LSA	50.8	MSA	17.1	SSA	1.8
BDE	.5456	BRA	1.1362	BC3	.9330	FSP	673	SG1	1799.8	SG2	596.7	THA	168.00	EL1	38.7	EL2	17.1	ALF	26.92

LAUNCH DATE JUL 25 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 381.156 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.637	GAL	-1.53	AZL	89.45	HCA	122.09	SMA	215.69	ECC	.29657	INC	.5524
V1	29.319	RP	225.39	LAP	.47	LOP	64.01	VP	23.713	GAP	17.06	AZP	90.29	TAL	353.31	TAP	115.40	RCA	151.72
APO	279.65	V2	24.401	RC	113.259	GL	4.25	GP	-9.41	ZAL	99.62	ZAP	158.64	ETS	206.93	ZAE	161.13	ETE	327.09
ZAC	73.66	ETC	282.77	LVI	-7.26														

PLANETOCENTRIC CONIC

C3	19.170	VHL	4.378	DLA	19.34	RAL	37.73	RAD	6642.5	VEL	11.798	PTH	6.82	VHP	5.043	DPA	7.21	RAP	45.40
ECC	1.3155																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 23 39	3515.42	-46.47	129.53	273.20	101.61	13 22 14	2515.4	-36.76	99.67
60.00	12 40 20	3470.96	-39.97	126.89	274.55	95.64	13 38 11	2471.0	-33.39	97.89
70.00	13 5 49	3395.92	-34.14	121.23	274.97	90.91	14 2 25	2395.9	-30.21	93.21
80.00	13 48 2	3263.59	-29.77	111.13	274.90	87.59	14 42 26	2263.6	-27.74	83.89
90.00	14 57 23	3039.72	-28.06	94.58	274.80	86.32	15 48 3	2039.7	-26.76	67.65
100.00	16 30 54	2738.06	-29.77	72.50	274.90	87.59	17 16 32	1738.1	-27.74	45.26
110.00	18 5 16	2442.74	-34.14	50.15	274.97	90.91	18 45 58	1442.7	-30.21	22.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4226	TRA	-1.0914	TC3	.8664	BAU	.2520	SGT	1781.1	SGR	705.8	SG3	478.2	ST	35.8	SR	22.6	SS	34.4
RDE	-.3342	RRA	.2709	RC3	-.4650	FAU	.12015	RRT	-.5056	RRF	.5782	RTF	-.8237	CRT	.5887	CRS	.7299	CST	.9793
FDE	1.0591	FRA	1.7855	FC3	-5.4261	BSP	3070	SGB	1915.9	R23	-.1264	R13	.8352	LSA	51.8	MSA	16.8	SSA	1.8
BDE	.5388	BRA	1.1245	BC3	.9833	FSP	717	SG1	1820.9	SG2	595.7	THA	167.29	EL1	38.8	EL2	16.8	ALF	25.50

LAUNCH DATE JUL 25 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 384.674 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.887	GAL	-1.47	AZL	89.40	HCA	123.16	SMA	214.52	ECC	.29267	INC	.5985	V1	29.319
RP	225.78	LAP	.50	LOP	68.07	VP	23.600	GAP	16.76	AZP	90.33	TAL	353.49	TAP	116.65	RCA	151.73	APO	277.30	V2	24.359
RC	115.782	GL	4.68	GP	-9.75	ZAL	99.27	ZAP	157.65	ETS	206.57	ZAE	161.29	ETE	325.34	ZAC	73.31	ETC	282.78	LVI	-6.98

PLANETOCENTRIC CONIC

C3	18.717	VHL	4.326	DLA	19.61	RAL	37.26	RAD	6642.3	VEL	11.779	PTH	6.80	VHP	4.910	DPA	6.92	RAP	45.62	ECC	1.3080

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 32	3515.60	-46.47	129.58	272.44	101.60	13 19 8	2515.6	-36.77	99.69
60.00	12 36 49	3472.23	-39.98	127.00	273.78	95.57	13 34 41	2472.2	-33.43	97.98
70.00	13 1 46	3398.76	-34.15	121.45	274.19	90.77	13 58 25	2398.8	-30.26	93.41
80.00	13 43 23	3268.31	-29.75	111.48	274.11	87.40	14 37 51	2268.3	-27.80	84.23
90.00	14 52 25	3045.46	-28.03	95.00	274.00	86.12	15 43 11	2045.5	-26.82	68.06
100.00	16 26 15	2742.78	-29.75	72.85	274.11	87.40	17 11 58	1742.8	-27.80	45.60
110.00	18 1 13	2445.58	-34.15	50.37	274.19	90.77	18 41 58	1445.6	-30.26	22.33

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4261	TRA	-1.0776	TC3	.9020	BAU	.2586	SGT	1795.2	SGR	720.0	SG3	505.1	ST	36.2	SR	21.9	SS	35.8
RDE	-.3192	RRA	.2745	RC3	-.5047	FAU	.12568	RRT	-.9315	RRF	.6082	RTF	-.8264	CRT	.5859	CRS	.7292	CST	.9785
FDE	1.1276	FRA	1.8331	FC3	-5.8132	BSP	3115	SGB	1934.2	R23	-.1351	R13	.8394	LSA	52.9	NSA	16.5	SSA	1.8
BDE	.5324	BRA	1.1120	BC3	1.0336	FSP	763	SG1	1840.5	SG2	594.9	THA	166.53	EL1	39.0	EL2	16.5	ALF	24.05

LAUNCH DATE JUL 25 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 388.216 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.540	GAL	-1.42	AZL	89.35	HCA	124.22	SMA	213.42	ECC	.28898	INC	.6459	V1	29.319
RP	226.17	LAP	.53	LOP	66.13	VP	23.489	GAP	16.45	AZP	90.36	TAL	353.67	TAP	117.89	RCA	151.75	APO	275.10	V2	24.318
RC	118.341	GL	5.07	GP	-10.10	ZAL	98.93	ZAP	156.64	ETS	206.24	ZAE	161.47	ETE	323.43	ZAC	72.94	ETC	282.79	LVI	-6.53

PLANETOCENTRIC CONIC

C3	18.296	VHL	4.277	DLA	19.90	RAL	36.78	RAD	6642.1	VEL	11.761	PTH	6.79	VHP	4.782	DPA	6.61	RAP	45.82	ECC	1.3011

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 17 22	3516.35	-46.48	129.62	271.72	101.55	13 15 58	2516.4	-36.80	99.74
60.00	12 33 12	3474.15	-39.99	127.16	273.05	95.46	13 31 7	2474.1	-33.48	98.12
70.00	12 57 35	3402.35	-34.15	121.73	273.44	90.61	13 54 18	2402.3	-30.33	93.67
80.00	13 38 34	3273.91	-29.74	111.90	273.34	87.18	14 33 7	2273.9	-27.88	84.63
90.00	14 47 15	3052.17	-28.00	95.49	273.22	85.87	15 38 7	2052.2	-26.90	68.53
100.00	16 21 25	2748.39	-29.74	73.27	273.34	87.18	17 7 14	1748.4	-27.88	46.00
110.00	17 57 2	2449.16	-34.15	50.65	273.44	90.61	18 37 51	1449.2	-30.33	22.59

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4163	TRA	-1.0523	TC3	.9627	BAU	.2709	SGT	1799.9	SGR	736.7	SG3	533.7	ST	35.9	SR	21.2	SS	37.3
RDE	-.3040	RRA	.2783	RC3	-.5479	FAU	.13160	RRT	-.5674	RRF	.6384	RTF	-.8372	CRT	.5712	CRS	.7269	CST	.9761
FDE	1.2006	FRA	1.8818	FC3	-6.2272	BSP	3016	SGB	1944.8	R23	-.1288	R13	.8507	LSA	53.5	NSA	16.3	SSA	1.8
BDE	.5171	BRA	1.0885	BC3	1.1077	FSP	809	SG1	1853.4	SG2	589.1	THA	165.42	EL1	38.4	EL2	16.3	ALF	23.00

LAUNCH DATE JUL 25 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 391.778 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.495	GAL	-1.37	AZL	89.31	HCA	125.27	SMA	212.40	ECC	.28549	INC	.6942	V1	29.319
RP	226.56	LAP	.57	LOP	67.19	VP	23.382	GAP	16.15	AZP	90.40	TAL	353.85	TAP	119.12	RCA	151.76	APO	273.03	V2	24.276
RC	120.933	GL	5.50	GP	-10.48	ZAL	98.60	ZAP	155.61	ETS	205.94	ZAE	161.65	ETE	321.34	ZAC	72.56	ETC	282.81	LVI	-6.15

PLANETOCENTRIC CONIC

C3	17.906	VHL	4.232	DLA	20.21	RAL	36.30	RAD	6641.9	VEL	11.744	PTH	6.77	VHP	4.659	DPA	6.28	RAP	46.02	ECC	1.2947

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 8	3517.75	-46.50	129.75	271.04	101.45	13 12 45	2517.8	-36.85	99.83
60.00	12 29 31	3476.78	-40.01	127.38	272.35	95.31	13 27 27	2476.8	-33.55	98.30
70.00	12 53 17	3406.77	-34.15	122.08	272.72	90.41	13 50 4	2406.8	-30.42	93.99
80.00	13 33 33	3280.53	-29.71	112.39	272.60	86.93	14 28 14	2280.5	-27.96	85.10
90.00	14 41 52	3059.99	-27.96	96.05	272.47	85.59	15 32 52	2060.0	-26.98	69.09
100.00	16 16 25	2755.00	-29.71	73.76	272.60	86.93	17 2 20	1755.0	-27.96	46.47
110.00	17 52 43	2453.59	-34.15	50.99	272.72	90.41	18 33 37	1453.6	-30.42	22.90

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4270	TRA	-1.0432	TC3	.9839	BAU	.2750	SGT	1814.6	SGR	755.3	SG3	563.1	ST	36.7	SR	20.5	SS	38.9
RDE	-.2881	RRA	.2827	RC3	-.5930	FAU	.13758	RRT	-.5883	RRF	.6678	RTF	-.8261	CRT	.5658	CRS	.7226	CST	.9780
FDE	1.2801	FRA	1.9336	FC3	-6.6520	BSP	3121	SGB	1965.6	R23	-.1447	R13	.8517	LSA	54.9	NSA	16.0	SSA	1.9
BDE	.5151	BRA	1.0808	BC3	1.1488	FSP	860	SG1	1874.5	SG2	591.3	THA	164.68	EL1	38.9	EL2	15.9	ALF	21.23

LAUNCH DATE JUL 25 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 395.360 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.453	GAL	-1.32	AZL	89.26	HCA	126.33	SMA	211.44	ECC	.28218	INC	.7436	V1	29.319
RP	226.95	LAP	.60	LOP	68.24	VP	23.278	GAP	15.86	AZP	90.44	TAL	354.01	TAP	120.34	RCA	151.77	APO	271.10	V2	24.234
RC	123.556	GL	5.95	GP	-10.87	ZAL	98.27	ZAP	154.55	ETS	205.67	ZAE	161.83	ETE	319.07	ZAC	72.16	ETC	282.83	LVI	-5.76

PLANETOCENTRIC CONIC

C3	17.544	VHL	4.189	DLA	20.53	RAL	35.82	RAD	6641.7	VEL	11.729	PTH	6.76	VHP	4.540	DPA	5.93	RAP	46.19	ECC	1.2887

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 50	3519.76	-46.53	129.94	270.41	101.31	13 9 29	2519.8	-36.92	99.97
60.00	12 25 43	3480.09	-40.03	127.66	271.70	95.12	13 23 43	2480.1	-33.65	98.54
70.00	12 48 50	3412.00	-34.15	122.49	272.04	90.16	13 45 42	2412.0	-30.52	94.36
80.00	13 28 21	3288.13	-29.68	112.95	271.89	86.63	14 23 9	2288.1	-28.06	85.64
90.00	14 36 15	3068.92	-27.91	96.70	271.75	85.27	15 27 24	2068.9	-27.07	69.73
100.00	16 11 13	2762.60	-29.68	74.32	271.89	86.63	16 57 16	1762.6	-28.06	47.01
110.00	17 48 17	2458.82	-34.15	51.40	272.04	90.16	18 29 16	1458.8	-30.52	23.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4338	TRA	-1.0319	TC3	1.0059	BAU	.2798	SGT	1825.9	SGR	776.4	SG3	593.8	ST	37.3	SR	19.6	SS	40.6
RDE	-.2717	RRA	.2874	RC3	-.6411	FAU	.14379	RRT	-.6100	RRF	.6963	RTF	-.8359	CRT	.5566	CRS	.7163	CST	.9756
FDE	1.3664	FRA	1.9860	FC3	-7.0955	BSP	3189	SGB	1984.1	R23	-.1586	R13	.8538	LSA	56.4	NSA	15.6	SSA	1.9
BDE	.5118	BRA	1.0711	BC3	1.1929	FSP	913	SG1	1893.3	SG2	593.3	THA	163.83	EL1	39.2	EL2	15.5	ALF	19.90

LAUNCH DATE JUL 25 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 398.960 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.412	GAL	-1.27	AZL	89.21	HCA	127.38	SMA	210.54	ECC	.27906	INC	.7940	V1	29.319
RP	227.34	LAP	.63	LOP	69.29	VP	23.177	GAP	15.56	AZP	90.48	TAL	354.18	TAP	121.56	RCA	151.79	APO	269.29	V2	24.193
RC	126.208	GL	6.41	GP	-11.28	ZAL	97.96	ZAP	153.47	ETS	205.43	ZAE	162.01	ETE	316.60	ZAC	71.75	ETC	282.85	LVI	-5.36

PLANETOCENTRIC CONIC

C3	17.209	VHL	4.148	DLA	20.86	RAL	35.35	RAD	6641.6	VEL	11.715	PTH	6.75	VHP	4.425	DPA	5.55	RAP	46.35	ECC	1.2832

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 7 27	3522.38	-46.87	130.18	269.82	101.12	13 6 10	2522.4	-37.02	100.15
60.00	12 21 50	3484.11	-40.05	126.00	271.08	94.89	13 19 54	2484.1	-33.75	98.82
70.00	12 44 15	3418.07	-34.15	122.96	271.38	89.88	13 41 13	2418.1	-30.63	94.80
80.00	13 22 36	3296.76	-29.65	113.59	271.21	86.30	14 17 53	2296.8	-28.17	86.26
90.00	14 30 23	3079.01	-27.85	97.43	271.05	84.91	15 21 42	2079.0	-27.17	70.45
100.00	16 5 48	2771.24	-29.65	74.96	271.21	86.30	16 52 0	1771.2	-28.17	47.63
110.00	17 43 41	2464.88	-34.15	51.88	271.38	89.88	18 24 46	1464.9	-30.63	23.71

DIFFERENTIAL CORRECTIONS

TDE	-.4383	TRA	-1.0189	TC3	1.0294	BAU	.2855												
RDE	-.2549	RRA	.2923	RC3	-.6929	FAU	.15037												
FDE	1.4560	FRA	2.0385	FC3	-7.5646	BSP	3246												
BDE	.5070	BRA	1.0600	BC3	1.2409	FSP	969												

MID-COURSE EXECUTION ACCURACY

SGT	1834.1	SGR	800.6	SG3	626.1						
RRT	-.6323	RRF	.7242	RTF	-.8363						
SGB	2001.2	R23	-.1710	R13	.8566						
SG1	1910.6	SG2	595.4	THA	162.85						

ORBIT DETERMINATION ACCURACY

ST	37.8	SR	18.8	SS	42.3						
CRT	.5429	CRS	.7070	CST	.9749						
LSA	57.7	MSA	15.3	SSA	2.0						
EL1	39.4	EL2	15.1	ALF	17.81						

LAUNCH DATE JUL 25 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 402.577 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.374	GAL	-1.22	AZL	89.15	HCA	128.42	SMA	209.69	ECC	.27610	INC	.8459	V1	29.319
RP	227.73	LAP	.66	LOP	70.34	VP	23.079	GAP	15.27	AZP	90.53	TAL	354.34	TAP	122.76	RCA	151.80	APO	267.59	V2	24.152
RC	128.887	GL	6.88	GP	-11.70	ZAL	97.65	ZAP	152.37	ETS	205.20	ZAE	162.18	ETE	313.94	ZAC	71.33	ETC	282.88	LVI	-4.95

PLANETOCENTRIC CONIC

C3	16.899	VHL	4.111	DLA	21.21	RAL	34.88	RAD	6641.4	VEL	11.702	PTH	6.74	VHP	4.314	DPA	5.15	RAP	46.49	ECC	1.2781

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 1	3525.63	-46.61	130.48	269.27	100.89	13 2 47	2525.6	-37.14	100.37
60.00	12 17 50	3488.84	-40.08	128.40	270.49	94.62	13 15 59	2488.8	-33.88	99.16
70.00	12 39 30	3425.00	-34.15	123.50	270.77	89.56	13 36 35	2425.0	-30.76	95.30
80.00	13 17 18	3306.49	-29.60	114.31	270.55	85.92	14 12 25	2306.5	-28.28	86.96
90.00	14 24 15	3090.35	-27.78	98.26	270.38	84.50	15 15 45	2090.3	-27.28	71.26
100.00	16 0 10	2780.96	-29.60	75.68	270.55	85.92	16 46 31	1781.0	-28.28	48.33
110.00	17 38 57	2471.82	-34.15	52.42	270.77	89.56	18 20 8	1471.8	-30.76	24.21

DIFFERENTIAL CORRECTIONS

TDE	-.4429	TRA	-1.0039	TC3	1.0513	BAU	.2915												
RDE	-.2372	RRA	.2973	RC3	-.7481	FAU	.15722												
FDE	1.5550	FRA	2.0891	FC3	-8.0544	BSP	3282												
BDE	.5024	BRA	1.0470	BC3	1.2903	FSP	1025												

MID-COURSE EXECUTION ACCURACY

SGT	1838.7	SGR	827.7	SG3	659.7						
RRT	-.6536	RRF	.7507	RTF	-.8369						
SGB	2016.4	R23	-.1828	R13	.8599						
SG1	1925.7	SG2	598.2	THA	161.79						

ORBIT DETERMINATION ACCURACY

ST	38.2	SR	17.8	SS	44.2						
CRT	.5260	CRS	.6950	CST	.9743						
LSA	59.2	MSA	15.0	SSA	2.0						
EL1	39.6	EL2	14.7	ALF	16.06						

LAUNCH DATE JUL 25 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 406.210 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.338	GAL	-1.18	AZL	89.10	HCA	129.47	SMA	208.90	ECC	.27330	INC	.8991	V1	29.319
RP	228.12	LAP	.69	LOP	71.38	VP	22.983	GAP	14.98	AZP	90.57	TAL	354.49	TAP	123.96	RCA	151.81	APO	265.99	V2	24.110
RC	131.592	GL	7.37	GP	-12.15	ZAL	97.35	ZAP	151.24	ETS	204.99	ZAE	162.32	ETE	311.07	ZAC	70.90	ETC	282.91	LVI	-4.53

PLANETOCENTRIC CONIC

C3	16.613	VHL	4.076	DLA	21.58	RAL	34.41	RAD	6641.3	VEL	11.690	PTH	6.72	VHP	4.207	DPA	4.72	RAP	46.62	ECC	1.2734

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 0 30	3529.53	-46.66	130.85	268.77	100.62	12 59 19	2529.5	-37.28	100.63
60.00	12 13 43	3494.31	-40.11	128.86	269.95	94.31	13 11 57	2494.3	-34.03	99.55
70.00	12 34 36	3432.83	-34.15	124.11	270.18	89.20	13 31 48	2432.8	-30.90	95.86
80.00	13 11 25	3317.37	-29.55	115.11	269.93	85.50	14 6 42	2317.4	-28.41	87.75
90.00	14 17 48	3103.02	-27.70	99.17	269.74	84.05	15 9 31	2103.0	-27.39	72.17
100.00	15 54 17	2791.84	-29.55	76.48	269.93	85.50	16 40 49	1791.8	-28.41	49.12
110.00	17 34 2	2479.65	-34.15	53.03	270.18	89.20	18 15 22	1479.6	-30.90	24.78

DIFFERENTIAL CORRECTIONS

TDE	-.4463	TRA	-.9886	TC3	1.0686	BAU	.2973												
RDE	-.2186	RRA	.3028	RC3	-.8060	FAU	.16417												
FDE	1.6586	FRA	2.1417	FC3	-8.5552	BSP	3338												
BDE	.4970	BRA	1.0339	BC3	1.3385	FSP	1091												

MID-COURSE EXECUTION ACCURACY

SGT	1840.0	SGR	857.8	SG3	694.2						
RRT	-.6737	RRF	.7758	RTF	-.8571						
SGB	2030.2	R23	-.1941	R13	.8633						
SG1	1939.0	SG2	601.6	THA	160.62						

ORBIT DETERMINATION ACCURACY

ST	38.6	SR	16.9	SS	46.1						
CRT	.5028	CRS	.6779	CST	.9735						
LSA	60.6	MSA	14.7	SSA	2.0						
EL1	39.6	EL2	14.2	ALF	14.27						

LAUNCH DATE JUL 25 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 409.856 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.304	GAL	-1.14	AZL	89.05	HCA	130.51	SMA	208.15	ECC	.27066	INC	.9536	V1	29.319
RP	228.51	LAP	.73	LOP	72.42	VP	22.891	GAP	14.69	AZP	90.62	TAL	354.64	TAP	125.15	RCA	151.81	APO	264.49	V2	24.069
RC	134.321	GL	7.88	GP	-12.62	ZAL	97.06	ZAP	150.09	ETS	204.80	ZAE	162.44	ETE	307.99	ZAC	70.44	ETC	282.95	LVI	-4.09

PLANETOCENTRIC CONIC

C3	16.349	VHL	4.043	DLA	21.96	RAL	33.95	RAD	6641.2	VEL	11.679	PTH	6.71	VHP	4.105	DPA	4.26	RAP	46.73	ECC	1.2691

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 56 54	3534.07	-46.71	131.27	268.31	100.30	12 55 48	2534.1	-37.44	100.94
60.00	12 9 30	3500.53	-40.14	129.39	269.44	93.95	13 7 50	2500.5	-34.19	99.99
70.00	12 29 30	3441.59	-34.14	124.80	269.62	88.80	13 26 52	2441.6	-31.06	96.50
80.00	13 5 15	3329.48	-29.48	116.01	269.33	85.04	14 0 45	2329.5	-28.54	88.62
90.00	14 11 2	3117.12	-27.59	100.19	269.11	83.55	15 2 59	2117.1	-27.51	73.18
100.00	15 48 7	2803.95	-29.48	77.38	269.33	85.04	16 34 51	1804.0	-28.54	49.99
110.00	17 28 57	2488.41	-34.14	53.71	269.62	88.80	18 10 25	1488.4	-31.06	25.41

DIFFERENTIAL CORRECTIONS

TDE	-.4496	TRA	-.9735	TC3	1.0857	BAU	.3039												
RDE	-.1995	RRA	.3087	RC3	-.8685	FAU	.17156												
FDE	1.7713	FRA	2.1960	FC3	-9.0847	BSP	3361												
BDE	.4919	BRA	1.0213	BC3	1.3903	FSP	1152												

MID-COURSE EXECUTION ACCURACY

SGT	1841.0	SGR	892.0	SG3	730.7						
RRT	-.6930	RRF	.7997	RTF	-.8375						
SGB	2045.7	R23	-.2049	R13	.8671						
SG1	1953.9	SG2	605.9	THA	159.36						

ORBIT DETERMINATION ACCURACY

ST	38.9	SR	15.8	SS	46.1						
CRT	.4721	CRS	.6543	CST	.9727						
LSA	62.2	MSA	14.4	SSA	2.0						
EL1	39.7	EL2	13.7	ALF	12.37						

LAUNCH DATE JUL 25 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 413.516 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.272	GAL	-1.10	AZL	88.99	HCA	131.54	SMA	207.45	ECC	.26816	INC	1.0096	VI	29.319
RP	228.90	LAP	.76	LOP	73.46	VP	22.801	GAP	14.40	AZP	90.67	TAL	354.79	TAP	126.33	RCA	151.82	APO	263.09	V2	24.028
RC	137.073	GL	8.40	GP	-13.11	ZAL	96.79	ZAP	148.91	ETS	204.61	ZAE	162.51	ETE	304.71	ZAC	69.98	ETC	283.00	LVI	-3.64

PLANETOCENTRIC CONIC

C3	16.107	VHL	4.013	DLA	22.36	RAL	33.49	RAD	6641.1	VEL	11.668	PTH	6.70	VHP	4.006	DPA	3.77	RAP	46.82	ECC	1.2651

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 53 13	3539.28	-46.78	131.76	267.90	99.93	12 52 13	2539.3	-37.63	101.30
60.00	12 5 9	3507.53	-40.17	129.98	268.97	93.55	13 3 36	2507.5	-34.38	100.50
70.00	12 24 13	3451.33	-34.12	125.56	269.10	88.35	13 21 45	2451.3	-31.23	97.20
80.00	12 58 48	3342.90	-29.40	117.00	268.75	84.53	13 54 31	2342.9	-28.69	89.59
90.00	14 3 52	3132.78	-27.47	101.32	268.51	83.00	14 56 5	2132.8	-27.63	74.31
100.00	15 41 40	2817.37	-29.40	78.36	268.75	84.53	16 28 37	1817.4	-28.69	50.96
110.00	17 23 40	2498.15	-34.12	54.47	269.10	88.35	18 5 18	1498.2	-31.23	26.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4522	TRA	-.9568	TC3	1.0977	BAU	.3105	SGT	1836.8	SGR	929.7	SG3	768.2	ST	39.2	SR	14.8	SS	50.2
RDE	-.1794	RRA	.3147	RC3	-.9347	FAU	.17917	RRT	-.7103	RRF	.8217	RTF	-.8373	CRT	.4327	CRS	.6230	CST	.9719
FDE	1.8898	FRA	2.2465	FC3	-9.6299	BSP	3388	SGB	2058.7	R23	-.2155	R13	.8710	LSA	63.8	MSA	14.1	SSA	2.0
BDE	.4865	BRA	1.0070	BC3	1.4417	FSP	1217	SG1	1965.8	SG2	611.5	THA	157.98	EL1	39.8	EL2	13.1	ALF	10.42

LAUNCH DATE JUL 25 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 417.187 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.242	GAL	-1.07	AZL	88.93	HCA	132.57	SMA	206.80	ECC	.26580	INC	1.0673	VI	29.319
RP	229.28	LAP	.79	LOP	74.49	VP	22.713	GAP	14.12	AZP	90.72	TAL	354.92	TAP	127.50	RCA	151.83	APO	261.77	V2	23.988
RC	139.847	GL	8.94	GP	-13.62	ZAL	96.52	ZAP	147.70	ETS	204.44	ZAE	162.53	ETE	301.25	ZAC	69.49	ETC	283.05	LVI	-3.18

PLANETOCENTRIC CONIC

C3	15.886	VHL	3.986	DLA	22.78	RAL	33.03	RAD	6640.9	VEL	11.659	PTH	6.70	VHP	3.911	DPA	3.26	RAP	46.89	ECC	1.2614

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 49 27	3545.17	-46.84	132.31	267.53	99.50	12 48 33	2545.2	-37.84	101.71
60.00	12 0 39	3515.33	-40.20	130.64	268.54	93.10	12 59 15	2515.3	-34.58	101.06
70.00	12 18 44	3462.10	-34.09	126.40	268.61	87.85	13 16 26	2462.1	-31.41	97.99
80.00	12 52 0	3357.73	-29.30	118.09	268.20	83.96	13 47 58	2357.7	-28.83	90.67
90.00	13 56 17	3150.16	-27.32	102.57	267.93	82.39	14 48 48	2150.2	-27.75	75.57
100.00	15 34 52	2832.20	-29.30	79.45	268.20	83.96	16 22 4	1832.2	-28.83	52.04
110.00	17 18 10	2508.92	-34.09	55.31	268.61	87.85	17 59 59	1508.9	-31.41	26.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4538	TRA	-.9399	TC3	1.1041	BAU	.3170	SGT	1829.6	SGR	971.3	SG3	806.7	ST	39.4	SR	13.7	SS	52.4
RDE	-.1583	RRA	.3210	RC3	-1.0044	FAU	.18693	RRT	-.7258	RRF	.8421	RTF	-.8364	CRT	.3796	CRS	.5798	CST	.9710
FDE	2.0149	FRA	2.2980	FC3	-10.1873	BSP	3419	SGB	2071.5	R23	-.2258	R13	.8748	LSA	65.5	MSA	13.8	SSA	2.1
BDE	.4806	BRA	.9932	BC3	1.4926	FSP	1286	SG1	1977.0	SG2	618.4	THA	156.49	EL1	39.7	EL2	12.5	ALF	8.36

LAUNCH DATE JUL 25 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 420.870 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.213	GAL	-1.03	AZL	88.87	HCA	133.60	SMA	206.18	ECC	.26357	INC	1.1268	VI	29.319
RP	229.67	LAP	.82	LOP	75.52	VP	22.628	GAP	13.84	AZP	90.78	TAL	355.05	TAP	128.66	RCA	151.84	APO	260.53	V2	23.947
RC	142.641	GL	9.49	GP	-14.16	ZAL	96.27	ZAP	146.47	ETS	204.28	ZAE	162.48	ETE	297.62	ZAC	68.99	ETC	283.11	LVI	-2.70

PLANETOCENTRIC CONIC

C3	15.684	VHL	3.960	DLA	23.22	RAL	32.58	RAD	6640.9	VEL	11.650	PTH	6.69	VHP	3.820	DPA	2.72	RAP	46.95	ECC	1.2581

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 45 36	3551.76	-46.92	132.93	267.21	99.03	12 44 47	2551.8	-38.07	102.17
60.00	11 56 2	3523.96	-40.23	131.37	268.15	92.61	12 54 46	2524.0	-34.80	101.69
70.00	12 13 0	3473.94	-34.06	127.32	268.15	87.31	13 10 54	2473.9	-31.60	98.86
80.00	12 44 50	3374.10	-29.17	119.29	267.68	83.34	13 41 4	2374.1	-28.98	91.86
90.00	13 48 13	3169.45	-27.14	103.95	267.37	81.72	14 41 2	2169.4	-27.87	76.97
100.00	15 27 42	2848.57	-29.17	80.66	267.68	83.34	16 15 11	1848.6	-28.98	53.23
110.00	17 12 27	2520.76	-34.06	56.24	268.15	87.31	17 54 27	1520.8	-31.60	27.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4564	TRA	-.9222	TC3	1.1071	BAU	.3241	SGT	1820.1	SGR	1016.9	SG3	846.7	ST	39.6	SR	12.6	SS	54.7
RDE	-.1355	RRA	.3276	RC3	-1.0785	FAU	.19498	RRT	-.7393	RRF	.8607	RTF	-.8552	CRT	.3089	CRS	.5197	CST	.9702
FDE	2.1534	FRA	2.3468	FC3	-10.7627	BSP	3434	SGB	2084.9	R23	-.2353	R13	.8790	LSA	67.3	MSA	13.5	SSA	2.1
BDE	.4761	BRA	.9786	BC3	1.5456	FSP	1354	SG1	1988.5	SG2	626.8	THA	154.89	EL1	39.8	EL2	11.9	ALF	6.15

LAUNCH DATE JUL 25 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 424.564 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.185	GAL	-1.00	AZL	88.81	HCA	134.63	SMA	205.60	ECC	.26147	INC	1.1882	VI	29.319
RP	230.05	LAP	.85	LOP	76.55	VP	22.545	GAP	13.56	AZP	90.83	TAL	355.18	TAP	129.81	RCA	151.84	APO	259.36	V2	23.907
RC	145.456	GL	10.07	GP	-14.72	ZAL	96.02	ZAP	145.20	ETS	204.12	ZAE	162.37	ETE	293.85	ZAC	68.47	ETC	283.17	LVI	-2.21

PLANETOCENTRIC CONIC

C3	15.500	VHL	3.937	DLA	23.68	RAL	32.12	RAD	6640.8	VEL	11.642	PTH	6.68	VHP	3.733	DPA	2.14	RAP	46.99	ECC	1.2551

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 41 37	3559.04	-46.99	133.62	266.93	98.51	12 40 56	2559.0	-38.32	102.68
60.00	11 51 14	3533.42	-40.26	132.18	267.79	92.08	12 50 8	2533.4	-35.03	102.38
70.00	12 7 2	3486.89	-34.01	128.33	267.71	86.71	13 5 9	2486.9	-31.81	99.81
80.00	12 37 15	3392.10	-29.02	120.60	267.16	82.66	13 33 47	2392.1	-29.14	93.18
90.00	13 39 34	3190.84	-26.92	105.48	266.82	80.99	14 32 45	2190.8	-27.99	78.52
100.00	15 20 7	2866.57	-29.02	81.97	267.16	82.66	16 7 53	1866.6	-29.14	54.55
110.00	17 6 28	2533.71	-34.01	57.24	267.71	86.71	17 48 42	1533.7	-31.81	28.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4455	TRA	-.8930	TC3	1.1330	BAU	.3359	SGT	1797.3	SGR	1068.2	SG3	888.1	ST	38.8	SR	11.5	SS	56.0
RDE	-.1129	RRA	.3335	RC3	-1.1592	FAU	.20365	RRT	-.7605	RRF	.8778	RTF	-.8405	CRT	.2132	CRS	.4412	CST	.9678
FDE	2.2848	FRA	2.3859	FC3	-11.3749	BSP	3319	SGB	2090.8	R23	-.2293	R13	.8882	LSA	68.5	MSA	13.3	SSA	2.0
BDE	.4596	BRA	.9533	BC3	1.6210	FSP	1413	SG1	1995.2	SG2	624.9	THA	152.79	EL1	38.9	EL2	11.2	ALF	3.95

LAUNCH DATE JUL 25 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 428.265 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.160	GAL	-.97	AZL	88.75	HCA	135.65	SMA	205.06	ECC	.25948	INC	1.2515	V1	29.319
RP	230.44	LAP	.87	LOP	77.37	VP	22.465	GAP	13.29	AZP	90.89	TAL	355.29	TAP	130.94	RCA	151.85	APO	258.27	V2	23.867
RC	148.289	GL	10.66	GP	-15.30	ZAL	95.79	ZAP	143.91	ETS	203.96	ZAE	162.17	ETE	289.99	ZAC	67.93	ETC	283.24	LVI	-1.70

PLANETOCENTRIC CONIC

C3	15.335	VHL	3.916	DLA	24.16	RAL	31.68	RAD	6640.7	VEL	11.635	PTH	6.67	VHP	3.650	DPA	1.53	RAP	47.02	ECC	1.2524

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 37 33	3567.11	-47.07	134.38	266.71	97.92	12 37 0	2567.1	-38.60	103.25
60.00	11 46 17	3543.63	-40.28	133.06	267.48	91.46	12 45 21	2543.8	-35.29	103.14
70.00	12 0 47	3501.12	-33.95	129.43	267.31	86.06	12 59 8	2501.1	-32.02	100.87
80.00	12 29 10	3412.06	-28.84	122.06	266.68	81.92	13 26 2	2412.1	-29.29	94.64
90.00	13 30 15	3214.80	-26.65	107.18	266.29	80.17	14 23 50	2214.8	-28.10	80.27
100.00	15 12 2	2886.53	-28.84	83.43	266.68	81.92	16 0 8	1886.5	-29.29	56.01
110.00	17 0 13	2547.93	-33.95	58.35	267.31	86.06	17 42 41	1547.9	-32.02	29.78

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4561	TRA	-.6836	TC3	1.1011	BAU	.3399	SGT	1787.9	SGR	1121.7	SG3	929.5			ST	39.6	SR	10.5	SS	59.6
RDE	-.0865	RRA	.3414	RC3	-1.2395	FAU	.21166	RRT	-.7622	RRF	.8928	RTF	-.8322			CRT	.0836	CRS	.3188	CST	.9680
FDE	2.4491	FRA	2.4400	FC	-11.9492	BSP	3462	SGB	2110.6	R23	-.2484	R13	.8890			LSA	71.1	MSA	13.0	SSA	2.1
BDE	.4642	BRA	.9472	BC3	1.6579	FSP	1500	SG1	2009.3	SG2	646.1	THA	151.19			EL1	39.6	EL2	10.4	ALF	1.36

LAUNCH DATE JUL 25 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 431.976 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.135	GAL	-.94	AZL	88.68	HCA	136.67	SMA	204.55	ECC	.25761	INC	1.3169	V1	29.319
RP	230.82	LAP	.90	LOP	78.59	VP	22.386	GAP	13.01	AZP	90.96	TAL	355.40	TAP	132.07	RCA	151.86	APO	257.25	V2	23.827
RC	151.140	GL	11.27	GP	-15.91	ZAL	95.57	ZAP	142.60	ETS	203.81	ZAE	161.89	ETE	286.05	ZAC	67.37	ETC	283.32	LVI	-1.17

PLANETOCENTRIC CONIC

C3	15.188	VHL	3.897	DLA	24.66	RAL	31.23	RAD	6640.6	VEL	11.629	PTH	6.67	VHP	3.570	DPA	.89	RAP	47.02	ECC	1.2500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 33 21	3575.92	-47.15	135.22	266.53	97.28	12 32 57	2575.9	-38.90	103.88
60.00	11 41 9	3555.16	-40.29	134.02	267.20	90.81	12 40 24	2555.2	-35.56	103.98
70.00	11 54 13	3516.63	-33.87	130.64	266.93	85.35	12 52 50	2516.6	-32.25	102.02
80.00	12 20 31	3434.10	-28.62	123.66	266.20	81.11	13 17 45	2434.1	-29.44	96.26
90.00	13 20 7	3241.64	-26.33	109.08	265.76	79.28	14 14 9	2241.6	-28.19	82.22
100.00	15 3 23	2908.57	-28.62	85.03	266.20	81.11	15 51 52	1908.6	-29.44	57.63
110.00	16 53 40	2563.44	-33.87	59.56	266.93	85.35	17 36 23	1563.4	-32.25	30.94

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4578	TRA	-.8674	TC3	1.0830	BAU	.3478	SGT	1770.5	SGR	1181.7	SG3	972.8			ST	39.7	SR	9.7	SS	62.3
RDE	-.0594	RRA	.3491	RC3	-1.3269	FAU	.22034	RRT	-.7680	RRF	.9066	RTF	-.8275			CRT	-.0869	CRS	.1562	CST	.9671
FDE	2.6123	FRA	2.4875	FC	-12.5593	BSP	3515	SGB	2128.6	R23	-.2570	R13	.8932			LSA	73.4	MSA	12.7	SSA	2.1
BDE	.4616	BRA	.9380	BC3	1.7128	FSP	1578	SG1	2023.0	SG2	662.3	THA	149.21			EL1	39.7	EL2	9.6	ALF	178.71

LAUNCH DATE JUL 25 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 435.695 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.112	GAL	-.91	AZL	88.62	HCA	137.68	SMA	204.07	ECC	.25585	INC	1.3846	V1	29.319
RP	231.20	LAP	.93	LOP	79.60	VP	22.310	GAP	12.74	AZP	91.02	TAL	355.51	TAP	133.19	RCA	151.86	APO	256.28	V2	23.787
RC	154.008	GL	11.90	GP	-16.55	ZAL	95.37	ZAP	141.25	ETS	203.65	ZAE	161.50	ETE	282.10	ZAC	66.79	ETC	283.41	LVI	-.83

PLANETOCENTRIC CONIC

C3	15.058	VHL	3.880	DLA	25.19	RAL	30.79	RAD	6640.6	VEL	11.624	PTH	6.66	VHP	3.495	DPA	.22	RAP	47.01	ECC	1.2478

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 29 1	3585.51	-47.23	136.13	266.40	96.58	12 28 47	2585.5	-39.23	104.57
60.00	11 35 48	3567.47	-40.30	135.07	266.96	90.10	12 35 15	2567.5	-35.85	104.90
70.00	11 47 19	3533.53	-33.77	131.95	266.58	84.58	12 46 12	2533.5	-32.48	103.28
80.00	12 11 12	3458.53	-28.35	125.42	265.74	80.21	13 8 51	2458.5	-29.58	98.07
90.00	13 8 57	3272.01	-25.92	111.21	265.22	78.28	14 3 29	2272.0	-28.25	84.44
100.00	14 54 4	2933.00	-28.35	86.79	265.74	80.21	15 42 57	1933.0	-29.58	59.43
110.00	16 46 45	2580.34	-33.77	60.86	266.58	84.58	17 29 45	1580.3	-32.48	32.20

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4526	TRA	-.8443	TC3	1.0730	BAU	.3582	SGT	1743.0	SGR	1246.6	SG3	1016.6			ST	39.3	SR	9.2	SS	64.8
RDE	-.0314	RRA	.3563	RC3	-1.4196	FAU	.22927	RRT	-.7767	RRF	.9188	RTF	-.8257			CRT	-.2909	CRS	-.0454	CST	.9654
FDE	2.7768	FRA	2.5245	FC	-13.1815	BSP	3492	SGB	2142.9	R23	-.2563	R13	.9001			LSA	75.3	MSA	12.5	SSA	2.0
BDE	.4537	BRA	.9164	BC3	1.7795	FSP	1650	SG1	2034.6	SG2	672.7	THA	148.87			EL1	39.4	EL2	8.8	ALF	175.91

LAUNCH DATE JUL 25 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 439.421 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	33.091	GAL	-.89	AZL	88.55	HCA	138.69	SMA	203.62	ECC	.25419	INC	1.4549	V1	29.319
RP	231.58	LAP	.96	LOP	80.62	VP	22.236	GAP	12.47	AZP	91.09	TAL	355.60	TAP	134.30	RCA	151.87	APO	255.38	V2	23.748
RC	156.890	GL	12.55	GP	-17.21	ZAL	95.18	ZAP	139.87	ETS	203.49	ZAE	161.02	ETE	278.18	ZAC	66.18	ETC	283.50	LVI	-.06

PLANETOCENTRIC CONIC

C3	14.944	VHL	3.866	DLA	25.74	RAL	30.35	RAD	6640.5	VEL	11.619	PTH	6.66	VHP	3.423	DPA	-.49	RAP	46.99	ECC	1.2459

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 24 33	3595.94	-47.30	137.13	266.32	95.82	12 24 29	2595.9	-39.57	105.33
60.00	11 30 13	3580.83	-40.30	136.21	266.76	89.33	12 29 54	2580.8	-36.15	105.90
70.00	11 40 0	3551.99	-33.65	133.37	266.25	83.75	12 39 12	2552.0	-32.71	104.67
80.00	12 1 5	3485.83	-28.02	127.39	265.27	79.23	12 59 11	2485.8	-29.70	100.09
90.00	12 56 29	3306.90	-25.42	113.64	264.66	77.17	13 51 36	2306.9	-28.28	86.99
100.00	14 43 57	2960.30	-28.02	88.75	265.27	79.23	15 33 17	1960.3	-29.70	61.45
110.00	16 39 27	2598.80	-33.65	62.29	266.25	83.75	17 22 46	1598.8	-32.71	33.59

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4555	TRA	-.8304	TC3	1.0298	BAU	.3655	SGT	1719.4	SGR	1314.7	SG3	1059.7			ST	39.5	SR	9.2	SS	67.8
RDE	.0001	RRA	.3654	RC3	-1.5122	FAU	.23751	RRT	-.7753	RRF	.9293	RTF	-.8168			CRT	-.5160	CRS	-.2864	CST	.9646
FDE	2.9654	FRA	2.5749	FC	-13.7589	BSP	3581	SGB	2164.4	R23	-.2642	R13	.9040			LSA	78.0	MSA	12.3	SSA	2.0
BDE	.4555	BRA	.9072	BC3	1.8296	FSP	1738	SG1	2049.2	SG2	696.7	THA	144.65			EL1	39.8	EL2	7.8	ALF	172.88

LAUNCH DATE JUL 25 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 443.153 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 33.070 GAL -.87 AZL 88.47 HCA 139.70 SMA 203.20 ECC .25263 INC 1.5276 V1 29.319
RP 231.95 LAP .99 LOP 81.63 VP 22.183 GAP 12.21 AZP 91.17 TAL 355.69 TAP 135.39 RCA 151.87 APO 254.54 V2 23.708
RC 159.765 GL 13.23 GP -17.91 ZAL 95.00 ZAP 138.46 ETS 203.33 ZAE 160.43 ETE 274.32 ZAC 65.56 ETC 283.61 LVI .52

PLANETOCENTRIC CONIC

C3 14.847 VHL 3.853 DLA 26.31 RAL 29.92 RAD 6640.5 VEL 11.615 PTH 6.66 VHP 3.354 DPA -1.24 RAP 46.95 ECC 1.2443

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 19 55	3607.22	-47.38	138.21	266.29	94.99	12 20 2	2607.2	-39.94	106.16
60.00	11 24 24	3595.28	-40.28	137.44	266.58	88.49	12 24 19	2595.3	-36.47	107.00
70.00	11 32 15	3572.11	-33.49	134.92	265.94	82.85	12 31 47	2572.1	-32.95	106.19
80.00	11 49 58	3516.52	-27.61	129.57	264.80	78.15	12 48 34	2516.5	-29.79	102.36
90.00	12 42 11	3347.80	-24.77	116.46	264.07	75.90	13 37 59	2347.8	-28.24	89.98
100.00	14 32 50	2991.00	-27.61	90.94	264.80	78.15	15 22 41	1991.0	-29.79	63.73
110.00	16 31 42	2618.93	-33.49	63.84	265.94	82.85	17 15 21	1618.9	-32.95	35.11

DIFFERENTIAL CORRECTIONS

TDE -.4518 TRA -.8076 TC3 1.0025 BAU .3771
RDE .0333 RRA .3728 RC3-1.6140 FAU .24659
FDE 3.1585 FRA 2.6023 FC-14.3786 BSP 3589
BDE .4531 BRA .8895 BC3 1.9000 FSP 1814

MID-COURSE EXECUTION ACCURACY

SGT 1686.2 SGR 1389.9 SG3 1104.7
RRT -.7777 RRF .9388 RTF -.8117
SGB 2185.2 R23 -.2611 R13 .9111
SG1 2065.5 SG2 713.3 THA 142.02

ORBIT DETERMINATION ACCURACY

ST 39.2 SR 9.8 SS 70.8
CRT -.7096 CRS -.5081 CST .9631
LSA 80.5 MSA 12.2 SSA 2.0
EL1 39.8 EL2 6.8 ALF 169.65

LAUNCH DATE JUL 25 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 446.893 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 33.051 GAL -.85 AZL 88.40 HCA 140.71 SMA 202.81 ECC .25115 INC 1.6033 V1 29.319
RP 232.33 LAP 1.02 LOP 82.63 VP 22.093 GAP 11.94 AZP 91.24 TAL 355.77 TAP 136.48 RCA 151.87 APO 253.74 V2 23.670
RC 162.693 GL 13.92 GP -18.63 ZAL 94.83 ZAP 137.03 ETS 203.16 ZAE 159.73 ETE 270.57 ZAC 64.91 ETC 283.72 LVI 1.13

PLANETOCENTRIC CONIC

C3 14.766 VHL 3.843 DLA 26.91 RAL 29.48 RAD 6640.4 VEL 11.611 PTH 6.65 VHP 3.290 DPA -2.02 RAP 46.89 ECC 1.2430

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 15 6	3619.39	-47.44	139.38	266.30	94.09	12 15 26	2619.4	-40.33	107.06
60.00	11 18 17	3610.89	-40.24	138.76	266.45	87.59	12 18 28	2610.9	-36.80	108.19
70.00	11 23 59	3594.10	-33.29	136.61	265.65	81.87	12 23 53	2594.1	-33.19	107.87
80.00	11 37 33	3551.47	-27.10	132.04	264.31	76.95	12 36 45	2551.5	-29.85	104.96
90.00	12 25 10	3397.62	-23.90	119.85	263.40	74.42	13 21 48	2397.6	-28.10	93.62
100.00	14 20 25	3025.94	-27.10	93.41	264.31	76.95	15 10 51	2025.9	-29.85	66.33
110.00	16 23 25	2640.91	-33.29	65.52	265.65	81.87	17 7 26	1640.9	-33.19	36.78

DIFFERENTIAL CORRECTIONS

TDE -.4384 TRA -.7788 TC3 .9879 BAU .3922
RDE .0670 RRA .3796 RC3-1.7236 FAU .25618
FDE 3.3433 FRA 2.6200 FC-15.0195 BSP 3521
BDE .4435 BRA .8664 BC3 1.9867 FSP 1876

MID-COURSE EXECUTION ACCURACY

SGT 1643.0 SGR 1472.3 SG3 1150.4
RRT -.7845 RRF .9473 RTF -.8103
SGB 2206.1 R23 -.2484 R13 .9205
SG1 2085.6 SG2 719.3 THA 138.99

ORBIT DETERMINATION ACCURACY

ST 38.1 SR 10.9 SS 73.4
CRT -.8438 CRS -.6742 CST .9602
LSA 82.6 MSA 12.0 SSA 1.9
EL1 39.2 EL2 5.7 ALF 166.09

LAUNCH DATE JUL 25 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 450.636 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 33.033 GAL -.83 AZL 88.32 HCA 141.71 SMA 202.44 ECC .24977 INC 1.6819 V1 29.319
RP 232.70 LAP 1.04 LOP 83.63 VP 22.025 GAP 11.68 AZP 91.32 TAL 355.84 TAP 137.55 RCA 151.88 APO 253.00 V2 23.631
RC 165.610 GL 14.65 GP -19.39 ZAL 94.68 ZAP 135.56 ETS 202.98 ZAE 158.92 ETE 266.96 ZAC 64.24 ETC 283.84 LVI 1.76

PLANETOCENTRIC CONIC

C3 14.702 VHL 3.834 DLA 27.53 RAL 29.05 RAD 6640.4 VEL 11.608 PTH 6.65 VHP 3.229 DPA -2.84 RAP 46.82 ECC 1.2420

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 10 6	3632.54	-47.50	140.65	266.37	93.12	12 10 39	2632.5	-40.74	108.05
60.00	11 11 53	3627.81	-40.18	140.20	266.34	86.62	12 12 21	2627.8	-37.14	109.50
70.00	11 15 7	3618.26	-33.04	138.45	265.37	80.81	12 15 25	2618.3	-33.42	109.71
80.00	11 23 25	3592.20	-26.44	134.89	263.78	75.59	12 23 17	2592.2	-29.85	107.98
90.00	12 3 10	3463.68	-22.62	124.27	262.58	72.56	13 0 54	2463.7	-27.74	98.42
100.00	14 6 17	3066.67	-26.44	96.26	263.78	75.59	14 57 23	2066.7	-29.85	69.35
110.00	16 14 33	2665.08	-33.04	67.37	265.37	80.81	16 58 58	1665.1	-33.42	38.63

DIFFERENTIAL CORRECTIONS

TDE -.4448 TRA -.7697 TC3 .9083 BAU .4010
RDE .1074 RRA .3904 RC3-1.8269 FAU .26406
FDE 3.5754 FRA 2.6674 FC-15.5486 BSP 3689
BDE .4575 BRA .8630 BC3 2.0402 FSP 1976

MID-COURSE EXECUTION ACCURACY

SGT 1615.3 SGR 1556.0 SG3 1193.8
RRT -.7702 RRF .9544 RTF -.[illegible]24
SGB 2242.8 R23 -.2532 R13 .9246
SG1 2110.2 SG2 759.7 THA 136.39

ORBIT DETERMINATION ACCURACY

ST 38.5 SR 12.9 SS 77.0
CRT -.9280 CRS -.7997 CST .9598
LSA 86.2 MSA 11.9 SSA 1.9
EL1 40.4 EL2 4.6 ALF 162.52

LAUNCH DATE JUL 25 1973 FLIGHT TIME 190.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 454.385 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 33.016 GAL -.81 AZL 88.24 HCA 142.71 SMA 202.09 ECC .24848 INC 1.7640 V1 29.319
RP 233.07 LAP 1.07 LOP 84.63 VP 21.958 GAP 11.41 AZP 91.40 TAL 355.91 TAP 138.62 RCA 151.88 APO 252.31 V2 23.593
RC 168.537 GL 15.39 GP -20.17 ZAL 94.54 ZAP 134.07 ETS 202.79 ZAE 158.01 ETE 263.52 ZAC 63.55 ETC 283.97 LVI 2.41

PLANETOCENTRIC CONIC

C3 14.655 VHL 3.828 DLA 28.19 RAL 28.61 RAD 6640.4 VEL 11.606 PTH 6.65 VHP 3.173 DPA -3.70 RAP 46.73 ECC 1.2412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 4 53	3646.67	-47.54	142.01	266.48	92.07	12 5 40	2646.7	-41.17	109.13
60.00	11 5 7	3646.07	-40.10	141.75	266.27	85.57	12 5 53	2646.1	-37.50	110.92
70.00	11 5 32	3644.83	-32.73	140.46	265.08	79.65	12 6 17	2644.8	-33.63	111.76
80.00	11 6 43	3641.09	-25.56	138.26	263.17	74.03	12 7 24	2641.1	-29.74	111.61
90.00	11 24 27	3583.69	-19.96	132.06	261.17	69.54	12 24 10	2583.7	-26.63	107.02
100.00	13 49 35	3115.56	-25.56	99.63	263.17	74.03	14 41 31	2115.6	-29.74	72.98
110.00	16 4 58	2691.65	-32.73	69.38	265.08	79.65	16 49 50	1691.6	-33.63	40.67

DIFFERENTIAL CORRECTIONS

TDE -.4381 TRA -.7487 TC3 .8524 BAU .4150
RDE .1486 RRA .3989 RC3-1.9394 FAU .27261
FDE 3.7977 FRA 2.6876 FC-16.1048 BSP 3753
BDE .4626 BRA .8483 BC3 2.1184 FSP 2061

MID-COURSE EXECUTION ACCURACY

SGT 1572.3 SGR 1647.1 SG3 1237.6
RRT -.7630 RRF .9606 RTF -.7804
SGB 2277.1 R23 -.2434 R13 .9322
SG1 2138.3 SG2 782.9 THA 133.26

ORBIT DETERMINATION ACCURACY

ST 37.9 SR 15.2 SS 80.3
CRT -.9702 CRS -.8738 CST .9575
LSA 89.3 MSA 11.8 SSA 1.9
EL1 40.7 EL2 3.4 ALF 158.56

LAUNCH DATE JUL 25 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 458.139 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 33.000 GAL -.80 AZL 88.15 HCA 143.70 SMA 201.77 ECC .24726 INC 1.8494 V1 29.319
RP 233.44 LAP 1.09 LOP 85.63 VP 21.893 GAP 11.15 AZP 91.49 TAL 355.97 TAP 139.67 RCA 151.88 APO 251.66 V2 23.554
RC 171.472 GL 16.17 GP -20.99 ZAL 94.41 ZAP 132.55 ETS 202.59 ZAE 156.99 ETE 260.25 ZAC 62.83 ETC 284.11 LVI 3.09

PLANETOCENTRIC CONIC

C3 14.623 VHL 3.824 DLA 28.87 RAL 28.17 RAD 6640.3 VEL 11.605 PTH 6.65 VHP 3.120 DPA -4.60 RAP 46.64 ECC 1.2407

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 59 25	3661.85	-47.57	143.48	266.64	90.94	12 0 27	2661.9	-41.63	110.31
60.00	10 57 56	3665.81	-39.98	143.41	266.22	84.45	11 59 2	2665.8	-37.85	112.47
70.00	10 55 5	3674.24	-32.35	142.67	264.80	78.40	11 56 19	2674.2	-33.83	114.03
80.00	10 45 40	3703.87	-24.32	142.51	262.40	72.12	11 47 24	2703.9	-29.44	116.25
83.93	10 12 17	3811.31	-18.75	148.23	260.20	67.63	11 15 48	2811.3	-26.33	123.63
100.00	13 28 32	3178.34	-24.32	103.87	262.40	72.12	14 21 30	2178.3	-29.44	77.62
110.00	15 54 31	2721.06	-32.35	71.59	264.80	78.40	16 39 52	1721.1	-33.83	42.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4290 TRA -.7270 TC3 .7904 BAU .4309 SGT 1525.1 SGR 1744.7 SG3 1280.9 ST 37.2 SR 18.0 SS 83.5
RDE .1925 RRA .4070 RC3-2.0574 FAU .28121 RRT -.7527 RRF .9661 RTF -.7658 CRT -.9892 CRS -.9190 CST .9547
FDE 4.0241 FRA 2.6985 FC-16.6482 BSP 3809 SGB 2317.3 R23 -.2304 R13 .9400 LSA 92.4 MSA 11.8 SSA 1.8
BDE .4701 BRA .8332 BC3 2.2040 FSP 2137 SG1 2172.5 SG2 806.3 THA 129.92 EL1 41.2 EL2 2.4 ALF 154.36

LAUNCH DATE JUL 25 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 461.897 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.985 GAL -.79 AZL 88.06 HCA 144.69 SMA 201.47 ECC .24612 INC 1.9389 V1 29.319
RP 233.80 LAP 1.12 LOP 86.62 VP 21.830 GAP 10.90 AZP 91.58 TAL 356.02 TAP 140.72 RCA 151.88 APO 251.05 V2 23.517
RC 174.413 GL 16.98 GP -21.84 ZAL 94.30 ZAP 131.00 ETS 202.37 ZAE 155.88 ETE 257.17 ZAC 62.08 ETC 284.26 LVI 3.79

PLANETOCENTRIC CONIC

C3 14.609 VHL 3.822 DLA 29.58 RAL 27.73 RAD 6640.3 VEL 11.604 PTH 6.65 VHP 3.071 DPA -5.53 RAP 46.53 ECC 1.2404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 53 41	3678.17	-47.58	145.06	266.85	89.72	11 55 0	2678.2	-42.10	111.59
60.00	10 50 19	3687.17	-39.83	145.21	266.19	83.24	11 51 46	2687.2	-38.22	114.17
70.00	10 43 34	3707.07	-31.88	145.11	264.49	77.03	11 45 21	2707.1	-34.00	116.58
80.00	10 13 23	3802.29	-22.11	148.98	261.19	69.41	11 16 45	2802.3	-28.61	123.45
80.93	9 46 39	3887.84	-19.19	154.08	259.94	67.04	10 51 27	2887.8	-26.97	129.44
100.00	12 56 15	3276.77	-22.11	110.35	261.19	69.41	13 50 52	2276.8	-28.61	84.82
110.00	15 43 1	2753.89	-31.88	74.03	264.49	77.03	16 28 55	1753.9	-34.00	45.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4193 TRA -.7059 TC3 .7238 BAU .4486 SGT 1477.1 SGR 1849.5 SG3 1324.1 ST 36.4 SR 21.2 SS 87.0
RDE .2407 RRA .4157 RC3-2.1800 FAU .28966 RRT -.7397 RRF .9709 RTF -.7491 CRT -.9954 CRS -.9474 CST .9515
FDE 4.2674 FRA 2.7069 FC-17.1652 BSP 3885 SGB 2367.0 R23 -.2144 R13 .9480 LSA 95.9 MSA 11.8 SSA 1.8
BDE .4835 BRA .8192 BC3 2.2970 FSP 2215 SG1 2216.9 SG2 829.3 THA 126.48 EL1 42.0 EL2 1.8 ALF 149.86

LAUNCH DATE JUL 25 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 465.658 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.971 GAL -.77 AZL 87.97 HCA 145.68 SMA 201.19 ECC .24505 INC 2.0325 V1 29.319
RP 234.17 LAP 1.15 LOP 87.61 VP 21.768 GAP 10.64 AZP 91.68 TAL 356.06 TAP 141.75 RCA 151.89 APO 250.49 V2 23.479
RC 177.360 GL 17.81 GP -22.72 ZAL 94.20 ZAP 129.43 ETS 202.13 ZAE 154.67 ETE 254.28 ZAC 61.31 ETC 284.42 LVI 4.52

PLANETOCENTRIC CONIC

C3 14.612 VHL 3.823 DLA 30.33 RAL 27.29 RAD 6640.3 VEL 11.605 PTH 6.65 VHP 3.025 DPA -6.51 RAP 46.41 ECC 1.2405

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 47 39	3695.69	-47.56	146.75	267.11	88.42	11 49 15	2695.7	-42.58	112.99
60.00	10 42 10	3710.33	-39.62	147.14	266.18	81.94	11 44 0	2710.3	-38.58	116.03
70.00	10 30 42	3744.18	-31.28	147.84	264.14	75.52	11 33 6	2744.2	-34.11	119.47
78.55	9 26 52	3945.32	-19.65	158.56	259.71	66.42	10 32 38	2945.3	-27.64	133.89
78.55	9 26 52	3945.32	-19.65	158.56	259.71	66.42	10 32 38	2945.3	-27.64	133.89
78.55	9 26 52	3945.32	-19.65	158.56	259.71	66.42	10 32 38	2945.3	-27.64	133.89
110.00	15 30 8	2791.00	-31.28	76.75	264.14	75.52	16 16 39	1791.0	-34.11	48.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4055 TRA -.6838 TC3 .6481 BAU .4676 SGT 1423.0 SGR 1958.5 SG3 1364.3 ST 35.2 SR 24.6 SS 90.4
RDE .2918 RRA .4239 RC3-2.3040 FAU .29750 RRT -.7222 RRF .9749 RTF -.7382 CRT -.9943 CRS -.9649 CST .9472
FDE 4.5099 FRA 2.7051 FC-17.6258 BSP 3948 SGB 2420.9 R23 -.1959 R13 .9557 LSA 99.4 MSA 11.8 SSA 1.7
BDE .4996 BRA .8045 BC3 2.3934 FSP 2282 SG1 2266.6 SG2 850.6 THA 122.89 EL1 42.9 EL2 2.2 ALF 145.09

LAUNCH DATE JUL 25 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 469.424 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.958 GAL -.76 AZL 87.87 HCA 146.67 SMA 200.92 ECC .24405 INC 2.1306 V1 29.319
RP 234.53 LAP 1.17 LOP 88.60 VP 21.708 GAP 10.39 AZP 91.78 TAL 356.10 TAP 142.77 RCA 151.89 APO 249.96 V2 23.442
RC 180.313 GL 18.68 GP -23.64 ZAL 94.11 ZAP 127.83 ETS 201.88 ZAE 153.36 ETE 251.57 ZAC 60.52 ETC 284.60 LVI 5.27

PLANETOCENTRIC CONIC

C3 14.634 VHL 3.825 DLA 31.11 RAL 26.84 RAD 6640.4 VEL 11.606 PTH 6.65 VHP 2.984 DPA -7.53 RAP 46.28 ECC 1.2408

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 41 16	3714.51	-47.51	148.57	267.40	87.02	11 43 10	2714.5	-43.09	114.52
60.00	10 33 24	3735.50	-39.36	149.23	266.18	80.55	11 35 39	2735.5	-38.94	118.08
70.00	10 16 0	3786.90	-30.51	150.93	263.73	73.84	11 19 7	2786.9	-34.15	122.80
76.46	9 9 54	3993.70	-20.11	162.41	259.50	65.75	10 16 28	2993.7	-28.33	137.70
76.46	9 9 54	3993.70	-20.11	162.41	259.50	65.75	10 16 28	2993.7	-28.33	137.70
76.46	9 9 54	3993.70	-20.11	162.41	259.50	65.75	10 16 28	2993.7	-28.33	137.70
110.00	15 15 27	2833.72	-30.51	79.84	263.73	73.84	16 2 41	1833.7	-34.15	51.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3881 TRA -.6582 TC3 .5694 BAU .4887 SGT 1361.5 SGR 2073.6 SG3 1402.6 ST 33.8 SR 28.5 SS 93.8
RDE .3470 RRA .4304 RC3-2.4322 FAU .30507 RRT -.7013 RRF .9784 RTF -.7042 CRT -.9890 CRS -.9763 CST .9417
FDE 4.7598 FRA 2.6834 FC-18.0484 BSP 4019 SGB 2480.0 R23 -.1741 R13 .9631 LSA 103.0 MSA 11.7 SSA 1.8
BDE .5206 BRA .7865 BC3 2.4980 FSP 2345 SG1 2324.6 SG2 865.8 THA 119.15 EL1 44.1 EL2 3.2 ALF 139.95

LAUNCH DATE JUL 25 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 473.193 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.946	GAL	-.76	AZL	87.77	HCA	147.65	SMA	200.68	ECC	.24312	INC	2.2337	V1	29.319
RP	234.89	LAP	1.20	LOP	89.58	VP	21.649	GAP	10.13	AZP	91.89	TAL	356.13	TAP	143.78	RCA	151.89	APO	249.46	V2	23.405
RC	183.270	GL	19.58	GP	-24.59	ZAL	94.03	ZAP	126.21	ETS	201.59	ZAE	151.97	ETE	249.05	ZAC	59.69	ETC	284.79	LVI	6.06

PLANETOCENTRIC CONIC

C3	14.674	VHL	3.831	DLA	31.93	RAL	26.38	RAD	6640.4	VEL	11.607	PTH	6.65	VHP	2.947	DPA	-8.59	RAP	46.14	ECC	1.2415

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 34 29	3734.73	-47.42	150.52	267.73	85.52	11 36 44	2734.7	-43.60	116.19
60.00	10 23 55	3762.94	-39.03	151.49	266.18	79.05	11 26 38	2762.9	-39.28	120.33
70.00	9 58 41	3837.58	-29.49	154.52	263.19	71.94	11 2 39	2837.6	-34.07	126.76
74.53	8 54 40	4036.35	-20.59	165.87	259.32	65.04	10 1 56	3036.4	-29.05	141.13
74.53	8 54 40	4036.35	-20.59	165.87	259.32	65.04	10 1 56	3036.4	-29.05	141.13
74.53	8 54 40	4036.35	-20.59	165.87	259.32	65.04	10 1 56	3036.4	-29.05	141.13
110.00	14 58 7	2884.40	-29.49	83.44	263.19	71.94	15 46 12	1884.4	-34.07	55.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3620	TRA	-.6282	TC3	.5032	BAU	.5139	SGT	1291.4	SGR	2197.9	SG3	1440.0	ST	31.8	SR	32.4	SS	96.9
RDE	.4038	RRA	.4348	RC3-2	.5707	FAU	.31315	RRT	-.6817	RRF	.9815	RTF	-.6808	CRT	-.9801	CRS	-.9835	CST	.9334
FDE	4.9934	FRA	2.6400	FC-18	.4755	BSP	4056	SGB	2549.2	R23	-.1498	R13	.9701	LSA	106.3	MSA	11.7	SSA	1.5
BDE	.5423	BRA	.7640	BC3	2.6195	FSP	2386	SG1	2397.5	SG2	866.2	THA	115.37	EL1	45.2	EL2	4.5	ALF	134.38

LAUNCH DATE JUL 25 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 476.962 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.934	GAL	-.75	AZL	87.66	HCA	148.63	SMA	200.45	ECC	.24225	INC	2.3422	V1	29.319
RP	235.24	LAP	1.22	LOP	90.57	VP	21.593	GAP	9.88	AZP	92.00	TAL	356.15	TAP	144.78	RCA	151.89	APO	249.01	V2	23.369
RC	186.232	GL	20.52	GP	-25.58	ZAL	93.97	ZAP	124.57	ETS	201.29	ZAE	150.51	ETE	246.70	ZAC	58.84	ETC	284.99	LVI	6.87

PLANETOCENTRIC CONIC

C3	14.735	VHL	3.839	DLA	32.78	RAL	25.91	RAD	6640.4	VEL	11.610	PTH	6.65	VHP	2.915	DPA	-9.69	RAP	46.01	ECC	1.2425

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 27 16	3756.54	-47.28	152.61	268.11	83.92	11 29 53	2756.5	-44.12	118.03
60.00	10 13 35	3793.10	-38.61	153.94	266.17	77.43	11 16 48	2793.1	-39.60	122.83
70.00	9 36 59	3901.50	-28.06	158.94	262.44	69.68	10 42 0	2901.5	-33.77	131.72
72.68	8 40 40	4075.07	-21.07	169.07	259.18	64.29	9 48 35	3075.1	-29.80	144.30
72.68	8 40 40	4075.07	-21.07	169.07	259.18	64.29	9 48 35	3075.1	-29.80	144.30
72.68	8 40 40	4075.07	-21.07	169.07	259.18	64.29	9 48 35	3075.1	-29.80	144.30
110.00	14 36 25	2948.32	-28.06	87.86	262.44	69.68	15 25 34	1948.3	-33.77	60.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3552	TRA	-.6196	TC3	.3656	BAU	.5342	SGT	1252.9	SGR	2320.6	SG3	1470.8	ST	31.2	SR	37.5	SS	101.3
RDE	.4742	RRA	.4467	RC3-2	.6870	FAU	.31760	RRT	-.6282	RRF	.9840	RTF	-.6273	CRT	-.9708	CRS	-.9887	CST	.9279
FDE	5.2970	FRA	2.6456	FC-18	.6596	BSP	4314	SGB	2637.3	R23	-.1329	R13	.9751	LSA	111.8	MSA	11.9	SSA	1.5
BDE	.5925	BRA	.7638	BC3	2.7117	FSP	2484	SG1	2473.6	SG2	914.5	THA	111.88	EL1	48.4	EL2	5.8	ALF	129.66

LAUNCH DATE JUL 25 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 480.734 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.924	GAL	-.75	AZL	87.54	HCA	149.61	SMA	200.24	ECC	.24145	INC	2.4566	V1	29.319
RP	235.59	LAP	1.24	LOP	91.54	VP	21.537	GAP	9.63	AZP	92.12	TAL	356.16	TAP	145.77	RCA	151.89	APO	248.58	V2	23.332
RC	189.197	GL	21.50	GP	-26.60	ZAL	93.91	ZAP	122.92	ETS	200.96	ZAE	148.96	ETE	244.51	ZAC	57.96	ETC	285.20	LVI	7.72

PLANETOCENTRIC CONIC

C3	14.818	VHL	3.849	DLA	33.68	RAL	25.43	RAD	6640.4	VEL	11.613	PTH	6.65	VHP	2.886	DPA	-10.83	RAP	45.86	ECC	1.2439

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 19 32	3780.00	-47.09	154.84	268.50	82.21	11 22 32	2780.0	-44.65	120.04
60.00	10 2 11	3826.34	-38.09	156.61	266.12	75.69	11 5 58	2826.3	-39.89	125.61
70.00	9 5 11	3995.71	-25.67	165.22	261.15	66.66	10 11 46	2995.7	-32.93	138.94
70.90	8 27 32	4110.86	-21.57	172.10	259.06	63.49	9 36 3	3110.9	-30.57	147.30
70.90	8 27 32	4110.86	-21.57	172.10	259.06	63.49	9 36 3	3110.9	-30.57	147.30
70.90	8 27 32	4110.86	-21.57	172.10	259.06	63.49	9 36 3	3110.9	-30.57	147.30
110.00	14 4 37	3042.53	-25.67	94.14	261.14	66.66	14 55 20	2042.5	-32.92	67.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3320	TRA	-.5980	TC3	.2631	BAU	.5610	SGT	1195.4	SGR	2455.3	SG3	1501.2	ST	29.5	SR	42.5	SS	104.9
RDE	.5453	RRA	.4532	RC3-2	.8198	FAU	.32331	RRT	-.5819	RRF	.9863	RTF	-.5790	CRT	-.9576	CRS	-.9920	CST	.9169
FDE	5.5673	FRA	2.6056	FC-18	.8895	BSP	4469	SGB	2730.9	R23	-.1110	R13	.9800	LSA	116.4	MSA	12.0	SSA	1.4
BDE	.6384	BRA	.7503	BC3	2.8320	FSP	2542	SG1	2567.8	SG2	929.7	THA	108.30	EL1	51.2	EL2	7.0	ALF	124.32

LAUNCH DATE JUL 25 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 484.509 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.914	GAL	-.74	AZL	87.42	HCA	150.58	SMA	200.04	ECC	.24070	INC	2.5775	V1	29.319
RP	235.94	LAP	1.27	LOP	92.52	VP	21.483	GAP	9.38	AZP	92.25	TAL	356.17	TAP	146.75	RCA	151.89	APO	248.19	V2	23.297
RC	192.165	GL	22.53	GP	-27.66	ZAL	93.87	ZAP	121.24	ETS	200.60	ZAE	147.35	ETE	242.46	ZAC	57.06	ETC	285.4	LVI	8.60

PLANETOCENTRIC CONIC

C3	14.924	VHL	3.863	DLA	34.61	RAL	24.93	RAD	6640.5	VEL	11.618	PTH	6.66	VHP	2.863	DPA	-12.01	RAP	45.72	ECC	1.2456

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 11 12	3805.33	-46.82	157.23	268.91	80.38	11 14 38	2805.3	-45.17	122.25
60.00	9 49 30	3863.36	-37.42	159.53	266.01	73.80	10 53 53	2863.4	-40.12	128.73
69.16	8 15 4	4144.41	-22.07	174.99	258.97	62.63	9 24 9	3144.4	-31.37	150.17
69.16	8 15 4	4144.41	-22.07	174.99	258.97	62.63	9 24 9	3144.4	-31.37	150.17
69.16	8 15 4	4144.41	-22.07	174.99	258.97	62.63	9 24 9	3144.4	-31.37	150.17
69.16	8 15 4	4144.41	-22.07	174.99	258.97	62.63	9 24 9	3144.4	-31.37	150.17
69.16	8 15 4	4144.41	-22.07	174.99	258.97	62.63	9 24 9	3144.4	-31.37	150.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3093	TRA	-.5768	TC3	.1478	BAU	.5885	SGT	1139.5	SGR	2591.7	SG3	1525.1	ST	27.5	SR	47.9	SS	108.6
RDE	.6223	RRA	.4591	RC3-2	.9459	FAU	.32744	RRT	-.5207	RRF	.9882	RTF	-.5162	CRT	-.9407	CRS	-.9943	CST	.9018
FDE	5.8391	FRA	2.5548	FC-18	.9945	BSP	4644	SGB	2831.2	R23	-.0900	R13	.9840	LSA	121.2	MSA	12.1	SSA	1.3
BDE	.6932	BRA	.7372	BC3	2.9497	FSP	2592	SG1	2668.9	SG2	944.7	THA	104.79	EL1	54.6	EL2	8.2	ALF	119.07

LAUNCH DATE JUL 25 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 488.286 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.904 GAL -.74 AZL 87.29 HCA 151.55 SMA 199.86 ECC .24000 INC 2.7055 V1 29.319
RP 236.29 LAP 1.29 LOP 93.49 VP 21.430 GAP 9.13 AZP 92.38 TAL 356.17 TAP 147.72 RCA 151.89 APO 247.82 V2 23.261
RC 195.134 GL 23.59 GP -28.76 ZAL 93.84 ZAP 119.56 ETS 200.20 ZAE 145.67 ETE 240.54 ZAC 56.12 ETC 285.67 LVI 9.51

PLANETOCENTRIC CONIC

C3 15.055 VHL 3.880 DLA 35.59 RAL 24.42 RAD 6640.6 VEL 11.624 PTH 6.66 VHP 2.843 DPA -13.23 RAP 45.58 ECC 1.2478

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 2 11	3832.76	-46.46	159.79	269.32	78.44	11 6 4	2832.8	-45.69	124.70
60.00	9 35 6	3905.16	-36.58	162.76	265.81	71.75	10 40 12	2905.2	-40.27	132.28
67.42	8 3 6	4176.24	-22.58	177.80	258.91	61.72	9 12 43	3176.2	-32.20	152.96
67.42	8 3 6	4176.24	-22.58	177.80	258.91	61.72	9 12 43	3176.2	-32.20	152.96
67.42	8 3 6	4176.24	-22.58	177.80	258.91	61.72	9 12 43	3176.2	-32.20	152.96
67.42	8 3 6	4176.24	-22.58	177.80	258.91	61.72	9 12 43	3176.2	-32.20	152.96
67.42	8 3 6	4176.24	-22.58	177.80	258.91	61.72	9 12 43	3176.2	-32.20	152.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2739 TRA -.5548 TC3 .0356 BAU .6195 SGT 1086.0 SGR 2737.5 SG3 1546.4 ST 25.2 SR 53.6 SS 112.1
RDE .7046 RRA .4628 RC3-3.0778 FAU .33145 RRT -.4485 RRF .9898 RTF -.4423 CRT -.9175 CRS -.9959 CST .8800
FDE 6.1027 FRA 2.4844 FC-19.0597 BSP 4835 SGB 2945.0 R23 -.0702 R13 .9873 LSA 126.2 MSA 12.2 SSA 1.2
BDE .7560 BRA .7225 BC3 3.0781 FSP 2632 SG1 2786.3 SG2 953.6 THA 101.45 EL1 58.6 EL2 9.2 ALF 113.98

LAUNCH DATE JUL 25 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 492.065 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.896 GAL -.74 AZL 87.16 HCA 152.52 SMA 199.69 ECC .23936 INC 2.8413 V1 29.318
RP 236.63 LAP 1.31 LOP 94.46 VP 21.379 GAP 8.89 AZP 92.52 TAL 356.16 TAP 148.68 RCA 151.89 APO 247.48 V2 23.226
RC 198.104 GL 24.71 GP -29.89 ZAL 93.82 ZAP 117.86 ETS 199.78 ZAE 143.93 ETE 238.74 ZAC 55.16 ETC 285.93 LVI 10.45

PLANETOCENTRIC CONIC

C3 15.215 VHL 3.901 DLA 36.62 RAL 23.88 RAD 6640.6 VEL 11.630 PTH 6.67 VHP 2.829 DPA -14.49 RAP 45.44 ECC 1.2504

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 52 20	3862.55	-46.04	162.53	269.72	76.37	10 56 43	2862.5	-46.18	127.40
60.00	9 18 25	3953.33	-35.49	166.39	265.45	69.50	10 24 19	2953.3	-40.29	136.38
65.70	7 51 34	4206.56	-23.10	180.53	258.88	60.76	9 1 40	3206.6	-33.06	155.69
65.70	7 51 34	4206.56	-23.10	180.53	258.88	60.76	9 1 40	3206.6	-33.06	155.69
65.70	7 51 34	4206.56	-23.10	180.53	258.88	60.76	9 1 40	3206.6	-33.06	155.69
65.70	7 51 34	4206.56	-23.10	180.53	258.88	60.76	9 1 40	3206.6	-33.06	155.69
65.70	7 51 34	4206.56	-23.10	180.53	258.88	60.76	9 1 40	3206.6	-33.06	155.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2365 TRA -.5321 TC3 -.0782 BAU .6529 SGT 1035.7 SGR 2889.3 SG3 1562.7 ST 22.7 SR 59.8 SS 115.4
RDE .7933 RRA .4646 RC3-3.2090 FAU .33461 RRT -.3609 RRF .9912 RTF -.3530 CRT -.8833 CRS -.9970 CST .8466
FDE 6.3592 FRA 2.3977 FC-19.0396 BSP 5007 SGB 3069.3 R23 -.0523 R13 .9899 LSA 131.4 MSA 12.3 SSA 1.1
BDE .8278 BRA .7063 BC3 3.2100 FSP 2646 SG1 2916.3 SG2 956.9 THA 98.27 EL1 63.1 EL2 10.1 ALF 109.05

LAUNCH DATE JUL 25 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 495.843 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.888 GAL -.74 AZL 87.01 HCA 153.48 SMA 199.53 ECC .23877 INC 2.9857 V1 29.319
RP 236.98 LAP 1.33 LOP 95.43 VP 21.329 GAP 8.64 AZP 92.67 TAL 356.15 TAP 149.63 RCA 151.89 APO 247.17 V2 23.191
RC 201.073 GL 25.88 GP -31.05 ZAL 93.80 ZAP 116.16 ETS 199.32 ZAE 142.14 ETE 237.05 ZAC 54.17 ETC 286.21 LVI 11.43

PLANETOCENTRIC CONIC

C3 15.406 VHL 3.925 DLA 37.70 RAL 23.32 RAD 6640.7 VEL 11.638 PTH 6.68 VHP 2.820 DPA -15.79 RAP 45.31 ECC 1.2535

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 41 31	3895.08	-45.48	165.46	270.07	74.17	10 46 26	2895.1	-46.64	130.41
60.00	8 58 20	4010.85	-34.04	170.57	264.84	66.98	10 5 10	3010.8	-40.11	141.26
63.96	7 40 19	4235.78	-23.62	183.23	258.88	59.72	8 50 55	3235.8	-33.94	158.39
63.96	7 40 19	4235.78	-23.62	183.23	258.88	59.72	8 50 55	3235.8	-33.94	158.39
63.96	7 40 19	4235.78	-23.62	183.23	258.88	59.72	8 50 55	3235.8	-33.94	158.39
63.96	7 40 19	4235.78	-23.62	183.23	258.88	59.72	8 50 55	3235.8	-33.94	158.39
63.96	7 40 19	4235.78	-23.62	183.23	258.88	59.72	8 50 55	3235.8	-33.94	158.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1991 TRA -.5150 TC3 -.2134 BAU .6860 SGT 1007.6 SGR 3040.4 SG3 1570.4 ST 20.4 SR 66.5 SS 118.9
RDE .8914 RRA .4673 RC3-3.3238 FAU .33526 RRT -.2481 RRF .9924 RTF -.2395 CRT -.8345 CRS -.9978 CST .7983
FDE 6.6215 FRA 2.3134 FC-18.8404 BSP 5271 SGB 3203.1 R23 -.0359 R13 .9918 LSA 137.2 MSA 12.5 SSA 1.1
BDE .9134 BRA .6954 BC3 3.3306 FSP 2681 SG1 3051.9 SG2 972.4 THA 95.23 EL1 68.6 EL2 10.9 ALF 104.72

LAUNCH DATE JUL 25 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 499.824 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.881 GAL -.74 AZL 86.86 HCA 154.48 SMA 199.39 ECC .23822 INC 3.1399 V1 29.319
RP 237.31 LAP 1.35 LOP 96.39 VP 21.281 GAP 8.40 AZP 92.83 TAL 356.13 TAP 150.57 RCA 151.89 APO 246.89 V2 23.187
RC 204.040 GL 27.10 GP -32.26 ZAL 93.80 ZAP 114.45 ETS 198.81 ZAE 140.30 ETE 235.45 ZAC 53.15 ETC 286.51 LVI 12.44

PLANETOCENTRIC CONIC

C3 15.631 VHL 3.954 DLA 38.83 RAL 22.72 RAD 6640.8 VEL 11.648 PTH 6.69 VHP 2.816 DPA -17.12 RAP 45.20 ECC 1.2572

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 29 30	3930.78	-44.76	168.81	270.36	71.83	10 35 0	2930.8	-47.04	133.77
60.00	8 32 16	4084.54	-31.96	175.71	263.75	64.01	9 40 21	3084.5	-39.55	147.44
62.21	7 29 17	4264.06	-24.14	185.90	258.91	58.61	8 40 21	3264.1	-34.85	161.08
62.21	7 29 17	4264.06	-24.14	185.90	258.91	58.61	8 40 21	3264.1	-34.85	161.08
62.21	7 29 17	4264.06	-24.14	185.90	258.91	58.61	8 40 21	3264.1	-34.85	161.08
62.21	7 29 17	4264.06	-24.14	185.90	258.91	58.61	8 40 21	3264.1	-34.85	161.08
62.21	7 29 17	4264.06	-24.14	185.90	258.91	58.61	8 40 21	3264.1	-34.85	161.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1547 TRA -.4947 TC3 -.3403 BAU .7223 SGT 984.6 SGR 3200.5 SG3 1574.1 ST 17.8 SR 73.6 SS 122.3
RDE .9987 RRA .4655 RC3-3.4399 FAU .33543 RRT -.1236 RRF .9935 RTF -.1142 CRT -.7550 CRS -.9984 CST .7187
FDE 6.8788 FRA 2.2000 FC-18.5779 BSP 5524 SGB 3348.5 R23 -.0213 R13 .9933 LSA 143.3 MSA 12.6 SSA 1.0
BDE 1.0106 BRA .6792 BC3 3.4567 FSP 2692 SG1 3203.0 SG2 976.3 THA 92.40 EL1 74.9 EL2 11.5 ALF 100.59

LAUNCH DATE JUL 25 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 503.406 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.874 GAL -.75 AZL 86.70 HCA 155.40 SMA 199.26 ECC .23772 INC 3.3048 V1 29.319
RP 237.65 LAP 1.38 LOP 97.35 VP 21.234 GAP 8.16 AZP 93.01 TAL 356.10 TAP 151.50 RCA 151.89 APO 246.62 V2 23.123
RC 207.005 GL 28.38 GP -33.50 ZAL 93.80 ZAP 112.75 ETS 198.27 ZAE 136.41 ETE 233.93 ZAC 52.10 ETC 286.83 LVI 13.49

PLANETOCENTRIC CONIC

C3 15.896 VHL 3.987 DLA 40.01 RAL 22.08 RAD 6641.0 VEL 11.659 PTH 6.70 VHP 2.818 DPA -18.50 RAP 45.09 ECC 1.2616

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 15 59	3970.29	-43.87	171.99	270.52	69.36	10 22 10	2970.3	-47.35	137.53
60.00	7 49 5	4205.22	-28.08	183.58	261.29	59.82	8 59 10	3205.2	-37.89	157.26
60.43	7 18 25	4291.59	-24.65	188.57	258.96	57.43	8 29 56	3291.6	-35.79	163.78
60.43	7 18 25	4291.59	-24.65	188.57	258.96	57.43	8 29 56	3291.6	-35.79	163.78
60.43	7 18 25	4291.59	-24.65	188.57	258.96	57.43	8 29 56	3291.6	-35.79	163.78
60.43	7 18 25	4291.59	-24.65	188.57	258.96	57.43	8 29 56	3291.6	-35.79	163.78
60.43	7 18 25	4291.59	-24.65	188.57	258.96	57.43	8 29 56	3291.6	-35.79	163.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0963 TRA -.4701 TC3 -.4512 BAU .7631 SGT 962.5 SGR 3366.2 SG3 1571.0 ST 14.9 SR 80.6 SS 124.7
RDE 1.1062 RRA .4571 RC3-3.5622 FAU .33559 RRT .0140 RRF .9944 RTF .0282 CRT -.5959 CRS -.9986 CST .5580
FDE 7.0757 FRA 2.0509 FC-18.2774 BSP 5703 SGB 3501.1 R23 -.0101 R13 .9944 LSA 148.7 MSA 12.7 SSA .9
BDE 1.1104 BRA .6557 BC3 3.5907 FSP 2652 SG1 3366.2 SG2 962.4 THA 89.75 EL1 81.1 EL2 11.9 ALF 96.44

LAUNCH DATE JUL 25 1973 FLIGHT TIME 218.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 507.187 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.868 GAL -.75 AZL 86.82 HCA 156.36 SMA 199.14 ECC .23727 INC 3.4817 V1 29.319
RP 237.98 LAP 1.40 LOP 98.31 VP 21.188 GAP 7.92 AZP 93.19 TAL 356.06 TAP 152.42 RCA 151.89 APO 246.39 V2 23.090
RC 209.965 GL 29.72 GP -34.77 ZAL 93.81 ZAP 111.06 ETS 197.69 ZAE 136.50 ETE 232.50 ZAC 51.02 ETC 287.17 LVI 14.58

PLANETOCENTRIC CONIC

C3 16.205 VHL 4.026 DLA 41.25 RAL 21.41 RAD 6641.1 VEL 11.672 PTH 6.71 VHP 2.826 DPA -19.91 RAP 45.01 ECC 1.2667

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 0 35	4014.58	-42.74	175.65	270.50	66.72	10 7 30	3014.6	-47.54	141.80
58.61	7 7 37	4318.57	-25.16	191.24	259.04	56.16	8 19 36	3318.6	-36.75	166.51
58.61	7 7 37	4318.57	-25.16	191.24	259.04	56.16	8 19 36	3318.6	-36.75	166.51
58.61	7 7 37	4318.57	-25.16	191.24	259.04	56.16	8 19 36	3318.6	-36.75	166.51
58.61	7 7 37	4318.57	-25.16	191.24	259.04	56.16	8 19 36	3318.6	-36.75	166.51
58.61	7 7 37	4318.57	-25.16	191.24	259.04	56.16	8 19 36	3318.6	-36.75	166.51
58.61	7 7 37	4318.57	-25.16	191.24	259.04	56.16	8 19 36	3318.6	-36.75	166.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0459 TRA -.4588 TC3 -.5970 BAU .8009 SGT 994.9 SGR 3531.7 SG3 1559.4 ST 13.5 SR 89.1 SS 128.2
RDE 1.2373 RRA .4558 RC3-3.6482 FAU .33163 RRT .1558 RRF .9952 RTF .1662 CRT -.3778 CRS -.9991 CST .3406
FDE 7.3289 FRA 1.9407 FC-17.7166 BSP 6049 SGB 3669.1 R23 .0018 R13 .9952 LSA 156.1 MSA 12.9 SSA .8
BDE 1.2381 BRA .6467 BC3 3.6967 FSP 2663 SG1 3535.4 SG2 981.8 THA 87.28 EL1 89.3 EL2 12.4 ALF 93.33

LAUNCH DATE JUL 25 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 510.969 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.862 GAL -.76 AZL 86.33 HCA 157.31 SMA 199.03 ECC .23686 INC 3.6721 V1 29.319
RP 238.30 LAP 1.42 LOP 99.27 VP 21.143 GAP 7.68 AZP 93.39 TAL 356.02 TAP 153.34 RCA 151.89 APO 246.17 V2 23.056
RC 212.919 GL 31.14 GP -36.09 ZAL 93.82 ZAP 109.38 ETS 197.07 ZAE 134.55 ETE 231.12 ZAC 49.91 ETC 287.53 LVI 15.70

PLANETOCENTRIC CONIC

C3 16.566 VHL 4.070 DLA 42.56 RAL 20.67 RAD 6641.3 VEL 11.688 PTH 6.72 VHP 2.841 DPA -21.35 RAP 44.94 ECC 1.2726

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 42 37	4065.04	-41.31	179.64	270.20	63.90	9 50 22	3065.0	-47.55	146.68
56.76	6 56 50	4345.13	-25.66	193.94	259.15	54.80	8 9 16	3345.1	-37.73	169.30
56.76	6 56 50	4345.13	-25.66	193.94	259.15	54.80	8 9 16	3345.1	-37.73	169.30
56.76	6 56 50	4345.13	-25.66	193.94	259.15	54.80	8 9 16	3345.1	-37.73	169.30
56.76	6 56 50	4345.13	-25.66	193.94	259.15	54.80	8 9 16	3345.1	-37.73	169.30
56.76	6 56 50	4345.13	-25.66	193.94	259.15	54.80	8 9 16	3345.1	-37.73	169.30
56.76	6 56 50	4345.13	-25.66	193.94	259.15	54.80	8 9 16	3345.1	-37.73	169.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0187 TRA -.4436 TC3 -.7251 BAU .8428 SGT 1033.4 SGR 3702.0 SG3 1540.5 ST 12.8 SR 97.5 SS 130.7
RDE 1.3716 RRA .4471 RC3-3.7356 FAU .32743 RRT .2931 RRF .9958 RTF .0536 CRT -.0253 CRS -.9994 CST -.0092
FDE 7.5223 FRA 1.7945 FC-17.1110 BSP 6372 SGB 3843.5 R23 .0110 R13 .9958 LSA 163.0 MSA 13.1 SSA .8
BDE 1.3717 BRA .6298 BC3 3.8053 FSP 2643 SG1 3715.3 SG2 984.5 THA 84.97 EL1 97.5 EL2 12.8 ALF 90.19

LAUNCH DATE JUL 25 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 514.751 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.857 GAL -.77 AZL 86.12 HCA 158.26 SMA 198.93 ECC .23649 INC 3.8776 V1 29.319
RP 238.63 LAP 1.44 LOP 100.22 VP 21.099 GAP 7.44 AZP 93.60 TAL 355.97 TAP 154.24 RCA 151.88 APO 245.97 V2 23.024
RC 215.868 GL 32.62 GP -37.44 ZAL 93.84 ZAP 107.71 ETS 196.40 ZAE 132.57 ETE 229.80 ZAC 48.77 ETC 287.92 LVI 16.86

PLANETOCENTRIC CONIC

C3 16.987 VHL 4.122 DLA 43.93 RAL 19.87 RAD 6641.5 VEL 11.706 PTH 6.74 VHP 2.862 DPA -22.83 RAP 44.91 ECC 1.2796

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 20 58	4124.24	-39.44	184.08	269.46	60.87	9 29 43	3124.2	-47.28	152.37
54.87	6 46 1	4371.38	-26.13	196.67	259.27	53.34	7 58 53	3371.4	-38.73	172.16
54.87	6 46 1	4371.38	-26.13	196.67	259.27	53.34	7 58 53	3371.4	-38.73	172.16
54.87	6 46 1	4371.38	-26.13	196.67	259.27	53.34	7 58 53	3371.4	-38.73	172.16
54.87	6 46 1	4371.38	-26.13	196.67	259.27	53.34	7 58 53	3371.4	-38.73	172.16
54.87	6 46 1	4371.38	-26.13	196.67	259.27	53.34	7 58 53	3371.4	-38.73	172.16
54.87	6 46 1	4371.38	-26.13	196.67	259.27	53.34	7 58 53	3371.4	-38.73	172.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0914 TRA -.4298 TC3 -.8491 BAU .8870 SGT 1092.8 SGR 3876.3 SG3 1514.1 ST 14.0 SR 106.3 SS 132.8
RDE 1.5172 RRA .4336 RC3-3.8125 FAU .32193 RRT .4186 RRF .9964 RTF .4288 CRT .3482 CRS -.9995 CST -.3760
FDE 7.6899 FRA 1.6307 FC-16.4070 BSP 6673 SGB 4027.4 R23 .0188 R13 .9963 LSA 170.2 MSA 13.3 SSA .7
BDE 1.5200 BRA .6105 BC3 3.9059 FSP 2595 SG1 3905.0 SG2 985.1 THA 82.81 EL1 106.4 EL2 13.1 ALF 87.33

LAUNCH DATE JUL 25 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 518.533 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.853	GAL	-.78	AZL	85.90	HCA	159.21	SMA	198.64	ECC	.23615	INC	4.1004	V1	29.319
RP	238.95	LAP	1.45	LOP	101.17	VP	21.057	GAP	7.20	AZP	93.83	TAL	355.92	TAP	155.13	RCA	151.88	APO	245.80	V2	22.991
RC	218.810	GL	34.18	GP	-38.82	ZAL	93.86	ZAP	106.07	ETS	195.69	ZAE	130.57	ETE	228.53	ZAC	47.61	ETC	288.34	LVI	18.07

PLANETOCENTRIC CONIC

C3	17.478	VHL	4.181	DLA	45.36	RAL	19.00	RAD	6641.7	VEL	11.726	PTH	6.76	VHP	2.892	DPA	-24.34	RAP	44.91	ECC	1.2876

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 53 14	4197.73	-36.87	189.24	267.97	57.49	9 3 12	3197.7	-46.51	159.30
52.92	6 35 5	4397.45	-26.58	199.43	259.41	51.78	7 48 23	3397.4	-39.74	175.10
52.92	6 35 5	4397.45	-26.58	199.43	259.41	51.78	7 48 23	3397.4	-39.74	175.10
52.92	6 35 5	4397.45	-26.58	199.43	259.41	51.78	7 48 23	3397.4	-39.74	175.10
52.92	6 35 5	4397.45	-26.58	199.43	259.41	51.78	7 48 23	3397.4	-39.74	175.10
52.92	6 35 5	4397.45	-26.58	199.43	259.41	51.78	7 48 23	3397.4	-39.74	175.10
52.92	6 35 5	4397.45	-26.58	199.43	259.41	51.78	7 48 23	3397.4	-39.74	175.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1710	TRA	-.4180	TC3	-.9704	BAU	.9323	SGT	1173.9	SGR	4051.9	SG3	1479.2	ST	17.0	SR	115.8	SS	134.7
RDE	1.6787	RRA	.4141	RC3	-3.8703	FAU	.31451	RRT	.5270	RRF	.9969	RTF	.5365	CRT	.6133	CRS	-.9996	CST	-.6335
FDE	7.8402	FRA	1.4489	FC	-15.5790	BSP	6997	SGB	4218.5	R23	.0256	R13	.9967	LSA	177.9	MSA	13.4	SSA	.6
BDE	1.6874	BRA	.5884	BC3	3.9901	FSP	2536	SG1	4101.7	SG2	985.5	THA	80.78	EL1	116.2	EL2	13.4	ALF	84.79

LAUNCH DATE JUL 25 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 522.315 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.849	GAL	-.79	AZL	85.66	HCA	160.16	SMA	198.76	ECC	.23586	INC	4.3428	V1	29.319
RP	239.26	LAP	1.47	LOP	102.12	VP	21.016	GAP	6.97	AZP	94.09	TAL	355.86	TAP	156.02	RCA	151.88	APO	245.64	V2	22.960
RC	221.744	GL	35.83	GP	-40.24	ZAL	93.88	ZAP	104.46	ETS	194.93	ZAE	128.56	ETE	227.30	ZAC	46.41	ETC	288.79	LVI	19.31

PLANETOCENTRIC CONIC

C3	18.051	VHL	4.249	DLA	46.87	RAL	18.03	RAD	6642.0	VEL	11.751	PTH	6.78	VHP	2.929	DPA	-25.88	RAP	44.94	ECC	1.2971

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 11 11	4305.14	-32.71	196.12	264.75	53.30	8 22 56	3305.1	-44.61	168.95
50.92	6 23 56	4423.56	-26.99	202.26	259.55	50.10	7 37 40	3423.6	-40.76	178.17
50.92	6 23 56	4423.56	-26.99	202.26	259.55	50.10	7 37 40	3423.6	-40.76	178.17
50.92	6 23 56	4423.56	-26.99	202.26	259.55	50.10	7 37 40	3423.6	-40.76	178.17
50.92	6 23 56	4423.56	-26.99	202.26	259.55	50.10	7 37 40	3423.6	-40.76	178.17
50.92	6 23 56	4423.56	-26.99	202.26	259.55	50.10	7 37 40	3423.6	-40.76	178.17
50.92	6 23 56	4423.56	-26.99	202.26	259.55	50.10	7 37 40	3423.6	-40.76	178.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2611	TRA	-.4093	TC3	-1.0841	BAU	.9796	SGT	1274.6	SGR	4229.5	SG3	1436.1	ST	21.4	SR	125.6	SS	136.1
RDE	1.8529	RRA	.3915	RC3	-3.9117	FAU	.30560	RRT	.6155	RRF	.9973	RTF	.6246	CRT	.7684	CRS	-.9997	CST	-.7825
FDE	7.9499	FRA	1.2657	FC	-14.6568	BSP	7355	SGB	4417.4	R23	.0313	R13	.9969	LSA	185.9	MSA	13.6	SSA	.6
BDE	1.8712	BRA	.5664	BC3	4.0591	FSP	2470	SG1	4305.8	SG2	986.7	THA	78.90	EL1	126.7	EL2	13.6	ALF	82.45

LAUNCH DATE JUL 25 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 526.097 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.845	GAL	-.80	AZL	85.39	HCA	161.10	SMA	198.69	ECC	.23560	INC	4.6075	V1	29.319
RP	239.57	LAP	1.49	LOP	103.07	VP	20.976	GAP	6.73	AZP	94.36	TAL	355.79	TAP	156.89	RCA	151.88	APO	245.50	V2	22.928
RC	224.672	GL	37.57	GP	-41.70	ZAL	93.90	ZAP	102.88	ETS	194.12	ZAE	126.55	ETE	226.10	ZAC	45.18	ETC	289.28	LVI	20.59

PLANETOCENTRIC CONIC

C3	18.723	VHL	4.327	DLA	48.45	RAL	16.95	RAD	6642.3	VEL	11.779	PTH	6.80	VHP	2.977	DPA	-27.45	RAP	45.02	ECC	1.3081

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.86	6 12 30	4449.81	-27.35	205.15	259.68	48.30	7 26 39	3449.8	-41.76	181.38
48.86	6 12 30	4449.81	-27.35	205.15	259.68	48.30	7 26 39	3449.8	-41.76	181.38
48.86	6 12 30	4449.81	-27.35	205.15	259.68	48.30	7 26 39	3449.8	-41.76	181.38
48.86	6 12 30	4449.81	-27.35	205.15	259.68	48.30	7 26 39	3449.8	-41.76	181.38
48.86	6 12 30	4449.81	-27.35	205.15	259.68	48.30	7 26 39	3449.8	-41.76	181.38
48.86	6 12 30	4449.81	-27.35	205.15	259.68	48.30	7 26 39	3449.8	-41.76	181.38
48.86	6 12 30	4449.81	-27.35	205.15	259.68	48.30	7 26 39	3449.8	-41.76	181.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.3606	TRA	-.4032	TC3	-1.1907	BAU	1.0284	SGT	1392.0	SGR	4406.8	SG3	1384.4	ST	26.8	SR	135.9	SS	136.9
RDE	2.0440	RRA	.3589	RC3	-3.9323	FAU	.29502	RRT	.6883	RRF	.9977	RTF	.6266	CRT	.8540	CRS	-.9998	CST	-.8639
FDE	8.0240	FRA	1.0588	FC	-13.6419	BSP	7681	SGB	4621.4	R23	.0362	R13	.9971	LSA	194.3	MSA	13.7	SSA	.5
BDE	2.0756	BRA	.5398	BC3	4.1086	FSP	2376	SG1	4515.1	SG2	985.6	THA	77.11	EL1	137.8	EL2	13.7	ALF	80.34

LAUNCH DATE JUL 25 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 12 1974

HELIOCENTRIC CONIC DISTANCE 529.877 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.842	GAL	-.81	AZL	85.10	HCA	162.04	SMA	198.63	ECC	.23537	INC	4.8984	V1	29.319
RP	239.88	LAP	1.51	LOP	104.01	VP	20.937	GAP	6.50	AZP	94.66	TAL	355.72	TAP	157.76	RCA	151.88	APO	245.38	V2	22.897
RC	227.591	GL	39.40	GP	-43.20	ZAL	93.91	ZAP	101.34	ETS	193.27	ZAE	124.53	ETE	224.93	ZAC	43.92	ETC	289.81	LVI	21.92

PLANETOCENTRIC CONIC

C3	19.513	VHL	4.417	DLA	50.11	RAL	15.73	RAD	6642.6	VEL	11.812	PTH	6.83	VHP	3.035	DPA	-29.05	RAP	45.15	ECC	1.3211

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.74	6 0 39	4476.36	-27.64	208.12	259.79	46.38	7 15 16	3476.4	-42.75	184.75
46.74	6 0 39	4476.36	-27.64	208.12	259.79	46.38	7 15 16	3476.4	-42.75	184.75
46.74	6 0 39	4476.36	-27.64	208.12	259.79	46.38	7 15 16	3476.4	-42.75	184.75
46.74	6 0 39	4476.36	-27.64	208.12	259.79	46.38	7 15 16	3476.4	-42.75	184.75
46.74	6 0 39	4476.36	-27.64	208.12	259.79	46.38	7 15 16	3476.4	-42.75	184.75
46.74	6 0 39	4476.36	-27.64	208.12	259.79	46.38	7 15 16	3476.4	-42.75	184.75
46.74	6 0 39	4476.36	-27.64	208.12	259.79	46.38	7 15 16	3476.4	-42.75	184.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.4728	TRA	-.4006	TC3	-1.2845	BAU	1.0783	SGT	1523.3	SGR	4583.9	SG3	1324.3	ST	33.0	SR	146.5	SS	137.2
RDE	2.2531	RRA	.3219	RC3	-3.9288	FAU	.28272	RRT	.7452	RRF	.9980	RTF	.7529	CRT	.9030	CRS	-.9998	CST	-.9101
FDE	8.0543	FRA	.8559	FC	-12.5434	BSP	8064	SGB	4830.4	R23	.0401	R13	.9973	LSA	203.0	MSA	13.9	SSA	.5
BDE	2.3022	BRA	.5140	BC3	4.1334	FSP	2283	SG1	4729.0	SG2	984.7	THA	75.45	EL1	149.6	EL2	13.9	ALF	78.39

LAUNCH DATE JUL 25 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC DISTANCE 533.657 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.839	GAL	-.83	AZL	84.78	HCA	162.97	SMA	198.57	ECC	.23517	INC	5.2193	V1	29.319
RP	240.18	LAP	1.53	LOP	104.95	VP	20.899	GAP	6.27	AZP	94.99	TAL	355.64	TAP	158.62	RCA	151.87	APO	245.27	V2	22.866
RC	230.502	GL	41.34	GP	-44.73	ZAL	93.92	ZAP	99.86	ETS	192.38	ZAE	122.51	ETE	223.79	ZAC	42.63	ETC	290.38	LVI	23.28

PLANETOCENTRIC CONIC

C3	20.447	VHL	4.522	DLA	51.85	RAL	14.35	RAD	6643.0	VEL	11.851	PTH	6.87	VHP	3.105	DPA	-30.67	RAP	45.34	ECC	1.3365

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.54	5 48 16	4503.44	-27.85	211.16	259.84	44.32	7 3 20	3503.4	-43.69	188.32
44.54	5 48 16	4503.44	-27.85	211.16	259.84	44.32	7 3 20	3503.4	-43.69	188.32
44.54	5 48 16	4503.44	-27.85	211.16	259.84	44.32	7 3 20	3503.4	-43.69	188.32
44.54	5 48 16	4503.44	-27.85	211.16	259.84	44.32	7 3 20	3503.4	-43.69	188.32
44.54	5 48 16	4503.44	-27.85	211.16	259.84	44.32	7 3 20	3503.4	-43.69	188.32
44.54	5 48 16	4503.44	-27.85	211.16	259.84	44.32	7 3 20	3503.4	-43.69	188.32
44.54	5 48 16	4503.44	-27.85	211.16	259.84	44.32	7 3 20	3503.4	-43.69	188.32

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	.5972	TRA	-.4026	TC3	-1.3657	BAU	1.1301	SGT	1667.4	SGR	4759.4	SG3	1256.1			ST	39.9	SR	157.5	SS	136.6
RDE	2.4805	RRA	.2757	RC3	-3.9021	FAU	.26898	RRT	.7901	RRF	.9983	RTF	.7973			CRT	.9322	CRS	-.9999	CST	-.9374
FDE	8.0299	FRA	.6458	FC	-11.3886	BSP	8444	SGB	5043.0	R23	.0434	R13	.9974			LSA	211.8	MSA	14.0	SSA	.4
BDE	2.5514	BRA	.4880	BC3	4.1342	FSP	2173	SG1	4946.2	SG2	983.5	THA	73.87			EL1	161.8	EL2	14.0	ALF	76.62

LAUNCH DATE JUL 25 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 16 1974

HELIOCENTRIC CONIC DISTANCE 537.435 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.837	GAL	-.84	AZL	84.42	HCA	163.91	SMA	198.52	ECC	.23501	INC	5.5753	V1	29.319
RP	240.48	LAP	1.54	LOP	105.89	VP	20.862	GAP	6.03	AZP	95.36	TAL	355.56	TAP	159.47	RCA	151.87	APO	245.18	V2	22.836
RC	233.405	GL	43.39	GP	-46.29	ZAL	93.93	ZAP	98.43	ETS	191.44	ZAE	120.51	ETE	222.66	ZAC	41.31	ETC	291.01	LVI	24.69

PLANETOCENTRIC CONIC

C3	21.560	VHL	4.643	DLA	53.67	RAL	12.77	RAD	6643.5	VEL	11.898	PTH	6.91	VHP	3.188	DPA	-32.31	RAP	45.59	ECC	1.3548

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.28	5 35 12	4531.21	-27.95	214.29	259.81	42.12	6 50 43	3531.2	-44.56	192.10
42.28	5 35 12	4531.21	-27.95	214.29	259.81	42.12	6 50 43	3531.2	-44.56	192.10
42.28	5 35 12	4531.21	-27.95	214.29	259.81	42.12	6 50 43	3531.2	-44.56	192.10
42.28	5 35 12	4531.21	-27.95	214.29	259.81	42.12	6 50 43	3531.2	-44.56	192.10
42.28	5 35 12	4531.21	-27.95	214.29	259.81	42.12	6 50 43	3531.2	-44.56	192.10
42.28	5 35 12	4531.21	-27.95	214.29	259.81	42.12	6 50 43	3531.2	-44.56	192.10
42.28	5 35 12	4531.21	-27.95	214.29	259.81	42.12	6 50 43	3531.2	-44.56	192.10

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	.7342	TRA	-.4103	TC3	-1.4337	BAU	1.1837	SGT	1823.1	SGR	4932.2	SG3	1180.2			ST	47.1	SR	168.7	SS	135.2
RDE	2.7303	RRA	.2170	RC3	-3.8483	FAU	.25374	RRT	.8257	RRF	.9985	RTF	.8323			CRT	.9505	CRS	-.9999	CST	-.9544
FDE	7.9513	FRA	.4276	FC	-10.1890	BSP	8812	SGB	5258.4	R23	.0464	R13	.9975			LSA	220.8	MSA	14.2	SSA	.4
BDE	2.8273	BRA	.4642	BC3	4.1067	FSP	2045	SG1	5165.8	SG2	982.0	THA	72.37			EL1	174.6	EL2	14.1	ALF	75.03

LAUNCH DATE JUL 25 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 18 1974

HELIOCENTRIC CONIC DISTANCE 541.213 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.835	GAL	-.86	AZL	84.03	HCA	164.84	SMA	198.48	ECC	.23487	INC	5.9730	V1	29.319
RP	240.78	LAP	1.56	LOP	106.83	VP	20.826	GAP	5.80	AZP	95.77	TAL	355.47	TAP	160.31	RCA	151.87	APO	245.10	V2	22.807
RC	236.297	GL	45.56	GP	-47.89	ZAL	93.92	ZAP	97.06	ETS	190.46	ZAE	118.53	ETE	221.55	ZAC	39.96	ETC	291.69	LVI	26.13

PLANETOCENTRIC CONIC

C3	22.894	VHL	4.785	DLA	55.56	RAL	10.93	RAD	6644.1	VEL	11.953	PTH	6.95	VHP	3.288	DPA	-33.97	RAP	45.91	ECC	1.3768

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.95	5 21 14	4559.87	-27.92	217.50	259.64	39.79	6 37 14	3559.9	-45.34	196.12
39.95	5 21 14	4559.87	-27.92	217.50	259.64	39.79	6 37 14	3559.9	-45.34	196.12
39.95	5 21 14	4559.87	-27.92	217.50	259.64	39.79	6 37 14	3559.9	-45.34	196.12
39.95	5 21 14	4559.87	-27.92	217.50	259.64	39.79	6 37 14	3559.9	-45.34	196.12
39.95	5 21 14	4559.87	-27.92	217.50	259.64	39.79	6 37 14	3559.9	-45.34	196.12
39.95	5 21 14	4559.87	-27.92	217.50	259.64	39.79	6 37 14	3559.9	-45.34	196.12
39.95	5 21 14	4559.87	-27.92	217.50	259.64	39.79	6 37 14	3559.9	-45.34	196.12

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	.8862	TRA	-.4238	TC3	-1.4821	BAU	1.2393	SGT	1985.8	SGR	5105.0	SG3	1098.0			ST	54.8	SR	180.1	SS	133.0
RDE	3.0063	RRA	.1492	RC3	-3.7680	FAU	.23725	RRT	.8534	RRF	.9987	RTF	.8386			CRT	.9625	CRS	-.9999	CST	-.9655
FDE	7.8147	FRA	.2189	FC	-9.9716	BSP	9188	SGB	5477.6	R23	.0485	R13	.9976			LSA	230.1	MSA	14.3	SSA	.3
BDE	3.1342	BRA	.4493	BC3	4.0490	FSP	1906	SG1	5389.1	SG2	980.6	THA	70.98			EL1	187.7	EL2	14.3	ALF	73.89

LAUNCH DATE JUL 25 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 20 1974

HELIOCENTRIC CONIC DISTANCE 544.988 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.833	GAL	-.88	AZL	83.58	HCA	165.78	SMA	198.45	ECC	.23476	INC	6.4199	V1	29.319
RP	241.07	LAP	1.58	LOP	107.76	VP	20.792	GAP	5.57	AZP	96.22	TAL	355.38	TAP	161.14	RCA	151.86	APO	245.04	V2	22.777
RC	239.179	GL	47.86	GP	-49.52	ZAL	93.91	ZAP	95.76	ETS	189.45	ZAE	116.58	ETE	220.46	ZAC	38.58	ETC	292.43	LVI	27.62

PLANETOCENTRIC CONIC

C3	24.509	VHL	4.951	DLA	57.53	RAL	8.76	RAD	6644.8	VEL	12.020	PTH	7.01	VHP	3.407	DPA	-35.63	RAP	46.31	ECC	1.4034

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.56	5 6 7	4589.74	-27.72	220.78	259.25	37.33	6 22 37	3589.7	-45.97	200.39
37.56	5 6 7	4589.74	-27.72	220.78	259.25	37.33	6 22 37	3589.7	-45.97	200.39
37.56	5 6 7	4589.74	-27.72	220.78	259.25	37.33	6 22 37	3589.7	-45.97	200.39
37.56	5 6 7	4589.74	-27.72	220.78	259.25	37.33	6 22 37	3589.7	-45.97	200.39
37.56	5 6 7	4589.74	-27.72	220.78	259.25	37.33	6 22 37	3589.7	-45.97	200.39
37.56	5 6 7	4589.74	-27.72	220.78	259.25	37.33	6 22 37	3589.7	-45.97	200.39
37.56	5 6 7	4589.74	-27.72	220.78	259.25	37.33	6 22 37	3589.7	-45.97	200.39

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	1.0510	TRA	-.4456	TC3	-1.5136	BAU	1.2991	SGT	2156.0	SGR	5273.3	SG3	1009.4			ST	62.5	SR	191.3	SS	129.5
RDE	3.3045	RRA	.0585	RC3	-3.6646	FAU	.21993	RRT	.8768	RRF	.9989	RTF	.8826			CRT	.9707	CRS	-.9999	CST	-.9731
FDE	7.5980	FRA	-.0042	FC	-7.7685	BSP	9511	SGB	5697.0	R23	.0500	R13	.9977			LSA	238.9	MSA	14.4	SSA	.3
BDE	3.4676	BRA	.4494	BC3	3.9649	FSP	1746	SG1	5613.1	SG2	974.0	THA	69.64			EL1	200.8	EL2	14.3	ALF	72.30

LAUNCH DATE JUL 23 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 22 1974

HELIOCENTRIC CONIC DISTANCE 548.702 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.832	GAL	-.90	AZL	83.07	HCA	168.69	SMA	198.43	ECC	.23468	INC	6.9267
RP	241.36	LAP	1.59	LOP	108.69	VP	20.758	GAP	5.34	AZP	96.74	TAL	355.28	TAP	161.97	RCA	151.86	APO	244.99
RC	242.049	GL	50.29	GP	-51.18	ZAL	93.87	ZAP	94.54	ETS	188.41	ZAE	114.66	ETE	219.38	ZAC	37.18	ETC	293.25

V1	29.318																		
V2	22.749																		
LVI	29.14																		

PLANETOCENTRIC CONIC

C3	26.483	VHL	5.146	DLA	59.57	RAL	6.20	RAD	6645.6	VEL	12.101	PTH	7.08	VHP	3.548	DPA	-37.31	RAP	46.80
ECC	1.4358																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.11	4 49 30	4621.12	-27.31	224.11	258.55	34.75	6 6 31	3621.1	-46.42	204.91
35.11	4 49 30	4621.12	-27.31	224.11	258.55	34.75	6 6 31	3621.1	-46.42	204.91
35.11	4 49 30	4621.12	-27.31	224.11	258.55	34.75	6 6 31	3621.1	-46.42	204.91
35.11	4 49 30	4621.12	-27.31	224.11	258.55	34.75	6 6 31	3621.1	-46.42	204.91
35.11	4 49 30	4621.12	-27.31	224.11	258.55	34.75	6 6 31	3621.1	-46.42	204.91
35.11	4 49 30	4621.12	-27.31	224.11	258.55	34.75	6 6 31	3621.1	-46.42	204.91
35.11	4 49 30	4621.12	-27.31	224.11	258.55	34.75	6 6 31	3621.1	-46.42	204.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2314	TRA	-.4751	TC3	-1.5222	BAU	1.3590	SGT	2329.1	SGR	5437.0	SG3	915.5	ST	70.4	SR	202.6	SS	124.9
RDE	3.6372	RRA	-.0450	RC3	-3.5236	FAU	.20100	RRT	.8953	RRF	.9990	RTF	.9008	CRT	.9765	CRS	-1.0000	CST	-.9784
FDE	7.3156	FRA	-.2049	FC3	-6.5708	BSP	9924	SGB	5914.8	R23	.0509	R13	.9978	LSA	247.7	MSA	14.4	SSA	.2
BDE	3.8399	BRA	.4772	BC3	3.8384	FSP	1594	SG1	5835.3	SG2	986.8	THA	68.39	EL1	213.9	EL2	14.4	ALF	71.18

LAUNCH DATE JUL 25 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 24 1974

HELIOCENTRIC CONIC DISTANCE 552.532 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.831	GAL	-.91	AZL	82.49	HCA	167.61	SMA	198.41	ECC	.23463	INC	7.5068
RP	241.64	LAP	1.61	LOP	109.62	VP	20.725	GAP	5.11	AZP	97.33	TAL	355.18	TAP	162.79	RCA	151.85	APO	244.96
RC	244.907	GL	52.87	GP	-52.86	ZAL	93.82	ZAP	93.40	ETS	187.35	ZAE	112.79	ETE	218.31	ZAC	35.76	ETC	294.15

V1	29.319																		
V2	22.720																		
LVI	30.69																		

PLANETOCENTRIC CONIC

C3	28.927	VHL	5.378	DLA	61.66	RAL	3.10	RAD	6646.6	VEL	12.201	PTH	7.16	VHP	3.716	DPA	-38.98	RAP	47.39
ECC	1.4701																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.62	4 30 56	4654.34	-26.66	227.48	257.40	32.08	5 48 30	3654.3	-46.61	209.66
32.62	4 30 56	4654.34	-26.66	227.48	257.40	32.08	5 48 30	3654.3	-46.61	209.66
32.62	4 30 56	4654.34	-26.66	227.48	257.40	32.08	5 48 30	3654.3	-46.61	209.66
32.62	4 30 56	4654.34	-26.66	227.48	257.40	32.08	5 48 30	3654.3	-46.61	209.66
32.62	4 30 56	4654.34	-26.66	227.48	257.40	32.08	5 48 30	3654.3	-46.61	209.66
32.62	4 30 56	4654.34	-26.66	227.48	257.40	32.08	5 48 30	3654.3	-46.61	209.66
32.62	4 30 56	4654.34	-26.66	227.48	257.40	32.08	5 48 30	3654.3	-46.61	209.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4233	TRA	-.5146	TC3	-1.5093	BAU	1.4190	SGT	2503.7	SGR	5591.3	SG3	816.9	ST	77.8	SR	213.3	SS	119.0
RDE	4.0023	RRA	-.1677	RC3	-3.3445	FAU	.18070	RRT	.9101	RRF	.9991	RTF	.9154	CRT	.9804	CRS	-1.0000	CST	-.9821
FDE	6.9497	FRA	-.3863	FC3	-5.4079	BSP	10342	SGB	6126.3	R23	.0515	R13	.9979	LSA	255.9	MSA	14.5	SSA	.2
BDE	4.2479	BRA	.5413	BC3	3.6692	FSP	1435	SG1	6050.8	SG2	959.0	THA	67.22	EL1	226.6	EL2	14.4	ALF	78.24

LAUNCH DATE JUL 25 1973 FLIGHT TIME 244.00 ARRIVAL DATE MAR 26 1974

HELIOCENTRIC CONIC DISTANCE 556.300 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.830	GAL	-.93	AZL	81.82	HCA	168.53	SMA	198.39	ECC	.23460	INC	8.1751
RP	241.92	LAP	1.62	LOP	110.55	VP	20.694	GAP	4.88	AZP	98.01	TAL	355.08	TAP	163.60	RCA	151.85	APO	244.94
RC	247.751	GL	55.61	GP	-54.56	ZAL	93.75	ZAP	92.36	ETS	186.27	ZAE	110.97	ETE	217.26	ZAC	34.32	ETC	295.14

V1	29.319																		
V2	22.692																		
LVI	32.27																		

PLANETOCENTRIC CONIC

C3	31.995	VHL	5.656	DLA	63.79	RAL	359.31	RAD	6647.8	VEL	12.325	PTH	7.25	VHP	3.918	DPA	-40.64	RAP	48.07
ECC	1.5265																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.10	4 9 48	4689.79	-25.72	230.83	255.60	29.36	5 27 58	3689.8	-46.48	214.57
30.10	4 9 48	4689.79	-25.72	230.83	255.60	29.36	5 27 58	3689.8	-46.48	214.57
30.10	4 9 48	4689.79	-25.72	230.83	255.60	29.36	5 27 58	3689.8	-46.48	214.57
30.10	4 9 48	4689.79	-25.72	230.83	255.60	29.36	5 27 58	3689.8	-46.48	214.57
30.10	4 9 48	4689.79	-25.72	230.83	255.60	29.36	5 27 58	3689.8	-46.48	214.57
30.10	4 9 48	4689.79	-25.72	230.83	255.60	29.36	5 27 58	3689.8	-46.48	214.57
30.10	4 9 48	4689.79	-25.72	230.83	255.60	29.36	5 27 58	3689.8	-46.48	214.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6177	TRA	-.5677	TC3	-1.4728	BAU	1.4877	SGT	2675.2	SGR	5746.9	SG3	716.8	ST	84.3	SR	222.6	SS	111.8
RDE	4.3892	RRA	-.3248	RC3	-3.1509	FAU	.16054	RRT	.9233	RRF	.9992	RTF	.9286	CRT	.9832	CRS	-1.0000	CST	-.9846
FDE	6.4755	FRA	-.5595	FC3	-4.3441	BSP	10693	SGB	6339.1	R23	.0504	R13	.9980	LSA	262.4	MSA	14.5	SSA	.2
BDE	4.6779	BRA	.6540	BC3	3.4781	FSP	1259	SG1	6268.7	SG2	942.2	THA	66.17	EL1	237.6	EL2	14.4	ALF	69.51

LAUNCH DATE JUL 25 1973 FLIGHT TIME 246.00 ARRIVAL DATE MAR 28 1974

HELIOCENTRIC CONIC DISTANCE 560.065 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.830	GAL	-.95	AZL	81.04	HCA	169.44	SMA	198.39	ECC	.23460	INC	8.9565
RP	242.19	LAP	1.64	LOP	111.48	VP	20.663	GAP	4.66	AZP	98.81	TAL	354.97	TAP	164.41	RCA	151.84	APO	244.93
RC	250.580	GL	58.52	GP	-56.27	ZAL	93.65	ZAP	91.41	ETS	185.19	ZAE	109.22	ETE	216.23	ZAC	32.88	ETC	296.23

V1	29.319																		
V2	22.688																		
LVI	33.69																		

PLANETOCENTRIC CONIC

C3	35.909	VHL	5.992	DLA	65.91	RAL	354.61	RAD	6649.2	VEL	12.482	PTH	7.37	VHP	4.161	DPA	-42.27	RAP	48.87
ECC	1.5910																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.61	3 45 18	4727.91	-24.44	234.11	252.90	26.63	5 4 6	3727.9	-45.96	219.54
27.61	3 45 18	4727.91	-24.44	234.11	252.90	26.63	5 4 6	3727.9	-45.96	219.54
27.61	3 45 18	4727.91	-24.44	234.11	252.90	26.63	5 4 6	3727.9	-45.96	219.54
27.61	3 45 18	4727.91	-24.44	234.11	252.90	26.63	5 4 6	3727.9	-45.96	219.54
27.61	3 45 18	4727.91	-24.44	234.11	252.90	26.63	5 4 6	3727.9	-45.96	219.54
27.61	3 45 18	4727.91	-24.44	234.11	252.90	26.63	5 4 6	3727.9	-45.96	219.54
27.61	3 45 18	4727.91	-24.44	234.11	252.90	26.63	5 4 6	3727.9	-45.96	219.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.7999	TRA	-.6369	TC3	-1.4146	BAU	1.5602	SGT	2839.3	SGR	5894.3	SG3	615.2	ST	88.9	SR	229.8	SS	101.6
RDE	4.7901	RRA	-.5174	RC3	-2.9260	FAU	.13964	RRT	.9343	RRF	.9992	RTF	.9396	CRT	.9847	CRS	-1.0000	CST	-.9861
FDE	5.8865	FRA	-.7058	FC3	-3.3666	BSP	11070	SGB	6542.5	R23	.0484	R13	.9981	LSA	266.1	MSA	14.5	SSA	.2
BDE	5.1171	BRA	.8206	BC3	3.2500	FSP	1086	SG1	6477.3	SG2	921.4	THA	65.24	EL1	246.0	EL2	14.5	ALF	69.06

LAUNCH DATE JUL 25 1973 FLIGHT TIME 294.00 ARRIVAL DATE MAY 15 1974

HELIOCENTRIC CONIC DISTANCE 651.022 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.882 GAL -1.91 AZL 99.34 HCA 191.40 SMA 199.42 ECC .24021 INC 9.3407 V1 29.319
RP 247.29 LAP 1.84 LOP 133.17 VP 20.195 GAP -.47 AZP 80.84 TAL 350.10 TAP 181.50 RCA 151.52 APO 247.32 V2 22.161
RC 312.717 GL -58.68 GP 52.36 ZAL 98.59 ZAP 74.97 ETS 202.90 ZAE 91.93 ETE 179.91 ZAC 139.02 ETC 291.92 LVI -73.12

PLANETOCENTRIC CONIC

C3 38.990 VHL 6.244 DLA -38.95 RAL 63.77 RAD 6650.3 VEL 12.604 PTH 7.46 VHP 3.972 DPA 51.76 RAP 345.75 ECC 1.6417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 32 3	2441.97	-4.50	63.97	295.50	137.41	19 12 45	1442.0	13.84	48.09
60.00	20 50 20	2072.45	7.66	42.34	307.00	129.69	21 24 53	1072.4	22.85	22.93
62.03	22 10 4	1845.67	15.71	29.69	313.39	126.11	22 40 49	845.7	29.02	7.96
62.03	22 10 4	1845.67	15.71	29.69	313.39	126.11	22 40 49	845.7	29.02	7.96
62.03	22 10 4	1845.67	15.71	29.69	313.39	126.11	22 40 49	845.7	29.02	7.96
62.03	22 10 4	1845.67	15.71	29.69	313.39	126.11	22 40 49	845.7	29.02	7.96
62.03	22 10 4	1845.67	15.71	29.69	313.39	126.11	22 40 49	845.7	29.02	7.96

DIFFERENTIAL CORRECTIONS

TDE-4.0542 TRA 3.8099 TC3-3.4798 BAU 2.1780
RDE 2.2294 RRA-3.2438 RC3 2.3129 FAU .16406
FDE-2.8543 FRA 4.6829 FC3-3.6428 BSP 15493
BDE 4.6267 BRA 5.0038 BC3 4.1783 FSP 1168

MID-COURSE EXECUTION ACCURACY

SGT 7275.2 SGR 5212.9 SG3 658.5
RRT -.9852 RRF -.9979 RTF .9802
SGB 8950.0 R23 .1303 R13 -.9895
SG1 8920.3 SG2 728.0 THA 144.51

ORBIT DETERMINATION ACCURACY

ST 198.0 SR 117.4 SS 53.2
CRT -.9866 CRS .9986 CST -.9766
LSA 235.5 MSA 18.8 SSA .3
EL1 229.5 EL2 16.5 ALF 149.90

LAUNCH DATE JUL 25 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 17 1974

HELIOCENTRIC CONIC DISTANCE 654.761 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.886 GAL -1.96 AZL 98.69 HCA 192.28 SMA 199.50 ECC .24060 INC 8.6919 V1 29.319
RP 247.44 LAP 1.84 LOP 134.06 VP 20.186 GAP -.68 AZP 81.50 TAL 349.88 TAP 182.16 RCA 151.50 APO 247.50 V2 22.147
RC 315.013 GL -56.30 GP 50.48 ZAL 99.23 ZAP 73.58 ETS 203.36 ZAE 90.99 ETE 181.07 ZAC 137.32 ETC 291.17 LVI -71.55

PLANETOCENTRIC CONIC

C3 35.642 VHL 5.970 DLA -36.68 RAL 62.84 RAD 6649.1 VEL 12.471 PTH 7.37 VHP 3.788 DPA 50.17 RAP 347.38 ECC 1.5866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 9 35	2483.17	-6.56	65.71	291.78	137.23	18 50 58	1483.2	11.81	49.91
60.00	20 3 8	2180.53	2.93	47.55	300.83	130.21	20 39 29	1180.5	18.59	28.90
65.59	22 24 20	1770.74	15.77	23.59	310.55	123.56	22 53 50	770.7	28.11	1.31
65.59	22 24 20	1770.74	15.77	23.59	310.55	123.56	22 53 50	770.7	28.11	1.31
65.59	22 24 20	1770.74	15.77	23.59	310.55	123.56	22 53 50	770.7	28.11	1.31
65.59	22 24 20	1770.74	15.77	23.59	310.55	123.56	22 53 50	770.7	28.11	1.31
65.59	22 24 20	1770.74	15.77	23.59	310.55	123.56	22 53 50	770.7	28.11	1.31

DIFFERENTIAL CORRECTIONS

TDE-3.8647 TRA 3.7821 TC3-3.8492 BAU 2.1610
RDE 2.0204 RRA-3.0540 RC3 2.3983 FAU .18132
FDE-2.9973 FRA 5.1546 FC3-4.4042 BSP 15592
BDE 4.3787 BRA 4.8612 BC3 4.5352 FSP 1318

MID-COURSE EXECUTION ACCURACY

SGT 7450.5 SGR 5031.7 SG3 743.1
RRT -.9852 RRF -.9978 RTF .9802
SGB 8990.4 R23 .1342 R13 -.9888
SG1 8961.8 SG2 717.6 THA 146.12

ORBIT DETERMINATION ACCURACY

ST 198.5 SR 111.5 SS 56.0
CRT -.9864 CRS .9983 CST -.9753
LSA 233.7 MSA 18.8 SSA .3
EL1 227.1 EL2 16.0 ALF 150.86

LAUNCH DATE JUL 25 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC DISTANCE 656.500 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.890 GAL -2.00 AZL 98.13 HCA 193.16 SMA 199.58 ECC .24101 INC 8.1287 V1 29.319
RP 247.58 LAP 1.84 LOP 134.94 VP 20.177 GAP -.89 AZP 82.08 TAL 349.66 TAP 182.81 RCA 151.48 APO 247.67 V2 22.133
RC 317.282 GL -54.07 GP 48.65 ZAL 99.87 ZAP 72.19 ETS 203.73 ZAE 90.01 ETE 182.12 ZAC 135.65 ETC 290.50 LVI -69.96

PLANETOCENTRIC CONIC

C3 32.947 VHL 5.740 DLA -34.54 RAL 62.08 RAD 6648.1 VEL 12.364 PTH 7.28 VHP 3.636 DPA 48.61 RAP 348.89 ECC 1.5422

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 50 52	2519.84	-8.39	67.26	288.80	137.01	18 32 52	1519.8	10.00	51.50
60.00	19 31 22	2252.22	-.22	50.98	296.59	130.30	20 8 54	1252.2	15.65	32.68
69.29	22 41 55	1689.08	15.65	17.02	308.05	121.19	23 10 4	689.1	27.08	354.32
69.29	22 41 55	1689.08	15.65	17.02	308.05	121.19	23 10 4	689.1	27.08	354.32
69.29	22 41 55	1689.08	15.65	17.02	308.05	121.19	23 10 4	689.1	27.08	354.32
69.29	22 41 55	1689.08	15.65	17.02	308.05	121.19	23 10 4	689.1	27.08	354.32
69.29	22 41 55	1689.08	15.65	17.02	308.05	121.19	23 10 4	689.1	27.08	354.32

DIFFERENTIAL CORRECTIONS

TDE-3.7329 TRA 3.7594 TC3-4.2230 BAU 2.1542
RDE 1.8339 RRA-2.8602 RC3 2.4669 FAU .19773
FDE-3.0953 FRA 5.5832 FC3-5.1957 BSP 15599
BDE 4.1599 BRA 4.7359 BC3 4.8907 FSP 1452

MID-COURSE EXECUTION ACCURACY

SGT 7625.0 SGR 4853.8 SG3 823.7
RRT -.9851 RRF -.9976 RTF .9801
SGB 9038.8 R23 .1380 R13 -.9882
SG1 9011.1 SG2 707.2 THA 147.69

ORBIT DETERMINATION ACCURACY

ST 198.6 SR 105.6 SS 58.1
CRT -.9860 CRS .9980 CST -.9737
LSA 231.5 MSA 19.0 SSA .3
EL1 224.4 EL2 15.6 ALF 152.18

LAUNCH DATE JUL 25 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC DISTANCE 662.240 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.894 GAL -2.05 AZL 97.64 HCA 194.03 SMA 199.66 ECC .24143 INC 7.6354 V1 29.319
RP 247.71 LAP 1.83 LOP 135.83 VP 20.169 GAP -1.10 AZP 82.59 TAL 349.43 TAP 183.46 RCA 151.45 APO 247.86 V2 22.120
RC 319.522 GL -51.97 GP 46.87 ZAL 100.51 ZAP 70.83 ETS 204.03 ZAE 89.00 ETE 183.09 ZAC 134.01 ETC 289.90 LVI -68.36

PLANETOCENTRIC CONIC

C3 30.749 VHL 5.545 DLA -32.50 RAL 61.45 RAD 6647.3 VEL 12.275 PTH 7.22 VHP 3.509 DPA 47.09 RAP 350.29 ECC 1.5060

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 34 54	2553.41	-10.05	68.71	286.38	136.75	18 17 28	1553.4	8.33	52.94
60.00	19 6 42	2309.09	-2.73	53.70	293.37	130.22	19 45 11	1309.1	13.27	35.59
70.00	21 23 33	1906.01	7.13	28.45	300.74	123.49	21 55 19	906.0	20.11	7.66
73.27	23 4 6	1595.85	15.39	9.64	305.84	118.99	23 30 42	595.9	25.97	346.61
73.27	23 4 6	1595.85	15.39	9.64	305.84	118.99	23 30 42	595.9	25.97	346.61
73.27	23 4 6	1595.85	15.39	9.64	305.84	118.99	23 30 42	595.9	25.97	346.61
110.00	2 26 55	6240.87	7.13	295.27	300.74	123.49	4 10 56	5240.9	20.11	274.48

DIFFERENTIAL CORRECTIONS

TDE-3.5849 TRA 3.7521 TC3-4.5848 BAU 2.1488
RDE 1.6648 RRA-2.7248 RC3 2.5106 FAU .21251
FDE-3.1355 FRA 5.9777 FC3-5.9833 BSP 15725
BDE 3.9525 BRA 4.6371 BC3 5.2272 FSP 1588

MID-COURSE EXECUTION ACCURACY

SGT 7791.4 SGR 4675.0 SG3 898.6
RRT -.9849 RRF -.9975 RTF .9799
SGB 9086.4 R23 .1416 R13 -.9875
SG1 9059.7 SG2 696.0 THA 149.22

ORBIT DETERMINATION ACCURACY

ST 197.8 SR 99.6 SS 59.4
CRT -.9855 CRS .9976 CST -.9714
LSA 228.5 MSA 19.1 SSA .4
EL1 220.9 EL2 15.1 ALF 153.47

LAUNCH DATE JUL 25 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 23 1974

DISTANCE 665.980

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.899 GAL -2.10 AZL 97.20 HCA 194.91 SMA 199.74 ECC .24185 INC 7.1995 V1 29.319
RP 247.84 LAP 1.88 LOP 136.71 VP 20.162 GAP -1.31 AZP 83.04 TAL 349.20 TAP 184.10 RCA 151.43 APO 248.05 V2 22.107
RC 321.734 GL -49.99 GP 45.15 ZAL 101.13 ZAP 68.49 ETS 204.26 ZAE 87.96 ETE 183.96 ZAC 132.41 ETC 289.36 LVI -66.79

PLANETOCENTRIC CONIC

C3 28.936 VHL 5.379 DLA -30.87 RAL 60.92 RAD 6646.6 VEL 12.202 PTH 7.16 VHP 3.403 DPA 45.62 RAP 351.60 ECC 1.4762

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 21 5	2584.69	-11.60	70.07	284.41	136.47	18 4 10	1584.7	6.77	54.28
60.00	18 46 26	2357.60	-4.86	56.03	290.82	130.06	19 25 44	1357.6	11.20	38.02
70.00	20 44 3	2011.53	3.13	34.00	296.83	124.03	21 17 35	1011.5	16.60	13.82
77.88	23 33 59	1480.23	15.01	.69	303.90	116.94	23 58 39	480.2	24.82	337.42
77.88	23 33 59	1480.23	15.01	.69	303.90	116.94	23 58 39	480.2	24.82	337.42
77.88	23 33 59	1480.23	15.01	.69	303.90	116.94	23 58 39	480.2	24.82	337.42
110.00	1 47 26	1058.35	3.13	322.92	296.83	124.03	2 5 4	58.4	16.60	302.74

DIFFERENTIAL CORRECTIONS

TDE-3.4478 TRA 3.7523 TC3-4.9409 BAU 2.1489
RDE 1.5144 RRA-2.5817 RC3 2.5387 FAU .22622
FDE-3.1420 FRA 6.3309 FC3-6.7682 BSP 15834
BDE 3.7658 BRA 4.5546 BC3 5.5550 FSP 1710

MID-COURSE EXECUTION ACCURACY

SGT 7955.5 SGR 4501.2 SG3 968.1
RRT -.9848 RRF -.9972 RTF .9799
SGB 9140.6 R23 .1444 R13 -.9868
SG1 9115.1 SG2 681.5 THA 150.69

ORBIT DETERMINATION ACCURACY

ST 196.5 SR 93.9 SS 60.2
CRT -.9850 CRS .9971 CST -.9690
LSA 225.2 MSA 19.3 SSA .4
EL1 217.3 EL2 14.7 ALF 154.68

LAUNCH DATE JUL 25 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 25 1974

DISTANCE 669.720

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.903 GAL -2.15 AZL 96.81 HCA 195.78 SMA 199.82 ECC .24229 INC 6.8114 V1 29.319
RP 247.97 LAP 1.85 LOP 137.59 VP 20.156 GAP -1.51 AZP 83.44 TAL 348.96 TAP 184.74 RCA 151.41 APO 248.24 V2 22.095
RC 323.917 GL -48.13 GP 43.50 ZAL 101.75 ZAP 68.19 ETS 204.43 ZAE 86.91 ETE 184.76 ZAC 130.85 ETC 288.88 LVI -65.26

PLANETOCENTRIC CONIC

C3 27.426 VHL 5.237 DLA -28.73 RAL 60.50 RAD 6646.0 VEL 12.140 PTH 7.11 VHP 3.314 DPA 44.20 RAP 352.81 ECC 1.4514

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 8 59	2614.18	-13.05	71.36	282.79	136.17	17 52 33	1614.2	5.29	55.52
60.00	18 29 16	2400.61	-6.74	58.10	288.77	129.83	19 9 17	1400.6	9.35	40.15
70.00	20 15 53	2087.03	.25	37.95	294.03	124.15	20 50 40	1087.0	13.96	18.08
80.00	22 39 17	1637.93	8.11	8.70	298.85	118.83	23 6 35	637.9	19.25	346.86
84.71	0 29 23	1296.48	14.56	346.85	302.19	115.04	0 51 0	296.5	23.64	323.40
100.00	1 26 4	1112.40	8.11	330.07	298.85	118.83	1 44 37	112.4	19.25	308.23
110.00	1 19 16	1133.85	.25	326.86	294.03	124.15	1 38 9	133.8	13.96	306.99

DIFFERENTIAL CORRECTIONS

TDE-3.3169 TRA 3.7628 TC3-5.2849 BAU 2.1509
RDE 1.3776 RRA-2.4524 RC3 2.5461 FAU .23824
FDE-3.1074 FRA 6.6526 FC3-7.5202 BSP 15989
BDE 3.5916 BRA 4.4915 BC3 5.8662 FSP 1827

MID-COURSE EXECUTION ACCURACY

SGT 8114.7 SGR 4329.6 SG3 1031.3
RRT -.9847 RRF -.9970 RTF .9797
SGB 9197.5 R23 .1470 R13 -.9861
SG1 9173.2 SG2 667.7 THA 152.12

ORBIT DETERMINATION ACCURACY

ST 194.8 SR 88.3 SS 60.4
CRT -.9844 CRS .9963 CST -.9659
LSA 221.4 MSA 19.5 SSA .4
EL1 213.4 EL2 14.2 ALF 155.83

LAUNCH DATE JUL 25 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 27 1974

DISTANCE 673.460

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.907 GAL -2.20 AZL 96.46 HCA 196.66 SMA 199.91 ECC .24274 INC 6.4633 V1 29.319
RP 248.09 LAP 1.85 LOP 138.47 VP 20.150 GAP -1.72 AZP 83.81 TAL 348.72 TAP 185.38 RCA 151.38 APO 248.44 V2 22.084
RC 326.069 GL -46.36 GP 41.90 ZAL 102.37 ZAP 66.91 ETS 204.56 ZAE 85.84 ETE 185.49 ZAC 129.35 ETC 288.46 LVI -63.76

PLANETOCENTRIC CONIC

C3 26.159 VHL 5.115 DLA -26.98 RAL 60.15 RAD 6645.5 VEL 12.088 PTH 7.07 VHP 3.239 DPA 42.84 RAP 353.95 ECC 1.4305

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 58 16	2642.20	-14.43	72.61	281.47	135.85	17 42 19	1642.2	3.89	56.70
60.00	18 14 25	2439.69	-8.43	60.00	287.11	129.56	18 55 4	1439.7	7.66	42.06
70.00	19 53 28	2148.44	-2.10	41.15	291.87	124.10	20 29 16	1148.4	11.75	21.46
80.00	21 57 1	1761.68	3.99	15.57	295.65	119.61	22 26 22	761.7	15.75	354.39
90.00	23 52 58	1387.75	7.32	349.89	297.46	117.39	24 16 6	387.8	17.96	327.91
100.00	0 43 49	1236.15	3.99	336.94	295.65	119.61	1 4 25	236.2	15.75	315.75
110.00	0 56 50	1195.26	-2.10	330.07	291.87	124.10	1 16 45	195.3	11.75	310.38

DIFFERENTIAL CORRECTIONS

TDE-3.1983 TRA 3.7736 TC3-5.6263 BAU 2.1594
RDE 1.2582 RRA-2.3301 RC3 2.5435 FAU .24936
FDE-3.0517 FRA 6.9292 FC3-8.2526 BSP 16065
BDE 3.4369 BRA 4.4350 BC3 6.1745 FSP 1921

MID-COURSE EXECUTION ACCURACY

SGT 8274.2 SGR 4163.6 SG3 1088.8
RRT -.9846 RRF -.9967 RTF .9796
SGB 9262.7 R23 .1490 R13 -.9855
SG1 9239.7 SG2 652.5 THA 153.50

ORBIT DETERMINATION ACCURACY

ST 192.9 SR 83.1 SS 60.3
CRT -.9840 CRS .9954 CST -.9625
LSA 217.7 MSA 19.7 SSA .5
EL1 209.7 EL2 13.6 ALF 156.92

LAUNCH DATE JUL 25 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 29 1974

DISTANCE 677.200

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.912 GAL -2.25 AZL 96.15 HCA 197.54 SMA 200.00 ECC .24320 INC 6.1494 V1 29.319
RP 248.20 LAP 1.85 LOP 139.35 VP 20.146 GAP -1.92 AZP 84.13 TAL 348.47 TAP 186.01 RCA 151.36 APO 248.64 V2 22.073
RC 328.191 GL -44.69 GP 40.38 ZAL 102.98 ZAP 65.66 ETS 204.64 ZAE 84.75 ETE 186.14 ZAC 127.90 ETC 288.07 LVI -62.32

PLANETOCENTRIC CONIC

C3 25.089 VHL 5.009 DLA -25.31 RAL 59.87 RAD 6645.0 VEL 12.044 PTH 7.03 VHP 3.176 DPA 41.54 RAP 355.02 ECC 1.4129

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 48 44	2668.97	-15.73	73.82	280.40	135.50	17 33 13	1669.0	2.55	57.82
60.00	18 1 22	2475.77	-9.99	61.78	285.76	129.25	18 42 38	1475.8	6.09	43.81
70.00	19 34 43	2201.33	-4.11	43.92	290.16	123.94	20 11 24	1201.3	9.81	24.33
80.00	21 28 0	1846.75	1.12	20.25	293.41	119.84	21 58 47	846.7	13.17	359.39
90.00	23 13 37	1506.15	3.57	356.56	294.77	118.07	23 38 43	506.2	14.77	335.13
100.00	0 14 48	1321.22	1.12	341.62	293.41	119.84	0 36 49	321.2	13.17	320.76
110.00	0 38 5	1248.15	-4.11	332.84	290.16	123.94	0 58 53	248.2	9.81	313.25

DIFFERENTIAL CORRECTIONS

TDE-3.0834 TRA 3.7934 TC3-5.9539 BAU 2.1693
RDE 1.1492 RRA-2.2191 RC3 2.5259 FAU .25900
FDE-2.9633 FRA 7.1783 FC3-8.9375 BSP 16208
BDE 3.2906 BRA 4.3948 BC3 6.4675 FSP 2015

MID-COURSE EXECUTION ACCURACY

SGT 8429.5 SGR 4002.0 SG3 1140.2
RRT -.9844 RRF -.9963 RTF .9795
SGB 9331.3 R23 .1508 R13 -.9848
SG1 9309.4 SG2 638.0 THA 154.82

ORBIT DETERMINATION ACCURACY

ST 190.7 SR 78.2 SS 59.8
CRT -.9835 CRS .9942 CST -.9584
LSA 213.7 MSA 19.9 SSA .5
EL1 205.7 EL2 13.1 ALF 157.95

LAUNCH DATE JUL 25 1973 FLIGHT TIME 310.00 ARRIVAL DATE MAY 31 1974

HELIOCENTRIC CONIC DISTANCE 680,939 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.916 GAL -2.30 AZL 95.86 HCA 198.41 SMA 200.08 ECC .24367 INC 5.8648 V1 29.319
RP 248.30 LAP 1.85 LOP 140.23 VP 20.141 GAP -2.13 AZP 84.43 TAL 348.22 TAP 186.64 RCA 151.33 APO 248.84 V2 22.062
RC 330.283 GL -43.12 GP 38.92 ZAL 103.58 ZAP 64.45 ETS 204.68 ZAE 83.66 ETE 186.74 ZAC 126.51 ETC 287.73 LVI -60.92

PLANETOCENTRIC CONIC

C3 24.178 VHL 4.917 DLA -23.73 RAL 59.65 RAD 6644.6 VEL 12.006 PTH 7.00 VHP 3.123 DPA 40.29 RAP 356.03 ECC 1.3979

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 40 10	2694.64	-16.97	74.99	279.53	135.14	17 25 5	1694.6	1.26	58.89
60.00	17 49 48	2509.46	-11.44	63.45	284.67	128.91	18 31 38	1509.5	4.61	45.44
70.00	19 18 36	2248.39	-5.90	46.39	288.79	123.70	19 56 5	1248.4	8.06	26.85
80.00	21 5 8	1915.00	-1.20	24.00	291.70	119.84	21 37 3	915.0	11.03	3.32
90.00	22 45 47	1590.38	.86	1.26	292.84	118.27	23 12 17	590.4	12.34	340.12
100.00	23 48 0	1389.47	-1.20	345.37	291.70	119.84	24 11 9	389.5	11.03	324.69
110.00	0 21 58	1295.21	-5.90	335.31	288.79	123.70	0 43 34	295.2	8.06	315.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.9745 TRA 3.8196 TC3-6.2685 BAU 2.1810 SGT 8582.0 SGR 3845.6 SG3 1185.7 ST 188.2 SR 73.6 SS 59.1
RDE 1.0532 RRA-2.1163 RC3 2.4964 FAU .26733 RRT -.9842 RRF -.9959 RTF .9794 CRT -.9832 CRS .9927 CST -.9540
FDE-2.8600 FRA 7.3953 FC3-9.5720 BSP 16372 SGB 9404.2 R23 .1516 R13 -.9843 LSA 209.6 MSA 20.1 SSA .5
BDE 3.1554 BRA 4.3667 BC3 6.7473 FSP 2098 SG1 9383.6 SG2 621.9 THA 156.09 EL1 201.7 EL2 12.5 ALF 158.90

LAUNCH DATE JUL 25 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 2 1974

HELIOCENTRIC CONIC DISTANCE 684.677 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.921 GAL -2.35 AZL 95.61 HCA 199.29 SMA 200.17 ECC .24415 INC 5.6053 V1 29.319
RP 248.40 LAP 1.85 LOP 141.11 VP 20.138 GAP -2.33 AZP 84.71 TAL 347.97 TAP 187.26 RCA 151.30 APO 249.05 V2 22.052
RC 332.344 GL -41.62 GP 37.53 ZAL 104.18 ZAP 63.27 ETS 204.69 ZAE 82.57 ETE 187.28 ZAC 125.17 ETC 287.42 LVI -59.57

PLANETOCENTRIC CONIC

C3 23.401 VHL 4.837 DLA -22.21 RAL 59.49 RAD 6644.3 VEL 11.974 PTH 6.97 VHP 3.079 DPA 39.11 RAP 356.98 ECC 1.3851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 32 28	2719.32	-18.16	76.13	278.85	134.77	17 17 47	1719.3	.02	59.93
60.00	17 39 27	2541.17	-12.79	65.04	283.80	128.55	18 21 48	1541.2	3.22	46.96
70.00	19 4 30	2291.16	-7.51	48.66	287.70	123.42	19 42 41	1291.2	6.45	29.12
80.00	20 46 3	1973.34	-3.17	27.20	290.37	119.70	21 18 56	973.3	9.15	6.63
90.00	22 23 34	1658.79	-1.35	5.08	291.38	118.25	22 51 13	658.8	10.29	344.10
100.00	23 28 54	1447.81	-3.17	348.57	290.37	119.70	23 53 2	447.8	9.15	328.00
110.00	0 7 52	1337.98	-7.51	337.58	287.70	123.42	0 30 10	338.0	6.45	318.04

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.8726 TRA 3.8474 TC3-6.5747 BAU 2.1959 SGT 8733.1 SGR 3694.1 SG3 1225.3 ST 185.7 SR 69.3 SS 58.1
RDE .9673 RRA-2.0200 RC3 2.4579 FAU .27451 RRT -.9840 RRF -.9954 RTF .9792 CRT -.9829 CRS .9907 CST -.9488
FDE-2.7397 FRA 7.5803 FC-10.1556 BSP 16506 SGB 9482.2 R23 .1522 R13 -.9837 LSA 205.5 MSA 20.4 SSA .6
BDE 3.0310 BRA 4.3455 BC3 7.0191 FSP 2166 SG1 9462.8 SG2 607.0 THA 157.30 EL1 197.8 EL2 12.0 ALF 159.79

LAUNCH DATE JUL 25 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 4 1974

HELIOCENTRIC CONIC DISTANCE 688.415 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.925 GAL -2.41 AZL 95.37 HCA 200.16 SMA 200.27 ECC .24464 INC 5.3677 V1 29.319
RP 248.50 LAP 1.85 LOP 141.99 VP 20.136 GAP -2.53 AZP 84.96 TAL 347.72 TAP 187.88 RCA 151.27 APO 249.26 V2 22.043
RC 334.376 GL -40.20 GP 36.20 ZAL 104.78 ZAP 62.13 ETS 204.67 ZAE 81.48 ETE 187.77 ZAC 123.88 ETC 287.15 LVI -58.28

PLANETOCENTRIC CONIC

C3 22.735 VHL 4.768 DLA -20.77 RAL 59.37 RAD 6644.0 VEL 11.947 PTH 6.95 VHP 3.043 DPA 37.99 RAP 357.89 ECC 1.3742

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 25 28	2743.12	-19.30	77.25	278.31	134.38	17 11 12	1743.1	-1.18	60.92
60.00	17 30 7	2571.21	-14.06	66.56	283.11	128.17	18 12 58	1571.2	1.90	48.40
70.00	18 51 58	2330.58	-8.98	50.76	286.82	123.09	19 30 49	1330.6	4.96	31.20
80.00	20 29 37	2024.96	-4.90	30.05	289.32	119.49	21 3 22	1025.0	7.46	9.53
90.00	22 4 55	1717.60	-3.24	8.37	290.23	118.11	22 33 32	717.6	8.49	347.48
100.00	23 12 29	1499.43	-4.90	351.42	289.32	119.49	23 37 29	499.4	7.46	330.89
110.00	23 51 25	1377.40	-8.98	339.68	286.82	123.09	24 14 22	377.4	4.96	320.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.7741 TRA 3.8823 TC3-6.8660 BAU 2.2118 SGT 8881.2 SGR 3548.3 SG3 1259.5 ST 183.0 SR 65.3 SS 57.0
RDE .8911 RRA-1.9311 RC3 2.4107 FAU .28047 RRT -.9838 RRF -.9948 RTF .9791 CRT -.9829 CRS .9882 CST -.9433
FDE-2.6090 FRA 7.7401 FC-10.6802 BSP 16674 SGB 9563.8 R23 .1519 R13 -.9831 LSA 201.4 MSA 20.6 SSA .6
BDE 2.9137 BRA 4.3360 BC3 7.2769 FSP 2226 SG1 9545.5 SG2 591.3 THA 158.45 EL1 193.9 EL2 11.3 ALF 160.60

LAUNCH DATE JUL 25 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 6 1974

HELIOCENTRIC CONIC DISTANCE 692.153 EARTH TO MARS

RL 151.96 LAL -.00 LOL 301.91 VL 32.930 GAL -2.46 AZL 95.15 HCA 201.04 SMA 200.36 ECC .24514 INC 5.1493 V1 29.319
RP 248.59 LAP 1.85 LOP 142.87 VP 20.134 GAP -2.74 AZP 85.19 TAL 347.46 TAP 188.49 RCA 151.24 APO 249.47 V2 22.034
RC 336.377 GL -38.85 GP 34.94 ZAL 105.37 ZAP 61.03 ETS 204.63 ZAE 80.39 ETE 188.22 ZAC 122.65 ETC 286.90 LVI -57.04

PLANETOCENTRIC CONIC

C3 22.163 VHL 4.708 DLA -19.39 RAL 59.30 RAD 6643.8 VEL 11.923 PTH 6.93 VHP 3.012 DPA 36.92 RAP 358.75 ECC 1.3647

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 19 8	2766.11	-20.39	78.35	277.92	133.97	17 5 14	1766.1	-2.33	61.88
60.00	17 21 40	2599.80	-15.26	68.03	282.58	127.77	18 5 0	1599.8	.64	49.76
70.00	18 40 45	2367.32	-10.34	52.74	286.14	122.73	19 20 12	1367.3	3.57	33.12
80.00	20 15 13	2071.67	-6.46	32.64	288.49	119.21	20 49 44	1071.7	5.91	12.13
90.00	21 48 47	1769.84	-4.91	11.29	289.34	117.89	22 18 17	769.8	6.85	350.45
100.00	22 58 4	1546.15	-6.46	354.01	288.49	119.21	23 23 51	546.1	5.91	333.50
110.00	23 40 11	1414.14	-10.34	341.66	286.14	122.73	24 3 45	414.1	3.57	322.04

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.6809 TRA 3.9197 TC3-7.1477 BAU 2.2301 SGT 9028.5 SGR 3408.3 SG3 1288.7 ST 180.2 SR 61.6 SS 55.8
RDE .8229 RRA-1.8482 RC3 2.3575 FAU .28543 RRT -.9836 RRF -.9942 RTF .9790 CRT -.9830 CRS .9850 CST -.9369
FDE-2.4676 FRA 7.8751 FC-11.1495 BSP 16836 SGB 9650.4 R23 .1513 R13 -.9826 LSA 197.4 MSA 20.8 SSA .6
BDE 2.8044 BRA 4.3336 BC3 7.5265 FSP 2277 SG1 9633.2 SG2 576.9 THA 159.55 EL1 190.1 EL2 10.7 ALF 161.36

LAUNCH DATE JUL 25 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 8 1974

HELIOCENTRIC CONIC DISTANCE 695.889 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.934	GAL	-2.52	AZL	94.95	HCA	201.91	SMA	200.45	ECC	.24565	INC	4.9476	V1	29.319
RP	248.67	LAP	1.84	LOP	143.75	VP	20.132	GAP	-2.94	AZP	85.41	TAL	347.19	TAP	189.10	RCA	151.21	APO	249.69	V2	22.026
RC	338.347	GL	-37.56	GP	33.73	ZAL	105.95	ZAP	59.95	ETS	204.57	ZAE	79.30	ETE	188.62	ZAC	121.46	ETC	266.68	LVI	-55.85

PLANETOCENTRIC CONIC

C3	21.671	VHL	4.655	DLA	-18.06	RAL	59.27	RAD	6643.6	VEL	11.902	PTH	6.91	VHP	2.988	DPA	35.91	RAP	359.58	ECC	1.3566

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 13 20	2788.35	-21.44	79.43	277.64	133.55	16 59 49	1788.3	-3.45	62.81
60.00	17 13 58	2627.12	-16.39	69.45	282.18	127.35	17 57 45	1627.1	-.56	51.97
70.00	18 30 36	2401.83	-11.60	54.61	285.61	122.35	19 10 38	1401.8	2.25	34.93
80.00	20 2 23	2114.59	-7.88	35.04	287.85	118.89	20 37 37	1114.6	4.47	14.50
90.00	21 34 34	1817.21	-6.41	13.97	288.64	117.60	22 4 51	817.2	5.36	353.12
100.00	22 45 14	1589.06	-7.88	356.40	287.85	118.89	23 11 43	589.1	4.47	335.87
110.00	23 30 2	1448.64	-11.60	343.53	285.61	122.35	23 54 11	448.6	2.25	323.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.5926	TRA	3.9598	TC3	-7.4183	BAU	2.2501	SGT	9174.1	SGR	3273.8	SG3	1313.0	ST	177.4	SR	58.3	SS	54.6
RDE	.7630	RRA	-1.7703	RC3	2.2994	FAU	.28943	RRT	-.9833	RRF	-.9935	RTF	.9789	CRT	-.9834	CRS	.9811	CST	-.9301
FDE	-2.3240	FRA	7.9848	FC	-11.5629	BSP	16994	SGB	9740.8	R23	.1498	R13	-.9822	LSA	193.4	MSA	21.0	SSA	.7
BDE	2.7026	BRA	4.3376	BC3	7.7665	FSP	2317	SG1	9724.5	SG2	562.6	THA	160.60	EL1	186.5	EL2	10.1	ALF	162.04

LAUNCH DATE JUL 25 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 10 1974

HELIOCENTRIC CONIC DISTANCE 699.626 EARTH TO MARS

RL	151.96	LAL	-.00	LOL	301.91	VL	32.939	GAL	-2.57	AZL	94.76	HCA	202.78	SMA	200.55	ECC	.24616	INC	4.7609	V1	29.319
RP	248.75	LAP	1.84	LOP	144.63	VP	20.132	GAP	-3.14	AZP	85.61	TAL	346.93	TAP	189.71	RCA	151.18	APO	249.91	V2	22.019
RC	340.287	GL	-36.34	GP	32.58	ZAL	106.54	ZAP	58.91	ETS	204.49	ZAE	78.22	ETE	188.99	ZAC	120.33	ETC	266.47	LVI	-54.71

PLANETOCENTRIC CONIC

C3	21.247	VHL	4.609	DLA	-16.80	RAL	59.27	RAD	6643.4	VEL	11.885	PTH	6.90	VHP	2.968	DPA	34.96	RAP	.37	ECC	1.3497

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 8 3	2809.89	-22.44	80.49	277.46	133.12	16 54 53	1809.9	-4.53	63.72
60.00	17 6 55	2653.32	-17.47	70.82	281.90	126.91	17 51 9	1653.3	-1.71	52.32
70.00	18 21 23	2434.44	-12.78	56.40	285.22	121.94	19 1 57	1434.4	1.01	36.63
80.00	19 50 50	2154.46	-9.19	37.28	287.36	118.53	20 26 44	1154.5	3.13	16.70
90.00	21 21 51	1860.81	-7.78	16.44	288.11	117.27	21 52 52	860.8	3.97	355.37
100.00	22 33 42	1628.93	-9.19	358.64	287.36	118.53	23 0 50	628.9	3.13	338.07
110.00	23 20 49	1481.26	-12.78	345.31	285.22	121.94	23 45 30	481.3	1.01	325.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.5055	TRA	4.0058	TC3	-7.6730	BAU	2.2701	SGT	9316.0	SGR	3144.0	SG3	1332.4	ST	174.5	SR	55.2	SS	99.3
RDE	.7089	RRA	-1.6982	RC3	2.2352	FAU	.29230	RRT	-.9829	RRF	-.9926	RTF	.9788	CRT	-.9840	CRS	.9762	CST	-.9224
FDE	-2.1720	FRA	8.0766	FC	-11.9103	BSP	17197	SGB	9832.2	R23	.1478	R13	-.9817	LSA	189.4	MSA	21.3	SSA	.7
BDE	2.6039	BRA	4.3509	BC3	7.9919	FSP	2355	SG1	9816.8	SG2	549.1	THA	161.59	EL1	182.8	EL2	9.4	ALF	162.67

LAUNCH DATE JUL 26 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 319.936 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	35.428	GAL	-2.90	AZL	90.22	HCA	99.62	SMA	289.88	ECC	.43936	INC	.2237	V1	29.322
RP	217.98	LAP	-.22	LOP	42.49	VP	26.943	GAP	23.74	AZP	89.96	TAL	350.50	TAP	90.12	RCA	151.31	APO	388.46	V2	25.206
RC	74.281	GL	-1.26	GP	-5.04	ZAL	104.93	ZAP	174.10	ETS	240.41	ZAE	166.06	ETE	340.69	ZAC	78.97	ETC	263.12	LVI	-12.95

PLANETOCENTRIC CONIC

C3	39.372	VHL	6.275	DLA	15.93	RAL	45.71	RAD	6650.4	VEL	12.619	PTH	7.47	VHP	8.811	DPA	9.60	RAP	38.90	ECC	1.6480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 5 50	3622.51	-47.46	139.68	295.36	93.86	14 6 12	2622.5	-40.43	107.30
60.00	13 27 17	3565.41	-40.30	134.90	295.71	90.22	14 26 42	2565.4	-35.80	104.74
70.00	13 58 44	3472.84	-34.06	127.23	295.54	87.36	14 56 36	2472.8	-31.59	98.78
80.00	14 47 20	3320.54	-29.53	115.35	295.20	85.38	15 42 40	2320.5	-28.45	87.98
90.00	15 59 53	3086.34	-27.81	97.97	295.03	84.64	16 51 19	2086.3	-27.24	70.97
100.00	17 30 12	2795.01	-29.53	76.72	295.20	85.38	18 16 47	1795.0	-28.45	49.34
110.00	18 58 10	2519.66	-34.06	56.15	295.54	87.36	19 40 10	1519.7	-31.59	27.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3730	TRA	-1.2567	TC3	.1784	BAU	.1008	SGT	1261.0	SGR	616.3	SG3	149.0	ST	24.7	SR	28.4	SS	15.7
RDE	-.6183	RRA	.2435	RC3	-.0693	FAU	.05206	RRT	-.1327	RRF	.1500	RTF	-.6917	CRT	.5956	CRS	.6616	CST	.9918
FDE	.3381	FRA	.9507	FC3	-1.1446	BSP	2027	SGB	1403.6	R23	-.0305	R13	.6935	LSA	36.7	MSA	17.9	SSA	1.2
BDE	.7221	BRA	1.2801	BC3	.1914	FSP	184	SG1	1264.5	SG2	609.1	THA	175.17	EL1	33.8	EL2	16.7	ALF	51.67

LAUNCH DATE JUL 26 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 322.083 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	35.285	GAL	-2.80	AZL	90.19	HCA	100.76	SMA	264.45	ECC	.42773	INC	.1873	V1	29.322
RP	218.35	LAP	-.18	LOP	43.63	VP	26.717	GAP	23.37	AZP	89.96	TAL	350.64	TAP	91.40	RCA	151.34	APO	377.56	V2	25.168
RC	75.647	GL	-1.08	GP	-5.18	ZAL	104.67	ZAP	173.57	ETS	235.39	ZAE	165.30	ETE	340.76	ZAC	78.75	ETC	283.09	LVI	-12.71

PLANETOCENTRIC CONIC

C3	37.483	VHL	6.122	DLA	16.03	RAL	45.39	RAD	6649.8	VEL	12.545	PTH	7.42	VHP	8.552	DPA	9.60	RAP	39.32	ECC	1.6169

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 4 10	3612.22	-47.40	138.69	293.90	94.62	14 4 22	2612.2	-40.10	106.53
60.00	13 25 28	3555.48	-40.29	134.05	294.37	90.79	14 24 44	2555.5	-35.57	104.01
70.00	13 56 45	3463.41	-34.09	126.50	294.27	87.79	14 54 28	2463.4	-31.43	98.09
80.00	14 45 11	3311.64	-29.58	114.69	293.97	85.72	15 40 23	2311.6	-28.34	87.33
90.00	15 57 39	3077.71	-27.86	97.34	293.81	84.95	16 48 57	2077.7	-27.16	70.36
100.00	17 28 3	2786.11	-29.58	76.06	293.97	85.72	18 14 29	1786.1	-28.34	48.70
110.00	18 56 11	2510.23	-34.09	55.42	294.27	87.79	19 38 2	1510.2	-31.43	27.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3743	TRA	-1.2489	TC3	.1993	BAU	.1072	SGT	1288.9	SGR	618.8	SG3	158.5	ST	25.3	SR	28.4	SS	16.3
RDE	-.6026	RRA	.2426	RC3	-.0777	FAU	.05409	RRT	-.1416	RRF	.1616	RTF	-.6990	CRT	.5971	CRS	.6666	CST	.9915
FDE	.3561	FRA	.9817	FC3	-1.2492	BSP	1973	SGB	1429.7	R23	-.0343	R13	.7010	LSA	37.2	MSA	18.1	SSA	1.3
BDE	.7094	BRA	1.2723	BC3	.2139	FSP	198	SG1	1292.7	SG2	610.8	THA	174.99	EL1	34.1	EL2	16.9	ALF	50.54

LAUNCH DATE JUL 26 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 324.389 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	35.150	GAL	-2.71	AZL	90.15	HCA	101.89	SMA	259.52	ECC	.41674	INC	.1505	V1	29.322
RP	218.71	LAP	-.15	LOP	44.76	VP	26.500	GAP	23.00	AZP	89.97	TAL	350.79	TAP	92.68	RCA	151.37	APO	367.67	V2	25.127
RC	77.098	GL	-.89	GP	-5.33	ZAL	104.40	ZAP	172.98	ETS	231.16	ZAE	164.60	ETE	340.75	ZAC	78.53	ETC	283.06	LVI	-12.46

PLANETOCENTRIC CONIC

C3	35.733	VHL	5.978	DLA	16.14	RAL	45.06	RAD	6649.2	VEL	12.475	PTH	7.37	VHP	8.303	DPA	9.59	RAP	39.74	ECC	1.5881

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 2 24	3602.36	-47.35	137.74	292.47	95.35	14 2 26	2602.4	-39.78	105.60
60.00	13 23 34	3546.00	-40.28	133.24	293.05	91.34	14 22 40	2546.0	-35.34	103.30
70.00	13 54 40	3454.44	-34.11	125.80	293.01	88.20	14 52 15	2454.4	-31.28	97.43
80.00	14 42 55	3303.23	-29.62	114.07	292.75	86.05	15 37 59	2303.2	-28.25	86.73
90.00	15 55 18	3069.58	-27.91	96.75	292.60	85.25	16 46 28	2069.6	-27.08	69.77
100.00	17 25 47	2777.70	-29.62	75.44	292.75	86.05	18 12 5	1777.7	-28.25	48.10
110.00	18 54 7	2501.26	-34.11	54.72	293.01	88.20	19 35 48	1501.3	-31.28	26.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3749	TRA	-1.2420	TC3	.2251	BAU	.1153	SGT	1318.1	SGR	621.3	SG3	168.5	ST	25.9	SR	28.4	SS	16.9
RDE	-.5873	RRA	.2420	RC3	-.0869	FAU	.05623	RRT	-.1526	RRF	.1745	RTF	-.7081	CRT	.5973	CRS	.6709	CST	.9911
FDE	.3744	FRA	1.0134	FC3	-1.3623	BSP	2043	SGB	1457.2	R23	-.0371	R13	.7103	LSA	37.8	MSA	18.2	SSA	1.3
BDE	.6967	BRA	1.2654	BC3	.2413	FSP	213	SG1	1322.4	SG2	612.0	THA	174.76	EL1	34.4	EL2	17.1	ALF	49.44

LAUNCH DATE JUL 26 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 326.834 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	35.022	GAL	-2.61	AZL	90.11	HCA	103.02	SMA	255.03	ECC	.40636	INC	.1134	V1	29.322
RP	219.08	LAP	-.11	LOP	45.89	VP	26.291	GAP	22.64	AZP	89.97	TAL	350.94	TAP	93.97	RCA	151.39	APO	358.66	V2	25.087
RC	78.631	GL	-.69	GP	-5.49	ZAL	104.11	ZAP	172.36	ETS	227.59	ZAE	163.95	ETE	340.65	ZAC	78.30	ETC	283.03	LVI	-12.21

PLANETOCENTRIC CONIC

C3	34.110	VHL	5.840	DLA	16.25	RAL	44.71	RAD	6648.6	VEL	12.410	PTH	7.32	VHP	8.062	DPA	9.57	RAP	40.15	ECC	1.5614

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 32	3592.94	-47.28	136.84	291.07	96.04	14 0 25	2592.9	-39.47	105.11
60.00	13 21 34	3536.98	-40.27	132.48	291.74	91.86	14 20 31	2537.0	-35.12	102.64
70.00	13 52 29	3445.95	-34.13	125.14	291.77	88.60	14 49 55	2446.0	-31.13	96.81
80.00	14 40 33	3295.34	-29.65	113.48	291.54	86.35	15 35 28	2295.3	-28.15	86.16
90.00	15 52 50	3061.98	-27.95	96.20	291.40	85.52	16 43 52	2062.0	-27.00	69.23
100.00	17 23 25	2769.81	-29.65	74.85	291.54	86.35	18 9 34	1769.8	-28.15	47.53
110.00	18 51 55	2492.77	-34.13	54.05	291.77	88.60	19 33 28	1492.8	-31.13	25.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3758	TRA	-1.2348	TC3	.2538	BAU	.1239	SGT	1347.6	SGR	623.6	SG3	179.2	ST	26.4	SR	28.3	SS	17.6
RDE	-.5722	RRA	.2416	RC3	-.0970	FAU	.05850	RRT	-.1645	RRF	.1880	RTF	-.7177	CRT	.5978	CRS	.6758	CST	.9906
FDE	.3945	FRA	1.0458	FC3	-1.4848	BSP	2102	SGB	1484.9	R23	-.0398	R13	.7201	LSA	38.4	MSA	18.4	SSA	1.3
BDE	.6845	BRA	1.2582	BC3	.2718	FSP	229	SG1	1352.5	SG2	612.9	THA	174.52	EL1	34.6	EL2	17.3	ALF	48.29

LAUNCH DATE JUL 26 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 329.404 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	34.900	GAL	-2.52	AZL	90.08	HCA	104.15	SMA	250.93	ECC	.39655	INC	.0760	V1	29.322
RP	219.45	LAP	-.08	LOP	47.02	VP	26.089	GAP	22.28	AZP	89.98	TAL	351.11	TAP	95.26	RCA	151.42	APO	350.44	V2	25.046
RC	80.245	GL	-.47	GP	-5.65	ZAL	103.80	ZAP	171.71	ETS	224.58	ZAE	163.36	ETE	340.48	ZAC	78.07	ETC	283.00	LVI	-11.95

PLANETOCENTRIC CONIC

C3	32.605	VHL	5.710	DLA	16.37	RAL	44.35	RAD	6648.0	VEL	12.350	PTH	7.27	VHP	7.829	DPA	9.54	RAP	40.55	ECC	1.5366

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 58 36	3583.98	-47.22	135.99	289.69	96.70	13 58 20	2584.0	-39.17	104.46
60.00	13 19 28	3528.44	-40.24	131.75	290.45	92.35	14 18 16	2528.4	-34.91	102.01
70.00	13 50 11	3437.98	-34.14	124.51	290.54	88.96	14 47 29	2438.0	-30.99	96.23
80.00	14 38 3	3287.98	-29.69	112.94	290.34	86.64	15 32 51	2288.0	-28.06	85.63
90.00	15 50 15	3054.94	-27.99	95.69	290.21	85.77	16 41 10	2054.9	-26.93	68.73
100.00	17 20 55	2762.45	-29.69	74.31	290.34	86.64	18 6 58	1762.5	-28.06	47.00
110.00	18 49 38	2484.80	-34.14	53.43	290.54	88.96	19 31 3	1484.8	-30.99	25.15

DIFFERENTIAL CORRECTIONS

TDE	-.3770	TRA	-1.2277	TC3	.2837	BAU	.1323												
RDE	-.5573	RRA	.2414	RC3	-.1080	FAU	.06089												
FDE	.4160	FRA	1.0789	FC3	-1.6167	BSP	2167												
BDE	.6728	BRA	1.2512	BC3	.3036	FSP	247												

MID-COURSE EXECUTION ACCURACY

SGT	1377.2	SGR	625.8	SG3	190.4						
RRT	-.1771	RRF	.2025	RTF	-.7265						
SGB	1512.7	R23	-.0427	R13	.7291						
SG1	1382.7	SG2	613.5	THA	174.27						

ORBIT DETERMINATION ACCURACY

ST	27.0	SR	28.2	SS	18.3						
CRT	.5983	CRS	.6808	CST	.9901						
LSA	38.9	MSA	18.5	SSA	1.4						
EL1	34.9	EL2	17.5	ALF	47.11						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 332.086 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	34.785	GAL	-2.43	AZL	90.04	HCA	105.27	SMA	247.18	ECC	.38728	INC	.0383	V1	29.322
RP	219.82	LAP	-.04	LOP	48.14	VP	25.896	GAP	21.93	AZP	89.99	TAL	351.28	TAP	96.55	RCA	151.45	APO	342.91	V2	25.005
RC	81.936	GL	-.25	GP	-5.82	ZAL	103.49	ZAP	171.02	ETS	222.01	ZAE	162.83	ETE	340.24	ZAC	77.84	ETC	282.97	LVI	-11.69

PLANETOCENTRIC CONIC

C3	31.207	VHL	5.586	DLA	16.49	RAL	43.96	RAD	6647.5	VEL	12.294	PTH	7.23	VHP	7.604	DPA	9.50	RAP	40.95	ECC	1.5136

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 56 34	3575.50	-47.14	135.18	288.34	97.31	13 56 9	2575.5	-38.89	103.85
60.00	13 17 16	3520.39	-40.22	131.07	289.18	92.81	14 15 56	2520.4	-34.71	101.43
70.00	13 47 48	3430.53	-34.15	123.93	289.32	89.31	14 44 58	2430.5	-30.86	95.69
80.00	14 35 27	3281.19	-29.71	112.44	289.15	86.90	15 30 8	2281.2	-27.97	85.15
90.00	15 47 33	3048.47	-28.02	95.22	289.03	86.01	16 38 21	2048.5	-26.86	68.27
100.00	17 18 19	2755.66	-29.71	73.81	289.15	86.90	18 4 14	1755.7	-27.97	46.52
110.00	18 47 14	2477.35	-34.15	52.85	289.32	89.31	19 28 31	1477.3	-30.86	24.61

DIFFERENTIAL CORRECTIONS

TDE	-.3785	TRA	-1.2199	TC3	.3158	BAU	.1410												
RDE	-.5426	RRA	.2414	RC3	-.1201	FAU	.06342												
FDE	.4387	FRA	1.1125	FC3	-1.7594	BSP	2230												
BDE	.6616	BRA	1.2436	BC3	.3379	FSP	266												

MID-COURSE EXECUTION ACCURACY

SGT	1406.4	SGR	628.0	SG3	202.3						
RRT	-.1904	RRF	.2180	RTF	-.7352						
SGB	1540.2	R23	-.0459	R13	.7381						
SG1	1412.6	SG2	613.8	THA	174.00						

ORBIT DETERMINATION ACCURACY

ST	27.6	SR	28.1	SS	19.0						
CRT	.5993	CRS	.6859	CST	.9895						
LSA	39.5	MSA	18.5	SSA	1.4						
EL1	35.2	EL2	17.6	ALF	45.98						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 334.867 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	34.676	GAL	-2.34	AZL	90.00	HCA	106.39	SMA	243.74	ECC	.37852	INC	.0000	V1	29.322
RP	220.19	LAP	-.00	LOP	49.26	VP	25.709	GAP	21.57	AZP	90.00	TAL	351.45	TAP	97.84	RCA	151.48	APO	336.00	V2	24.964
RC	83.701	GL	-.02	GP	-5.99	ZAL	103.16	ZAP	170.32	ETS	219.82	ZAE	162.36	ETE	339.92	ZAC	77.60	ETC	282.94	LVI	-11.42

PLANETOCENTRIC CONIC

C3	29.910	VHL	5.469	DLA	16.62	RAL	43.57	RAD	6647.0	VEL	12.241	PTH	7.19	VHP	7.387	DPA	9.44	RAP	41.34	ECC	1.4922

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 54 27	3567.51	-47.07	134.42	287.01	97.89	13 53 55	2567.5	-38.61	103.28
60.00	13 14 59	3512.86	-40.19	130.43	287.94	93.24	14 13 31	2512.9	-34.51	100.88
70.00	13 45 18	3423.62	-34.15	123.39	288.13	89.63	14 42 21	2423.6	-30.74	95.20
80.00	14 32 43	3274.97	-29.73	111.98	287.98	87.14	15 27 18	2275.0	-27.89	84.70
90.00	15 44 43	3042.61	-28.05	94.79	287.87	86.22	16 35 25	2042.6	-26.79	67.85
100.00	17 15 35	2749.44	-29.73	73.34	287.98	87.14	18 1 25	1749.4	-27.89	46.07
110.00	18 44 44	2470.44	-34.15	52.31	288.13	89.63	19 25 54	1470.4	-30.74	24.11

DIFFERENTIAL CORRECTIONS

TDE	-.3801	TRA	-1.2117	TC3	.3495	BAU	.1496												
RDE	-.5282	RRA	.2417	RC3	-.1332	FAU	.06608												
FDE	.4633	FRA	1.1475	FC3	-1.9125	BSP	2288												
BDE	.6507	BRA	1.2356	BC3	.3741	FSP	285												

MID-COURSE EXECUTION ACCURACY

SGT	1435.2	SGR	630.3	SG3	214.9						
RRT	-.2049	RRF	.2346	RTF	-.[illegible]38						
SGB	1567.5	R23	-.0490	R13	.7469						
SG1	1442.3	SG2	613.8	THA	173.71						

ORBIT DETERMINATION ACCURACY

ST	28.1	SR	28.0	SS	19.7						
CRT	.6002	CRS	.6910	CST	.9889						
LSA	40.2	MSA	18.6	SSA	1.4						
EL1	35.5	EL2	17.7	ALF	44.68						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 337.737 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	34.572	GAL	-2.26	AZL	89.97	HCA	107.51	SMA	240.87	ECC	.37022	INC	.0305	V1	29.322
RP	220.57	LAP	.03	LOP	50.38	VP	25.529	GAP	21.22	AZP	90.01	TAL	351.63	TAP	99.14	RCA	151.51	APO	329.63	V2	24.923
RC	85.536	GL	.22	GP	-6.18	ZAL	102.82	ZAP	169.58	ETS	217.92	ZAE	161.95	ETE	339.53	ZAC	77.36	ETC	282.91	LVI	-11.15

PLANETOCENTRIC CONIC

C3	28.703	VHL	5.358	DLA	16.75	RAL	43.15	RAD	6646.5	VEL	12.192	PTH	7.15	VHP	7.176	DPA	9.38	RAP	41.72	ECC	1.4724

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 52 15	3559.99	-47.00	133.71	285.72	98.44	13 51 35	2560.0	-38.36	102.75
60.00	13 12 36	3505.82	-40.16	129.83	286.72	93.65	14 11 1	2505.8	-34.33	100.37
70.00	13 42 41	3417.24	-34.15	122.90	286.95	89.92	14 39 38	2417.2	-30.62	94.74
80.00	14 29 53	3269.33	-29.75	111.56	286.83	87.36	15 24 22	2269.3	-27.82	84.30
90.00	15 41 45	3037.34	-28.07	94.41	286.72	86.41	16 32 23	2037.3	-26.73	67.48
100.00	17 12 45	2743.80	-29.75	72.93	286.83	87.36	17 58 29	1743.8	-27.82	45.67
110.00	18 42 8	2464.06	-34.15	51.81	286.95	89.92	19 23 12	1464.1	-30.62	23.65

DIFFERENTIAL CORRECTIONS

TDE	-.3729	TRA	-1.1948	TC3	.3964	BAU	.1623												
RDE	-.5137	RRA	.2423	RC3	-.1472	FAU	.06874												
FDE	.4921	FRA	1.1861	FC3	-2.0733	BSP	2237												
BDE	.6348	BRA	1.2191	BC3	.4229	FSP	309												

MID-COURSE EXECUTION ACCURACY

SGT	1456.1	SGR	632.4	SG3	228.1						
RRT	-.2269	RRF	.2515	RTF	-.7601						
SGB	1587.5	R23	-.0430	R13	.7632						
SG1	1464.7	SG2	612.3	THA	173.17						

ORBIT DETERMINATION ACCURACY

ST	28.3	SR	27.8	SS	20.5						
CRT	.5943	CRS	.6969	CST	.9872						
LSA	40.5	MSA	18.6	SSA	1.4						
EL1	35.4	EL2	17.8	ALF	44.15						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 340.689 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	34.474	GAL	-2.17	AZL	89.93	HCA	108.62	SMA	237.65	ECC	.36238	INC	.0706
RP	220.95	LAP	.07	LOP	51.49	VP	25.355	GAP	20.86	AZP	90.02	TAL	351.82	TAP	100.44	RCA	151.53	APO	323.77
RC	87.440	GL	.48	GP	-6.37	ZAL	102.48	ZAP	168.83	ETS	216.29	ZAE	161.59	ETE	339.08	ZAC	77.10	ETC	282.89

V1	29.322	V2	24.882	LVI	-10.87														

PLANETOCENTRIC CONIC

C3	27.584	VHL	5.252	DLA	16.90	RAL	42.73	RAD	6646.0	VEL	12.146	PTH	7.11	VHP	6.973	DPA	9.30	RAP	42.09

ECC	1.4540																		

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 49 59	3553.01	-46.93	133.05	284.46	98.94	13 49 12	2553.0	-38.11	102.26
60.00	13 10 8	3499.36	-40.13	129.29	285.52	94.02	14 8 27	2499.4	-34.16	99.91
70.00	13 39 59	3411.48	-34.15	122.45	285.80	90.19	14 36 50	2411.5	-30.51	94.32
80.00	14 26 56	3264.35	-29.77	111.19	285.70	87.56	15 21 20	2264.3	-27.75	83.95
90.00	15 38 41	3032.75	-28.09	94.07	285.60	86.58	16 29 14	2032.7	-26.68	67.15
100.00	17 9 48	2738.82	-29.77	72.56	285.70	87.56	17 55 27	1738.8	-27.75	45.31
110.00	18 39 25	2458.30	-34.15	51.36	285.80	90.19	19 20 24	1458.3	-30.51	23.24

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3786	TRA	-1.1893	TC3	.4275	BAU	.1687	SGT	1486.9	SGR	634.9	SG3	242.1			ST	29.0	SR	27.6
RDE	-.4997	RRA	.2428	RC3	-.1628	FAU	.07175	RRT	-.2405	RRF	.2704	RTF	-.7638			CRT	.5982	CRS	.7018
FDE	.5189	FRA	1.2202	FC3	-2.2520	BSP	2340	SGB	1616.7	R23	-.0506	R13	.7674			LSA	41.3	MSA	18.6
BDE	.6269	BRA	1.2138	BC3	.4574	FSP	331	SG1	1496.3	SG2	612.4	THA	172.95			EL1	35.8	EL2	17.9

CST	21.3																		
SS	1.4																		
ALF	42.60																		

LAUNCH DATE JUL 26 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 343.713 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	34.381	GAL	-2.09	AZL	89.89	HCA	109.73	SMA	234.95	ECC	.35496	INC	.1104
RP	221.33	LAP	.10	LOP	52.60	VP	25.188	GAP	20.53	AZP	90.04	TAL	352.00	TAP	101.73	RCA	151.56	APO	318.35
RC	89.407	GL	.74	GP	-6.57	ZAL	102.12	ZAP	168.06	ETS	214.87	ZAE	161.30	ETE	338.55	ZAC	76.85	ETC	282.86

V1	29.322	V2	24.840	LVI	-10.59														

PLANETOCENTRIC CONIC

C3	26.543	VHL	5.152	DLA	17.05	RAL	42.30	RAD	6645.6	VEL	12.104	PTH	7.08	VHP	6.777	DPA	9.21	RAP	42.46

ECC	1.4368																		

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 47 38	3546.55	-46.86	132.44	283.24	99.41	13 46 44	2546.6	-37.88	101.81
60.00	13 7 35	3493.44	-40.10	128.79	284.36	94.36	14 5 48	2493.4	-34.01	99.49
70.00	13 37 11	3406.30	-34.15	122.04	284.67	90.43	14 33 57	2406.3	-30.41	93.95
80.00	14 23 52	3260.00	-29.78	110.87	284.59	87.73	15 18 12	2260.0	-27.69	83.64
90.00	15 35 29	3028.82	-28.10	93.79	284.49	86.72	16 25 58	2028.8	-26.63	66.87
100.00	17 6 43	2734.47	-29.78	72.23	284.59	87.73	17 52 18	1734.5	-27.69	45.00
110.00	18 36 37	2453.12	-34.15	50.96	284.67	90.43	19 17 30	1453.1	-30.41	22.87

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3826	TRA	-1.1825	TC3	.4624	BAU	.1760	SGT	1516.6	SGR	637.6	SG3	257.0			ST	29.6	SR	27.4
RDE	-.4859	RRA	.2436	RC3	-.1797	FAU	.07491	RRT	-.2566	RRF	.2907	RTF	-.7692			CRT	.6004	CRS	.7063
FDE	.5480	FRA	1.2571	FC3	-2.4434	BSP	2424	SGB	1645.2	R23	-.0567	R13	.7732			LSA	42.0	MSA	18.6
BDE	.6184	BRA	1.2074	BC3	.4961	FSP	353	SG1	1527.1	SG2	612.0	THA	172.66			EL1	36.1	EL2	18.0

CST	22.1																		
SS	1.5																		
ALF	41.18																		

LAUNCH DATE JUL 26 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 346.803 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	34.293	GAL	-2.01	AZL	89.85	HCA	110.83	SMA	232.46	ECC	.34794	INC	.1495
RP	221.71	LAP	.14	LOP	53.70	VP	25.026	GAP	20.20	AZP	90.05	TAL	352.19	TAP	103.03	RCA	151.58	APO	313.34
RC	91.436	GL	1.02	GP	-6.78	ZAL	101.76	ZAP	167.27	ETS	213.62	ZAE	161.05	ETE	337.95	ZAC	76.59	ETC	282.84

V1	29.322	V2	24.799	LVI	-10.30														

PLANETOCENTRIC CONIC

C3	25.575	VHL	5.057	DLA	17.20	RAL	41.86	RAD	6645.2	VEL	12.064	PTH	7.05	VHP	6.587	DPA	9.11	RAP	42.81

ECC	1.4209																		

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 45 12	3540.62	-46.79	131.88	282.05	99.83	13 44 13	2540.6	-37.67	101.39
60.00	13 4 56	3488.08	-40.08	128.33	283.22	94.66	14 3 4	2488.1	-33.86	99.10
70.00	13 34 16	3401.73	-34.15	121.68	283.57	90.64	14 30 58	2401.7	-30.32	93.63
80.00	14 20 40	3256.30	-29.79	110.59	283.50	87.87	15 14 57	2256.3	-27.64	83.37
90.00	15 32 9	3025.57	-28.12	93.55	283.41	86.84	16 22 35	2025.6	-26.60	66.64
100.00	17 3 32	2730.77	-29.79	71.96	283.50	87.87	17 49 3	1730.8	-27.64	44.74
110.00	18 33 43	2448.54	-34.15	50.60	283.57	90.64	19 14 31	1448.5	-30.32	22.54

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3863	TRA	-1.1744	TC3	.4992	BAU	.1836	SGT	1544.8	SGR	640.6	SG3	272.7			ST	30.3	SR	27.1
RDE	-.4721	RRA	.2446	RC3	-.1980	FAU	.07824	RRT	-.2739	RRF	.3120	RTF	-.7747			CRT	.6025	CRS	.7110
FDE	.5791	FRA	1.2941	FC3	-2.6485	BSP	2503	SGB	1672.4	R23	-.0627	R13	.7791			LSA	42.8	MSA	18.5
BDE	.6100	BRA	1.1996	BC3	.5370	FSP	378	SG1	1556.6	SG2	611.4	THA	172.33			EL1	36.4	EL2	18.0

CST	22.9																		
SS	1.5																		
ALF	39.79																		

LAUNCH DATE JUL 26 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 349.954 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	34.209	GAL	-1.94	AZL	89.81	HCA	111.93	SMA	230.15	ECC	.34129	INC	.1890
RP	222.09	LAP	.18	LOP	54.80	VP	24.870	GAP	19.86	AZP	90.07	TAL	352.39	TAP	104.32	RCA	151.60	APO	308.70
RC	93.523	GL	1.30	GP	-7.00	ZAL	101.40	ZAP	166.46	ETS	212.53	ZAE	160.86	ETE	337.27	ZAC	76.32	ETC	282.82

V1	29.322	V2	24.757	LVI	-10.01														

PLANETOCENTRIC CONIC

C3	24.674	VHL	4.967	DLA	17.37	RAL	41.40	RAD	6644.9	VEL	12.027	PTH	7.02	VHP	6.403	DPA	9.00	RAP	43.15

ECC	1.4061																		

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 42 42	3535.22	-46.73	131.38	280.89	100.21	13 41 38	2535.2	-37.48	101.02
60.00	13 2 13	3483.28	-40.05	127.93	282.11	94.94	14 0 16	2483.3	-33.73	98.76
70.00	13 31 16	3397.76	-34.15	121.37	282.49	90.82	14 27 54	2397.8	-30.24	93.34
80.00	14 17 22	3253.28	-29.80	110.37	282.43	87.99	15 11 35	2253.3	-27.60	83.16
90.00	15 28 42	3023.02	-28.13	93.36	282.35	86.93	16 19 5	2023.0	-26.57	66.46
100.00	17 0 14	2727.75	-29.80	71.74	282.43	87.99	17 45 42	1727.7	-27.60	44.53
110.00	18 30 42	2444.58	-34.15	50.29	282.49	90.82	19 11 27	1444.6	-30.24	22.26

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3895	TRA	-1.1658	TC3	.5368	BAU	.1911	SGT	1572.0	SGR	643.9	SG3	289.2			ST	30.9	SR	26.8
RDE	-.4584	RRA	.2458	RC3	-.2178	FAU	.08172	RRT	-.2928	RRF	.3344	RTF	-.7802			CRT	.6037	CRS	.7156
FDE	.6132	FRA	1.3327	FC3	-2.8671	BSP	2569	SGB	1698.8	R23	-.0682	R13	.7850			LSA	43.5	MSA	18.4
BDE	.6015	BRA	1.1914	BC3	.5793	FSP	404	SG1	1585.3	SG2	610.6	THA	171.96			EL1	36.7	EL2	18.0

CST	23.8																		
SS	1.5																		
ALF	38.44																		

LAUNCH DATE JUL 26 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 353.158 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	34.130	GAL	-1.86	AZL	89.77	HCA	113.03	SMA	228.01	ECC	.33500	INC	.2289	V1	29.322
RP	222.48	LAP	.21	LOP	55.90	VP	24.718	GAP	19.53	AZP	90.09	TAL	352.58	TAP	105.61	RCA	151.62	APO	304.39	V2	24.715
RC	95.665	GL	1.60	GP	-7.23	ZAL	101.03	ZAP	165.64	ETS	211.56	ZAE	160.73	ETE	336.52	ZAC	76.04	ETC	282.80	LVI	-9.71

PLANETOCENTRIC CONIC

C3	23.836	VHL	4.882	DLA	17.54	RAL	40.94	RAD	6644.5	VEL	11.992	PTH	6.99	VHP	6.225	DPA	8.87	RAP	43.48	ECC	1.3923

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 40 8	3530.36	-46.67	130.92	279.77	100.56	13 38 59	2530.4	-37.31	100.69
60.00	12 59 24	3479.06	-40.02	127.57	281.04	95.18	13 57 23	2479.1	-33.62	98.47
70.00	13 28 9	3394.43	-34.14	121.11	281.43	90.97	14 24 44	2394.4	-30.18	93.10
80.00	14 13 56	3250.94	-29.80	110.19	281.39	88.08	15 8 7	2250.9	-27.56	82.99
90.00	15 25 7	3021.20	-28.13	93.23	281.31	87.00	16 15 28	2021.2	-26.54	66.33
100.00	16 56 48	2725.41	-29.80	71.56	281.39	88.08	17 42 14	1725.4	-27.56	44.36
110.00	18 27 36	2441.25	-34.14	50.03	281.43	90.97	19 8 17	1441.2	-30.18	22.02

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3931	TRA	-1.1563	TC3	.5759	BAU	.1987	SGT	1598.3	SGR	647.7	SG3	306.7	ST	31.4	SR	26.5	SS	24.8
RDE	-.4447	RRA	.2472	RC3	-.2391	FAU	.08538	RRT	-.3126	RRF	.3576	RTF	-.7856	CRT	.6053	CRS	.7209	CST	.9845
FDE	.6507	FRA	1.3712	FC3	-3.1010	BSP	2635	SGB	1724.5	R23	-.0738	R13	.7910	LSA	44.3	MSA	18.3	SSA	1.6
BDE	.5936	BRA	1.1824	BC3	.6236	FSP	433	SG1	1613.2	SG2	609.5	THA	171.57	EL1	37.0	EL2	17.9	ALF	37.06

LAUNCH DATE JUL 26 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 356.412 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	34.055	GAL	-1.79	AZL	89.73	HCA	114.12	SMA	226.01	ECC	.32905	INC	.2692	V1	29.322
RP	222.86	LAP	.25	LOP	56.99	VP	24.572	GAP	19.19	AZP	90.11	TAL	352.78	TAP	106.90	RCA	151.64	APO	300.38	V2	24.673
RC	97.860	GL	1.91	GP	-7.47	ZAL	100.66	ZAP	164.80	ETS	210.71	ZAE	160.64	ETE	335.68	ZAC	75.76	ETC	282.78	LVI	-9.41

PLANETOCENTRIC CONIC

C3	23.057	VHL	4.802	DLA	17.73	RAL	40.47	RAD	6644.2	VEL	11.960	PTH	6.96	VHP	6.053	DPA	8.72	RAP	43.80	ECC	1.3795

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 37 30	3526.05	-46.61	130.52	278.69	100.87	13 36 16	2526.0	-37.15	100.39
60.00	12 56 31	3475.43	-40.00	127.26	279.99	95.38	13 54 26	2475.4	-33.52	98.21
70.00	13 24 57	3391.73	-34.14	120.90	280.41	91.10	14 21 29	2391.7	-30.13	92.91
80.00	14 10 23	3249.31	-29.81	110.07	280.37	88.14	15 4 33	2249.3	-27.54	82.88
90.00	15 21 23	3020.12	-28.14	93.15	280.29	87.03	16 11 44	2020.1	-26.53	66.26
100.00	16 53 15	2723.78	-29.81	71.44	280.37	88.14	17 38 39	1723.8	-27.54	44.25
110.00	18 24 23	2438.55	-34.14	49.82	280.41	91.10	19 5 2	1438.5	-30.13	21.83

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3960	TRA	-1.1458	TC3	.6155	BAU	.2062	SGT	1622.6	SGR	652.1	SG3	325.0	ST	32.0	SR	26.1	SS	25.7
RDE	-.4312	RRA	.2489	RC3	-.2621	FAU	.08919	RRT	-.3337	RRF	.3823	RTF	-.7910	CRT	.6061	CRS	.7248	CST	.9838
FDE	.6892	FRA	1.4113	FC3	-3.3490	BSP	2697	SGB	1748.7	R23	-.0795	R13	.7969	LSA	45.1	MSA	18.2	SSA	1.6
BDE	.5854	BRA	1.1725	BC3	.6689	FSP	463	SG1	1639.5	SG2	608.4	THA	171.13	EL1	37.2	EL2	17.9	ALF	35.76

LAUNCH DATE JUL 26 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 359.712 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.983	GAL	-1.72	AZL	89.69	HCA	115.21	SMA	224.16	ECC	.32341	INC	.3102	V1	29.322
RP	223.25	LAP	.28	LOP	58.08	VP	24.431	GAP	18.87	AZP	90.13	TAL	352.97	TAP	108.19	RCA	151.66	APO	296.65	V2	24.631
RC	100.104	GL	2.23	GP	-7.72	ZAL	100.28	ZAP	163.94	ETS	209.95	ZAE	160.59	ETE	334.75	ZAC	75.47	ETC	282.77	LVI	-9.10

PLANETOCENTRIC CONIC

C3	22.331	VHL	4.726	DLA	17.92	RAL	40.00	RAD	6643.9	VEL	11.930	PTH	6.93	VHP	5.887	DPA	8.56	RAP	44.11	ECC	1.3675

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 34 48	3522.29	-46.56	130.17	277.65	101.13	13 33 31	2522.3	-37.01	100.14
60.00	12 53 33	3472.39	-39.98	127.01	278.98	95.56	13 51 25	2472.4	-33.43	97.99
70.00	13 21 38	3389.68	-34.14	120.74	279.41	91.19	14 18 8	2389.7	-30.09	92.77
80.00	14 6 43	3248.40	-29.81	110.01	279.38	88.18	15 0 51	2248.4	-27.53	82.81
90.00	15 17 32	3019.80	-28.14	93.13	279.30	87.05	16 7 52	2019.8	-26.53	66.24
100.00	16 49 35	2722.87	-29.81	71.37	279.38	88.18	17 34 58	1722.9	-27.53	44.18
110.00	18 21 5	2436.50	-34.14	49.66	279.41	91.19	19 1 41	1436.5	-30.09	21.68

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3990	TRA	-1.1355	TC3	.6572	BAU	.2141	SGT	1647.3	SGR	657.2	SG3	344.4	ST	32.5	SR	25.8	SS	26.7
RDE	-.4175	RRA	.2507	RC3	-.2869	FAU	.09325	RRT	-.3564	RRF	.4080	RTF	-.8065	CRT	.6063	CRS	.7291	CST	.9829
FDE	.7319	FRA	1.4524	FC3	-3.6153	BSP	2745	SGB	1773.6	R23	-.0849	R13	.8030	LSA	45.9	MSA	18.0	SSA	1.6
BDE	.5775	BRA	1.1629	BC3	.7171	FSP	494	SG1	1666.5	SG2	606.9	THA	170.66	EL1	37.5	EL2	17.8	ALF	34.41

LAUNCH DATE JUL 26 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 363.053 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.916	GAL	-1.65	AZL	89.65	HCA	116.30	SMA	222.43	ECC	.31807	INC	.3515	V1	29.322
RP	223.64	LAP	.32	LOP	59.17	VP	24.295	GAP	18.54	AZP	90.16	TAL	353.17	TAP	109.47	RCA	151.68	APO	293.18	V2	24.590
RC	102.397	GL	2.56	GP	-7.98	ZAL	99.91	ZAP	163.06	ETS	209.27	ZAE	160.59	ETE	333.72	ZAC	75.17	ETC	282.76	LVI	-8.79

PLANETOCENTRIC CONIC

C3	21.656	VHL	4.654	DLA	18.12	RAL	39.52	RAD	6643.6	VEL	11.902	PTH	6.91	VHP	5.726	DPA	8.38	RAP	44.41	ECC	1.3564

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 3	3519.08	-46.52	129.87	276.65	101.36	13 30 42	2519.1	-36.90	99.92
60.00	12 50 30	3469.95	-39.96	126.80	278.00	95.70	13 48 20	2469.9	-33.37	97.82
70.00	13 18 14	3388.30	-34.13	120.64	278.44	91.26	14 14 42	2388.3	-30.06	92.67
80.00	14 2 55	3248.23	-29.81	109.99	278.41	88.18	14 57 3	2248.2	-27.53	82.80
90.00	15 13 32	3020.26	-28.14	93.16	278.33	87.03	16 3 53	2020.3	-26.53	66.27
100.00	16 45 47	2722.70	-29.81	71.36	278.41	88.18	17 31 10	1722.7	-27.53	44.17
110.00	18 17 40	2435.12	-34.13	49.55	278.44	91.26	18 58 15	1435.1	-30.06	21.59

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4020	TRA	-1.1240	TC3	.6971	BAU	.2213	SGT	1669.2	SGR	663.0	SG3	364.6	ST	33.0	SR	25.3	SS	27.8
RDE	-.4039	RRA	.2528	RC3	-.3135	FAU	.09747	RRT	-.3795	RRF	.4346	RTF	-.8012	CRT	.6064	CRS	.7328	CST	.9821
FDE	.7768	FRA	1.4936	FC3	-3.8964	BSP	2803	SGB	1796.1	R23	-.0911	R13	.8084	LSA	46.7	MSA	17.8	SSA	1.7
BDE	.5698	BRA	1.1521	BC3	.7644	FSP	527	SG1	1690.9	SG2	605.6	THA	170.15	EL1	37.7	EL2	17.7	ALF	33.10

LAUNCH DATE JUL 26 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 366.431 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.851	GAL	-1.38	AZL	89.61	HCA	117.38	SMA	220.82	ECC	.31302	INC	.3937
RP	224.03	LAP	.35	LOP	60.25	VP	24.162	GAP	18.22	AZP	90.18	TAL	353.37	TAP	110.75	RCA	151.70	APO	289.94
RC	104.735	GL	2.91	GP	-8.26	ZAL	99.54	ZAP	162.16	ETS	208.66	ZAE	160.62	ETE	332.59	ZAC	74.86	ETC	282.75

V1	29.322	V2	24.548	LVI	-8.47														

PLANETOCENTRIC CONIC

C3	21.027	VHL	4.586	DLA	18.33	RAL	39.04	RAD	6643.3	VEL	11.876	PTH	6.89	VHP	5.571	DPA	8.19	RAP	44.69
ECC	1.3461																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 13	3516.45	-46.49	129.63	275.68	101.54	13 27 49	2516.4	-36.80	99.74
60.00	12 47 22	3468.11	-39.95	126.65	277.05	95.80	13 45 10	2468.1	-33.31	97.69
70.00	13 14 43	3387.60	-34.13	120.58	277.50	91.29	14 11 11	2387.6	-30.04	92.62
80.00	13 58 59	3248.83	-29.81	110.04	277.48	88.16	14 53 8	2248.8	-27.53	82.84
90.00	15 9 24	3021.54	-28.13	93.25	277.40	86.98	15 59 46	2021.5	-26.55	66.36
100.00	16 41 51	2723.30	-29.81	71.41	277.48	88.16	17 27 14	1723.3	-27.53	44.21
110.00	18 14 9	2434.41	-34.13	49.50	277.50	91.29	18 54 44	1434.4	-30.04	21.54

DIFFERENTIAL CORRECTIONS

TDE	-.4057	TRA	-1.1127	TC3	.7379	BAU	.2286
RDE	-.3901	RRA	.2551	RC3	-.3422	FAU	.10192
FDE	.8261	FRA	1.5368	FC3	-4.1963	BSP	2858
BDE	.5628	BRA	1.1415	BC3	.8133	FSP	564

MID-COURSE EXECUTION ACCURACY

SGT	1691.1	SGR	669.9	SG3	386.1				
RRT	-.4035	RRF	.4622	RTF	-.8059				
SGB	1819.0	R23	-.0976	R13	.8139				
SG1	1715.7	SG2	604.2	THA	169.62				

ORBIT DETERMINATION ACCURACY

ST	33.6	SR	24.9	SS	28.9				
CRT	.6064	CRS	.7363	CST	.9813				
LSA	47.6	MSA	17.6	SSA	1.7				
EL1	37.9	EL2	17.5	ALF	31.72				

LAUNCH DATE JUL 26 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 369.844 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.790	GAL	-1.52	AZL	89.56	HCA	118.46	SMA	219.32	ECC	.30824	INC	.4364
RP	224.42	LAP	.38	LOP	61.33	VP	24.034	GAP	17.91	AZP	90.21	TAL	353.56	TAP	112.02	RCA	151.72	APO	286.92
RC	107.119	GL	3.26	GP	-8.54	ZAL	99.17	ZAP	161.24	ETS	208.12	ZAE	160.70	ETE	331.35	ZAC	74.54	ETC	282.74

V1	29.322	V2	24.506	LVI	-8.14														

PLANETOCENTRIC CONIC

C3	20.443	VHL	4.521	DLA	18.56	RAL	38.56	RAD	6643.0	VEL	11.851	PTH	6.87	VHP	5.420	DPA	7.97	RAP	44.96
ECC	1.3364																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 20	3514.38	-46.46	129.44	274.76	101.69	13 24 54	2514.4	-36.72	99.60
60.00	12 44 9	3466.90	-39.94	126.55	276.14	95.87	13 41 56	2466.9	-33.28	97.61
70.00	13 11 6	3387.58	-34.13	120.58	276.59	91.29	14 7 33	2387.6	-30.04	92.62
80.00	13 54 56	3250.20	-29.80	110.14	276.57	88.11	14 49 6	2250.2	-27.55	82.94
90.00	15 5 7	3023.64	-28.12	93.41	276.48	86.91	15 55 31	2023.6	-26.57	66.51
100.00	16 37 47	2724.67	-29.80	71.51	276.57	88.11	17 23 12	1724.7	-27.55	44.31
110.00	18 10 32	2434.40	-34.13	49.50	276.59	91.29	18 51 7	1434.4	-30.04	21.54

DIFFERENTIAL CORRECTIONS

TDE	-.4086	TRA	-1.1011	TC3	.7784	BAU	.2359
RDE	-.3763	RRA	.2576	RC3	-.3730	FAU	.10662
FDE	.8773	FRA	1.5803	FC3	-4.5153	BSP	2904
BDE	.5555	BRA	1.1309	BC3	.8632	FSP	600

MID-COURSE EXECUTION ACCURACY

SGT	1711.8	SGR	678.1	SG3	408.6				
RRT	-.4285	RRF	.4910	RTF	-.8102				
SGB	1841.2	R23	-.1045	R13	.8190				
SG1	1739.7	SG2	602.8	THA	169.03				

ORBIT DETERMINATION ACCURACY

ST	34.0	SR	24.4	SS	30.1				
CRT	.6051	CRS	.7387	CST	.9804				
LSA	48.5	MSA	17.4	SSA	1.7				
EL1	38.1	EL2	17.3	ALF	30.37				

LAUNCH DATE JUL 26 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 373.289 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.733	GAL	-1.45	AZL	89.52	HCA	119.53	SMA	217.92	ECC	.30371	INC	.4800
RP	224.81	LAP	.42	LOP	62.40	VP	23.910	GAP	17.59	AZP	90.24	TAL	353.75	TAP	113.29	RCA	151.73	APO	284.10
RC	109.544	GL	3.63	GP	-8.84	ZAL	98.80	ZAP	160.31	ETS	207.63	ZAE	160.80	ETE	329.98	ZAC	74.22	ETC	282.74

V1	29.322	V2	24.464	LVI	-7.80														

PLANETOCENTRIC CONIC

C3	19.899	VHL	4.461	DLA	18.79	RAL	38.07	RAD	6642.8	VEL	11.828	PTH	6.85	VHP	5.275	DPA	7.74	RAP	45.21
ECC	1.3275																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 23 23	3512.88	-46.44	129.30	273.87	101.79	13 21 56	2512.9	-36.67	99.50
60.00	12 40 52	3466.30	-39.94	126.50	275.26	95.90	13 38 38	2466.3	-33.26	97.57
70.00	13 7 23	3388.26	-34.13	120.63	275.72	91.26	14 3 51	2388.3	-30.06	92.67
80.00	13 50 44	3252.37	-29.80	110.30	275.68	88.02	14 44 56	2252.4	-27.58	83.09
90.00	15 0 40	3026.60	-28.11	93.62	275.60	86.80	15 51 7	2026.6	-26.61	66.72
100.00	16 33 35	2726.85	-29.80	71.67	275.68	88.02	17 19 2	1726.8	-27.58	44.46
110.00	18 6 49	2435.08	-34.13	49.55	275.72	91.26	18 47 24	1435.1	-30.06	21.58

DIFFERENTIAL CORRECTIONS

TDE	-.4122	TRA	-1.0882	TC3	.8176	BAU	.2429
RDE	-.3623	RRA	.2602	RC3	-.4061	FAU	.11152
FDE	.9332	FRA	1.6228	FC3	-4.8521	BSP	2949
BDE	.5486	BRA	1.1189	BC3	.9129	FSP	639

MID-COURSE EXECUTION ACCURACY

SGT	1729.8	SGR	687.4	SG3	432.2				
RRT	-.4534	RRF	.5199	RTF	-.8139				
SGB	1861.3	R23	-.1120	R13	.8238				
SG1	1761.4	SG2	601.6	THA	168.42				

ORBIT DETERMINATION ACCURACY

ST	34.5	SR	23.9	SS	31.3				
CRT	.6043	CRS	.7412	CST	.9795				
LSA	49.4	MSA	17.2	SSA	1.8				
EL1	38.3	EL2	17.1	ALF	29.00				

LAUNCH DATE JUL 26 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 376.763 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.678	GAL	-1.39	AZL	89.48	HCA	120.60	SMA	216.60	ECC	.29943	INC	.5243
RP	225.20	LAP	.45	LOP	63.47	VP	23.790	GAP	17.28	AZP	90.27	TAL	353.94	TAP	114.55	RCA	151.75	APO	281.46
RC	112.011	GL	4.01	GP	-9.16	ZAL	98.44	ZAP	159.35	ETS	207.19	ZAE	160.93	ETE	328.49	ZAC	73.88	ETC	282.74

V1	29.322	V2	24.422	LVI	-7.46														

PLANETOCENTRIC CONIC

C3	19.393	VHL	4.404	DLA	19.04	RAL	37.58	RAD	6642.6	VEL	11.807	PTH	6.83	VHP	5.134	DPA	7.49	RAP	45.46
ECC	1.3192																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 22	3511.96	-46.42	129.21	273.03	101.86	13 18 54	2512.0	-36.64	99.44
60.00	12 37 30	3466.34	-39.94	126.50	274.42	95.90	13 35 16	2466.3	-33.27	97.57
70.00	13 3 33	3389.66	-34.14	120.74	274.87	91.19	14 0 2	2389.7	-30.08	92.77
80.00	13 46 23	3255.37	-29.79	110.52	274.83	87.91	14 40 38	2255.4	-27.63	83.31
90.00	14 56 3	3030.46	-28.10	93.90	274.74	86.66	15 46 34	2030.5	-26.65	66.99
100.00	16 29 15	2729.84	-29.79	71.89	274.83	87.91	17 14 45	1729.8	-27.63	44.68
110.00	18 2 59	2436.48	-34.14	49.66	274.87	91.19	18 43 35	1436.5	-30.08	21.68

DIFFERENTIAL CORRECTIONS

TDE	-.4156	TRA	-1.0758	TC3	.8571	BAU	.2500
RDE	-.3480	RRA	.2632	RC3	-.4416	FAU	.11670
FDE	.9943	FRA	1.6676	FC3	-5.2096	BSP	3000
BDE	.5421	BRA	1.1075	BC3	.9641	FSP	682

MID-COURSE EXECUTION ACCURACY

SGT	1747.8	SGR	698.2	SG3	457.1				
RRT	-.4794	RRF	.5495	RTF	-.8177				
SGB	1882.1	R23	-.1194	R13	.8286				
SG1	1783.8	SG2	600.4	THA	167.75				

ORBIT DETERMINATION ACCURACY

ST	35.0	SR	23.3	SS	32.6				
CRT	.6020	CRS	.7429	CST	.9786				
LSA	50.4	MSA	16.9	SSA	1.8				
EL1	38.5	EL2	16.9	ALF	27.58				

LAUNCH DATE JUL 26 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 380.264 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.626	GAL	-1.34	AZL	89.43	HCA	121.67	SMA	215.38	ECC	.29537	INC	.5693
V1	29.322	RP	225.59	LAP	.48	LOP	64.54	VP	23.673	GAP	16.97	AZP	90.30	TAL	354.13	TAP	115.80	RCA	151.76
APO	278.99	V2	24.360	RC	114.816	GL	4.41	GP	-9.48	ZAL	98.08	ZAP	156.38	ETS	206.80	ZAE	161.09	ETE	326.85
ZAC	73.54	ETC	282.74	LVI	-7.11														

PLANETOCENTRIC CONIC

C3	18.922	VHL	4.350	DLA	19.30	RAL	37.09	RAD	6642.4	VEL	11.787	PTH	6.81	VHP	4.998	DPA	7.22	RAP	45.68
ECC	1.3114																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 17 18	3511.62	-46.42	129.18	272.23	101.86	13 15 50	2511.6	-36.62	99.42
60.00	12 34 3	3467.02	-39.94	126.56	273.61	95.86	13 31 50	2467.0	-33.26	97.62
70.00	12 59 36	3391.78	-34.14	120.91	274.06	91.10	13 56 8	2391.8	-30.13	92.92
80.00	13 41 53	3259.22	-29.78	110.81	274.00	87.76	14 36 13	2259.2	-27.68	83.58
90.00	14 51 17	3035.22	-28.08	94.25	273.91	86.49	15 41 52	2035.2	-26.71	67.33
100.00	16 24 45	2733.69	-29.78	72.18	274.00	87.76	17 10 19	1733.7	-27.68	44.95
110.00	17 59 2	2438.60	-34.14	49.83	274.06	91.10	18 39 41	1438.6	-30.13	21.83

DIFFERENTIAL CORRECTIONS

TDE	-.4193	TRA	-1.0631	TC3	.8931	BAU	.2564												
RDE	-.3336	RRA	.2664	RC3	-.4793	FAU	.12203												
FDE	1.0587	FRA	1.7141	FC3	-5.5832	BSP	3036												
BDE	.5358	BRA	1.0960	BC3	1.0136	FSP	724												

MID-COURSE EXECUTION ACCURACY

SGT	1763.5	SGR	710.8	SG3	483.1						
RRT	-.5050	RRF	.5794	RTF	-.6208						
SGB	1901.4	R23	-.1278	R13	.8330						
SG1	1804.4	SG2	599.6	THA	167.04						

ORBIT DETERMINATION ACCURACY

ST	35.5	SR	22.7	SS	34.0						
CRT	.5988	CRS	.7435	CST	.9778						
LSA	51.5	NSA	16.7	SSA	1.0						
EL1	38.7	EL2	16.7	ALF	26.14						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 182.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 383.790 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.577	GAL	-1.28	AZL	89.38	HCA	122.73	SMA	214.23	ECC	.29153	INC	.6153
V1	29.322	RP	225.98	LAP	.52	LOP	65.60	VP	23.560	GAP	16.66	AZP	90.33	TAL	354.32	TAP	117.05	RCA	151.77
APO	276.68	V2	24.338	RC	117.057	GL	4.81	GP	-9.82	ZAL	97.72	ZAP	157.38	ETS	206.44	ZAE	161.27	ETE	325.06
ZAC	73.18	ETC	282.75	LVI	-6.75														

PLANETOCENTRIC CONIC

C3	18.485	VHL	4.299	DLA	19.58	RAL	36.60	RAD	6642.2	VEL	11.769	PTH	6.80	VHP	4.867	DPA	6.93	RAP	45.90
ECC	1.3042																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 10	3511.86	-46.42	129.21	271.47	101.86	13 12 42	2511.9	-36.63	99.44
60.00	12 30 31	3468.34	-39.95	126.67	272.85	95.79	13 28 19	2468.3	-33.32	97.71
70.00	12 55 32	3394.66	-34.14	121.13	273.27	90.96	13 52 7	2394.7	-30.18	93.12
80.00	13 37 14	3263.94	-29.77	111.16	273.21	87.57	14 31 38	2263.9	-27.74	83.92
90.00	14 46 19	3040.95	-28.05	94.67	273.10	86.28	15 37 0	2040.9	-26.77	67.73
100.00	16 20 6	2738.41	-29.77	72.53	273.21	87.57	17 5 45	1738.4	-27.74	45.28
110.00	17 54 59	2441.47	-34.14	50.05	273.27	90.96	18 35 40	1441.5	-30.18	22.04

DIFFERENTIAL CORRECTIONS

TDE	-.4218	TRA	-1.0491	TC3	.9304	BAU	.2634												
RDE	-.3190	RRA	.2698	RC3	-.5202	FAU	.12775												
FDE	1.1253	FRA	1.7590	FC3	-5.9830	BSP	3083												
BDE	.5288	BRA	1.0833	BC3	1.0659	FSP	772												

MID-COURSE EXECUTION ACCURACY

SGT	1777.0	SGR	725.5	SG3	510.5						
RRT	-.5314	RRF	.6096	RTF	-.8239						
SGB	1919.4	R23	-.1361	R13	.8375						
SG1	1823.6	SG2	598.9	THA	166.25						

ORBIT DETERMINATION ACCURACY

ST	35.9	SR	22.0	SS	35.4						
CRT	.5939	CRS	.7423	CST	.9768						
LSA	52.4	NSA	16.4	SSA	1.9						
EL1	38.8	EL2	16.4	ALF	24.74						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 387.338 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.530	GAL	-1.23	AZL	89.34	HCA	123.79	SMA	213.15	ECC	.28789	INC	.6623
V1	29.322	RP	226.37	LAP	.55	LOP	66.66	VP	23.450	GAP	16.36	AZP	90.37	TAL	354.80	TAP	118.29	RCA	151.79
APO	274.51	V2	24.297	RC	119.633	GL	5.23	GP	-10.18	ZAL	97.37	ZAP	156.36	ETS	206.11	ZAE	161.46	ETE	323.09
ZAC	72.81	ETC	282.76	LVI	-6.38														

PLANETOCENTRIC CONIC

C3	18.079	VHL	4.252	DLA	19.86	RAL	36.12	RAD	6642.0	VEL	11.752	PTH	6.78	VHP	4.740	DPA	6.62	RAP	46.09
ECC	1.2978																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 59	3512.68	-46.43	129.28	270.75	101.81	13 9 31	2512.7	-36.66	99.49
60.00	12 26 53	3470.30	-39.97	126.83	272.11	95.68	13 24 44	2470.3	-33.38	97.85
70.00	12 51 21	3398.26	-34.15	121.41	272.52	90.80	13 48 0	2398.3	-30.25	93.38
80.00	13 32 25	3269.53	-29.75	111.57	272.44	87.35	14 26 55	2269.5	-27.82	84.32
90.00	14 41 10	3047.62	-28.02	95.15	272.32	86.04	15 31 57	2047.6	-26.85	68.21
100.00	16 15 17	2744.00	-29.75	72.94	272.44	87.35	17 1 1	1744.0	-27.82	45.68
110.00	17 50 48	2445.08	-34.15	50.33	272.52	90.80	18 31 33	1445.1	-30.25	22.30

DIFFERENTIAL CORRECTIONS

TDE	-.4154	TRA	-1.0242	TC3	.9892	BAU	.2752												
RDE	-.3038	RRA	.2731	RC3	-.5640	FAU	.13375												
FDE	1.1991	FRA	1.8022	FC3	-6.4048	BSP	2990												
BDE	.5147	BRA	1.0600	BC3	1.1367	FSP	818												

MID-COURSE EXECUTION ACCURACY

SGT	1781.6	SGR	742.1	SG3	539.2						
RRT	-.5660	RRF	.6393	RTF	-.7042						
SGB	1930.0	R23	-.1308	R13	.8485						
SG1	1836.5	SG2	593.5	THA	165.15						

ORBIT DETERMINATION ACCURACY

ST	35.6	SR	21.3	SS	36.0						
CRT	.5834	CRS	.7411	CST	.9746						
LSA	53.1	NSA	16.1	SSA	1.9						
EL1	38.3	EL2	16.1	ALF	25.68						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 390.907 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.486	GAL	-1.18	AZL	89.29	HCA	124.85	SMA	212.14	ECC	.28446	INC	.7102
V1	29.322	RP	226.76	LAP	.58	LOP	67.72	VP	23.344	GAP	16.06	AZP	90.41	TAL	354.67	TAP	119.52	RCA	151.80
APO	272.49	V2	24.258	RC	122.240	GL	5.66	GP	-10.56	ZAL	97.04	ZAP	155.33	ETS	205.81	ZAE	161.65	ETE	320.96
ZAC	72.43	ETC	282.78	LVI	-6.00														

PLANETOCENTRIC CONIC

C3	17.702	VHL	4.207	DLA	20.16	RAL	35.63	RAD	6641.8	VEL	11.736	PTH	6.77	VHP	4.618	DPA	6.28	RAP	46.28
ECC	1.2913																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 7 44	3514.12	-46.45	129.41	270.07	101.71	13 6 18	2514.1	-36.72	99.59
60.00	12 23 11	3472.96	-39.98	127.06	271.42	95.52	13 21 4	2473.0	-33.45	98.03
70.00	12 47 3	3402.68	-34.15	121.76	271.81	90.59	13 43 46	2402.7	-30.34	93.69
80.00	13 27 26	3276.11	-29.73	112.06	271.70	87.10	14 22 2	2276.1	-27.91	84.78
90.00	14 35 48	3055.39	-27.99	95.72	271.58	85.76	15 26 43	2055.4	-26.93	68.76
100.00	16 10 18	2750.58	-29.73	73.43	271.70	87.10	16 56 8	1750.6	-27.91	46.15
110.00	17 46 30	2449.50	-34.15	50.68	271.81	90.59	18 27 19	1449.5	-30.34	22.61

DIFFERENTIAL CORRECTIONS

TDE	-.4236	TRA	-1.0151	TC3	1.0091	BAU	.2791												
RDE	-.2882	RRA	.2771	RC3	-.6100	FAU	.13983												
FDE	1.2790	FRA	1.8505	FC3	-6.8385	BSP	3081												
BDE	.5123	BRA	1.0523	BC3	1.1791	FSP	869												

MID-COURSE EXECUTION ACCURACY

SGT	1795.1	SGR	761.0	SG3	568.9						
RRT	-.5867	RRF	.6685	RTF	-.8329						
SGB	1949.7	R23	-.1467	R13	.8494						
SG1	1856.4	SG2	595.8	THA	164.38						

ORBIT DETERMINATION ACCURACY

ST	36.3	SR	20.5	SS	38.4						
CRT	.5782	CRS	.7375	CST	.9744						
LSA	54.5	NSA	15.8	SSA	1.9						
EL1	38.7	EL2	15.8	ALF	21.92						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 158.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 394.495 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.444	GAL	-1.13	AZL	89.24	HCA	125.90	SMA	211.20	ECC	.28121	INC	.7593
RP	227.15	LAP	.62	LOP	68.77	VP	23.241	GAP	15.76	AZP	90.45	TAL	354.84	TAP	120.74	RCA	151.81	APO	270.59
RC	124.878	GL	6.11	GP	-10.95	ZAL	96.71	ZAP	154.26	ETS	205.54	ZAE	161.85	ETE	318.63	ZAC	72.04	ETC	282.80

V1	29.322	V2	24.214	LVI	-5.62

PLANETOCENTRIC CONIC

C3	17.354	VHL	4.166	DLA	20.48	RAL	35.15	RAD	6641.6	VEL	11.721	PTH	6.75	VHP	4.500	DPA	5.93	RAP	46.44
ECC	1.2856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 25	3516.17	-46.48	129.60	269.44	101.58	13 3 2	2516.2	-36.79	99.73
60.00	12 19 24	3476.30	-40.01	127.34	270.76	95.33	13 17 20	2476.3	-33.54	98.27
70.00	12 42 37	3407.91	-34.15	122.17	271.13	90.35	13 39 25	2407.9	-30.44	94.07
80.00	13 22 15	3283.66	-29.70	112.62	271.00	86.81	14 16 59	2283.7	-28.00	85.32
90.00	14 30 13	3064.24	-27.94	96.36	270.86	85.44	15 21 17	2064.2	-27.02	69.39
100.00	16 5 7	2758.13	-29.70	73.99	271.00	86.81	16 51 5	1758.1	-28.00	46.69
110.00	17 42 3	2454.73	-34.15	51.08	271.13	90.35	18 22 58	1454.7	-30.44	22.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4292	TRA	-1.0039	TC3	1.0316	BAU	.2840	SGT	1805.4	SGR	782.5	SG3	600.0	ST	36.9	SR	19.7	SS	40.1
RDE	-.2721	RRA	.2814	RC3	-.6591	FAU	.14621	RRT	-.6087	RRF	.6970	RTF	-.8327	CRT	.5690	CRS	.7316	CST	.9738
FDE	1.3634	FRA	1.8994	FC3	-7.2941	BSP	3158	SGB	1967.7	R23	-.1602	R13	.8516	LSA	55.8	MSA	15.5	SSA	2.0
BDE	.5082	BRA	1.0426	BC3	1.2242	FSP	924	SG1	1874.7	SG2	597.9	THA	163.49	EL1	38.9	EL2	15.4	ALF	20.22

LAUNCH DATE JUL 26 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 398.100 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.405	GAL	-1.08	AZL	89.19	HCA	126.95	SMA	210.31	ECC	.27813	INC	.8094
RP	227.54	LAP	.65	LOP	69.82	VP	23.141	GAP	15.47	AZP	90.49	TAL	355.01	TAP	121.96	RCA	151.82	APO	268.81
RC	127.544	GL	6.57	GP	-11.36	ZAL	96.39	ZAP	153.18	ETS	205.29	ZAE	162.04	ETE	316.11	ZAC	71.63	ETC	282.83

V1	29.322	V2	24.172	LVI	-5.22

PLANETOCENTRIC CONIC

C3	17.031	VHL	4.127	DLA	20.81	RAL	34.67	RAD	6641.5	VEL	11.707	PTH	6.74	VHP	4.386	DPA	5.54	RAP	46.59
ECC	1.2803

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 1 3	3518.63	-46.52	129.85	268.85	101.37	12 59 42	2518.8	-36.89	99.91
60.00	12 15 30	3480.33	-40.03	127.68	270.14	95.11	13 13 31	2480.3	-33.65	98.55
70.00	12 38 3	3413.96	-34.15	122.64	270.48	90.07	13 34 56	2414.0	-30.56	94.50
80.00	13 16 52	3292.23	-29.67	113.25	270.32	86.47	14 11 44	2292.2	-28.11	85.94
90.00	14 24 23	3074.24	-27.88	97.09	270.17	85.08	15 15 38	2074.2	-27.12	70.11
100.00	15 59 44	2766.70	-29.67	74.62	270.32	86.47	16 45 50	1766.7	-28.11	47.31
110.00	17 37 29	2460.77	-34.15	51.56	270.48	90.07	18 18 30	1460.8	-30.56	23.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4350	TRA	-.9905	TC3	1.0539	BAU	.2895	SGT	1812.6	SGR	806.5	SG3	632.4	ST	37.4	SR	18.8	SS	41.8
RDE	-.2552	RRA	.2857	RC3	-.7115	FAU	.15285	RRT	-.6300	RRF	.7244	RTF	-.8330	CRT	.5578	CRS	.7241	CST	.9733
FDE	1.4564	FRA	1.9455	FC3	-7.7703	BSP	3211	SGB	1983.9	R23	-.1729	R13	.8544	LSA	57.2	MSA	15.2	SSA	2.0
BDE	.5043	BRA	1.0308	BC3	1.2716	FSP	980	SG1	1890.9	SG2	600.4	THA	162.52	EL1	39.1	EL2	15.0	ALF	18.49

LAUNCH DATE JUL 26 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 401.722 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.367	GAL	-1.04	AZL	89.14	HCA	127.99	SMA	209.48	ECC	.27523	INC	.8607
RP	227.93	LAP	.68	LOP	70.86	VP	23.043	GAP	15.18	AZP	90.53	TAL	355.17	TAP	123.16	RCA	151.83	APO	267.13
RC	130.237	GL	7.04	GP	-11.78	ZAL	96.07	ZAP	152.07	ETS	205.06	ZAE	162.22	ETE	313.39	ZAC	71.21	ETC	282.86

V1	29.322	V2	24.131	LVI	-4.81

PLANETOCENTRIC CONIC

C3	16.732	VHL	4.090	DLA	21.15	RAL	34.20	RAD	6641.3	VEL	11.695	PTH	6.73	VHP	4.277	DPA	5.14	RAP	46.73
ECC	1.2754

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 57 36	3522.11	-46.56	130.16	268.31	101.14	12 56 19	2522.1	-37.01	100.13
60.00	12 11 31	3485.07	-40.06	128.08	269.56	94.84	13 9 36	2485.1	-33.78	98.89
70.00	12 33 19	3420.85	-34.15	123.18	269.86	89.75	13 30 20	2420.9	-30.68	95.00
80.00	13 11 16	3301.87	-29.63	113.97	269.67	86.10	14 6 16	2301.9	-28.23	86.63
90.00	14 18 18	3085.45	-27.82	97.90	269.50	84.68	15 9 43	2085.5	-27.23	70.91
100.00	15 54 8	2776.34	-29.63	75.34	269.67	86.10	16 40 24	1776.3	-28.23	48.00
110.00	17 32 45	2467.67	-34.15	52.09	269.86	89.75	18 13 53	1467.7	-30.68	23.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4383	TRA	-.9762	TC3	1.0764	BAU	.2958	SGT	1817.2	SGR	834.3	SG3	666.6	ST	37.8	SR	17.9	SS	43.6
RDE	-.2380	RRA	.2903	RC3	-.7681	FAU	.15994	RRT	-.6517	RRF	.7511	RTF	-.8435	CRT	.5410	CRS	.7128	CST	.9725
FDE	1.5526	FRA	1.9932	FC3	-8.2755	BSP	3253	SGB	1999.5	R23	-.1843	R13	.8578	LSA	58.5	MSA	14.9	SSA	2.0
BDE	.4987	BRA	1.0185	BC3	1.3223	FSP	1038	SG1	1906.4	SG2	603.2	THA	161.42	EL1	39.2	EL2	14.5	ALF	16.76

LAUNCH DATE JUL 26 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 405.359 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.332	GAL	-1.00	AZL	89.09	HCA	129.03	SMA	208.70	ECC	.27248	INC	.9135
RP	228.32	LAP	.71	LOP	71.90	VP	22.949	GAP	14.89	AZP	90.58	TAL	355.33	TAP	124.36	RCA	151.83	APO	265.57
RC	132.954	GL	7.53	GP	-12.23	ZAL	95.77	ZAP	150.93	ETS	204.85	ZAE	162.37	ETE	310.45	ZAC	70.78	ETC	282.89

V1	29.322	V2	24.090	LVI	-4.39

PLANETOCENTRIC CONIC

C3	16.457	VHL	4.057	DLA	21.51	RAL	33.72	RAD	6641.2	VEL	11.683	PTH	6.72	VHP	4.171	DPA	4.71	RAP	46.84
ECC	1.2708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 6	3526.01	-46.61	130.52	267.81	100.87	12 52 52	2526.0	-37.15	100.39
60.00	12 7 25	3490.52	-40.09	128.54	269.02	94.52	13 5 36	2490.5	-33.93	99.28
70.00	12 28 26	3428.63	-34.15	123.78	269.27	89.40	13 25 35	2428.6	-30.83	95.56
80.00	13 5 25	3312.64	-29.57	114.76	269.04	85.69	14 0 38	2312.6	-28.36	87.41
90.00	14 11 55	3097.97	-27.73	98.81	268.86	84.23	15 3 33	2098.0	-27.35	71.81
100.00	15 48 17	2787.11	-29.57	76.13	269.04	85.69	16 34 44	1787.1	-28.36	48.77
110.00	17 27 52	2475.45	-34.15	52.70	269.27	89.40	18 9 8	1475.4	-30.83	24.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4422	TRA	-.9614	TC3	1.0932	BAU	.3016	SGT	1818.5	SGR	864.6	SG3	701.5	ST	38.2	SR	16.9	SS	45.6
RDE	-.2197	RRA	.2953	RC3	-.8271	FAU	.16705	RRT	-.6714	RRF	.7759	RTF	-.8337	CRT	.5197	CRS	.6972	CST	.9718
FDE	1.6577	FRA	2.0418	FC3	-8.7879	BSP	3293	SGB	2013.6	R23	-.1957	R13	.8613	LSA	60.0	MSA	14.6	SSA	2.1
BDE	.4938	BRA	1.0057	BC3	1.3709	FSP	1101	SG1	1920.0	SG2	606.9	THA	160.24	EL1	39.3	EL2	14.0	ALF	14.95

LAUNCH DATE JUL 26 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 409.010 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.298	GAL	-.96	AZL	89.03	HCA	130.07	SMA	207.97	ECC	.26988	INC	.9675
RP	228.70	LAP	.74	LOP	72.94	VP	22.857	GAP	14.60	AZP	90.62	TAL	355.48	TAP	125.55	RCA	151.84	APO	264.09
RC	135.694	GL	8.03	GP	-12.70	ZAL	95.48	ZAP	149.77	ETS	204.65	ZAE	162.48	ETE	307.31	ZAC	70.33	ETC	282.93

V1	29.322																		
V2	24.049																		
LVI	-3.96																		

PLANETOCENTRIC CONIC

C3	16.203	VHL	4.025	DLA	21.89	RAL	33.25	RAD	6641.1	VEL	11.672	PTH	6.71	VHP	4.070	DPA	4.25	RAP	46.94
ECC	1.2667																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 50 30	3530.56	-46.67	130.94	267.35	100.55	12 49 21	2530.6	-37.31	100.70
60.00	12 3 13	3496.72	-40.12	129.06	268.51	94.17	13 1 29	2496.7	-34.09	99.72
70.00	12 23 23	3437.32	-34.14	124.46	268.72	88.99	13 20 40	2437.3	-30.98	96.19
80.00	12 59 19	3324.60	-29.51	115.65	268.45	85.23	13 54 44	2324.6	-28.49	88.27
90.00	14 5 13	3111.68	-27.63	99.81	268.24	83.74	14 57 5	2111.9	-27.47	72.81
100.00	15 42 11	2799.07	-29.51	77.02	268.45	85.23	16 26 50	1799.1	-28.49	49.64
110.00	17 22 49	2484.14	-34.14	53.38	268.72	88.99	18 4 13	1484.1	-30.98	25.10

DIFFERENTIAL CORRECTIONS

TDE	-.4459	TRA	-.9451	TC3	1.1086	BAU	.3080												
RDE	-.2005	RRA	.3003	RC3	-.8904	FAU	.17456												
FDE	1.7713	FRA	2.0877	FC3	-9.3267	BSP	3319												
BDE	.4890	BRA	.9916	BC3	1.4219	FSP	1163												

MID-COURSE EXECUTION ACCURACY

SGT	1816.9	SGR	898.7	SG3	738.2														
RRT	-.6899	RRF	.7995	RTF	-.8339														
SGB	2027.0	R23	-.2066	R13	.8652														
SG1	1932.5	SG2	611.6	THA	158.95														

ORBIT DETERMINATION ACCURACY

ST	38.5	SR	15.9	SS	47.6														
CRT	.4924	CRS	.6765	CST	.9711														
LSA	61.6	MSA	14.2	SSA	2.1														
EL1	39.4	EL2	13.5	ALF	13.06														

LAUNCH DATE JUL 26 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 412.673 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.266	GAL	-.92	AZL	88.98	HCA	131.10	SMA	207.28	ECC	.26742	INC	1.0230
RP	229.09	LAP	.77	LOP	73.98	VP	22.767	GAP	14.31	AZP	90.67	TAL	355.62	TAP	126.73	RCA	151.85	APO	262.71
RC	138.457	GL	8.55	GP	-13.19	ZAL	95.21	ZAP	148.59	ETS	204.46	ZAE	162.55	ETE	303.97	ZAC	69.86	ETC	282.98

V1	29.328																		
V2	24.008																		
LVI	-3.51																		

PLANETOCENTRIC CONIC

C3	15.971	VHL	3.996	DLA	22.29	RAL	32.79	RAD	6641.0	VEL	11.662	PTH	6.70	VHP	3.972	DPA	3.76	RAP	47.02
ECC	1.2628																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 46 51	3535.76	-46.73	131.43	266.94	100.18	12 45 46	2535.8	-37.50	101.06
60.00	11 58 53	3503.67	-40.15	129.65	268.05	93.77	12 57 17	2503.7	-34.28	100.22
70.00	12 18 8	3446.97	-34.13	125.22	268.20	88.55	13 15 35	2447.0	-31.15	96.89
80.00	12 52 56	3337.84	-29.43	116.62	267.88	84.72	13 48 34	2337.8	-28.63	89.23
90.00	13 58 9	3127.30	-27.51	100.93	267.65	83.19	14 50 16	2127.3	-27.59	73.98
100.00	15 35 48	2812.31	-29.43	77.99	267.88	84.72	16 22 40	1812.3	-28.63	50.59
110.00	17 17 35	2493.79	-34.13	54.13	268.20	88.55	17 59 8	1493.8	-31.15	25.80

DIFFERENTIAL CORRECTIONS

TDE	-.4481	TRA	-.9295	TC3	1.1160	BAU	.3138												
RDE	-.1606	RRA	.3059	RC3	-.9566	FAU	.18212												
FDE	1.8904	FRA	2.1360	FC3	-9.8722	BSP	3337												
BDE	.4831	BRA	.9786	BC3	1.4698	FSP	1228												

MID-COURSE EXECUTION ACCURACY

SGT	1811.9	SGR	936.1	SG3	775.5														
RRT	-.7065	RRF	.8212	RTF	-.8330														
SGB	2039.4	R23	-.2177	R13	.8687														
SG1	1943.6	SG2	617.5	THA	157.56														

ORBIT DETERMINATION ACCURACY

ST	38.7	SR	14.8	SS	49.7														
CRT	.4543	CRS	.6469	CST	.9701														
LSA	63.2	MSA	13.9	SSA	2.1														
EL1	39.4	EL2	13.0	ALF	11.07														

LAUNCH DATE JUL 26 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 416.349 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.236	GAL	-.89	AZL	88.92	HCA	132.13	SMA	206.64	ECC	.26511	INC	1.0602
RP	229.48	LAP	.80	LOP	75.01	VP	22.681	GAP	14.03	AZP	90.72	TAL	355.76	TAP	127.89	RCA	151.86	APO	261.42
RC	141.241	GL	9.08	GP	-13.70	ZAL	94.94	ZAP	147.37	ETS	204.28	ZAE	162.57	ETE	300.44	ZAC	69.38	ETC	283.03

V1	29.322																		
V2	23.967																		
LVI	-3.05																		

PLANETOCENTRIC CONIC

C3	15.758	VHL	3.970	DLA	22.70	RAL	32.33	RAD	6640.9	VEL	11.653	PTH	6.69	VHP	3.878	DPA	3.24	RAP	47.09
ECC	1.2593																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 43 6	3541.62	-46.80	131.98	266.58	99.76	12 42 7	2541.6	-37.71	101.46
60.00	11 54 26	3511.42	-40.19	130.31	267.62	93.33	12 52 58	2511.4	-34.48	100.78
70.00	12 12 42	3457.61	-34.11	126.05	267.71	88.06	13 10 20	2457.6	-31.33	97.66
80.00	12 46 14	3352.45	-29.33	117.70	267.33	84.16	13 42 6	2352.5	-28.78	90.29
90.00	13 50 40	3144.39	-27.37	102.15	267.07	82.59	14 43 5	2144.4	-27.71	75.15
100.00	15 29 6	2826.93	-29.33	79.07	267.33	84.16	16 16 12	1826.9	-28.78	51.66
110.00	17 12 8	2504.43	-34.11	54.96	267.71	88.06	17 53 53	1504.4	-31.33	26.58

DIFFERENTIAL CORRECTIONS

TDE	-.4498	TRA	-.9132	TC3	1.1221	BAU	.3205												
RDE	-.1596	RRA	.3117	RC3	-1.0276	FAU	.19010												
FDE	2.0163	FRA	2.1836	FC3	-10.4442	BSP	3373												
BDE	.4771	BRA	.9649	BC3	1.5215	FSP	1299												

MID-COURSE EXECUTION ACCURACY

SGT	1804.5	SGR	978.0	SG3	814.6														
RRT	-.7219	RRF	.8416	RTF	-.8521														
SGB	2052.5	R23	-.2277	R13	.8728														
SG1	1955.1	SG2	624.6	THA	156.03														

ORBIT DETERMINATION ACCURACY

ST	38.9	SR	13.7	SS	51.8														
CRT	.4041	CRS	.6066	CST	.9692														
LSA	64.8	MSA	13.7	SSA	2.1														
EL1	39.3	EL2	12.4	ALF	9.00														

LAUNCH DATE JUL 26 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 420.034 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.208	GAL	-.86	AZL	88.86	HCA	133.16	SMA	206.03	ECC	.26292	INC	1.1391
RP	229.86	LAP	.83	LOP	76.03	VP	22.596	GAP	13.75	AZP	90.78	TAL	355.89	TAP	129.05	RCA	151.86	APO	260.20
RC	144.046	GL	9.63	GP	-14.23	ZAL	94.68	ZAP	146.13	ETS	204.11	ZAE	162.52	ETE	296.75	ZAC	68.88	ETC	283.09

V1	29.322																		
V2	23.927																		
LVI	-2.58																		

PLANETOCENTRIC CONIC

C3	15.564	VHL	3.945	DLA	23.14	RAL	31.87	RAD	6640.8	VEL	11.645	PTH	6.68	VHP	3.788	DPA	2.70	RAP	47.13
ECC	1.2561																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 39 15	3548.17	-46.88	132.59	266.26	99.29	12 38 24	2548.2	-37.94	101.92
60.00	11 49 51	3519.97	-40.22	131.03	267.23	92.84	12 48 31	2520.0	-34.70	101.48
70.00	12 7 2	3469.31	-34.07	126.96	267.26	87.52	13 4 52	2469.3	-31.53	98.52
80.00	12 39 10	3368.56	-29.22	118.88	266.81	83.55	13 35 18	2368.6	-28.93	91.46
90.00	13 42 44	3163.32	-27.20	103.51	266.52	81.93	14 35 27	2163.3	-27.84	76.52
100.00	15 22 2	2843.03	-29.22	80.25	266.81	83.55	16 9 25	1843.0	-28.93	52.83
110.00	17 6 29	2516.13	-34.07	55.88	267.26	87.52	17 48 25	1516.1	-31.53	27.44

DIFFERENTIAL CORRECTIONS

TDE	-.4520	TRA	-.8957	TC3	1.1233	BAU	.3275												
RDE	-.1373	RRA	.3173	RC3	-1.1026	FAU	.19829												
FDE	2.1531	FRA	2.2256	FC3	-11.0296	BSP	3398												
BDE	.4723	BRA	.9503	BC3	1.5740	FSP	1370												

MID-COURSE EXECUTION ACCURACY

SGT	1793.7	SGR	1023.6	SG3	854.8														
RRT	-.7348	RRF	.8601	RTF	-.8305														
SGB	2065.3	R23	-.2372	R13	.8770														
SG1	1965.7	SG2	633.5	THA	154.40														

ORBIT DETERMINATION ACCURACY

ST	39.1	SR	12.6	SS	54.2														
CRT	.3379	CRS	.5510	CST	.9683														
LSA	66.6	MSA	13.4	SSA	2.1														
EL1	39.4	EL2	11.7	ALF	6.80														

LAUNCH DATE JUL 26 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 423.731 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.181	GAL	-.82	AZL	88.80	HCA	134.18	SMA	205.46	ECC	.26065	INC	1.1997	V1	29.322
RP	230.25	LAP	.86	LOP	77.06	VP	22.514	GAP	13.47	AZP	90.84	TAL	356.02	TAP	130.20	RCA	151.87	APO	259.05	V2	23.887
RC	146.870	GL	10.20	GP	-14.79	ZAL	94.44	ZAP	144.86	ETS	203.94	ZAE	162.40	ETE	292.92	ZAC	68.37	ETC	283.16	LVI	-2.09

PLANETOCENTRIC CONIC

C3	15.388	VHL	3.923	DLA	23.59	RAL	31.42	RAD	6640.7	VEL	11.638	PTH	6.68	VHP	3.702	DPA	2.12	RAP	47.16	ECC	1.2533

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 35 19	3555.40	-46.95	133.28	265.98	98.77	12 34 34	2555.4	-38.20	102.42
60.00	11 45 6	3529.34	-40.25	131.83	266.88	92.30	12 43 55	2529.3	-34.93	102.08
70.00	12 1 8	3482.09	-34.03	127.95	266.82	86.93	12 59 10	2482.1	-31.73	99.46
80.00	12 31 41	3386.25	-29.07	120.18	266.31	82.88	13 28 8	2386.2	-29.09	92.75
90.00	13 34 14	3184.27	-26.99	105.01	265.98	81.21	14 27 19	2184.3	-27.96	78.04
100.00	15 14 33	2860.72	-29.07	81.54	266.31	82.88	16 2 14	1860.7	-29.09	54.12
110.00	17 0 35	2528.90	-34.03	56.87	266.82	86.93	17 42 43	1528.9	-31.73	28.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4418	TRA	-.8672	TC3	1.1458	BAU	.3390	SGT	1770.6	SGR	1074.8	SG3	896.4	ST	38.4	SR	11.5	SS	56.3
RDE	-.1149	RRA	.3224	RC3	-1.1840	FAU	.20709	RRT	-.7552	RRF	.8771	RTF	-.8393	CRT	.2474	CRS	.4777	CST	.9660
FDE	2.2847	FRA	2.2580	FC	-11.6510	BSP	3306	SGB	2071.3	R23	-.2317	R13	.8861	LSA	67.8	MSA	13.2	SSA	2.1
BDE	.4565	BRA	.9252	BC3	1.6477	FSP	1434	SG1	1972.3	SG2	632.5	THA	152.28	EL1	38.5	EL2	11.1	ALF	4.62

LAUNCH DATE JUL 26 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 427.435 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.156	GAL	-.80	AZL	88.74	HCA	135.20	SMA	204.93	ECC	.25890	INC	1.2622	V1	29.322
RP	230.63	LAP	.89	LOP	78.08	VP	22.434	GAP	13.20	AZP	90.90	TAL	356.13	TAP	131.34	RCA	151.87	APO	257.98	V2	23.847
RC	149.713	GL	10.79	GP	-15.37	ZAL	94.21	ZAP	143.57	ETS	203.78	ZAE	162.19	ETE	289.01	ZAC	67.83	ETC	283.23	LVI	-1.59

PLANETOCENTRIC CONIC

C3	15.231	VHL	3.903	DLA	24.06	RAL	30.97	RAD	6640.6	VEL	11.631	PTH	6.67	VHP	3.620	DPA	1.51	RAP	47.18	ECC	1.2507

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 31 17	3563.39	-47.03	134.03	265.76	98.19	12 30 40	2563.4	-38.47	102.99
60.00	11 40 12	3539.63	-40.27	132.70	266.57	91.70	12 39 12	2539.6	-35.19	102.83
70.00	11 54 58	3496.10	-33.98	129.04	266.43	86.29	12 53 15	2496.1	-31.95	100.49
80.00	12 23 45	3405.82	-28.90	121.60	265.83	82.15	13 20 31	2405.8	-29.24	94.18
90.00	13 25 7	3207.68	-26.73	106.68	265.45	80.41	14 18 34	2207.7	-28.07	79.75
100.00	15 6 37	2880.29	-28.90	82.97	265.83	82.15	15 54 37	1880.3	-29.24	55.55
110.00	16 54 25	2542.92	-33.98	57.96	266.43	86.29	17 36 48	1542.9	-31.95	29.41

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4510	TRA	-.8593	TC3	1.1118	BAU	.3429	SGT	1760.8	SGR	1128.5	SG3	938.1	ST	39.1	SR	10.4	SS	59.0
RDE	-.0890	RRA	.3301	RC3	-1.2648	FAU	.21519	RRT	-.7567	RRF	.8921	RTF	-.8265	CRT	.1213	CRS	.3607	CST	.9661
FDE	2.4464	FRA	2.3130	FC	-12.2317	BSP	3431	SGB	2091.3	R23	-.2506	R13	.8870	LSA	70.3	MSA	12.9	SSA	2.1
BDE	.4597	BRA	.9205	BC3	1.6840	FSP	1519	SG1	1986.5	SG2	653.9	THA	150.64	EL1	39.1	EL2	10.3	ALF	1.99

LAUNCH DATE JUL 26 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 431.149 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.132	GAL	-.77	AZL	88.67	HCA	136.22	SMA	204.43	ECC	.25707	INC	1.3268	V1	29.322
RP	231.01	LAP	.92	LOP	79.10	VP	22.358	GAP	12.92	AZP	90.96	TAL	356.24	TAP	132.46	RCA	151.88	APO	256.98	V2	23.807
RC	152.572	GL	11.39	GP	-15.98	ZAL	94.00	ZAP	142.24	ETS	203.62	ZAE	161.90	ETE	285.03	ZAC	67.27	ETC	283.31	LVI	-1.07

PLANETOCENTRIC CONIC

C3	15.090	VHL	3.885	DLA	24.56	RAL	30.53	RAD	6640.6	VEL	11.625	PTH	6.67	VHP	3.541	DPA	.87	RAP	47.17	ECC	1.2483

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 27 8	3572.11	-47.12	134.86	265.58	97.56	12 26 40	2572.1	-38.77	103.61
60.00	11 35 7	3550.81	-40.29	133.65	266.29	91.06	12 34 18	2550.8	-35.46	103.66
70.00	11 48 31	3511.36	-33.90	130.23	266.06	85.59	12 47 2	2511.4	-32.17	101.63
80.00	12 15 17	3427.39	-28.69	123.17	265.36	81.35	13 12 24	2427.4	-29.39	95.77
90.00	13 15 12	3233.84	-26.42	108.53	264.93	79.54	14 9 6	2233.8	-28.17	81.65
100.00	14 58 8	2901.86	-28.69	84.54	265.36	81.35	15 46 30	1901.9	-29.39	57.14
110.00	16 47 57	2558.18	-33.90	59.15	266.06	85.59	17 30 35	1558.2	-32.17	30.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4538	TRA	-.8428	TC3	1.0904	BAU	.3504	SGT	1741.7	SGR	1187.4	SG3	981.2	ST	39.3	SR	9.5	SS	61.7
RDE	-.0618	RRA	.3367	RC3	-1.3521	FAU	.22384	RRT	-.7617	RRF	.9057	RTF	-.8414	CRT	-.0467	CRS	.2014	CST	.9654
FDE	2.6139	FRA	2.3526	FC	-12.8418	BSP	3465	SGB	2108.0	R23	-.2588	R13	.8914	LSA	72.6	MSA	12.7	SSA	2.1
BDE	.4580	BRA	.9076	BC3	1.7370	FSP	1594	SG1	1998.5	SG2	670.6	THA	148.63	EL1	39.3	EL2	9.5	ALF	179.31

LAUNCH DATE JUL 26 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 434.870 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.109	GAL	-.74	AZL	88.61	HCA	137.23	SMA	203.96	ECC	.25534	INC	1.3937	V1	29.322
RP	231.39	LAP	.95	LOP	80.11	VP	22.281	GAP	12.65	AZP	91.02	TAL	356.34	TAP	133.58	RCA	151.88	APO	256.04	V2	23.767
RC	155.447	GL	12.01	GP	-16.61	ZAL	93.80	ZAP	140.89	ETS	203.45	ZAE	161.50	ETE	281.05	ZAC	66.70	ETC	283.40	LVI	-.53

PLANETOCENTRIC CONIC

C3	14.966	VHL	3.869	DLA	25.07	RAL	30.09	RAD	6640.5	VEL	11.620	PTH	6.66	VHP	3.467	DPA	.20	RAP	47.15	ECC	1.2463

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 22 51	3581.60	-47.20	135.76	265.45	96.87	12 22 33	2581.6	-39.09	104.29
60.00	11 29 51	3562.95	-40.30	134.69	266.05	90.36	12 29 14	2563.0	-35.74	104.56
70.00	11 41 43	3527.98	-33.81	131.52	265.71	84.84	12 40 31	2528.0	-32.40	102.87
80.00	12 6 10	3451.25	-28.43	124.90	264.90	80.48	13 3 41	2451.3	-29.54	97.53
90.00	13 4 21	3263.33	-26.04	110.60	264.40	78.57	13 58 44	2263.3	-28.24	83.81
100.00	14 49 2	2925.73	-28.43	86.27	264.90	80.48	15 37 48	1925.7	-29.54	58.90
110.00	16 41 9	2574.80	-33.81	60.43	265.71	84.84	17 24 4	1574.8	-32.40	31.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4516	TRA	-.8231	TC3	1.0693	BAU	.3595	SGT	1715.6	SGR	1251.3	SG3	1024.6	ST	39.1	SR	8.9	SS	64.3
RDE	-.0336	RRA	.3431	RC3	-1.4441	FAU	.23266	RRT	-.7669	RRF	.9178	RTF	-.8170	CRT	-.2545	CRS	-.0033	CST	.9640
FDE	2.7831	FRA	2.3851	FC	-13.4591	BSP	3486	SGB	2123.4	R23	-.2617	R13	.8972	LSA	74.7	MSA	12.5	SSA	2.1
BDE	.4528	BRA	.8917	BC3	1.7969	FSP	1672	SG1	2009.7	SG2	685.5	THA	146.35	EL1	39.2	EL2	8.6	ALF	176.50

LAUNCH DATE JUL 26 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 438.597 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.088	GAL	-.72	AZL	88.54	HCA	138.24	SMA	203.82	ECC	.25371	INC	1.4628	V1	29.322
RP	231.77	LAP	.97	LOP	81.12	VP	22.207	GAP	12.38	AZP	91.09	TAL	356.44	TAP	134.68	RCA	151.88	APO	255.15	V2	23.728
RC	158.336	GL	12.66	GP	-17.27	ZAL	93.61	ZAP	139.51	ETS	203.29	ZAE	161.00	ETE	277.10	ZAC	66.10	ETC	283.49	LVI	.03

PLANETOCENTRIC CONIC

C3	14.858	VHL	3.855	DLA	25.61	RAL	29.65	RAD	6640.5	VEL	11.615	PTH	6.66	VHP	3.395	DPA	-.51	RAP	47.12	ECC	1.2448

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 26	3591.89	-47.28	136.74	265.37	96.12	12 18 18	2591.9	-39.44	105.03
60.00	11 24 22	3576.11	-40.30	135.81	265.85	89.60	12 23 58	2576.1	-36.05	105.55
70.00	11 34 33	3546.08	-33.69	132.92	265.39	84.02	12 33 39	2546.1	-32.64	104.23
80.00	11 56 18	3477.82	-28.12	126.81	264.45	79.52	12 54 15	2477.8	-29.67	99.49
90.00	12 52 16	3297.01	-25.57	112.95	263.87	77.48	13 47 13	2297.0	-28.28	86.27
100.00	14 39 10	2952.29	-28.12	88.18	264.45	79.52	15 28 22	1952.3	-29.67	60.86
110.00	16 33 59	2592.90	-33.69	61.83	265.39	84.02	17 17 12	1592.9	-32.64	33.14

DIFFERENTIAL CORRECTIONS

TDE	-.4507	TRA	-.8060	TC3	1.0364	BAU	.3688						
RDE	-.0028	RRA	.3505	RC3	-1.5402	FAU	.24152						
FDE	2.9674	FRA	2.4234	FC	-14.0730	BSP	3540						
BDE	.4507	BRA	.8789	BC3	1.8564	FSP	1757						

MID-COURSE EXECUTION ACCURACY

SGT	1688.9	SGR	1320.5	SG3	1069.1						
RRT	-.7684	RRF	.9285	RTF	-.8101						
SGB	2143.8	R23	-.2646	R13	.9028						
SG1	2024.6	SG2	705.0	THA	143.96						

ORBIT DETERMINATION ACCURACY

ST	39.0	SR	6.9	SS	67.2						
CRT	-.4864	CRS	-.2477	CST	.9627						
LSA	77.2	MSA	12.3	SSA	2.1						
EL1	39.2	EL2	7.7	ALF	173.45						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 442.332 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.068	GAL	-.70	AZL	88.47	HCA	139.25	SMA	203.10	ECC	.25218	INC	1.5346	V1	29.322
RP	232.14	LAP	1.00	LOP	82.13	VP	22.135	GAP	12.12	AZP	91.16	TAL	356.53	TAP	135.78	RCA	151.89	APO	254.32	V2	23.689
RC	161.238	GL	13.32	GP	-17.96	ZAL	93.43	ZAP	138.10	ETS	203.11	ZAE	160.39	ETE	273.23	ZAC	65.49	ETC	283.60	LVI	.60

PLANETOCENTRIC CONIC

C3	14.766	VHL	3.843	DLA	26.18	RAL	29.22	RAD	6640.4	VEL	11.611	PTH	6.65	VHP	3.328	DPA	-1.26	RAP	47.06	ECC	1.2430

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 13 52	3603.01	-47.35	137.81	265.33	95.30	12 13 55	2603.0	-39.80	105.85
60.00	11 18 38	3590.32	-40.29	137.02	265.68	88.78	12 18 28	2590.3	-36.36	106.62
70.00	11 26 57	3565.79	-33.54	134.44	265.09	83.13	12 26 23	2565.8	-32.88	105.71
80.00	11 45 29	3507.59	-27.73	128.94	263.99	78.47	12 43 57	2507.6	-29.77	101.70
90.00	12 38 32	3336.21	-24.96	115.66	263.30	76.25	13 34 8	2336.2	-28.26	89.14
100.00	14 28 21	2982.06	-27.73	90.31	263.99	78.47	15 18 3	1982.1	-29.77	63.07
110.00	16 26 23	2612.61	-33.54	63.35	265.09	83.13	17 9 56	1612.6	-32.88	34.63

DIFFERENTIAL CORRECTIONS

TDE	-.4452	TRA	-.7856	TC3	1.0065	BAU	.3802						
RDE	.0292	RRA	.3577	RC3	-1.6424	FAU	.25070						
FDE	3.1524	FRA	2.4542	FC	-14.6988	BSP	3535						
BDE	.4461	BRA	.8632	BC3	1.9262	FSP	1829						

MID-COURSE EXECUTION ACCURACY

SGT	1656.1	SGR	1395.8	SG3	1114.3						
RRT	-.7704	RRF	.9380	RTF	-.8044						
SGB	2165.9	R23	-.2612	R13	.9100						
SG1	2042.1	SG2	721.6	THA	141.29						

ORBIT DETERMINATION ACCURACY

ST	38.6	SR	9.4	SS	70.0						
CRT	-.6892	CRS	-.4772	CST	.9608						
LSA	79.5	MSA	12.1	SSA	2.0						
EL1	39.1	EL2	6.7	ALF	170.20						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 446.073 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.049	GAL	-.68	AZL	88.39	HCA	140.25	SMA	202.72	ECC	.25073	INC	1.6091	V1	29.322
RP	232.51	LAP	1.03	LOP	83.13	VP	22.065	GAP	11.85	AZP	91.24	TAL	356.61	TAP	136.86	RCA	151.89	APO	253.54	V2	23.650
RC	164.150	GL	14.01	GP	-18.68	ZAL	93.27	ZAP	136.65	ETS	202.93	ZAE	159.68	ETE	269.47	ZAC	64.85	ETC	283.71	LVI	1.20

PLANETOCENTRIC CONIC

C3	14.689	VHL	3.833	DLA	26.76	RAL	28.78	RAD	6640.4	VEL	11.608	PTH	6.65	VHP	3.264	DPA	-2.04	RAP	46.99	ECC	1.2417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 9 8	3614.99	-47.42	138.96	265.35	94.42	12 9 23	2615.0	-40.19	106.73
60.00	11 12 38	3605.65	-40.26	138.32	265.55	87.89	12 12 44	2605.7	-36.69	107.79
70.00	11 18 52	3587.28	-33.35	136.08	264.80	82.17	12 18 39	2587.3	-33.12	107.35
80.00	11 33 30	3541.32	-27.25	131.33	263.52	77.30	12 32 31	2541.3	-29.84	104.20
90.00	12 22 23	3383.34	-24.16	118.88	262.67	74.83	13 18 47	2383.3	-28.15	92.58
100.00	14 16 22	3015.79	-27.25	92.70	263.52	77.30	15 6 38	2015.8	-29.84	65.57
110.00	16 18 18	2634.10	-33.35	65.00	264.80	82.17	17 2 12	1634.1	-33.12	36.26

DIFFERENTIAL CORRECTIONS

TDE	-.4313	TRA	-.7546	TC3	.9926	BAU	.3957						
RDE	.0624	RRA	.3622	RC3	-1.7534	FAU	.26056						
FDE	3.3372	FRA	2.4547	FC	-15.3566	BSP	3461						
BDE	.4356	BRA	.8370	BC3	2.0149	FSP	1890						

MID-COURSE EXECUTION ACCURACY

SGT	1609.6	SGR	1477.5	SG3	1160.3						
RRT	-.7775	RRF	.9465	RTF	-.8134						
SGB	2184.9	R23	-.2464	R13	.9201						
SG1	2060.9	SG2	725.7	THA	138.15						

ORBIT DETERMINATION ACCURACY

ST	37.4	SR	10.4	SS	72.6						
CRT	-.8339	CRS	-.6558	CST	.9579						
LSA	81.5	MSA	12.0	SSA	2.0						
EL1	38.4	EL2	5.6	ALF	166.64						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 449.818 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.031	GAL	-.66	AZL	88.31	HCA	141.25	SMA	202.36	ECC	.24938	INC	1.6865	V1	29.322
RP	232.89	LAP	1.06	LOP	84.13	VP	21.998	GAP	11.59	AZP	91.32	TAL	356.68	TAP	137.93	RCA	151.89	APO	252.82	V2	23.612
RC	167.073	GL	14.72	GP	-19.43	ZAL	93.12	ZAP	135.19	ETS	202.74	ZAE	158.86	ETE	265.87	ZAC	64.19	ETC	283.83	LVI	1.82

PLANETOCENTRIC CONIC

C3	14.629	VHL	3.825	DLA	27.38	RAL	28.35	RAD	6640.3	VEL	11.605	PTH	6.65	VHP	3.204	DPA	-2.85	RAP	46.91	ECC	1.2408

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 4 13	3627.93	-47.48	140.20	265.41	93.46	12 4 41	2627.9	-40.60	107.71
60.00	11 6 21	3622.26	-40.20	139.73	265.45	86.94	12 6 43	2622.3	-37.03	109.07
70.00	11 10 13	3610.86	-33.12	137.88	264.53	81.13	12 10 23	2610.9	-33.35	109.15
80.00	11 19 55	3580.36	-26.64	134.07	263.01	75.98	12 19 36	2580.4	-29.85	107.10
90.00	12 2 5	3444.06	-23.02	122.96	261.91	73.10	12 59 29	2444.1	-27.87	97.00
100.00	14 2 47	3054.83	-26.64	95.43	263.01	75.98	14 53 42	2054.8	-29.85	68.47
110.00	16 9 39	2657.68	-33.12	66.80	264.53	81.13	16 53 57	1657.7	-33.35	38.06

DIFFERENTIAL CORRECTIONS

TDE	-.4378	TRA	-.7479	TC3	.9067	BAU	.4040						
RDE	.1023	RRA	.3723	RC3	-1.8562	FAU	.26842						
FDE	3.5684	FRA	2.5016	FC	-15.8847	BSP	3648						
BDE	.4496	BRA	.8355	BC3	2.0658	FSP	1996						

MID-COURSE EXECUTION ACCURACY

SGT	1582.2	SGR	1560.2	SG3	1203.5						
RRT	-.7607	RRF	.9536	RTF	-.7831						
SGB	2222.0	R23	-.2519	R13	.9240						
SG1	2084.9	SG2	768.5	THA	135.53						

ORBIT DETERMINATION ACCURACY

ST	37.9	SR	12.3	SS	76.2						
CRT	-.9246	CRS	-.7905	CST	.9573						
LSA	85.1	MSA	11.9	SSA	2.0						
EL1	39.6	EL2	4.5	ALF	163.02						

LAUNCH DATE JUL 26 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 453.568 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	33.015	GAL	-.65	AZL	88.23	HCA	142.25	SMA	202.02	ECC	.24811	INC	1.7671	V1	29.322
RP	233.25	LAP	1.08	LOP	85.13	VP	21.931	GAP	11.33	AZP	91.40	TAL	356.74	TAP	139.00	RCA	151.89	APO	252.14	V2	23.573
RC	170.003	GL	15.46	GP	-20.20	ZAL	92.99	ZAP	133.69	ETS	202.54	ZAE	157.93	ETE	262.43	ZAC	63.50	ETC	283.96	LVI	2.46

PLANETOCENTRIC CONIC

C3	14.584	VHL	3.819	DLA	28.02	RAL	27.92	RAD	6640.3	VEL	11.603	PTH	6.65	VHP	3.148	DPA	-3.71	RAP	46.82	ECC	1.2400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 59 6	3641.81	-47.53	141.54	265.53	92.43	11 59 47	2641.8	-41.03	108.76
60.00	10 59 43	3640.15	-40.13	141.24	265.38	85.91	12 0 23	2640.1	-37.38	110.46
70.00	11 0 53	3636.71	-32.83	139.85	264.26	80.00	12 1 30	2636.7	-33.57	111.13
80.00	11 4 5	3626.65	-25.83	137.27	262.44	74.48	12 4 32	2626.7	-29.78	110.54
90.00	11 31 17	3538.63	-21.01	129.17	260.79	70.62	12 30 16	2538.6	-27.12	103.81
100.00	13 46 57	3101.12	-25.83	98.64	262.44	74.48	14 38 38	2101.1	-29.78	71.91
110.00	16 0 19	2683.53	-32.83	68.76	264.26	80.00	16 45 3	1683.5	-33.57	40.05

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.4317	TRA	-.7288	TC3	.8479	BAU	.4181	SGT 1540.5	SGR 1651.1	SG3 1248.0	ST 37.3	SR 14.7	SS 79.5
RDE	.1434	RRA	.3800	RC3	-1.9694	FAU	.27713	RRT -.7523	RRF .9599	RTF -.7698	CRT -.9696	CRS -.8699	CST .9550
FDE	3.7942	FRA	2.5204	FC	-16.4507	BSP	3708	SGB 2258.2	R23 -.2419	R13 .9317	LSA 88.3	MSA 11.9	SSA 1.9
BDE	.4549	BRA	.8220	BC3	2.1442	FSP	2081	SG1 2114.5	SG2 792.5	THA 132.37	EL1 40.0	EL2 3.3	ALF 159.02

LAUNCH DATE JUL 26 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 457.323 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.999	GAL	-.63	AZL	88.15	HCA	143.24	SMA	201.70	ECC	.24692	INC	1.8512	V1	29.322
RP	233.62	LAP	1.11	LOP	86.13	VP	21.867	GAP	11.07	AZP	91.48	TAL	356.80	TAP	140.05	RCA	151.90	APO	251.50	V2	23.536
RC	172.941	GL	16.22	GP	-21.01	ZAL	92.87	ZAP	132.17	ETS	202.33	ZAE	156.90	ETE	259.18	ZAC	62.79	ETC	284.11	LVI	3.13

PLANETOCENTRIC CONIC

C3	14.556	VHL	3.815	DLA	28.69	RAL	27.49	RAD	6640.3	VEL	11.602	PTH	6.64	VHP	3.096	DPA	-4.60	RAP	46.71	ECC	1.2396

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 53 44	3656.72	-47.56	142.98	265.69	91.32	11 54 41	2656.7	-41.47	109.91
60.00	10 52 43	3659.46	-40.02	142.88	265.33	84.81	11 53 42	2659.5	-37.74	111.97
70.00	10 50 45	3665.25	-32.47	142.00	263.99	78.78	11 51 50	2665.2	-33.78	113.33
80.00	10 44 34	3684.67	-24.71	141.22	261.74	72.69	11 45 59	2684.7	-29.55	114.84
84.94	10 13 50	3783.75	-18.66	146.17	259.40	67.80	11 16 54	2783.7	-26.19	121.57
100.00	13 27 26	3159.15	-24.71	102.59	261.74	72.69	14 20 5	2159.1	-29.55	76.21
110.00	15 50 11	2712.07	-32.47	70.91	263.99	78.78	16 35 23	1712.1	-33.78	42.25

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.4223	TRA	-.7085	TC3	.7853	BAU	.4342	SGT 1494.2	SGR 1748.5	SG3 1291.9	ST 36.6	SR 17.3	SS 82.7
RDE	.1865	RRA	.3872	RC3	-2.0884	FAU	.28595	RRT -.7413	RRF .9654	RTF -.7545	CRT -.9889	CRS -.9170	CST .9520
FDE	4.0192	FRA	2.5294	FC	-17.0071	BSP	3761	SGB 2300.0	R23 -.2279	R13 .9399	LSA 91.3	MSA 11.8	SSA 1.9
BDE	.4617	BRA	.8074	BC3	2.2312	FSP	2156	SG1 2150.6	SG2 815.4	THA 128.99	EL1 40.4	EL2 2.3	ALF 154.79

LAUNCH DATE JUL 26 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 461.082 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.984	GAL	-.62	AZL	88.06	HCA	144.23	SMA	201.40	ECC	.24581	INC	1.9389	V1	29.322
RP	233.99	LAP	1.13	LOP	87.12	VP	21.804	GAP	10.81	AZP	91.57	TAL	356.85	TAP	141.09	RCA	151.90	APO	250.91	V2	23.498
RC	175.886	GL	17.02	GP	-21.85	ZAL	92.77	ZAP	130.62	ETS	202.10	ZAE	155.77	ETE	256.12	ZAC	62.06	ETC	284.26	LVI	3.82

PLANETOCENTRIC CONIC

C3	14.544	VHL	3.814	DLA	29.39	RAL	27.05	RAD	6640.3	VEL	11.602	PTH	6.64	VHP	3.047	DPA	-5.53	RAP	46.59	ECC	1.2394

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 48 7	3672.71	-47.58	144.53	265.89	90.13	11 49 20	2672.7	-41.94	111.16
60.00	10 45 16	3680.32	-39.88	144.63	265.31	83.63	11 46 37	2680.3	-38.10	113.63
70.00	10 39 38	3696.99	-32.03	144.36	263.70	77.45	11 41 15	2697.0	-33.95	115.79
80.00	10 17 5	3768.03	-22.91	146.75	260.73	70.31	11 19 53	2768.0	-28.95	120.96
81.63	9 45 33	3869.06	-19.10	152.65	259.15	67.22	10 50 2	2869.1	-26.82	128.01
100.00	12 59 57	3242.50	-22.91	108.12	260.73	70.31	13 53 59	2242.5	-28.95	82.33
110.00	15 39 4	2743.81	-32.03	73.28	263.70	77.45	16 24 48	1743.8	-33.95	44.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.4114	TRA	-.6872	TC3	.7107	BAU	.4509	SGT 1442.2	SGR 1849.0	SG3 1333.0	ST 35.7	SR 20.4	SS 86.1
RDE	.2334	RRA	.3937	RC3	-2.2074	FAU	.29398	RRT -.7252	RRF .9701	RTF -.7548	CRT -.9949	CRS -.9463	CST .9485
FDE	4.2563	FRA	2.5264	FC	-17.4995	BSP	3829	SGB 2344.9	R23 -.2114	R13 .9479	LSA 94.6	MSA 11.8	SSA 1.8
BDE	.4730	BRA	.7920	BC3	2.3190	FSP	2231	SG1 2189.9	SG2 838.4	THA 125.46	EL1 41.1	EL2 1.8	ALF 150.25

LAUNCH DATE JUL 26 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 464.845 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.971	GAL	-.61	AZL	87.97	HCA	145.22	SMA	201.13	ECC	.24476	INC	2.0308	V1	29.322
RP	234.35	LAP	1.16	LOP	88.11	VP	21.743	GAP	10.55	AZP	91.67	TAL	356.89	TAP	142.12	RCA	151.90	APO	250.35	V2	23.461
RC	178.838	GL	17.84	GP	-22.72	ZAL	92.67	ZAP	129.05	ETS	201.85	ZAE	154.54	ETE	253.25	ZAC	61.30	ETC	284.42	LVI	4.53

PLANETOCENTRIC CONIC

C3	14.548	VHL	3.814	DLA	30.13	RAL	26.62	RAD	6640.3	VEL	11.602	PTH	6.64	VHP	3.003	DPA	-6.50	RAP	46.45	ECC	1.2394

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 42 13	3689.87	-47.57	146.19	266.14	88.85	11 43 43	2689.9	-42.42	112.52
60.00	10 37 20	3702.90	-39.69	146.52	265.31	82.36	11 39 3	2702.9	-38.47	115.43
70.00	10 27 15	3732.67	-31.47	146.99	263.38	75.98	11 29 28	2732.7	-34.08	118.57
79.16	9 24 48	3929.91	-19.55	157.37	258.91	66.61	10 30 18	2929.9	-27.47	132.69
79.16	9 24 48	3929.91	-19.55	157.37	258.91	66.61	10 30 18	2929.9	-27.47	132.69
79.16	9 24 48	3929.91	-19.55	157.37	258.91	66.61	10 30 18	2929.9	-27.47	132.69
110.00	15 26 42	2779.49	-31.47	75.91	263.38	75.98	16 13 1	1779.5	-34.08	47.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.3979	TRA	-.6667	TC3	.6322	BAU	.4699	SGT 1389.4	SGR 1957.6	SG3 1374.0	ST 34.6	SR 23.9	SS 89.5
RDE	.2841	RRA	.4012	RC3	-2.3319	FAU	.30198	RRT -.7059	RRF .9742	RTF -.7121	CRT -.9934	CRS -.9645	CST .9440
FDE	4.5021	FRA	2.5263	FC	-17.9702	BSP	3909	SGB 2400.6	R23 -.1921	R13 .9557	LSA 98.2	MSA 11.8	SSA 1.7
BDE	.4889	BRA	.7781	BC3	2.4161	FSP	2304	SG1 2241.4	SG2 859.6	THA 121.83	EL1 42.0	EL2 2.3	ALF 145.39

LAUNCH DATE JUL 26 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 468.611 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.958 GAL -.60 AZL 87.67 HCA 146.21 SMA 200.87 ECC .24378 INC 2.1260 V1 29.328
RP 234.71 LAP 1.18 LOP 89.09 VP 21.684 GAP 10.30 AZP 91.77 TAL 356.93 TAP 143.14 RCA 151.90 APO 249.84 V2 23.424
RC 181.791 GL 18.69 GP -23.63 ZAL 92.59 ZAP 127.46 ETS 201.56 ZAE 153.23 ETE 250.56 ZAC 60.52 ETC 284.59 LVI 6.27

PLANETOCENTRIC CONIC

C3 14.570 VHL 3.817 DLA 30.69 RAL 26.17 RAD 6640.3 VEL 11.603 PTH 6.64 VHP 2.962 DPA -7.91 RAP 46.31 ECC 1.2398

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 36 0	3708.27	-47.53	147.97	266.44	87.48	11 37 48	2708.3	-42.92	114.01
60.00	10 28 50	3727.40	-39.45	148.56	265.32	80.99	11 30 57	2727.4	-36.83	117.42
70.00	10 13 15	3773.43	-30.76	149.96	263.00	74.36	11 16 8	2773.4	-34.15	121.78
77.02	9 7 20	3980.01	-20.00	161.33	258.71	65.96	10 13 40	2980.0	-28.15	136.62
77.02	9 7 20	3980.01	-20.00	161.33	258.71	65.96	10 13 40	2980.0	-28.15	136.62
77.02	9 7 20	3980.01	-20.00	161.33	258.71	65.96	10 13 40	2980.0	-28.15	136.62
110.00	15 12 41	2820.25	-30.76	78.87	263.00	74.36	15 59 41	1820.3	-34.15	50.67

DIFFERENTIAL CORRECTIONS

TDE -.3793 TRA -.6430 TC3 .5540 BAU .4915
RDE .3375 RRA .4066 RC3-2.4617 FAU .30989
FDE 4.7437 FRA 2.5030 FC-18.4129 BSP 3985
BDE .5077 BRA .7607 BC3 2.5232 FSP 2369

MID-COURSE EXECUTION ACCURACY

SGT 1329.6 SGR 2072.2 SG3 1413.0
RRT -.6835 RRF .9778 RTF -.6863
SGB 2462.1 R23 -.1699 R13 .9632
SG1 2301.8 SG2 873.7 THA 118.07

ORBIT DETERMINATION ACCURACY

ST 33.1 SR 27.6 SS 92.8
CRT -.9873 CRS -.9759 CST .9378
LSA 101.6 MSA 11.8 SSA 1.6
EL1 43.0 EL2 3.4 ALF 140.21

LAUNCH DATE JUL 26 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 472.381 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.946 GAL -.59 AZL 87.77 HCA 147.19 SMA 200.63 ECC .24287 INC 2.2278 V1 29.322
RP 235.06 LAP 1.21 LOP 90.08 VP 21.626 GAP 10.04 AZP 91.87 TAL 356.96 TAP 144.15 RCA 151.90 APO 249.35 V2 23.387
RC 184.750 GL 19.58 GP -24.57 ZAL 92.52 ZAP 125.83 ETS 201.28 ZAE 151.83 ETE 248.05 ZAC 59.71 ETC 284.78 LVI 6.04

PLANETOCENTRIC CONIC

C3 14.611 VHL 3.822 DLA 31.69 RAL 25.72 RAD 6640.3 VEL 11.605 PTH 6.65 VHP 2.926 DPA -8.55 RAP 46.16 ECC 1.2405

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 29 23	3728.01	-47.45	149.87	266.77	86.02	11 31 31	2728.0	-43.43	115.63
60.00	10 19 38	3754.04	-39.14	150.76	265.32	79.53	11 22 12	2754.0	-39.17	119.60
70.00	9 56 55	3821.21	-29.83	153.37	262.52	72.54	11 0 37	2821.2	-34.11	125.48
75.07	8 51 49	4023.80	-20.47	164.86	258.53	65.27	9 58 53	3023.8	-28.86	140.12
75.07	8 51 49	4023.80	-20.47	164.86	258.53	65.27	9 58 53	3023.8	-28.86	140.12
75.07	8 51 49	4023.80	-20.47	164.86	258.53	65.27	9 58 53	3023.8	-28.86	140.12
110.00	14 56 22	2868.03	-29.83	82.29	262.52	72.54	15 44 10	1868.0	-34.11	94.40

DIFFERENTIAL CORRECTIONS

TDE -.3538 TRA -.6134 TC3 .4864 BAU .5170
RDE .3935 RRA .4088 RC3-2.6016 FAU .31828
FDE 4.9795 FRA 2.4504 FC-18.8595 BSP 4009
BDE .5292 BRA .7371 BC3 2.6467 FSP 2404

MID-COURSE EXECUTION ACCURACY

SGT 1259.8 SGR 2195.9 SG3 1451.5
RRT -.6617 RRF .9809 RTF -.6807
SGB 2531.6 R23 -.1449 R13 .9703
SG1 2376.4 SG2 872.8 THA 114.27

ORBIT DETERMINATION ACCURACY

ST 31.1 SR 31.6 SS 98.9
CRT -.9777 CRS -.9834 CST .9292
LSA 105.0 MSA 11.8 SSA 1.6
EL1 44.0 EL2 4.7 ALF 134.96

LAUNCH DATE JUL 26 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 476.150 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.935 GAL -.59 AZL 87.67 HCA 148.17 SMA 200.40 ECC .24203 INC 2.3339 V1 29.322
RP 239.42 LAP 1.23 LOP 91.06 VP 21.570 GAP 9.79 AZP 91.98 TAL 356.98 TAP 145.14 RCA 151.90 APO 248.91 V2 23.351
RC 187.714 GL 20.50 GP -25.54 ZAL 92.47 ZAP 124.20 ETS 200.97 ZAE 150.36 ETE 245.73 ZAC 58.88 ETC 284.98 LVI 6.04

PLANETOCENTRIC CONIC

C3 14.671 VHL 3.830 DLA 32.53 RAL 25.26 RAD 6640.4 VEL 11.607 PTH 6.65 VHP 2.893 DPA -9.64 RAP 46.02 ECC 1.2414

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 22 23	3749.27	-47.33	151.91	267.14	84.45	11 24 52	2749.3	-43.95	117.41
60.00	10 9 40	3783.23	-38.75	153.14	265.33	77.95	11 12 43	2783.2	-39.50	122.01
70.00	9 36 57	3880.06	-28.56	157.47	261.86	70.42	10 41 37	2880.1	-33.69	130.06
73.22	8 37 39	4063.27	-20.95	168.11	258.39	64.53	9 45 22	3063.3	-29.59	143.33
73.22	8 37 39	4063.27	-20.95	168.11	258.39	64.53	9 45 22	3063.3	-29.59	143.33
73.22	8 37 39	4063.27	-20.95	168.11	258.39	64.53	9 45 22	3063.3	-29.59	143.33
110.00	14 36 24	2926.88	-28.56	86.39	261.86	70.42	15 25 10	1926.9	-33.69	98.98

DIFFERENTIAL CORRECTIONS

TDE -.3465 TRA -.6073 TC3 .5467 BAU .5374
RDE .4927 RRA .4203 RC3-2.7178 FAU .32283
FDE 5.2820 FRA 2.4628 FC-19.0505 BSP 4270
BDE .5780 BRA .7385 BC3 2.7399 FSP 2505

MID-COURSE EXECUTION ACCURACY

SGT 1224.8 SGR 2317.3 SG3 1482.7
RRT -.6043 RRF .9835 RTF -.6833
SGB 2621.1 R23 -.1277 R13 .9753
SG1 2453.7 SG2 921.6 THA 110.78

ORBIT DETERMINATION ACCURACY

ST 30.5 SR 36.5 SS 100.3
CRT -.9676 CRS -.9886 CST .9230
LSA 110.3 MSA 12.0 SSA 1.5
EL1 47.2 EL2 6.0 ALF 129.76

LAUNCH DATE JUL 26 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 479.924 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.924 GAL -.59 AZL 87.55 HCA 149.14 SMA 200.20 ECC .24124 INC 2.4456 V1 29.322
RP 235.77 LAP 1.25 LOP 92.03 VP 21.515 GAP 9.54 AZP 92.10 TAL 356.99 TAP 146.13 RCA 151.90 APO 248.49 V2 23.315
RC 190.680 GL 21.46 GP -26.54 ZAL 92.43 ZAP 122.54 ETS 200.63 ZAE 148.81 ETE 243.58 ZAC 58.02 ETC 285.19 LVI 7.66

PLANETOCENTRIC CONIC

C3 14.752 VHL 3.841 DLA 33.40 RAL 24.79 RAD 6640.4 VEL 11.611 PTH 6.65 VHP 2.868 DPA -10.76 RAP 45.86 ECC 1.2428

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 14 53	3772.10	-47.16	154.09	267.54	82.78	11 17 45	2772.1	-44.48	119.36
60.00	9 58 42	3815.30	-38.27	155.73	265.30	76.26	11 2 18	2815.3	-39.80	124.68
70.00	9 9 44	3960.61	-26.60	162.92	260.82	67.74	10 15 45	2960.6	-33.29	136.27
71.44	8 24 22	4099.72	-21.43	171.16	258.27	63.75	9 32 42	3099.7	-30.34	146.36
71.44	8 24 22	4099.72	-21.43	171.16	258.27	63.75	9 32 42	3099.7	-30.34	146.36
71.44	8 24 22	4099.72	-21.43	171.16	258.27	63.75	9 32 42	3099.7	-30.34	146.36
110.00	14 9 11	3007.43	-26.60	91.83	260.82	67.74	14 59 18	2007.4	-33.29	65.19

DIFFERENTIAL CORRECTIONS

TDE -.3220 TRA -.5865 TC3 .2382 BAU .5636
RDE .5308 RRA .4240 RC3-2.8481 FAU .32836
FDE 5.9410 FRA 2.4173 FC-19.2708 BSP 4428
BDE .6208 BRA .7242 BC3 2.8580 FSP 2563

MID-COURSE EXECUTION ACCURACY

SGT 1167.3 SGR 2447.3 SG3 1511.7
RRT -.5517 RRF .9858 RTF -.5487
SGB 2711.5 R23 -.1054 R13 .9801
SG1 2544.7 SG2 936.4 THA 107.13

ORBIT DETERMINATION ACCURACY

ST 28.7 SR 41.3 SS 103.7
CRT -.9532 CRS -.9919 CST .9106
LSA 114.6 MSA 12.1 SSA 1.4
EL1 49.8 EL2 7.2 ALF 124.33

LAUNCH DATE JUL 26 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 483.699 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.914	GAL	-.58	AZL	87.44	HCA	150.11	SHA	200.00	ECC	.24091	INC	2.5636	V1	29.322
RP	236.12	LAP	1.28	LOP	93.01	VP	21.461	GAP	9.30	AZP	92.22	TAL	356.99	TAP	147.10	RCA	151.90	APO	248.11	V2	23.279
RC	193.649	GL	22.46	GP	-27.58	ZAL	92.40	ZAP	120.87	ETS	200.25	ZAE	147.20	ETE	241.82	ZAC	97.13	ETC	285.41	LVI	8.82

PLANETOCENTRIC CONIC

C3	14.855	VHL	3.854	DLA	34.32	RAL	24.31	RAD	6640.5	VEL	11.615	PTH	6.66	VHP	2.042	DPA	-11.93	RAP	45.70	ECC	1.2445

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 6 49	3796.72	-46.82	156.42	267.95	81.00	11 10 6	2796.7	-45.00	121.50
60.00	9 46 34	3850.66	-37.66	158.55	265.23	74.43	10 50 44	2850.9	-40.05	127.68
69.70	8 11 51	4133.66	-21.93	174.07	258.18	62.92	9 20 44	3133.7	-31.13	149.25
69.70	8 11 51	4133.66	-21.93	174.07	258.18	62.92	9 20 44	3133.7	-31.13	149.25
69.70	8 11 51	4133.66	-21.93	174.07	258.18	62.92	9 20 44	3133.7	-31.13	149.25
69.70	8 11 51	4133.66	-21.93	174.07	258.18	62.92	9 20 44	3133.7	-31.13	149.25
69.70	8 11 51	4133.66	-21.93	174.07	258.18	62.92	9 20 44	3133.7	-31.13	149.25

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2948	TRA	-.5666	TC3	.1229	BAU	.5917	SGT	1114.0	SGR	2582.7	SG3	1536.6	ST	26.7	SR	46.6	SS	107.2
RDE	.6051	RRA	.4286	RC3	-2.9771	FAU	.33295	RRT	-.4860	RRF	.9877	RTF	-.4813	CRT	-.9345	CRS	-.9943	CST	.0939
FDE	5.8056	FRA	2.3624	FC	-19.4045	BSP	4585	SGB	2812.7	R23	-.0841	R13	.9841	LSA	119.3	HSA	12.2	SSA	1.3
BDE	.6731	BRA	.7104	BC3	2.9796	FSP	2605	SG1	2647.5	SG2	949.8	THA	103.63	EL1	53.0	EL2	8.4	ALF	118.99

LAUNCH DATE JUL 26 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 487.477 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.905	GAL	-.58	AZL	87.31	HCA	151.08	SHA	199.83	ECC	.23983	INC	2.6863	V1	29.322
RP	236.46	LAP	1.30	LOP	93.98	VP	21.409	GAP	9.05	AZP	92.35	TAL	356.99	TAP	148.07	RCA	151.90	APO	247.75	V2	23.244
RC	196.619	GL	23.50	GP	-28.65	ZAL	92.38	ZAP	119.19	ETS	199.85	ZAE	145.52	ETE	238.62	ZAC	96.22	ETC	285.65	LVI	9.41

PLANETOCENTRIC CONIC

C3	14.982	VHL	3.871	DLA	35.27	RAL	23.81	RAD	6640.5	VEL	11.620	PTH	6.66	VHP	2.822	DPA	-13.13	RAP	45.55	ECC	1.2466

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 58 7	3823.31	-46.61	158.92	268.37	79.10	11 1 50	2823.3	-45.92	123.85
60.00	9 32 53	3890.75	-36.88	161.66	265.07	72.45	10 37 44	2890.8	-40.23	131.05
67.98	7 59 52	4165.76	-22.43	176.88	258.12	62.03	9 9 17	3165.8	-31.94	152.04
67.98	7 59 52	4165.76	-22.43	176.88	258.12	62.03	9 9 17	3165.8	-31.94	152.04
67.98	7 59 52	4165.76	-22.43	176.88	258.12	62.03	9 9 17	3165.8	-31.94	152.04
67.98	7 59 52	4165.76	-22.43	176.88	258.12	62.03	9 9 17	3165.8	-31.94	152.04
67.98	7 59 52	4165.76	-22.43	176.88	258.12	62.03	9 9 17	3165.8	-31.94	152.04

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2629	TRA	-.5464	TC3	.0061	BAU	.6223	SGT	1084.5	SGR	2725.0	SG3	1557.9	ST	24.5	SR	52.2	SS	110.7
RDE	.6854	RRA	.4312	RC3	-3.1069	FAU	.33687	RRT	-.4071	RRF	.9894	RTF	-.4007	CRT	-.9089	CRS	-.9959	CST	.0897
FDE	6.0689	FRA	2.2953	FC	-19.4663	BSP	4760	SGB	2925.5	R23	-.0844	R13	.9873	LSA	124.2	HSA	12.3	SSA	1.2
BDE	.7341	BRA	.6961	BC3	3.1069	FSP	2638	SG1	2764.0	SG2	958.5	THA	100.29	EL1	56.9	EL2	9.4	ALF	113.78

LAUNCH DATE JUL 26 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 491.256 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.897	GAL	-.58	AZL	87.18	HCA	152.05	SHA	199.66	ECC	.23920	INC	2.8205	V1	29.322
RP	236.81	LAP	1.32	LOP	94.95	VP	21.358	GAP	8.80	AZP	92.49	TAL	356.98	TAP	149.03	RCA	151.90	APO	247.42	V2	23.209
RC	199.589	GL	24.59	GP	-29.76	ZAL	92.37	ZAP	117.50	ETS	199.41	ZAE	143.79	ETE	237.83	ZAC	55.28	ETC	285.91	LVI	10.33

PLANETOCENTRIC CONIC

C3	15.136	VHL	3.890	DLA	36.28	RAL	23.28	RAD	6640.6	VEL	11.627	PTH	6.67	VHP	2.808	DPA	-14.37	RAP	45.40	ECC	1.2491

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 48 39	3852.12	-46.20	161.58	268.78	77.09	10 52 51	2852.1	-46.02	126.45
60.00	9 17 11	3936.30	-35.89	165.12	264.79	70.29	10 22 48	2936.3	-40.30	134.93
66.27	7 48 19	4196.33	-22.94	179.62	258.09	61.09	8 58 15	3196.3	-32.78	154.76
66.27	7 48 19	4196.33	-22.94	179.62	258.09	61.09	8 58 15	3196.3	-32.78	154.76
66.27	7 48 19	4196.33	-22.94	179.62	258.09	61.09	8 58 15	3196.3	-32.78	154.76
66.27	7 48 19	4196.33	-22.94	179.62	258.09	61.09	8 58 15	3196.3	-32.78	154.76
66.27	7 48 19	4196.33	-22.94	179.62	258.09	61.09	8 58 15	3196.3	-32.78	154.76

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2258	TRA	-.5254	TC3	-.1115	BAU	.6552	SGT	1019.5	SGR	2872.0	SG3	1574.2	ST	22.0	SR	58.2	SS	114.1
RDE	.7716	RRA	.4314	RC3	-3.2361	FAU	.33998	RRT	-.3128	RRF	.9909	RTF	-.3047	CRT	-.8713	CRS	-.9970	CST	.0328
FDE	6.3243	FRA	2.2096	FC	-19.4444	BSP	4967	SGB	3048.3	R23	-.0846	R13	.9898	LSA	129.3	HSA	12.4	SSA	1.2
BDE	.8039	BRA	.6798	BC3	3.2380	FSP	2670	SG1	2892.6	SG2	961.7	THA	97.13	EL1	61.3	EL2	10.2	ALF	108.78

LAUNCH DATE JUL 26 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 498.035 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.889	GAL	-.58	AZL	87.04	HCA	153.01	SHA	199.51	ECC	.23863	INC	2.9611	V1	29.322
RP	237.14	LAP	1.34	LOP	95.91	VP	21.309	GAP	8.56	AZP	92.64	TAL	356.96	TAP	149.97	RCA	151.90	APO	247.12	V2	23.174
RC	202.557	GL	25.73	GP	-30.90	ZAL	92.38	ZAP	115.81	ETS	198.93	ZAE	142.00	ETE	236.15	ZAC	54.32	ETC	286.18	LVI	11.28

PLANETOCENTRIC CONIC

C3	15.319	VHL	3.914	DLA	37.33	RAL	22.74	RAD	6640.7	VEL	11.635	PTH	6.67	VHP	2.798	DPA	-15.65	RAP	45.26	ECC	1.2521

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 38 16	3883.49	-45.69	164.43	269.16	74.94	10 43 0	2883.5	-46.48	129.33
60.00	8 58 35	3989.83	-34.59	169.06	264.29	67.88	10 5 5	2989.8	-40.20	139.48
64.55	7 37 3	4225.79	-23.45	182.31	258.09	60.08	8 47 29	3225.8	-33.64	157.46
64.55	7 37 3	4225.79	-23.45	182.31	258.09	60.08	8 47 29	3225.8	-33.64	157.46
64.55	7 37 3	4225.79	-23.45	182.31	258.09	60.08	8 47 29	3225.8	-33.64	157.46
64.55	7 37 3	4225.79	-23.45	182.31	258.09	60.08	8 47 29	3225.8	-33.64	157.46
64.55	7 37 3	4225.79	-23.45	182.31	258.09	60.08	8 47 29	3225.8	-33.64	157.46

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1868	TRA	-.5097	TC3	-.2458	BAU	.6887	SGT	997.0	SGR	3024.2	SG3	1584.4	ST	19.7	SR	64.8	SS	117.7
RDE	.8685	RRA	.4337	RC3	-3.3536	FAU	.34103	RRT	-.1976	RRF	.9921	RTF	-.1889	CRT	-.8181	CRS	-.9978	CST	.7803
FDE	6.5957	FRA	2.1343	FC	-19.2729	BSP	5232	SGB	3184.3	R23	-.0305	R13	.9917	LSA	135.2	HSA	12.6	SSA	1.1
BDE	.8888	BRA	.6693	BC3	3.3626	FSP	2708	SG1	3031.3	SG2	975.1	THA	94.16	EL1	66.8	EL2	11.0	ALF	104.38

LAUNCH DATE JUL 26 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 498.815 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.882 GAL -.59 AZL 86.69 HCA 153.97 SMA 199.37 ECC .23810 INC 3.1107 V1 29.322
RP 237.48 LAP 1.36 LOP 96.87 VP 21.261 GAP 8.32 AZP 92.80 TAL 356.94 TAP 150.91 RCA 151.90 APO 246.84 V2 23.140
RC 205.523 GL 26.92 GP -32.08 ZAL 92.39 ZAP 114.11 ETS 198.42 ZAE 140.17 ETE 234.57 ZAC 53.32 ETC 286.47 LVI 12.27

PLANETOCENTRIC CONIC

C3 15.535 VHL 3.942 DLA 38.43 RAL 22.16 RAD 6640.8 VEL 11.644 PTH 6.68 VHP 2.794 DPA -16.96 RAP 45.12 ECC 1.2557

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 26 48	3917.81	-45.03	167.48	269.48	72.67	10 32 6	2917.8	-46.90	132.54
60.00	8 35 16	4056.14	-32.79	173.76	263.42	65.12	9 42 52	3056.1	-39.81	145.07
62.82	7 26 5	4254.16	-23.96	184.97	258.11	59.01	8 36 59	3254.2	-34.54	160.13
62.82	7 26 5	4254.16	-23.96	184.97	258.11	59.01	8 36 59	3254.2	-34.54	160.13
62.82	7 26 5	4254.16	-23.96	184.97	258.11	59.01	8 36 59	3254.2	-34.54	160.13
62.82	7 26 5	4254.16	-23.96	184.97	258.11	59.01	8 36 59	3254.2	-34.54	160.13
62.82	7 26 5	4254.16	-23.96	184.97	258.11	59.01	8 36 59	3254.2	-34.54	160.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1436 TRA -.4919 TC3 -.3774 BAU .7246 SGT 982.5 SGR 3178.6 SG3 1587.5 ST 17.2 SR 71.6 SS 120.9
RDE .9701 RRA .4313 RC3-3.4681 FAU .34116 RRT -.0677 RRF .9932 RTF -.0583 CRT -.7281 CRS -.9984 CST .6900
FDE 6.8387 FRA 2.0286 FC-19.0118 BSP 5484 SGB 3327.0 R23 -.0161 R13 .9931 LSA 141.0 MSA 12.7 SSA 1.0
BDE .9807 BRA .6542 BC3 3.4886 FSP 2720 SG1 3179.4 SG2 980.0 THA 91.33 EL1 72.8 EL2 11.6 ALF 100.19

LAUNCH DATE JUL 26 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC DISTANCE 502.598 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.876 GAL -.59 AZL 86.73 HCA 154.93 SMA 199.24 ECC .23761 INC 3.2704 V1 29.322
RP 237.81 LAP 1.39 LOP 97.83 VP 21.214 GAP 8.07 AZP 92.96 TAL 356.91 TAP 151.84 RCA 151.90 APO 246.59 V2 23.106
RC 208.485 GL 28.16 GP -33.29 ZAL 92.41 ZAP 112.42 ETS 197.87 ZAE 138.30 ETE 233.06 ZAC 52.30 ETC 286.78 LVI 13.29

PLANETOCENTRIC CONIC

C3 15.789 VHL 3.973 DLA 39.58 RAL 21.55 RAD 6640.9 VEL 11.655 PTH 6.69 VHP 2.795 DPA -16.31 RAP 45.00 ECC 1.2598

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 13 59	3955.61	-44.22	170.75	269.70	70.26	10 19 55	2955.6	-47.25	136.13
60.00	8 1 40	4150.48	-29.90	180.09	261.72	61.62	9 10 51	3150.5	-38.75	152.87
61.06	7 15 15	4281.78	-24.47	187.61	258.16	57.86	8 26 37	3281.8	-35.45	162.81
61.06	7 15 15	4281.78	-24.47	187.61	258.16	57.86	8 26 37	3281.8	-35.45	162.81
61.06	7 15 15	4281.78	-24.47	187.61	258.16	57.86	8 26 37	3281.8	-35.45	162.81
61.06	7 15 15	4281.78	-24.47	187.61	258.16	57.86	8 26 37	3281.8	-35.45	162.81
61.06	7 15 15	4281.78	-24.47	187.61	258.16	57.86	8 26 37	3281.8	-35.45	162.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0863 TRA -.4686 TC3 -.4874 BAU .7659 SGT 966.6 SGR 3345.2 SG3 1587.5 ST 14.6 SR 78.5 SS 123.4
RDE 1.0753 RRA .4210 RC3-3.5959 FAU .34202 RRT .0691 RRF .9941 RTF .0803 CRT -.5557 CRS -.9988 CST .5163
FDE 7.0429 FRA 1.8793 FC-18.7537 BSP 5658 SGB 3482.0 R23 -.0054 R13 .9942 LSA 146.4 MSA 12.7 SSA .9
BDE 1.0787 BRA .6299 BC3 3.6287 FSP 2677 SG1 3345.9 SG2 964.1 THA 88.75 EL1 79.0 EL2 12.0 ALF 96.02

LAUNCH DATE JUL 26 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC DISTANCE 506.379 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.870 GAL -.60 AZL 86.56 HCA 155.88 SMA 199.13 ECC .23717 INC 3.4416 V1 29.322
RP 238.14 LAP 1.41 LOP 98.79 VP 21.169 GAP 7.83 AZP 93.14 TAL 356.87 TAP 152.76 RCA 151.90 APO 246.35 V2 23.073
RC 211.443 GL 29.47 GP -34.54 ZAL 92.44 ZAP 110.73 ETS 197.28 ZAE 136.39 ETE 231.63 ZAC 51.25 ETC 287.11 LVI 14.34

PLANETOCENTRIC CONIC

C3 16.084 VHL 4.011 DLA 40.79 RAL 20.89 RAD 6641.0 VEL 11.667 PTH 6.70 VHP 2.802 DPA -19.69 RAP 44.90 ECC 1.2647

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 59 28	3997.74	-43.19	174.28	269.76	67.70	10 6 6	2997.7	-47.49	140.17
59.28	7 4 34	4308.74	-24.98	190.26	258.24	56.63	8 16 23	3308.7	-36.40	165.51
59.28	7 4 34	4308.74	-24.98	190.26	258.24	56.63	8 16 23	3308.7	-36.40	165.51
59.28	7 4 34	4308.74	-24.98	190.26	258.24	56.63	8 16 23	3308.7	-36.40	165.51
59.28	7 4 34	4308.74	-24.98	190.26	258.24	56.63	8 16 23	3308.7	-36.40	165.51
59.28	7 4 34	4308.74	-24.98	190.26	258.24	56.63	8 16 23	3308.7	-36.40	165.51
59.28	7 4 34	4308.74	-24.98	190.26	258.24	56.63	8 16 23	3308.7	-36.40	165.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0361 TRA -.4598 TC3 -.6385 BAU .8032 SGT 1008.8 SGR 3504.9 SG3 1576.1 ST 13.3 SR 86.7 SS 126.8
RDE 1.2009 RRA .4193 RC3-3.6804 FAU .33800 RRT .2084 RRF .9949 RTF .1085 CRT -.3231 CRS -.9991 CST .2848
FDE 7.2924 FRA 1.7796 FC-18.1932 BSP 6022 SGB 3647.2 R23 .0067 R13 .9950 LSA 153.7 MSA 13.0 SSA .9
BDE 1.2015 BRA .6222 BC3 3.7353 FSP 2701 SG1 3511.7 SG2 984.7 THA 86.27 EL1 86.8 EL2 12.6 ALF 92.90

LAUNCH DATE JUL 26 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC DISTANCE 510.161 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.865 GAL -.61 AZL 86.37 HCA 156.84 SMA 199.02 ECC .23677 INC 3.6253 V1 29.322
RP 238.47 LAP 1.43 LOP 99.75 VP 21.124 GAP 7.59 AZP 93.33 TAL 356.83 TAP 153.66 RCA 151.90 APO 246.14 V2 23.040
RC 214.394 GL 30.84 GP -35.82 ZAL 92.47 ZAP 109.06 ETS 196.65 ZAE 134.46 ETE 230.26 ZAC 50.17 ETC 287.47 LVI 15.44

PLANETOCENTRIC CONIC

C3 16.428 VHL 4.053 DLA 42.06 RAL 20.19 RAD 6641.2 VEL 11.682 PTH 6.72 VHP 2.816 DPA -21.11 RAP 44.83 ECC 1.2704

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 42 43	4045.31	-41.89	178.10	269.59	64.98	9 50 9	3045.3	-47.58	144.77
57.46	6 53 53	4335.27	-25.47	192.93	258.34	55.32	8 6 9	3335.3	-37.36	168.25
57.46	6 53 53	4335.27	-25.47	192.93	258.34	55.32	8 6 9	3335.3	-37.36	168.25
57.46	6 53 53	4335.27	-25.47	192.93	258.34	55.32	8 6 9	3335.3	-37.36	168.25
57.46	6 53 53	4335.27	-25.47	192.93	258.34	55.32	8 6 9	3335.3	-37.36	168.25
57.46	6 53 53	4335.27	-25.47	192.93	258.34	55.32	8 6 9	3335.3	-37.36	168.25
57.46	6 53 53	4335.27	-25.47	192.93	258.34	55.32	8 6 9	3335.3	-37.36	168.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0280 TRA -.4456 TC3 -.7683 BAU .8454 SGT 1053.2 SGR 3672.0 SG3 1558.8 ST 12.9 SR 94.8 SS 129.3
RDE 1.3295 RRA .4077 RC3-3.7719 FAU .33428 RRT .3413 RRF .9956 RTF .3514 CRT .0346 CRS -.9993 CST -.0693
FDE 7.4844 FRA 1.6311 FC-17.6167 BSP 6318 SGB 3820.1 R23 .0157 R13 .9956 LSA 160.3 MSA 13.2 SSA .8
BDE 1.3298 BRA .6040 BC3 3.8494 FSP 2673 SG1 3690.9 SG2 984.9 THA 83.98 EL1 94.8 EL2 12.9 ALF 89.72

LAUNCH DATE JUL 26 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC DISTANCE 513.943 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.860	GAL	-.62	AZL	86.18	HCA	157.78	SMA	198.92	ECC	.23641	INC	3.8238	V1	29.322
RP	238.79	LAP	1.44	LOP	100.70	VP	21.081	GAP	7.36	AZP	93.54	TAL	356.78	TAP	154.56	RCA	151.90	APO	245.95	V2	23.008
RC	217.340	GL	32.29	GP	-37.13	ZAL	92.51	ZAP	107.41	ETS	195.98	ZAE	132.50	ETE	228.95	ZAC	49.07	ETC	287.84	LVI	16.57

PLANETOCENTRIC CONIC

C3	16.827	VHL	4.102	DLA	43.39	RAL	19.42	RAD	6641.4	VEL	11.699	PTH	6.73	VHP	2.836	DPA	-22.56	RAP	44.77	ECC	1.2769

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 22 51	4100.31	-40.22	182.32	269.05	62.06	9 31 12	3100.3	-47.42	150.08
55.60	6 43 13	4361.40	-25.95	195.62	258.46	53.91	7 55 54	3361.4	-38.34	171.06
55.60	6 43 13	4361.40	-25.95	195.62	258.46	53.91	7 55 54	3361.4	-38.34	171.06
55.60	6 43 13	4361.40	-25.95	195.62	258.46	53.91	7 55 54	3361.4	-38.34	171.06
55.60	6 43 13	4361.40	-25.95	195.62	258.46	53.91	7 55 54	3361.4	-38.34	171.06
55.60	6 43 13	4361.40	-25.95	195.62	258.46	53.91	7 55 54	3361.4	-38.34	171.06
55.60	6 43 13	4361.40	-25.95	195.62	258.46	53.91	7 55 54	3361.4	-38.34	171.06

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0988	TRA	-.4335	TC3	-.8987	BAU	.8877	SGT	1121.2	SGR	3638.8	SG3	1532.7	ST	14.3	SR	103.5	SS	131.7
RDE	1.4718	RRA	.3937	RC3	-3.8424	FAU	.32826	RRT	.4594	RRF	.9962	RTF	.4690	CRT	.3863	CRS	-.9995	CST	-.4138
FDE	7.6659	FRA	1.4771	FC	-16.8890	BSP	6631	SGB	3999.1	R23	.0237	R13	.9960	LSA	167.6	MSA	13.3	SSA	.7
BDE	1.4751	BRA	.5856	BC3	3.9461	FSP	2632	SG1	3875.6	SG2	986.4	THA	81.82	EL1	103.7	EL2	13.2	ALF	86.89

LAUNCH DATE JUL 26 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 517.725 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.855	GAL	-.63	AZL	85.96	HCA	158.73	SMA	198.84	ECC	.23609	INC	4.0379	V1	29.322
RP	239.10	LAP	1.46	LOP	101.65	VP	21.039	GAP	7.12	AZP	93.76	TAL	356.72	TAP	155.45	RCA	151.89	APO	245.78	V2	22.978
RC	220.278	GL	33.80	GP	-38.48	ZAL	92.56	ZAP	105.78	ETS	195.26	ZAE	130.52	ETE	227.68	ZAC	47.93	ETC	288.25	LVI	17.73

PLANETOCENTRIC CONIC

C3	17.291	VHL	4.158	DLA	44.79	RAL	18.59	RAD	6641.6	VEL	11.718	PTH	6.75	VHP	2.863	DPA	-24.03	RAP	44.75	ECC	1.2646

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 58 11	4166.60	-37.99	187.10	267.93	58.87	9 7 38	3166.6	-46.89	156.39
53.70	6 32 25	4387.40	-26.40	198.35	258.60	52.40	7 45 33	3387.4	-39.34	173.95
53.70	6 32 25	4387.40	-26.40	198.35	258.60	52.40	7 45 33	3387.4	-39.34	173.95
53.70	6 32 25	4387.40	-26.40	198.35	258.60	52.40	7 45 33	3387.4	-39.34	173.95
53.70	6 32 25	4387.40	-26.40	198.35	258.60	52.40	7 45 33	3387.4	-39.34	173.95
53.70	6 32 25	4387.40	-26.40	198.35	258.60	52.40	7 45 33	3387.4	-39.34	173.95
53.70	6 32 25	4387.40	-26.40	198.35	258.60	52.40	7 45 33	3387.4	-39.34	173.95

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1783	TRA	-.4240	TC3	-1.0211	BAU	.9331	SGT	1208.0	SGR	4011.7	SG3	1500.1	ST	17.5	SR	112.6	SS	133.6
RDE	1.6248	RRA	.3762	RC3	-3.9052	FAU	.32134	RRT	.5585	RRF	.9967	RTF	.5677	CRT	.6337	CRS	-.9996	CST	-.6537
FDE	7.8131	FRA	1.3147	FC	-16.0891	BSP	6969	SGB	4189.6	R23	.0300	R13	.9963	LSA	175.0	MSA	13.5	SSA	.7
BDE	1.6346	BRA	.5668	BC3	4.0365	FSP	2583	SG1	4071.6	SG2	987.2	THA	79.85	EL1	113.1	EL2	13.4	ALF	84.30

LAUNCH DATE JUL 26 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC DISTANCE 521.507 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.851	GAL	-.64	AZL	85.73	HCA	159.67	SMA	198.76	ECC	.23581	INC	4.2704	V1	29.322
RP	239.42	LAP	1.48	LOP	102.60	VP	20.999	GAP	6.88	AZP	94.01	TAL	356.66	TAP	156.33	RCA	151.89	APO	245.63	V2	22.944
RC	223.209	GL	35.40	GP	-39.87	ZAL	92.61	ZAP	104.18	ETS	194.49	ZAE	128.53	ETE	226.45	ZAC	46.77	ETC	288.68	LVI	18.94

PLANETOCENTRIC CONIC

C3	17.831	VHL	4.223	DLA	46.25	RAL	17.66	RAD	6641.9	VEL	11.741	PTH	6.77	VHP	2.898	DPA	-25.54	RAP	44.77	ECC	1.2935

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 24 16	4254.62	-34.72	192.97	265.67	55.16	8 35 11	3254.6	-45.62	164.50
51.74	6 21 29	4413.28	-26.82	201.13	258.74	50.79	7 35 2	3413.3	-40.34	176.94
51.74	6 21 29	4413.28	-26.82	201.13	258.74	50.79	7 35 2	3413.3	-40.34	176.94
51.74	6 21 29	4413.28	-26.82	201.13	258.74	50.79	7 35 2	3413.3	-40.34	176.94
51.74	6 21 29	4413.28	-26.82	201.13	258.74	50.79	7 35 2	3413.3	-40.34	176.94
51.74	6 21 29	4413.28	-26.82	201.13	258.74	50.79	7 35 2	3413.3	-40.34	176.94
51.74	6 21 29	4413.28	-26.82	201.13	258.74	50.79	7 35 2	3413.3	-40.34	176.94

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2671	TRA	-.4167	TC3	-1.1384	BAU	.9802	SGT	1313.1	SGR	4183.8	SG3	1458.5	ST	21.9	SR	121.9	SS	134.9
RDE	1.7892	RRA	.3515	RC3	-3.9511	FAU	.31283	RRT	.6415	RRF	.9972	RTF	.6200	CRT	.7780	CRS	-.9997	CST	-.7920
FDE	7.9202	FRA	1.1332	FC	-15.1684	BSP	7283	SGB	4385.0	R23	.0355	R13	.9966	LSA	182.6	MSA	13.7	SSA	.6
BDE	1.8090	BRA	.5451	BC3	4.1119	FSP	2506	SG1	4272.6	SG2	986.4	THA	77.97	EL1	123.1	EL2	13.6	ALF	81.93

LAUNCH DATE JUL 26 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC DISTANCE 525.289 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.848	GAL	-.65	AZL	85.48	HCA	160.62	SMA	198.69	ECC	.23555	INC	4.5241	V1	29.322
RP	239.73	LAP	1.50	LOP	103.54	VP	20.959	GAP	6.65	AZP	94.27	TAL	356.59	TAP	157.20	RCA	151.89	APO	245.50	V2	22.912
RC	226.132	GL	37.08	GP	-41.28	ZAL	92.66	ZAP	102.62	ETS	193.69	ZAE	126.54	ETE	225.26	ZAC	45.58	ETC	289.15	LVI	20.19

PLANETOCENTRIC CONIC

C3	18.462	VHL	4.297	DLA	47.79	RAL	16.64	RAD	6642.1	VEL	11.768	PTH	6.79	VHP	2.943	DPA	-27.07	RAP	44.83	ECC	1.3038

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.72	6 10 15	4439.31	-27.19	203.97	258.88	49.06	7 24 15	3439.3	-41.34	180.06
49.72	6 10 15	4439.31	-27.19	203.97	258.88	49.06	7 24 15	3439.3	-41.34	180.06
49.72	6 10 15	4439.31	-27.19	203.97	258.88	49.06	7 24 15	3439.3	-41.34	180.06
49.72	6 10 15	4439.31	-27.19	203.97	258.88	49.06	7 24 15	3439.3	-41.34	180.06
49.72	6 10 15	4439.31	-27.19	203.97	258.88	49.06	7 24 15	3439.3	-41.34	180.06
49.72	6 10 15	4439.31	-27.19	203.97	258.88	49.06	7 24 15	3439.3	-41.34	180.06
49.72	6 10 15	4439.31	-27.19	203.97	258.88	49.06	7 24 15	3439.3	-41.34	180.06

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3653	TRA	-.4125	TC3	-1.2461	BAU	1.0290	SGT	1433.2	SGR	4358.7	SG3	1409.5	ST	27.3	SR	131.8	SS	135.8
RDE	1.9698	RRA	.3222	RC3	-3.9786	FAU	.30278	RRT	.7070	RRF	.9975	RTF	.7150	CRT	.8579	CRS	-.9998	CST	-.8678
FDE	7.9973	FRA	.9484	FC	-14.1981	BSP	7653	SGB	4588.3	R23	.0400	R13	.9968	LSA	190.7	MSA	13.8	SSA	.5
BDE	2.0034	BRA	.5234	BC3	4.1692	FSP	2431	SG1	4481.1	SG2	985.8	THA	76.23	EL1	133.9	EL2	13.8	ALF	79.80

LAUNCH DATE JUL 26 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 13 1974

HELIOCENTRIC CONIC — DISTANCE 529.070 — EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.845	GAL	-.66	AZL	85.20	HCA	161.55	SMA	198.63	ECC	.23534	INC	4.8018	V1	29.322
RP	240.03	LAP	1.52	LOP	104.48	VP	20.921	GAP	6.42	AZP	94.56	TAL	356.51	TAP	158.07	RCA	151.89	APO	245.38	V2	22.882
RC	229.048	GL	38.86	GP	-42.74	ZAL	92.71	ZAP	101.10	ETS	192.84	ZAE	124.55	ETE	224.10	ZAC	44.35	ETC	289.65	LVI	21.47

PLANETOCENTRIC CONIC

C3	19.201	VHL	4.382	DLA	49.40	RAL	15.49	RAD	6642.5	VEL	11.799	PTH	6.82	VHP	2.997	DPA	-28.63	RAP	44.94	ECC	1.3160

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.65	5 58 42	4465.54	-27.50	206.87	259.00	47.20	7 13 7	3465.5	-42.32	183.33
47.65	5 58 42	4465.54	-27.50	206.87	259.00	47.20	7 13 7	3465.5	-42.32	183.33
47.65	5 58 42	4465.54	-27.50	206.87	259.00	47.20	7 13 7	3465.5	-42.32	183.33
47.65	5 58 42	4465.54	-27.50	206.87	259.00	47.20	7 13 7	3465.5	-42.32	183.33
47.65	5 58 42	4465.54	-27.50	206.87	259.00	47.20	7 13 7	3465.5	-42.32	183.33
47.65	5 58 42	4465.54	-27.50	206.87	259.00	47.20	7 13 7	3465.5	-42.32	183.33
47.65	5 58 42	4465.54	-27.50	206.87	259.00	47.20	7 13 7	3465.5	-42.32	183.33

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4750	TRA	-.4114	TC3	-1.3440	BAU	1.0781	SGT	1567.3	SGR	4530.3	SG3	1351.4	ST	33.5	SR	142.1	SS	136.2
RDE	2.1675	RRA	.2865	RC3	-3.9790	FAU	.29069	RRT	.7594	RRF	.9979	RTF	.7868	CRT	.9045	CRS	-.9998	CST	-.9117
FDE	8.0355	FRA	.7579	FC	-13.1066	BSP	8010	SGB	4793.7	R23	.0439	R13	.9970	LSA	199.2	MSA	14.0	SSA	.5
BDE	2.2189	BRA	.5013	BC3	4.1999	FSP	2334	SG1	4691.5	SG2	984.7	THA	74.58	EL1	145.3	EL2	14.0	ALF	77.85

LAUNCH DATE JUL 26 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 15 1974

HELIOCENTRIC CONIC — DISTANCE 532.850 — EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.842	GAL	-.68	AZL	84.89	HCA	162.49	SMA	198.98	ECC	.23515	INC	5.1072	V1	29.322
RP	240.34	LAP	1.54	LOP	105.42	VP	20.883	GAP	6.18	AZP	94.87	TAL	356.43	TAP	158.92	RCA	151.89	APO	245.28	V2	22.851
RC	231.955	GL	40.73	GP	-44.23	ZAL	92.76	ZAP	99.62	ETS	191.94	ZAE	122.56	ETE	222.96	ZAC	43.10	ETC	290.20	LVI	22.80

PLANETOCENTRIC CONIC

C3	20.072	VHL	4.480	DLA	51.08	RAL	14.19	RAD	6642.9	VEL	11.836	PTH	6.85	VHP	3.062	DPA	-30.21	RAP	45.10	ECC	1.3303

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.51	5 46 40	4492.18	-27.74	209.86	259.07	45.22	7 1 32	3492.2	-43.26	186.78
45.51	5 46 40	4492.18	-27.74	209.86	259.07	45.22	7 1 32	3492.2	-43.26	186.78
45.51	5 46 40	4492.18	-27.74	209.86	259.07	45.22	7 1 32	3492.2	-43.26	186.78
45.51	5 46 40	4492.18	-27.74	209.86	259.07	45.22	7 1 32	3492.2	-43.26	186.78
45.51	5 46 40	4492.18	-27.74	209.86	259.07	45.22	7 1 32	3492.2	-43.26	186.78
45.51	5 46 40	4492.18	-27.74	209.86	259.07	45.22	7 1 32	3492.2	-43.26	186.78
45.51	5 46 40	4492.18	-27.74	209.86	259.07	45.22	7 1 32	3492.2	-43.26	186.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5955	TRA	-.4151	TC3	-1.4308	BAU	1.1293	SGT	1713.9	SGR	4701.4	SG3	1285.7	ST	40.2	SR	152.6	SS	135.9
RDE	2.3829	RRA	.2406	RC3	-3.9579	FAU	.27725	RRT	.8009	RRF	.9982	RTF	.8077	CRT	.9325	CRS	-.9999	CST	-.9378
FDE	8.0255	FRA	.5551	FC	-11.9582	BSP	8363	SGB	5004.1	R23	.0472	R13	.9971	LSA	207.8	MSA	14.1	SSA	.4
BDE	2.4562	BRA	.4798	BC3	4.2086	FSP	2221	SG1	4906.5	SG2	983.4	THA	73.02	EL1	157.2	EL2	14.1	ALF	76.09

LAUNCH DATE JUL 26 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 17 1974

HELIOCENTRIC CONIC — DISTANCE 536.628 — EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.840	GAL	-.69	AZL	84.55	HCA	163.42	SMA	198.54	ECC	.23499	INC	5.4452	V1	29.322
RP	240.63	LAP	1.55	LOP	106.36	VP	20.847	GAP	5.95	AZP	95.22	TAL	356.35	TAP	159.77	RCA	151.88	APO	245.19	V2	22.821
RC	234.852	GL	42.71	GP	-45.75	ZAL	92.80	ZAP	98.20	ETS	191.01	ZAE	120.58	ETE	221.84	ZAC	41.82	ETC	290.79	LVI	24.16

PLANETOCENTRIC CONIC

C3	21.103	VHL	4.594	DLA	52.84	RAL	12.70	RAD	6643.3	VEL	11.879	PTH	6.89	VHP	3.140	DPA	-31.82	RAP	45.32	ECC	1.3473

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.31	5 34 3	4519.39	-27.88	212.91	259.08	43.11	6 49 22	3519.4	-44.15	190.43
43.31	5 34 3	4519.39	-27.88	212.91	259.08	43.11	6 49 22	3519.4	-44.15	190.43
43.31	5 34 3	4519.39	-27.88	212.91	259.08	43.11	6 49 22	3519.4	-44.15	190.43
43.31	5 34 3	4519.39	-27.88	212.91	259.08	43.11	6 49 22	3519.4	-44.15	190.43
43.31	5 34 3	4519.39	-27.88	212.91	259.08	43.11	6 49 22	3519.4	-44.15	190.43
43.31	5 34 3	4519.39	-27.88	212.91	259.08	43.11	6 49 22	3519.4	-44.15	190.43
43.31	5 34 3	4519.39	-27.88	212.91	259.08	43.11	6 49 22	3519.4	-44.15	190.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7289	TRA	-.4237	TC3	-1.5012	BAU	1.1828	SGT	1869.3	SGR	4874.1	SG3	1213.3	ST	47.4	SR	163.5	SS	134.9
RDE	2.6193	RRA	.1871	RC3	-3.9145	FAU	.26257	RRT	.8333	RRF	.9984	RTF	.8096	CRT	.9503	CRS	-.9999	CST	-.9543
FDE	7.9656	FRA	.3562	FC	-10.7718	BSP	8733	SGB	5220.3	R23	.0499	R13	.9972	LSA	216.7	MSA	14.2	SSA	.4
BDE	2.7188	BRA	.4632	BC3	4.1925	FSP	2099	SG1	5127.0	SG2	982.4	THA	71.58	EL1	169.7	EL2	14.2	ALF	74.50

LAUNCH DATE JUL 26 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 19 1974

HELIOCENTRIC CONIC — DISTANCE 540.406 — EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.838	GAL	-.71	AZL	84.18	HCA	164.35	SMA	198.50	ECC	.23486	INC	5.8212	V1	29.322
RP	240.93	LAP	1.57	LOP	107.30	VP	20.812	GAP	5.72	AZP	95.61	TAL	356.26	TAP	160.61	RCA	151.88	APO	245.12	V2	22.792
RC	237.739	GL	44.81	GP	-47.31	ZAL	92.84	ZAP	96.84	ETS	190.04	ZAE	118.62	ETE	220.74	ZAC	40.51	ETC	291.43	LVI	25.57

PLANETOCENTRIC CONIC

C3	22.333	VHL	4.726	DLA	54.68	RAL	10.99	RAD	6643.9	VEL	11.930	PTH	6.93	VHP	3.233	DPA	-33.44	RAP	45.61	ECC	1.3675

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.03	5 20 36	4547.44	-27.90	216.05	258.97	40.86	6 36 24	3547.4	-44.96	194.31
41.03	5 20 36	4547.44	-27.90	216.05	258.97	40.86	6 36 24	3547.4	-44.96	194.31
41.03	5 20 36	4547.44	-27.90	216.05	258.97	40.86	6 36 24	3547.4	-44.96	194.31
41.03	5 20 36	4547.44	-27.90	216.05	258.97	40.86	6 36 24	3547.4	-44.96	194.31
41.03	5 20 36	4547.44	-27.90	216.05	258.97	40.86	6 36 24	3547.4	-44.96	194.31
41.03	5 20 36	4547.44	-27.90	216.05	258.97	40.86	6 36 24	3547.4	-44.96	194.31
41.03	5 20 36	4547.44	-27.90	216.05	258.97	40.86	6 36 24	3547.4	-44.96	194.31

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8762	TRA	-.4378	TC3	-1.5546	BAU	1.2373	SGT	2032.3	SGR	5040.2	SG3	1132.9	ST	54.9	SR	174.5	SS	132.8
RDE	2.8759	RRA	.1214	RC3	-3.8413	FAU	.24633	RRT	.8596	RRF	.9986	RTF	.8654	CRT	.9623	CRS	-.9999	CST	-.9654
FDE	7.8412	FRA	.1545	FC	-9.5487	BSP	9099	SGB	5434.6	R23	.0520	R13	.9973	LSA	225.6	MSA	14.4	SSA	.3
BDE	3.0064	BRA	.4543	BC3	4.1440	FSP	1963	SG1	5345.6	SG2	979.2	THA	70.19	EL1	182.3	EL2	14.3	ALF	73.04

LAUNCH DATE JUL 26 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 21 1974

HELIOCENTRIC CONIC DISTANCE 544.182 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.836	GAL	-.73	AZL	83.76	HCA	165.28	SMA	198.47	ECC	.23476	INC	6.2425	V1	29.322
RP	241.22	LAP	1.58	LOP	108.23	VP	20.777	GAP	5.49	AZP	96.04	TAL	356.16	TAP	161.44	RCA	151.88	APO	245.07	V2	22.763
RC	240.615	GL	47.02	GP	-48.89	ZAL	92.87	ZAP	95.55	ETS	189.03	ZAE	116.69	ETE	219.65	ZAC	39.16	ETC	292.14	LVI	27.01

PLANETOCENTRIC CONIC

C3	23.813	VHL	4.880	DLA	56.59	RAL	8.99	RAD	6644.5	VEL	11.991	PTH	6.99	VHP	3.343	DPA	-35.07	RAP	45.98	ECC	1.3919

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.70	5 6 9	4576.56	-27.77	219.27	258.68	38.48	6 22 25	3576.6	-45.65	198.42
38.70	5 6 9	4576.56	-27.77	219.27	258.68	38.48	6 22 25	3576.6	-45.65	198.42
38.70	5 6 9	4576.56	-27.77	219.27	258.68	38.48	6 22 25	3576.6	-45.65	198.42
38.70	5 6 9	4576.56	-27.77	219.27	258.68	38.48	6 22 25	3576.6	-45.65	198.42
38.70	5 6 9	4576.56	-27.77	219.27	258.68	38.48	6 22 25	3576.6	-45.65	198.42
38.70	5 6 9	4576.56	-27.77	219.27	258.68	38.48	6 22 25	3576.6	-45.65	198.42
38.70	5 6 9	4576.56	-27.77	219.27	258.68	38.48	6 22 25	3576.6	-45.65	198.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0375	TRA	-.4586	TC3	-1.5887	BAU	1.2932	SGT	2201.0	SGR	5204.9	SG3	1046.7	ST	62.7	SR	185.6	SS	129.9
RDE	3.1604	RRA	.0441	RC3	-3.7385	FAU	.22874	RRT	.8804	RRF	.9988	RTF	.8859	CRT	.9704	CRS	-.9999	CST	-.9728
FDE	7.6602	FRA	-.0388	FC3	-8.3160	BSP	9502	SGB	5651.1	R23	.0536	R13	.9974	LSA	234.6	MSA	14.5	SSA	.3
BDE	3.3264	BRA	.4607	BC3	4.0620	FSP	1823	SG1	5566.2	SG2	976.0	THA	68.90	EL1	195.4	EL2	14.4	ALF	71.75

LAUNCH DATE JUL 26 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 23 1974

HELIOCENTRIC CONIC DISTANCE 547.956 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.835	GAL	-.75	AZL	83.28	HCA	166.20	SMA	198.45	ECC	.23469	INC	6.7175	V1	29.322
RP	241.50	LAP	1.60	LOP	109.16	VP	20.744	GAP	5.26	AZP	96.53	TAL	356.06	TAP	162.26	RCA	151.87	APO	245.02	V2	22.734
RC	243.479	GL	49.37	GP	-50.51	ZAL	92.89	ZAP	94.34	ETS	188.00	ZAE	114.80	ETE	218.58	ZAC	37.80	ETC	292.91	LVI	28.50

PLANETOCENTRIC CONIC

C3	25.611	VHL	5.061	DLA	58.57	RAL	6.63	RAD	6645.2	VEL	12.066	PTH	7.05	VHP	3.473	DPA	-36.71	RAP	46.43	ECC	1.4215

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.31	4 50 22	4607.01	-27.46	222.54	258.12	35.99	6 7 9	3607.0	-46.17	202.78
36.31	4 50 22	4607.01	-27.46	222.54	258.12	35.99	6 7 9	3607.0	-46.17	202.78
36.31	4 50 22	4607.01	-27.46	222.54	258.12	35.99	6 7 9	3607.0	-46.17	202.78
36.31	4 50 22	4607.01	-27.46	222.54	258.12	35.99	6 7 9	3607.0	-46.17	202.78
36.31	4 50 22	4607.01	-27.46	222.54	258.12	35.99	6 7 9	3607.0	-46.17	202.78
36.31	4 50 22	4607.01	-27.46	222.54	258.12	35.99	6 7 9	3607.0	-46.17	202.78
36.31	4 50 22	4607.01	-27.46	222.54	258.12	35.99	6 7 9	3607.0	-46.17	202.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2108	TRA	-.4884	TC3	-1.6040	BAU	1.3527	SGT	2374.7	SGR	5363.2	SG3	954.8	ST	70.4	SR	196.3	SS	125.7
RDE	3.4655	RRA	-.0550	RC3	-3.6106	FAU	.21032	RRT	.8981	RRF	.9989	RTF	.9033	CRT	.9761	CRS	-1.0000	CST	-.9781
FDE	7.3937	FRA	-.2373	FC3	-7.1097	BSP	9845	SGB	5865.4	R23	.0546	R13	.9975	LSA	243.0	MSA	14.5	SSA	.3
BDE	3.6710	BRA	.4914	BC3	3.9508	FSP	1663	SG1	5784.9	SG2	968.3	THA	67.65	EL1	208.0	EL2	14.4	ALF	70.60

LAUNCH DATE JUL 26 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 25 1974

HELIOCENTRIC CONIC DISTANCE 551.727 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.834	GAL	-.77	AZL	82.74	HCA	167.12	SMA	198.43	ECC	.23464	INC	7.2580	V1	29.322
RP	241.78	LAP	1.61	LOP	110.09	VP	20.712	GAP	5.03	AZP	97.08	TAL	355.96	TAP	163.08	RCA	151.87	APO	244.99	V2	22.706
RC	246.330	GL	51.85	GP	-52.15	ZAL	92.89	ZAP	93.21	ETS	186.94	ZAE	112.95	ETE	217.52	ZAC	36.40	ETC	293.75	LVI	30.01

PLANETOCENTRIC CONIC

C3	27.818	VHL	5.274	DLA	60.61	RAL	3.80	RAD	6646.1	VEL	12.156	PTH	7.12	VHP	3.628	DPA	-38.35	RAP	46.98	ECC	1.4578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.87	4 32 53	4639.11	-26.93	225.86	257.19	33.39	5 50 13	3639.1	-46.47	207.37
33.87	4 32 53	4639.11	-26.93	225.86	257.19	33.39	5 50 13	3639.1	-46.47	207.37
33.87	4 32 53	4639.11	-26.93	225.86	257.19	33.39	5 50 13	3639.1	-46.47	207.37
33.87	4 32 53	4639.11	-26.93	225.86	257.19	33.39	5 50 13	3639.1	-46.47	207.37
33.87	4 32 53	4639.11	-26.93	225.86	257.19	33.39	5 50 13	3639.1	-46.47	207.37
33.87	4 32 53	4639.11	-26.93	225.86	257.19	33.39	5 50 13	3639.1	-46.47	207.37
33.87	4 32 53	4639.11	-26.93	225.86	257.19	33.39	5 50 13	3639.1	-46.47	207.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.3964	TRA	-.5273	TC3	-1.5956	BAU	1.4146	SGT	2548.8	SGR	5519.5	SG3	859.0	ST	77.9	SR	206.6	SS	120.2
RDE	3.8015	RRA	-.1716	RC3	-3.4529	FAU	.19092	RRT	.9126	RRF	.9990	RTF	.9175	CRT	.9802	CRS	-1.0000	CST	-.9819
FDE	7.0539	FRA	-.4177	FC3	-5.9415	BSP	10217	SGB	6079.5	R23	.0548	R13	.9976	LSA	251.0	MSA	14.6	SSA	.2
BDE	4.0498	BRA	.5545	BC3	3.8037	FSP	1500	SG1	6003.6	SG2	958.1	THA	66.51	EL1	220.3	EL2	14.5	ALF	69.63

LAUNCH DATE JUL 26 1973 FLIGHT TIME 244.00 ARRIVAL DATE MAR 27 1974

HELIOCENTRIC CONIC DISTANCE 555.496 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.834	GAL	-.79	AZL	82.12	HCA	168.04	SMA	198.42	ECC	.23462	INC	7.8784	V1	29.322
RP	242.06	LAP	1.63	LOP	111.02	VP	20.681	GAP	4.80	AZP	97.71	TAL	355.85	TAP	163.89	RCA	151.87	APO	244.97	V2	22.679
RC	249.167	GL	54.49	GP	-53.82	ZAL	92.88	ZAP	92.17	ETS	185.87	ZAE	111.15	ETE	216.49	ZAC	34.99	ETC	294.69	LVI	31.56

PLANETOCENTRIC CONIC

C3	30.566	VHL	5.529	DLA	62.69	RAL	.38	RAD	6647.2	VEL	12.268	PTH	7.21	VHP	3.812	DPA	-39.98	RAP	47.63	ECC	1.5030

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.40	4 13 13	4673.20	-26.13	229.18	255.72	30.73	5 31 6	3673.2	-46.49	212.15
31.40	4 13 13	4673.20	-26.13	229.18	255.72	30.73	5 31 6	3673.2	-46.49	212.15
31.40	4 13 13	4673.20	-26.13	229.18	255.72	30.73	5 31 6	3673.2	-46.49	212.15
31.40	4 13 13	4673.20	-26.13	229.18	255.72	30.73	5 31 6	3673.2	-46.49	212.15
31.40	4 13 13	4673.20	-26.13	229.18	255.72	30.73	5 31 6	3673.2	-46.49	212.15
31.40	4 13 13	4673.20	-26.13	229.18	255.72	30.73	5 31 6	3673.2	-46.49	212.15
31.40	4 13 13	4673.20	-26.13	229.18	255.72	30.73	5 31 6	3673.2	-46.49	212.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.5848	TRA	-.5801	TC3	-1.5670	BAU	1.4817	SGT	2723.4	SGR	5671.8	SG3	760.4	ST	84.5	SR	215.9	SS	113.2
RDE	4.1599	RRA	-.3166	RC3	-3.2699	FAU	.17093	RRT	.9246	RRF	.9991	RTF	.9294	CRT	.9829	CRS	-1.0000	CST	-.9844
FDE	6.6177	FRA	-.5867	FC3	-4.8414	BSP	10564	SGB	6291.7	R23	.0544	R13	.9977	LSA	257.6	MSA	14.6	SSA	.2
BDE	4.4515	BRA	.6609	BC3	3.6259	FSP	1329	SG1	6220.2	SG2	945.8	THA	65.45	EL1	231.4	EL2	14.5	ALF	68.87

LAUNCH DATE JUL 26 1973 FLIGHT TIME 246.00 ARRIVAL DATE MAR 29 1974

HELIOCENTRIC CONIC DISTANCE 559.261 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.833	GAL	-.81	AZL	81.40	HCA	168.95	SMA	198.41	ECC	.23462	INC	8.5986	V1	29.322
RP	242.33	LAP	1.64	LOP	111.94	VP	20.651	GAP	4.58	AZP	98.44	TAL	355.74	TAP	164.69	RCA	151.86	APO	244.97	V2	22.652
RC	251.989	GL	57.28	GP	-55.50	ZAL	92.85	ZAP	91.23	ETS	184.80	ZAE	109.42	ETE	215.47	ZAC	33.57	ETC	295.72	LVI	33.13

PLANETOCENTRIC CONIC

C3	34.036	VHL	5.834	DLA	64.79	RAL	356.17	RAD	6648.5	VEL	12.407	PTH	7.32	VHP	4.034	DPA	-41.59	RAP	48.38	ECC	1.5601

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.93	3 50 37	4709.74	-25.02	232.45	253.49	28.04	5 9 7	3709.7	-46.16	217.04
28.93	3 50 37	4709.74	-25.02	232.45	253.49	28.04	5 9 7	3709.7	-46.16	217.04
28.93	3 50 37	4709.74	-25.02	232.45	253.49	28.04	5 9 7	3709.7	-46.16	217.04
28.93	3 50 37	4709.74	-25.02	232.45	253.49	28.04	5 9 7	3709.7	-46.16	217.04
28.93	3 50 37	4709.74	-25.02	232.45	253.49	28.04	5 9 7	3709.7	-46.16	217.04
28.93	3 50 37	4709.74	-25.02	232.45	253.49	28.04	5 9 7	3709.7	-46.16	217.04
28.93	3 50 37	4709.74	-25.02	232.45	253.49	28.04	5 9 7	3709.7	-46.16	217.04

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.7714	TRA	-.6439	TC3	-1.5111	BAU	1.5492	SGT	2887.7	SGR	5816.6	SG3	659.7	ST	89.8	SR	223.7	SS	104.5
RDE	4.5422	RRA	-.4870	RC3	-3.0509	FAU	.14989	RRT	.9349	RRF	.9991	RTF	.9397	CRT	.9847	CRS	-1.0000	CST	-.9861
FDE	6.0859	FRA	-.7236	FC3	-3.8126	BSP	10953	SGB	6493.9	R23	.0529	R13	.9978	LSA	262.4	MSA	14.6	SSA	.2
BDE	4.8754	BRA	.8073	BC3	3.4047	FSP	1159	SG1	6427.4	SG2	927.2	THA	64.53	EL1	240.7	EL2	14.6	ALF	68.35

LAUNCH DATE JUL 26 1973 FLIGHT TIME 248.00 ARRIVAL DATE MAR 31 1974

HELIOCENTRIC CONIC DISTANCE 563.023 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.834	GAL	-.83	AZL	80.56	HCA	169.86	SMA	198.41	ECC	.23464	INC	9.4444	V1	29.322
RP	242.60	LAP	1.66	LOP	112.86	VP	20.621	GAP	4.35	AZP	99.30	TAL	355.63	TAP	165.49	RCA	151.86	APO	244.97	V2	22.625
RC	254.795	GL	60.25	GP	-57.18	ZAL	92.79	ZAP	90.39	ETS	183.74	ZAE	107.77	ETE	214.48	ZAC	32.14	ETC	296.85	LVI	34.71

PLANETOCENTRIC CONIC

C3	38.499	VHL	6.205	DLA	66.85	RAL	350.92	RAD	6650.1	VEL	12.585	PTH	7.45	VHP	4.301	DPA	-43.18	RAP	49.25	ECC	1.6336

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.52	3 24 12	4749.13	-23.54	235.62	250.20	25.40	4 43 22	3749.1	-45.40	221.91
26.52	3 24 12	4749.13	-23.54	235.62	250.20	25.40	4 43 22	3749.1	-45.40	221.91
26.52	3 24 12	4749.13	-23.54	235.62	250.20	25.40	4 43 22	3749.1	-45.40	221.91
26.52	3 24 12	4749.13	-23.54	235.62	250.20	25.40	4 43 22	3749.1	-45.40	221.91
26.52	3 24 12	4749.13	-23.54	235.62	250.20	25.40	4 43 22	3749.1	-45.40	221.91
26.52	3 24 12	4749.13	-23.54	235.62	250.20	25.40	4 43 22	3749.1	-45.40	221.91
26.52	3 24 12	4749.13	-23.54	235.62	250.20	25.40	4 43 22	3749.1	-45.40	221.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.9252	TRA	-.7273	TC3	-1.4349	BAU	1.6267	SGT	3041.2	SGR	5963.5	SG3	559.8	ST	92.5	SR	228.5	SS	93.8
RDE	4.9175	RRA	-.7038	RC3	-2.8160	FAU	.12897	RRT	.9439	RRF	.9991	RTF	.9485	CRT	.9853	CRS	-1.0000	CST	-.9867
FDE	5.4268	FRA	-.8397	FC3	-2.9002	BSP	11246	SGB	6694.2	R23	.0502	R13	.9980	LSA	263.3	MSA	14.8	SSA	.2
BDE	5.2809	BRA	1.0121	BC3	3.1605	FSP	979	SG1	6633.0	SG2	903.0	THA	63.77	EL1	246.1	EL2	14.7	ALF	68.16

LAUNCH DATE JUL 26 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 18 1974

HELIOCENTRIC CONIC DISTANCE 653.957 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.892	GAL	-1.82	AZL	99.07	HCA	191.77	SMA	199.56	ECC	.24061	INC	9.0694	V1	29.322
RP	247.51	LAP	1.84	LOP	134.50	VP	20.183	GAP	-.75	AZP	81.12	TAL	350.60	TAP	182.37	RCA	151.55	APO	247.58	V2	22.140
RC	316.151	GL	-57.82	GP	51.57	ZAL	98.18	ZAP	73.98	ETS	203.70	ZAE	90.87	ETE	181.22	ZAC	138.26	ETC	291.57	LVI	-72.40

PLANETOCENTRIC CONIC

C3	37.493	VHL	6.123	DLA	-38.18	RAL	63.24	RAD	6649.8	VEL	12.545	PTH	7.42	VHP	3.908	DPA	51.19	RAP	346.64	ECC	1.6170

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 19 21	2454.32	-5.11	64.49	293.87	137.37	19 0 15	1454.3	13.23	48.64
60.00	20 26 55	2113.84	5.86	44.35	304.30	129.95	21 2 9	1113.8	21.25	25.26
63.20	22 9 45	1819.27	15.83	27.59	312.09	125.21	22 40 5	819.3	28.79	5.64
63.20	22 9 45	1819.27	15.83	27.59	312.09	125.21	22 40 5	819.3	28.79	5.64
63.20	22 9 45	1819.27	15.83	27.59	312.09	125.21	22 40 5	819.3	28.79	5.64
63.20	22 9 45	1819.27	15.83	27.59	312.09	125.21	22 40 5	819.3	28.79	5.64
63.20	22 9 45	1819.27	15.83	27.59	312.09	125.21	22 40 5	819.3	28.79	5.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.1310	TRA	3.7583	TC3	-3.7097	BAU	2.2025	SGT	7456.2	SGR	5105.1	SG3	681.6	ST	204.7	SR	116.9	SS	54.9
RDE	2.2012	RRA	-3.0868	RC3	2.3550	FAU	.16945	RRT	-.9852	RRF	-.9978	RTF	.9999	CRT	-.9877	CRS	.9985	CST	-.9778
FDE	-2.9707	FRA	4.7188	FC3	-3.9128	BSP	15595	SGB	9036.4	R23	.1348	R13	-.9886	LSA	241.3	MSA	18.4	SSA	.3
BDE	4.6808	BRA	4.8634	BC3	4.3941	FSP	1200	SG1	9007.4	SG2	723.5	THA	145.75	EL1	235.2	EL2	15.9	ALF	150.43

LAUNCH DATE JUL 26 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 20 1974

HELIOCENTRIC CONIC DISTANCE 657.695 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.896	GAL	-1.87	AZL	98.46	HCA	192.65	SMA	199.84	ECC	.24101	INC	8.4566	V1	29.322
RP	247.65	LAP	1.85	LOP	135.38	VP	20.175	GAP	-.96	AZP	81.75	TAL	350.37	TAP	183.02	RCA	151.53	APO	247.76	V2	22.126
RC	318.406	GL	-55.50	GP	49.71	ZAL	98.80	ZAP	72.58	ETS	204.11	ZAE	89.89	ETE	182.30	ZAC	136.57	ETC	290.86	LVI	-70.82

PLANETOCENTRIC CONIC

C3	34.422	VHL	5.867	DLA	-35.96	RAL	62.39	RAD	6648.7	VEL	12.423	PTH	7.33	VHP	3.738	DPA	49.62	RAP	348.23	ECC	1.5665

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 58 23	2493.79	-7.09	66.16	290.45	137.17	18 39 57	1493.8	11.29	50.37
60.00	19 46 54	2204.68	1.87	48.71	299.00	130.26	20 23 39	1204.7	17.61	30.19
66.80	22 25 5	1742.71	15.82	21.37	309.39	122.73	22 54 8	742.7	27.83	358.92
66.80	22 25 5	1742.71	15.82	21.37	309.39	122.73	22 54 8	742.7	27.83	358.92
66.80	22 25 5	1742.71	15.82	21.37	309.39	122.73	22 54 8	742.7	27.83	358.92
66.80	22 25 5	1742.71	15.82	21.37	309.39	122.73	22 54 8	742.7	27.83	358.92
66.80	22 25 5	1742.71	15.82	21.37	309.39	122.73	22 54 8	742.7	27.83	358.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.9589	TRA	3.7322	TC3	-4.0859	BAU	2.1878	SGT	7629.6	SGR	4923.7	SG3	763.1	ST	204.9	SR	110.7	SS	57.4
RDE	1.9931	RRA	-2.9093	RC3	2.4305	FAU	.18597	RRT	-.9851	RRF	-.9977	RTF	.9798	CRT	-.9873	CRS	.9983	CST	-.9764
FDE	-3.0927	FRA	5.1609	FC3	-4.6772	BSP	15701	SGB	9080.4	R23	.1388	R13	-.9881	LSA	239.2	MSA	18.5	SSA	.3
BDE	4.4323	BRA	4.7321	BC3	4.7541	FSP	1345	SG1	9052.2	SG2	714.7	THA	147.33	EL1	232.4	EL2	15.5	ALF	151.78

LAUNCH DATE JUL 26 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 661.434 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.900 GAL -1.91 AZL 97.92 HCA 193.52 SMA 199.72 ECC .24142 INC 7.9225 V1 29.322
RP 247.78 LAP 1.85 LOP 136.27 VP 20.168 GAP -1.17 AZP 82.29 TAL 350.15 TAP 183.67 RCA 151.51 APO 247.94 V2 22.113
RC 320.632 GL -53.32 GP 47.90 ZAL 99.41 ZAP 71.20 ETS 204.43 ZAE 88.88 ETE 185.29 ZAC 134.90 ETC 290.22 LVI -69.22

PLANETOCENTRIC CONIC

C3 31.936 VHL 5.651 DLA -33.86 RAL 61.69 RAD 6647.7 VEL 12.323 PTH 7.25 VHP 3.597 DPA 48.09 RAP 349.71 ECC 1.5256

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 40 45	2529.32	-8.86	67.67	287.70	136.94	18 22 55	1529.3	9.53	51.91
60.00	19 18 3	2270.28	-1.02	51.84	295.18	130.29	19 55 53	1270.3	14.90	33.61
70.00	22 6 38	1772.34	12.07	21.26	304.77	122.20	22 36 11	772.3	24.19	359.43
70.56	22 44 3	1658.07	15.64	14.59	307.01	120.42	23 11 41	658.1	26.77	351.75
70.56	22 44 3	1658.07	15.64	14.59	307.01	120.42	23 11 41	658.1	26.77	351.75
70.56	22 44 3	1658.07	15.64	14.59	307.01	120.42	23 11 41	658.1	26.77	351.75
110.00	3 10 1	6107.20	12.07	288.08	304.77	122.20	4 51 48	5107.2	24.19	266.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.7985 TRA 3.7157 TC3-4.4591 BAU 2.1801 SGT 7798.2 SGR 4744.5 SG3 839.9 ST 204.4 SR 104.6 SS 59.1
RDE 1.8065 RRA-2.7473 RC3 2.4877 FAU .20144 RRT -.9849 RRF -.9975 RTF .9797 CRT -.9868 CRS .9980 CST -.9745
FDE-3.1641 FRA 5.5626 FC3-5.4607 BSP 15814 SGB 9128.1 R23 .1425 R13 -.9874 LSA 236.3 MSA 18.7 SSA .3
BDE 4.2062 BRA 4.6211 BC3 5.1061 FSP 1482 SG1 9100.9 SG2 703.7 THA 148.86 EL1 229.1 EL2 15.1 ALF 153.08

LAUNCH DATE JUL 26 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 24 1974

HELIOCENTRIC CONIC DISTANCE 665.173 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.904 GAL -1.96 AZL 97.45 HCA 194.40 SMA 199.81 ECC .24185 INC 7.4527 V1 29.322
RP 247.91 LAP 1.85 LOP 137.15 VP 20.161 GAP -1.37 AZP 82.78 TAL 349.91 TAP 184.31 RCA 151.48 APO 248.13 V2 22.101
RC 322.829 GL -51.27 GP 46.15 ZAL 100.02 ZAP 69.85 ETS 204.68 ZAE 87.84 ETE 184.19 ZAC 133.28 ETC 289.65 LVI -67.64

PLANETOCENTRIC CONIC

C3 29.898 VHL 5.468 DLA -31.86 RAL 61.11 RAD 6647.0 VEL 12.241 PTH 7.19 VHP 3.479 DPA 46.59 RAP 351.08 ECC 1.4920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 25 38	2562.07	-10.48	69.08	285.46	136.68	18 8 20	1562.1	7.90	53.31
60.00	18 55 7	2323.93	-3.38	54.41	292.22	130.18	19 33 51	1323.9	12.64	36.34
70.00	21 4 4	1944.33	5.68	30.48	299.02	123.73	21 36 28	944.3	18.86	9.93
74.68	23 8 16	1559.41	15.33	6.83	304.91	118.27	23 34 16	559.4	25.64	343.70
74.68	23 8 16	1559.41	15.33	6.83	304.91	118.27	23 34 16	559.4	25.64	343.70
74.68	23 8 16	1559.41	15.33	6.83	304.91	118.27	23 34 16	559.4	25.64	343.70
110.00	2 7 26	6279.19	5.68	297.30	299.02	123.73	3 52 5	5279.2	18.86	276.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.6487 TRA 3.7092 TC3-4.8261 BAU 2.1772 SGT 7963.2 SGR 4568.4 SG3 911.5 ST 203.3 SR 98.5 SS 60.2
RDE 1.6394 RRA-2.6004 RC3 2.5255 FAU .21563 RRT -.9847 RRF -.9973 RTF .9795 CRT -.9863 CRS .9975 CST -.9723
FDE-3.1908 FRA 5.9278 FC3-6.2440 BSP 15919 SGB 9180.6 R23 .1457 R13 -.9867 LSA 233.0 MSA 18.8 SSA .4
BDE 4.0001 BRA 4.5299 BC3 5.4470 FSP 1607 SG1 9154.5 SG2 691.4 THA 150.35 EL1 225.4 EL2 14.7 ALF 154.33

LAUNCH DATE JUL 26 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 26 1974

HELIOCENTRIC CONIC DISTANCE 668.913 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.909 GAL -2.01 AZL 97.04 HCA 195.27 SMA 199.89 ECC .24228 INC 7.0360 V1 29.322
RP 248.03 LAP 1.85 LOP 138.03 VP 20.155 GAP -1.58 AZP 83.21 TAL 349.67 TAP 184.95 RCA 151.46 APO 248.32 V2 22.089
RC 324.997 GL -49.33 GP 44.46 ZAL 100.63 ZAP 68.52 ETS 204.87 ZAE 86.79 ETE 185.00 ZAC 131.70 ETC 289.14 LVI -66.09

PLANETOCENTRIC CONIC

C3 28.209 VHL 5.311 DLA -29.96 RAL 60.64 RAD 6646.3 VEL 12.172 PTH 7.13 VHP 3.380 DPA 45.15 RAP 352.36 ECC 1.4642

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 12 29	2592.74	-12.00	70.42	283.62	136.39	17 55 42	1592.7	6.37	54.62
60.00	18 36 3	2370.41	-5.42	56.64	289.87	130.00	19 15 33	1370.4	10.65	38.66
70.00	20 29 31	2036.62	2.17	35.32	295.59	124.09	21 3 28	1036.6	15.73	15.25
79.68	23 42 21	1431.15	14.93	356.98	303.07	116.28	24 6 12	431.2	24.47	333.63
79.68	23 42 21	1431.15	14.93	356.98	303.07	116.28	24 6 12	431.2	24.47	333.63
79.68	23 42 21	1431.15	14.93	356.98	303.07	116.28	24 6 12	431.2	24.47	333.63
110.00	1 32 53	1083.43	2.17	324.23	295.59	124.09	1 50 57	83.4	15.73	304.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.5109 TRA 3.7077 TC3-5.1687 BAU 2.1799 SGT 8126.2 SGR 4396.6 SG3 977.4 ST 201.8 SR 92.8 SS 60.7
RDE 1.4911 RRA-2.4649 RC3 2.5476 FAU .22867 RRT -.9846 RRF -.9971 RTF .9794 CRT -.9857 CRS .9969 CST -.9696
FDE-3.1817 FRA 6.2535 FC3-7.0179 BSP 16004 SGB 9239.3 R23 .1487 R13 -.9860 LSA 229.5 MSA 19.0 SSA .4
BDE 3.8145 BRA 4.4523 BC3 5.7804 FSP 1720 SG1 9214.4 SG2 678.6 THA 151.79 EL1 221.7 EL2 14.2 ALF 155.52

LAUNCH DATE JUL 26 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 28 1974

HELIOCENTRIC CONIC DISTANCE 672.652 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.913 GAL -2.06 AZL 96.66 HCA 196.15 SMA 199.98 ECC .24273 INC 6.6839 V1 29.322
RP 248.14 LAP 1.85 LOP 138.91 VP 20.150 GAP -1.78 AZP 83.60 TAL 349.43 TAP 185.58 RCA 151.44 APO 248.52 V2 22.078
RC 327.134 GL -47.51 GP 42.83 ZAL 101.23 ZAP 67.22 ETS 205.01 ZAE 85.71 ETE 185.74 ZAC 130.16 ETC 288.68 LVI -64.57

PLANETOCENTRIC CONIC

C3 26.797 VHL 5.177 DLA -28.15 RAL 60.25 RAD 6645.7 VEL 12.114 PTH 7.09 VHP 3.296 DPA 43.76 RAP 353.56 ECC 1.4410

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 0 55	2621.74	-13.43	71.70	282.12	136.09	17 44 37	1621.7	4.92	55.84
60.00	18 19 46	2412.02	-7.23	58.66	287.97	129.76	18 59 58	1412.0	8.86	40.71
70.00	20 3 38	2106.56	-.50	38.97	293.04	124.15	20 38 44	1106.6	13.26	19.16
80.00	22 18 31	1684.24	6.58	11.28	297.41	119.19	22 46 35	684.2	17.98	349.72
90.00	0 44 34	1225.81	12.26	340.56	300.40	115.68	1 5 0	225.8	21.80	317.59
100.00	1 5 18	1158.71	6.58	332.65	297.41	119.19	1 24 37	158.7	17.98	311.08
110.00	1 7 0	1153.38	-.50	327.88	293.04	124.15	1 26 13	153.4	13.26	308.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.3777 TRA 3.7178 TC3-5.5363 BAU 2.1837 SGT 8283.2 SGR 4227.7 SG3 1037.2 ST 199.8 SR 87.2 SS 60.7
RDE 1.3571 RRA-2.3424 RC3 2.5504 FAU .24010 RRT -.9844 RRF -.9968 RTF .9792 CRT -.9852 CRS .9962 CST -.9665
FDE-3.1353 FRA 6.5489 FC3-7.7568 BSP 16168 SGB 9299.7 R23 .1510 R13 -.9853 LSA 225.5 MSA 19.3 SSA .4
BDE 3.6402 BRA 4.3942 BC3 6.0955 FSP 1831 SG1 9276.0 SG2 664.4 THA 153.17 EL1 217.6 EL2 13.7 ALF 156.64

LAUNCH DATE JUL 26 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 30 1974

HELIOCENTRIC CONIC DISTANCE 676.391 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.918	GAL	-2.11	AZL	96.33	HCA	197.02	SMA	200.07	ECC	.24318	INC	6.3294	V1	29.322
RP	248.25	LAP	1.65	LOP	139.79	VP	20.146	GAP	-1.99	AZP	83.95	TAL	349.19	TAP	186.21	RCA	151.41	APO	248.72	V2	22.067
RC	329.241	GL	-45.78	GP	41.27	ZAL	101.84	ZAP	65.96	ETS	205.10	ZAE	84.63	ETE	186.41	ZAC	128.68	ETC	288.27	LVI	-63.09

PLANETOCENTRIC CONIC

C3	25.608	VHL	5.060	DLA	-26.43	RAL	59.94	RAD	6645.2	VEL	12.065	PTH	7.05	VHP	3.227	DPA	42.43	RAP	354.68	ECC	1.4214

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 50 40	2649.36	-14.78	72.93	280.90	135.76	17 34 49	1649.4	3.53	57.00
60.00	18 5 35	2450.06	-8.88	60.51	286.43	129.47	18 46 25	1450.1	7.21	42.57
70.00	19 42 37	2164.80	-2.72	42.01	291.06	124.06	20 18 41	1164.8	11.15	22.35
80.00	21 42 13	1790.42	3.02	17.16	294.63	119.72	22 12 4	790.4	14.89	356.09
90.00	23 33 37	1431.14	5.95	352.34	296.24	117.70	23 57 29	431.1	16.82	330.58
100.00	0 29 1	1264.87	3.02	338.52	294.63	119.72	0 50 6	264.9	14.89	317.46
110.00	0 45 59	1211.61	-2.72	330.92	291.06	124.06	1 6 10	211.6	11.15	311.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.2541	TRA 3.7316	TC3-5.8764	BAU 2.1917	SGT 8438.5	SGR 4063.6	SG3 1091.1	ST 197.5	SR 81.9	SS 60.4
RDE 1.2380	RRA-2.2285	RC3 2.5403	FAU .25031	RRT -.9842	RRF -.9964	RTF .9790	CRT -.9846	CRS .9952	CST -.9629
FDE-3.0623	FRA 6.8079	FC3-8.4624	BSP 16308	SGB 9365.9	R23 .1531	R13 -.9846	LSA 221.4	MSA 19.5	SSA .5
BDE 3.4816	BRA 4.3465	BC3 6.4019	FSP 1928	SG1 9343.4	SG2 650.1	THA 154.51	EL1 213.5	EL2 13.3	ALF 157.70

LAUNCH DATE JUL 26 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 1 1974

HELIOCENTRIC CONIC DISTANCE 680.130 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.922	GAL	-2.16	AZL	96.03	HCA	197.90	SMA	200.16	ECC	.24365	INC	6.0269	V1	29.322
RP	248.35	LAP	1.65	LOP	140.67	VP	20.142	GAP	-2.19	AZP	84.26	TAL	348.94	TAP	186.84	RCA	151.39	APO	248.92	V2	22.057
RC	331.317	GL	-44.14	GP	39.78	ZAL	102.43	ZAP	64.73	ETS	205.14	ZAE	83.54	ETE	187.02	ZAC	127.25	ETC	287.91	LVI	-61.67

PLANETOCENTRIC CONIC

C3	24.600	VHL	4.960	DLA	-24.79	RAL	59.69	RAD	6644.8	VEL	12.024	PTH	7.01	VHP	3.168	DPA	41.16	RAP	355.74	ECC	1.4049

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 41 30	2675.78	-16.06	74.13	279.91	135.41	17 26 6	1675.8	2.21	58.11
60.00	17 53 6	2485.34	-10.41	62.25	285.19	129.16	18 34 31	1485.3	5.67	44.28
70.00	19 24 51	2215.60	-4.65	44.67	289.48	123.87	20 1 47	1215.6	9.28	25.09
80.00	21 15 39	1868.81	.37	21.46	292.60	119.86	21 46 48	868.8	12.49	.67
90.00	22 59 19	1534.47	2.66	358.14	293.87	118.17	23 24 54	534.5	13.96	336.88
100.00	0 2 27	1343.29	.37	342.83	292.60	119.86	0 24 50	343.3	12.49	322.03
110.00	0 28 13	1262.42	-4.65	333.59	289.48	123.87	0 49 16	262.4	9.28	314.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.1388	TRA 3.7505	TC3-6.2068	BAU 2.2031	SGT 8592.4	SGR 3905.8	SG3 1139.3	ST 195.1	SR 77.1	SS 59.8
RDE 1.1335	RRA-2.1225	RC3 2.5196	FAU .25943	RRT -.9840	RRF -.9960	RTF .9789	CRT -.9842	CRS .9940	CST -.9590
FDE-2.9732	FRA 7.0326	FC3-9.1299	BSP 16429	SGB 9438.4	R23 .1542	R13 -.9840	LSA 217.3	MSA 19.7	SSA .5
BDE 3.3372	BRA 4.3094	BC3 6.6987	FSP 2009	SG1 9417.1	SG2 634.1	THA 155.78	EL1 209.4	EL2 12.7	ALF 158.67

LAUNCH DATE JUL 26 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 3 1974

HELIOCENTRIC CONIC DISTANCE 683.869 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.927	GAL	-2.21	AZL	95.75	HCA	198.77	SMA	200.25	ECC	.24412	INC	5.7519	V1	29.322
RP	248.45	LAP	1.65	LOP	141.55	VP	20.139	GAP	-2.39	AZP	84.55	TAL	348.68	TAP	187.46	RCA	151.36	APO	249.13	V2	22.048
RC	333.364	GL	-42.59	GP	38.35	ZAL	103.02	ZAP	63.53	ETS	205.16	ZAE	82.45	ETE	187.57	ZAC	125.88	ETC	287.58	LVI	-60.29

PLANETOCENTRIC CONIC

C3	23.741	VHL	4.872	DLA	-23.22	RAL	59.51	RAD	6644.5	VEL	11.988	PTH	6.98	VHP	3.119	DPA	39.95	RAP	356.73	ECC	1.3907

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 33 16	2701.15	-17.29	75.29	279.12	135.05	17 18 17	1701.1	.93	59.17
60.00	17 41 59	2518.38	-11.82	63.89	284.18	128.81	18 23 58	1518.4	4.22	45.87
70.00	19 9 29	2261.17	-6.38	47.07	288.22	123.62	19 47 10	1261.2	7.58	27.53
80.00	20 54 13	1933.39	-1.82	25.01	291.04	119.81	21 26 26	933.4	10.44	4.37
90.00	22 33 42	1612.52	.14	2.50	292.13	118.28	23 0 34	612.5	11.68	341.41
100.00	23 37 5	1407.86	-1.82	346.37	291.04	119.81	24 0 32	407.9	10.44	325.74
110.00	0 12 51	1307.99	-6.38	335.99	288.22	123.62	0 34 39	308.0	7.58	318.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.0290	TRA 3.7737	TC3-6.5267	BAU 2.2170	SGT 8743.9	SGR 3752.5	SG3 1181.7	ST 192.5	SR 72.5	SS 58.9
RDE 1.0391	RRA-2.0242	RC3 2.4882	FAU .26732	RRT -.9838	RRF -.9956	RTF .9788	CRT -.9839	CRS .9923	CST -.9544
FDE-2.8609	FRA 7.2271	FC3-9.7478	BSP 16564	SGB 9515.1	R23 .1550	R13 -.9834	LSA 213.0	MSA 19.9	SSA .5
BDE 3.2023	BRA 4.2823	BC3 6.9849	FSP 2081	SG1 9494.9	SG2 618.7	THA 157.01	EL1 205.3	EL2 12.2	ALF 159.60

LAUNCH DATE JUL 26 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 5 1974

HELIOCENTRIC CONIC DISTANCE 687.607 EARTH TO MARS

RL	151.94	LAL	-.00	LOL	302.87	VL	32.931	GAL	-2.27	AZL	95.50	HCA	199.65	SMA	200.34	ECC	.24460	INC	5.5008	V1	29.322
RP	248.54	LAP	1.65	LOP	142.43	VP	20.137	GAP	-2.60	AZP	84.82	TAL	348.43	TAP	188.07	RCA	151.34	APO	249.34	V2	22.039
RC	335.380	GL	-41.12	GP	36.98	ZAL	103.61	ZAP	62.38	ETS	205.14	ZAE	81.35	ETE	188.06	ZAC	124.56	ETC	287.29	LVI	-58.97

PLANETOCENTRIC CONIC

C3	23.006	VHL	4.796	DLA	-21.73	RAL	59.37	RAD	6644.2	VEL	11.958	PTH	6.96	VHP	3.078	DPA	38.80	RAP	357.68	ECC	1.3786

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 25 50	2725.57	-18.46	76.43	278.49	134.67	17 11 16	1725.6	-.30	60.19
60.00	17 32 1	2549.56	-13.15	65.46	283.38	128.45	18 14 31	1549.6	2.85	47.36
70.00	18 55 57	2302.82	-7.94	49.28	287.21	123.33	19 34 20	1302.8	6.01	29.73
80.00	20 36 7	1989.34	-3.71	28.08	289.81	119.65	21 9 16	989.3	8.63	7.53
90.00	22 12 49	1677.40	-1.95	6.12	290.79	118.22	22 40 47	677.4	9.72	345.17
100.00	23 18 59	1463.81	-3.71	349.45	289.81	119.65	23 43 23	463.8	8.63	328.90
110.00	23 55 23	1349.64	-7.94	338.20	287.21	123.33	24 17 53	349.6	6.01	318.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.9248	TRA 3.8033	TC3-6.8323	BAU 2.2321	SGT 8892.8	SGR 3605.0	SG3 1218.7	ST 189.7	SR 68.3	SS 57.9
RDE .9558	RRA-1.9339	RC3 2.4465	FAU .27390	RRT -.9836	RRF -.9950	RTF .9786	CRT -.9837	CRS .9903	CST -.9493
FDE-2.7381	FRA 7.3980	FC-10.3069	BSP 16723	SGB 9595.8	R23 .1551	R13 -.9829	LSA 208.8	MSA 20.1	SSA .6
BDE 3.0770	BRA 4.2668	BC3 7.2571	FSP 2146	SG1 9576.8	SG2 603.4	THA 158.17	EL1 201.3	EL2 11.6	ALF 160.44

LAUNCH DATE JUL 26 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 7 1974

HELIOCENTRIC CONIC DISTANCE 691.344 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.936 GAL -2.32 AZL 95.27 HCA 200.52 SMA 200.43 ECC .24510 INC 5.2704 V1 29.322
RP 248.63 LAP 1.85 LOP 143.31 VP 20.135 GAP -2.80 AZP 85.06 TAL 348.17 TAP 188.69 RCA 151.31 APO 249.56 V2 22.030
RC 337.366 GL -39.72 GP 35.68 ZAL 104.20 ZAP 81.25 ETS 205.10 ZAE 80.26 ETE 188.51 ZAC 123.29 ETC 287.03 LVI -57.70

PLANETOCENTRIC CONIC

C3 22.375 VHL 4.730 DLA -20.30 RAL 59.28 RAD 6643.9 VEL 11.932 PTH 6.94 VHP 3.044 DPA 37.71 RAP 358.88 ECC 1.3682

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 19 6	2749.14	-19.58	77.54	278.01	134.27	17 4 55	1749.1	-1.48	61.17
60.00	17 23 1	2579.15	-14.39	66.97	282.75	128.06	18 6 0	1579.2	1.55	48.78
70.00	18 43 54	2341.36	-9.38	51.34	286.41	122.99	19 22 55	1341.4	4.55	31.76
80.00	20 20 26	2039.27	-5.38	30.84	288.85	119.41	20 54 25	1039.3	6.98	10.33
90.00	21 55 6	1733.90	-3.76	9.28	289.74	118.05	22 24 0	733.9	7.98	348.41
100.00	23 3 17	1513.74	-5.38	352.21	288.85	119.41	23 28 31	513.7	6.98	331.69
110.00	23 43 20	1388.18	-9.38	340.26	286.41	122.99	24 6 29	388.2	4.55	320.68

DIFFERENTIAL CORRECTIONS

TDE-2.8245 TRA 3.8368 TC3-7.1249 BAU 2.2486
RDE .8807 RRA-1.8495 RC3 2.3963 FAU .27926
FDE-2.6006 FRA 7.5417 FC-10.8053 BSP 16892
BDE 2.9587 BRA 4.2593 BC3 7.5171 FSP 2202

MID-COURSE EXECUTION ACCURACY

SGT 9038.4 SGR 3461.6 SG3 1249.9
RRT -.9833 RRF -.9944 RTF .9785
SGB 9678.7 R23 .1548 R13 -.9823
SG1 9660.7 SG2 588.6 THA 159.28

ORBIT DETERMINATION ACCURACY

ST 186.8 SR 64.3 SS 56.6
CRT -.9836 CRS .9877 CST -.9435
LSA 204.5 MSA 20.3 SSA .6
EL1 197.3 EL2 11.0 ALF 161.22

LAUNCH DATE JUL 26 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 9 1974

HELIOCENTRIC CONIC DISTANCE 695.081 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.941 GAL -2.38 AZL 95.06 HCA 201.39 SMA 200.53 ECC .24560 INC 5.0582 V1 29.322
RP 248.71 LAP 1.84 LOP 144.19 VP 20.134 GAP -3.00 AZP 85.29 TAL 347.90 TAP 189.30 RCA 151.28 APO 249.77 V2 22.023
RC 339.321 GL -38.39 GP 34.44 ZAL 104.79 ZAP 80.16 ETS 205.04 ZAE 79.17 ETE 188.92 ZAC 122.08 ETC 286.79 LVI -56.48

PLANETOCENTRIC CONIC

C3 21.832 VHL 4.672 DLA -18.94 RAL 59.23 RAD 6643.6 VEL 11.909 PTH 6.92 VHP 3.016 DPA 36.68 RAP 359.44 ECC 1.3593

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 12 58	2771.92	-20.66	78.63	277.66	133.86	16 59 10	1771.9	-2.62	62.12
60.00	17 14 50	2607.36	-15.57	68.42	282.27	127.65	17 58 18	1607.4	.31	50.12
70.00	18 33 4	2377.39	-10.71	53.28	285.79	122.63	19 12 42	1377.4	3.18	33.65
80.00	20 6 35	2084.72	-6.90	33.37	288.09	119.12	20 41 20	1084.7	5.47	12.85
90.00	21 39 39	1784.48	-5.38	12.12	288.92	117.81	22 9 24	784.5	6.39	351.28
100.00	22 49 27	1559.19	-6.90	354.74	288.09	119.12	23 15 26	559.2	5.47	334.22
110.00	23 32 30	1424.21	-10.71	342.20	285.79	122.63	23 56 15	424.2	3.18	322.57

DIFFERENTIAL CORRECTIONS

TDE-2.7306 TRA 3.8730 TC3-7.4081 BAU 2.2678
RDE .8152 RRA-1.7705 RC3 2.3425 FAU .28388
FDE-2.4614 FRA 7.6610 FC-11.2572 BSP 17057
BDE 2.8497 BRA 4.2585 BC3 7.7696 FSP 2247

MID-COURSE EXECUTION ACCURACY

SGT 9184.1 SGR 3325.6 SG3 1276.9
RRT -.9831 RRF -.9938 RTF .9784
SGB 9767.6 R23 .1536 R13 -.9819
SG1 9750.8 SG2 573.6 THA 160.33

ORBIT DETERMINATION ACCURACY

ST 183.9 SR 60.8 SS 55.4
CRT -.9838 CRS .9845 CST -.9373
LSA 200.4 MSA 20.5 SSA .7
EL1 193.4 EL2 10.4 ALF 161.93

LAUNCH DATE JUL 26 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 11 1974

HELIOCENTRIC CONIC DISTANCE 698.818 EARTH TO MARS

RL 151.94 LAL -.00 LOL 302.87 VL 32.945 GAL -2.43 AZL 94.86 HCA 202.27 SMA 200.62 ECC .24611 INC 4.8620 V1 29.322
RP 248.78 LAP 1.84 LOP 145.06 VP 20.134 GAP -3.20 AZP 85.50 TAL 347.64 TAP 189.90 RCA 151.25 APO 249.99 V2 22.015
RC 341.246 GL -37.13 GP 33.26 ZAL 105.37 ZAP 79.11 ETS 204.96 ZAE 78.09 ETE 189.29 ZAC 120.92 ETC 286.58 LVI -55.31

PLANETOCENTRIC CONIC

C3 21.364 VHL 4.622 DLA -17.63 RAL 59.22 RAD 6643.4 VEL 11.890 PTH 6.90 VHP 2.993 DPA 35.70 RAP .27 ECC 1.3516

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 7 22	2793.97	-21.70	79.70	277.42	133.44	16 53 56	1794.0	-3.73	63.03
60.00	17 7 23	2634.36	-16.69	69.82	281.92	127.23	17 51 17	1634.4	-.88	51.41
70.00	18 23 15	2411.32	-11.95	55.13	285.32	122.24	19 3 27	1411.3	1.89	35.42
80.00	19 54 13	2126.65	-8.28	35.71	287.51	118.79	20 29 39	1126.7	4.07	15.17
90.00	21 25 59	1830.61	-6.83	14.72	288.29	117.51	21 56 29	830.6	4.93	353.88
100.00	22 37 4	1601.12	-8.28	357.08	287.51	118.79	23 3 46	601.1	4.07	336.54
110.00	23 22 42	1458.13	-11.95	344.05	285.32	122.24	23 47 0	458.1	1.89	324.34

DIFFERENTIAL CORRECTIONS

TDE-2.6407 TRA 3.9133 TC3-7.6794 BAU 2.2882
RDE .7566 RRA-1.6974 RC3 2.2824 FAU .28739
FDE-2.3150 FRA 7.7619 FC-11.6460 BSP 17222
BDE 2.7470 BRA 4.2656 BC3 8.0114 FSP 2285

MID-COURSE EXECUTION ACCURACY

SGT 9328.4 SGR 3194.6 SG3 1299.1
RRT -.9827 RRF -.9930 RTF .9783
SGB 9860.3 R23 .1520 R13 -.9814
SG1 9844.3 SG2 560.2 THA 161.34

ORBIT DETERMINATION ACCURACY

ST 180.9 SR 57.5 SS 54.1
CRT -.9842 CRS .9804 CST -.9303
LSA 196.3 MSA 20.8 SSA .7
EL1 189.6 EL2 9.7 ALF 162.59

LAUNCH DATE JUL 27 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 318.606 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	35.396	GAL	-2.67	AZL	90.21	HCA	99.23	SMA	268.82	ECC	.43622	INC	.2051	V1	29.325
RP	218.16	LAP	-.20	LOP	43.06	VP	26.878	GAP	23.64	AZP	89.97	TAL	351.21	TAP	90.45	RCA	151.39	APO	385.66	V2	25.188
RC	74.953	GL	-1.17	GP	-5.10	ZAL	103.65	ZAP	173.97	ETS	239.38	ZAE	165.49	ETE	341.11	ZAC	78.83	ETC	283.09	LVI	-12.79

PLANETOCENTRIC CONIC

C3	38.556	VHL	6.209	DLA	15.93	RAL	45.35	RAD	6650.2	VEL	12.587	PTH	7.45	VHP	8.735	DPA	9.68	RAP	39.31	ECC	1.6345

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	13 0 29	3617.22	-47.43	139.17	294.47	94.25	14 0 47	2617.2	-40.26	106.90
60.00	13 21 56	3560.12	-40.30	134.45	294.88	90.52	14 21 17	2560.1	-35.68	104.35
70.00	13 53 23	3467.56	-34.08	126.82	294.76	87.60	14 51 11	2467.6	-31.50	98.39
80.00	14 41 59	3315.25	-29.56	114.96	294.44	85.59	15 37 15	2315.2	-28.39	87.59
90.00	15 54 33	3081.05	-27.84	97.58	294.28	84.83	16 45 54	2081.1	-27.19	70.59
100.00	17 24 51	2789.72	-29.56	76.33	294.44	85.59	18 11 21	1789.7	-28.39	48.96
110.00	18 52 50	2514.37	-34.08	55.74	294.76	87.60	19 34 44	1514.4	-31.50	27.31

DIFFERENTIAL CORRECTIONS

TDE	-.3684	TRA	-1.2304	TC3	.1874	BAU	.1036												
RDE	-.6132	RRA	.2417	RC3	-.0726	FAU	.05260												
FDE	.3354	FRA	.9260	FC3	-1.1811	BSP	1924												
BDE	.7143	BRA	1.2540	BC3	.2010	FSP	186												

MID-COURSE EXECUTION ACCURACY

SGT	1250.0	SGR	618.1	SG3	150.6						
RRT	-.1341	RRF	.1516	RTF	-.6864						
SGB	1394.5	R23	-.0310	R13	.6883						
SG1	1253.6	SG2	610.8	THA	175.02						

ORBIT DETERMINATION ACCURACY

ST	24.5	SR	28.5	SS	15.5						
CRT	.5968	CRS	.6680	CST	.9909						
LSA	36.5	MSA	17.8	SSA	1.3						
EL1	33.7	EL2	16.6	ALF	52.17						

LAUNCH DATE JUL 27 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 320.800 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	35.254	GAL	-2.57	AZL	90.17	HCA	100.37	SMA	263.21	ECC	.42473	INC	.1687	V1	29.325
RP	218.53	LAP	-.17	LOP	44.19	VP	26.653	GAP	23.27	AZP	89.97	TAL	351.36	TAP	91.73	RCA	151.41	APO	375.00	V2	25.148
RC	76.362	GL	-.98	GP	-5.24	ZAL	103.37	ZAP	173.42	ETS	234.52	ZAE	164.75	ETE	341.13	ZAC	78.62	ETC	283.05	LVI	-12.54

PLANETOCENTRIC CONIC

C3	36.717	VHL	6.059	DLA	16.03	RAL	45.02	RAD	6649.5	VEL	12.514	PTH	7.40	VHP	8.479	DPA	9.68	RAP	39.72	ECC	1.6043

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 58 45	3606.96	-47.37	138.19	293.01	95.01	13 58 52	2607.0	-39.93	106.14
60.00	13 20 4	3550.22	-40.29	133.60	293.53	91.09	14 19 14	2550.2	-35.44	103.61
70.00	13 51 21	3458.13	-34.10	126.09	293.47	88.03	14 48 59	2458.1	-31.34	97.70
80.00	14 39 47	3306.36	-29.60	114.30	293.19	85.93	15 34 53	2306.4	-28.28	86.95
90.00	15 52 15	3072.42	-27.89	96.96	293.04	85.14	16 43 28	2072.4	-27.11	69.98
100.00	17 22 38	2780.83	-29.60	75.67	293.19	85.93	18 8 59	1780.8	-28.28	48.32
110.00	18 50 47	2504.95	-34.10	55.00	293.47	88.03	19 32 32	1505.0	-31.34	26.62

DIFFERENTIAL CORRECTIONS

TDE	-.3697	TRA	-1.2243	TC3	.2141	BAU	.1124												
RDE	-.5978	RRA	.2409	RC3	-.0814	FAU	.05469												
FDE	.3533	FRA	.9557	FC3	-1.2895	BSP	1959												
BDE	.7029	BRA	1.2478	BC3	.2291	FSP	201												

MID-COURSE EXECUTION ACCURACY

SGT	1280.8	SGR	620.8	SG3	160.2						
RRT	-.1427	RRF	.1634	RTF	-.6969						
SGB	1423.3	R23	-.0348	R13	.6990						
SG1	1284.8	SG2	612.5	THA	174.87						

ORBIT DETERMINATION ACCURACY

ST	25.1	SR	28.5	SS	16.1						
CRT	.6000	CRS	.6731	CST	.9908						
LSA	37.1	MSA	17.9	SSA	1.3						
EL1	34.1	EL2	16.8	ALF	50.89						

LAUNCH DATE JUL 27 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 323.148 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	35.120	GAL	-2.48	AZL	90.13	HCA	101.50	SMA	258.38	ECC	.41388	INC	.1318	V1	29.325
RP	218.89	LAP	-.13	LOP	45.33	VP	26.438	GAP	22.91	AZP	89.97	TAL	351.52	TAP	93.02	RCA	151.44	APO	365.32	V2	25.107
RC	77.855	GL	-.79	GP	-5.39	ZAL	103.08	ZAP	172.83	ETS	230.43	ZAE	164.08	ETE	341.06	ZAC	78.40	ETC	283.02	LVI	-12.29

PLANETOCENTRIC CONIC

C3	35.013	VHL	5.917	DLA	16.13	RAL	44.67	RAD	6648.9	VEL	12.446	PTH	7.35	VHP	8.231	DPA	9.67	RAP	40.14	ECC	1.5762

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 56 54	3597.14	-47.31	137.24	291.56	95.73	13 56 52	2597.1	-39.61	105.42
60.00	13 18 5	3540.77	-40.27	132.80	292.19	91.64	14 17 6	2540.8	-35.22	102.92
70.00	13 49 12	3449.19	-34.12	125.39	292.20	88.45	14 46 41	2449.2	-31.19	97.05
80.00	14 37 27	3297.96	-29.64	113.68	291.95	86.25	15 32 25	2298.0	-28.18	86.35
90.00	15 49 50	3064.31	-27.94	96.37	291.81	85.44	16 40 55	2064.3	-27.02	69.40
100.00	17 20 19	2772.43	-29.64	75.05	291.95	86.25	18 6 31	1772.4	-28.18	47.72
110.00	18 48 38	2496.01	-34.12	54.31	292.20	88.45	19 30 14	1496.0	-31.19	25.97

DIFFERENTIAL CORRECTIONS

TDE	-.3700	TRA	-1.2173	TC3	.2422	BAU	.1211												
RDE	-.5827	RRA	.2403	RC3	-.0909	FAU	.05688												
FDE	.3717	FRA	.9859	FC3	-1.4064	BSP	2028												
BDE	.6902	BRA	1.2408	BC3	.2587	FSP	216												

MID-COURSE EXECUTION ACCURACY

SGT	1310.1	SGR	623.3	SG3	170.4						
RRT	-.1542	RRF	.1763	RTF	-.[illegible]67						
SGB	1450.8	R23	-.0371	R13	.7091						
SG1	1314.6	SG2	613.8	THA	174.65						

ORBIT DETERMINATION ACCURACY

ST	25.7	SR	28.4	SS	16.7						
CRT	.6000	CRS	.6778	CST	.9903						
LSA	37.7	MSA	18.1	SSA	1.3						
EL1	34.3	EL2	17.0	ALF	49.83						

LAUNCH DATE JUL 27 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 325.632 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	34.994	GAL	-2.39	AZL	90.10	HCA	102.63	SMA	253.98	ECC	.40363	INC	.0949	V1	29.325
RP	219.26	LAP	-.09	LOP	46.46	VP	26.230	GAP	22.54	AZP	89.98	TAL	351.68	TAP	94.31	RCA	151.47	APO	356.50	V2	25.067
RC	79.428	GL	-.58	GP	-5.54	ZAL	102.77	ZAP	172.20	ETS	226.98	ZAE	163.46	ETE	340.92	ZAC	78.17	ETC	282.99	LVI	-12.04

PLANETOCENTRIC CONIC

C3	33.433	VHL	5.782	DLA	16.24	RAL	44.30	RAD	6648.3	VEL	12.383	PTH	7.30	VHP	7.992	DPA	9.64	RAP	40.54	ECC	1.5502

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 54 59	3587.77	-47.24	136.35	290.14	96.42	13 54 47	2587.8	-39.30	104.73
60.00	13 16 0	3531.79	-40.25	132.04	290.87	92.16	14 14 52	2531.8	-34.99	102.26
70.00	13 46 56	3440.74	-34.14	124.73	290.94	88.84	14 44 17	2440.7	-31.04	96.43
80.00	14 35 1	3290.09	-29.68	113.10	290.72	86.56	15 29 51	2290.1	-28.08	85.79
90.00	15 47 19	3056.73	-27.98	95.82	290.59	85.71	16 38 15	2056.7	-26.94	68.86
100.00	17 17 53	2764.56	-29.68	74.46	290.72	86.56	18 3 57	1764.6	-28.08	47.15
110.00	18 46 23	2487.56	-34.14	53.65	290.94	88.84	19 27 50	1487.6	-31.04	25.35

DIFFERENTIAL CORRECTIONS

TDE	-.3718	TRA	-1.2103	TC3	.2715	BAU	.1295												
RDE	-.5678	RRA	.2399	RC3	-.1014	FAU	.05919												
FDE	.3918	FRA	1.0169	FC3	-1.5328	BSP	2087												
BDE	.6787	BRA	1.2339	BC3	.2898	FSP	233												

MID-COURSE EXECUTION ACCURACY

SGT	1339.7	SGR	625.8	SG3	181.1						
RRT	-.1655	RRF	.1899	RTF	-.7159						
SGB	1478.6	R23	-.0403	R13	.7185						
SG1	1344.7	SG2	614.8	THA	174.41						

ORBIT DETERMINATION ACCURACY

ST	26.3	SR	28.4	SS	17.4						
CRT	.6014	CRS	.6831	CST	.9898						
LSA	38.3	MSA	18.2	SSA	1.3						
EL1	34.6	EL2	17.2	ALF	48.64						

LAUNCH DATE JUL 27 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 328.236 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	34.874	GAL	-2.30	AZL	90.06	HCA	103.76	SMA	249.97	ECC	.39395	INC	.0572
RP	219.63	LAP	-.06	LOP	47.58	VP	26.031	GAP	22.18	AZP	89.99	TAL	351.85	TAP	95.61	RCA	151.49	APO	348.45
RC	81.081	GL	-.36	GP	-5.71	ZAL	102.45	ZAP	171.54	ETS	224.05	ZAE	162.91	ETE	340.71	ZAC	77.94	ETC	282.96

V1	29.325																		
V2	25.026																		
LVI	-11.78																		

PLANETOCENTRIC CONIC

C3	31.969	VHL	5.654	DLA	16.36	RAL	43.91	RAD	6647.8	VEL	12.324	PTH	7.25	VHP	7.761	DPA	9.61	RAP	40.94

ECC	1.5261																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 52 58	3578.87	-47.17	135.50	288.75	97.07	13 12 37	2578.9	-39.00	104.09
60.00	13 13 50	3523.30	-40.23	131.32	289.57	92.64	14 12 34	2523.3	-34.78	101.64
70.00	13 44 35	3432.80	-34.15	124.11	289.69	89.20	14 41 48	2432.8	-30.90	95.86
80.00	14 32 28	3282.77	-29.71	112.55	289.51	86.84	15 27 18	2282.8	-27.99	85.26
90.00	15 44 40	3049.71	-28.01	95.31	289.39	85.96	16 35 30	2049.7	-26.87	68.36
100.00	17 15 19	2757.24	-29.71	73.92	289.51	86.84	18 1 17	1757.2	-27.99	46.63
110.00	18 44 1	2479.62	-34.15	53.03	289.69	89.20	19 25 21	1479.6	-30.90	24.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3728	TRA	-1.2027	TC3	.3030	BAU	.1382	SGT	1368.7	SGR	628.1	SG3	192.5	ST	26.8	SR	28.3	SS	18.0
RDE	-.5532	RRA	.2396	RC3	-.1128	FAU	.06164	RRT	-.1784	RRF	.2045	RTF	-.7250	CRT	.6021	CRS	.6885	CST	.9892
FDE	.4132	FRA	1.0480	FC3	-1.6692	BSP	2149	SGB	1506.0	R23	-.0430	R13	.7277	LSA	38.8	MSA	18.3	SSA	1.4
BDE	.6671	BRA	1.2263	BC3	.3233	FSP	250	SG1	1374.5	SG2	615.5	THA	174.14	EL1	34.9	EL2	17.4	ALF	47.50

LAUNCH DATE JUL 27 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 330.949 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	34.760	GAL	-2.21	AZL	90.02	HCA	104.88	SMA	246.29	ECC	.38480	INC	.0156
RP	220.00	LAP	-.02	LOP	48.70	VP	25.838	GAP	21.83	AZP	89.99	TAL	352.03	TAP	96.91	RCA	151.52	APO	341.07
RC	82.809	GL	-.14	GP	-5.88	ZAL	102.11	ZAP	170.85	ETS	221.56	ZAE	162.41	ETE	340.43	ZAC	77.71	ETC	282.93

V1	29.325																		
V2	24.985																		
LVI	-11.52																		

PLANETOCENTRIC CONIC

C3	30.610	VHL	5.533	DLA	16.48	RAL	43.51	RAD	6647.2	VEL	12.269	PTH	7.21	VHP	7.538	DPA	9.57	RAP	41.33

ECC	1.5038																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 50 52	3570.45	-47.10	134.70	287.39	97.68	13 50 22	2570.5	-38.72	103.49
60.00	13 11 35	3515.31	-40.20	130.64	288.29	93.10	14 10 10	2515.3	-34.58	101.06
70.00	13 42 7	3425.40	-34.15	123.53	288.47	89.54	14 39 13	2425.4	-30.77	95.32
80.00	14 29 48	3276.01	-29.73	112.05	288.31	87.10	15 24 24	2276.0	-27.90	84.78
90.00	15 41 54	3043.27	-28.04	94.84	288.20	86.19	16 32 37	2043.3	-26.80	67.90
100.00	17 12 39	2750.48	-29.73	73.42	288.31	87.10	17 58 30	1750.5	-27.90	46.15
110.00	18 41 34	2472.22	-34.15	52.45	288.47	89.54	19 22 46	1472.2	-30.77	24.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3743	TRA	-1.1947	TC3	.3355	BAU	.1466	SGT	1397.4	SGR	630.5	SG3	204.5	ST	27.4	SR	28.2	SS	18.7
RDE	-.5388	RRA	.2396	RC3	-.1253	FAU	.06421	RRT	-.1918	RRF	.2200	RTF	-.7335	CRT	.6032	CRS	.6939	CST	.9886
FDE	.4363	FRA	1.0804	FC3	-1.8161	BSP	2214	SGB	1533.0	R23	-.0462	R13	.7365	LSA	39.4	MSA	18.4	SSA	1.4
BDE	.6560	BRA	1.2185	BC3	.3581	FSP	269	SG1	1403.9	SG2	615.9	THA	173.87	EL1	35.2	EL2	17.5	ALF	46.32

LAUNCH DATE JUL 27 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 333.757 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	34.652	GAL	-2.13	AZL	89.98	HCA	106.00	SMA	242.91	ECC	.37613	INC	.0121
RP	220.38	LAP	.02	LOP	49.82	VP	25.653	GAP	21.47	AZP	90.00	TAL	352.21	TAP	98.21	RCA	151.54	APO	334.28
RC	84.610	GL	.10	GP	-6.06	ZAL	101.77	ZAP	170.13	ETS	219.42	ZAE	161.97	ETE	340.08	ZAC	77.47	ETC	282.90

V1	29.325																		
V2	24.944																		
LVI	-11.25																		

PLANETOCENTRIC CONIC

C3	29.347	VHL	5.417	DLA	16.61	RAL	43.09	RAD	6646.7	VEL	12.218	PTH	7.17	VHP	7.322	DPA	9.51	RAP	41.72

ECC	1.4830																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 48 41	3562.50	-47.03	133.95	286.06	98.26	13 48 3	2562.5	-38.44	102.92
60.00	13 9 13	3507.80	-40.17	130.00	287.03	93.53	14 7 41	2507.8	-34.38	100.52
70.00	13 39 33	3418.50	-34.15	122.99	287.26	89.86	14 36 32	2418.5	-30.64	94.83
80.00	14 27 1	3269.79	-29.75	111.59	287.13	87.34	15 21 30	2269.8	-27.82	84.33
90.00	15 39 0	3037.40	-28.07	94.41	287.03	86.41	16 29 38	2037.4	-26.73	67.48
100.00	17 9 52	2744.26	-29.75	72.98	287.13	87.34	17 55 37	1744.3	-27.82	45.70
110.00	18 39 0	2465.32	-34.15	51.91	287.26	89.86	19 20 5	1465.3	-30.64	23.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3630	TRA	-1.1734	TC3	.3879	BAU	.1616	SGT	1414.6	SGR	632.5	SG3	217.1	ST	27.3	SR	28.0	SS	19.6
RDE	-.5242	RRA	.2401	RC3	-.1384	FAU	.06670	RRT	-.2161	RRF	.2351	RTF	-.7451	CRT	.5945	CRS	.7014	CST	.9861
FDE	.4658	FRA	1.1184	FC3	-1.9676	BSP	2111	SGB	1549.6	R23	-.0348	R13	.7579	LSA	39.6	MSA	18.5	SSA	1.4
BDE	.6376	BRA	1.1977	BC3	.4118	FSP	295	SG1	1422.7	SG2	614.1	THA	173.21	EL1	34.9	EL2	17.6	ALF	46.20

LAUNCH DATE JUL 27 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 336.654 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	34.549	GAL	-2.04	AZL	89.95	HCA	107.11	SMA	239.81	ECC	.36795	INC	.0523
RP	220.76	LAP	.05	LOP	50.94	VP	25.474	GAP	21.13	AZP	90.02	TAL	352.40	TAP	99.51	RCA	151.57	APO	328.04
RC	86.480	GL	.35	GP	-6.24	ZAL	101.41	ZAP	169.39	ETS	217.58	ZAE	161.59	ETE	339.66	ZAC	77.22	ETC	282.87

V1	29.325																		
V2	24.902																		
LVI	-10.98																		

PLANETOCENTRIC CONIC

C3	28.177	VHL	5.308	DLA	16.74	RAL	42.66	RAD	6646.3	VEL	12.171	PTH	7.13	VHP	7.113	DPA	9.44	RAP	42.09

ECC	1.4637																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 46 25	3555.09	-46.95	133.25	284.76	98.79	13 45 40	2555.1	-38.18	102.40
60.00	13 6 47	3500.87	-40.14	129.41	285.81	93.93	14 5 8	2500.9	-34.20	100.02
70.00	13 36 54	3412.23	-34.15	122.50	286.07	90.15	14 33 46	2412.2	-30.52	94.38
80.00	14 24 7	3264.24	-29.77	111.18	285.97	87.56	15 18 31	2264.2	-27.75	83.94
90.00	15 36 0	3032.21	-28.09	94.03	285.87	86.60	16 26 32	2032.2	-26.67	67.11
100.00	17 6 59	2738.71	-29.77	72.55	285.97	87.56	17 52 38	1738.7	-27.75	45.31
110.00	18 36 20	2459.05	-34.15	51.42	286.07	90.15	19 17 19	1459.0	-30.52	23.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3695	TRA	-1.1695	TC3	.4178	BAU	.1677	SGT	1446.9	SGR	635.1	SG3	230.6	ST	28.1	SR	27.8	SS	20.3
RDE	-.5104	RRA	.2403	RC3	-.1533	FAU	.06967	RRT	-.2280	RRF	.2535	RTF	-.7580	CRT	.5994	CRS	.7056	CST	.9861
FDE	.4695	FRA	1.1495	FC3	-2.1405	BSP	2228	SGB	1580.1	R23	-.0438	R13	.7612	LSA	40.4	MSA	18.5	SSA	1.4
BDE	.6301	BRA	1.1939	BC3	.4451	FSP	313	SG1	1455.7	SG2	614.6	THA	173.04	EL1	35.4	EL2	17.7	ALF	44.58

LAUNCH DATE JUL 27 1973 FLIGHT TIME 126.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 339.626 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	34.482	GAL	-1.96	AZL	89.91	HCA	108.22	SMA	236.94	ECC	.36022	INC	.0909
RP	221.14	LAP	.09	LOP	52.05	VP	25.302	GAP	20.78	AZP	90.03	TAL	352.59	TAP	100.81	RCA	151.59	APO	322.29
RC	88.416	GL	.61	GP	-6.43	ZAL	101.05	ZAP	168.64	ETS	215.99	ZAE	161.27	ETE	339.18	ZAC	76.97	ETC	282.85

V1	29.325																		
V2	24.861																		
LVI	-10.71																		

PLANETOCENTRIC CONIC

C3	27.089	VHL	5.205	DLA	16.88	RAL	42.22	RAD	6645.8	VEL	12.126	PTH	7.10	VHP	6.912	DPA	9.36	RAP	42.46

ECC	1.4458																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 44 5	3548.19	-46.88	132.60	283.49	99.29	13 43 13	2548.2	-37.94	101.92
60.00	13 4 15	3494.48	-40.11	128.87	284.60	94.30	14 2 30	2494.5	-34.03	99.56
70.00	13 34 8	3406.53	-34.15	122.06	284.91	90.42	14 30 55	2406.5	-30.41	93.97
80.00	14 21 7	3259.31	-29.78	110.81	284.83	87.75	15 15 26	2259.3	-27.68	83.59
90.00	15 32 53	3027.66	-28.11	93.70	284.74	86.76	16 23 20	2027.7	-26.62	66.79
100.00	17 3 59	2733.78	-29.78	72.18	284.83	87.75	17 49 32	1733.8	-27.68	44.96
110.00	18 33 35	2453.34	-34.15	50.98	284.91	90.42	19 14 28	1453.3	-30.41	22.89

DIFFERENTIAL CORRECTIONS

TDE	-.3746	TRA	-1.1633	TC3	.4503	BAU	.1743
RDE	-.4967	RRA	.2407	RC3	-.1694	FAU	.07273
FDE	.5162	FRA	1.1819	FC3	-2.3244	BSP	2326
BDE	.6221	BRA	1.1880	BC3	.4812	FSP	335

MID-COURSE EXECUTION ACCURACY

SGT	1476.8	SGR	637.7	SG3	244.8		
RRT	-.2419	RRF	.2726	RTF	-.7621		
SGB	1608.6	R23	-.0511	R13	.7658		
SG1	1486.5	SG2	614.8	THA	172.80		

ORBIT DETERMINATION ACCURACY

ST	28.8	SR	27.7	SS	21.0
CRT	.6031	CRS	.7107	CST	.9858
LSA	41.1	MSA	18.5	SSA	1.5
EL1	35.7	EL2	17.8	ALF	43.09

LAUNCH DATE JUL 27 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 342.674 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	34.361	GAL	-1.88	AZL	89.87	HCA	109.33	SMA	234.30	ECC	.35290	INC	.1293
RP	221.52	LAP	.12	LOP	53.15	VP	25.136	GAP	20.44	AZP	90.04	TAL	352.78	TAP	102.11	RCA	151.61	APO	316.98
RC	90.414	GL	.87	GP	-6.64	ZAL	100.68	ZAP	167.86	ETS	214.60	ZAE	161.00	ETE	338.62	ZAC	76.72	ETC	282.83

V1	29.325																		
V2	24.819																		
LVI	-10.43																		

PLANETOCENTRIC CONIC

C3	26.079	VHL	5.107	DLA	17.03	RAL	41.77	RAD	6645.4	VEL	12.085	PTH	7.06	VHP	6.717	DPA	9.27	RAP	42.81

ECC	1.4292																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 41 40	3541.82	-46.80	132.00	282.26	99.74	13 40 42	2541.8	-37.72	101.48
60.00	13 1 39	3488.64	-40.08	128.38	283.43	94.63	13 59 47	2488.6	-33.88	99.14
70.00	13 31 17	3401.41	-34.15	121.66	283.78	90.65	14 27 58	2401.4	-30.32	93.60
80.00	14 18 0	3255.01	-29.79	110.50	283.71	87.92	15 12 15	2255.0	-27.62	83.28
90.00	15 29 38	3023.78	-28.12	93.42	283.62	86.90	16 20 1	2023.8	-26.57	66.52
100.00	17 0 51	2729.48	-29.79	71.86	283.71	87.92	17 46 21	1729.5	-27.62	44.65
110.00	18 30 43	2448.23	-34.15	50.58	283.78	90.65	19 11 31	1448.2	-30.32	22.52

DIFFERENTIAL CORRECTIONS

TDE	-.3787	TRA	-1.1563	TC3	.4858	BAU	.1815
RDE	-.4830	RRA	.2414	RC3	-.1868	FAU	.07597
FDE	.5450	FRA	1.2161	FC3	-2.5220	BSP	2412
BDE	.6138	BRA	1.1813	BC3	.5205	FSP	359

MID-COURSE EXECUTION ACCURACY

SGT	1505.9	SGR	640.6	SG3	259.8		
RRT	-.2579	RRF	.2929	RTF	-.7671		
SGB	1636.5	R23	-.0574	R13	.7712		
SG1	1516.8	SG2	614.5	THA	172.50		

ORBIT DETERMINATION ACCURACY

ST	29.4	SR	27.4	SS	21.8
CRT	.6057	CRS	.7155	CST	.9853
LSA	41.8	MSA	18.4	SSA	1.5
EL1	36.1	EL2	17.8	ALF	41.69

LAUNCH DATE JUL 27 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 345.783 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	34.273	GAL	-1.80	AZL	89.83	HCA	110.43	SMA	231.85	ECC	.34597	INC	.1680
RP	221.90	LAP	.16	LOP	54.25	VP	24.975	GAP	20.10	AZP	90.06	TAL	352.98	TAP	103.41	RCA	151.63	APO	312.06
RC	92.473	GL	1.15	GP	-6.85	ZAL	100.31	ZAP	167.06	ETS	213.38	ZAE	160.79	ETE	336.00	ZAC	76.46	ETC	282.80

V1	29.325																		
V2	24.778																		
LVI	-10.14																		

PLANETOCENTRIC CONIC

C3	25.139	VHL	5.014	DLA	17.18	RAL	41.31	RAD	6645.0	VEL	12.046	PTH	7.03	VHP	6.529	DPA	9.16	RAP	43.16

ECC	1.4137																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 39 12	3535.97	-46.74	131.45	281.07	100.16	13 38 8	2536.0	-37.51	101.07
60.00	12 58 57	3483.35	-40.05	127.93	282.29	94.93	13 57 1	2483.4	-33.73	98.77
70.00	13 26 19	3396.90	-34.14	121.31	282.66	90.86	14 24 56	2396.9	-30.23	93.28
80.00	14 14 46	3251.36	-29.80	110.23	282.61	88.06	15 8 57	2251.4	-27.57	83.02
90.00	15 26 15	3020.58	-28.14	93.18	282.53	87.02	16 16 36	2020.6	-26.54	66.29
100.00	16 57 37	2725.83	-29.80	71.59	282.61	88.06	17 43 3	1725.8	-27.57	44.39
110.00	18 27 46	2443.72	-34.14	50.22	282.66	90.86	19 8 29	1443.7	-30.23	22.20

DIFFERENTIAL CORRECTIONS

TDE	-.3829	TRA	-1.1484	TC3	.5230	BAU	.1889
RDE	-.4695	RRA	.2423	RC3	-.2057	FAU	.07935
FDE	.5775	FRA	1.2515	FC3	-2.7325	BSP	2480
BDE	.6058	BRA	1.1737	BC3	.5620	FSP	382

MID-COURSE EXECUTION ACCURACY

SGT	1534.1	SGR	643.7	SG3	275.7		
RRT	-.2751	RRF	.3140	RTF	-.8125		
SGB	1663.6	R23	-.0633	R13	.7771		
SG1	1546.2	SG2	614.0	THA	172.17		

ORBIT DETERMINATION ACCURACY

ST	30.1	SR	27.2	SS	22.6
CRT	.6083	CRS	.7210	CST	.9847
LSA	42.6	MSA	18.3	SSA	1.5
EL1	36.4	EL2	17.8	ALF	40.28

LAUNCH DATE JUL 27 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 348.951 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	34.191	GAL	-1.73	AZL	89.79	HCA	111.53	SMA	229.58	ECC	.33942	INC	.2075
RP	222.28	LAP	.19	LOP	55.35	VP	24.820	GAP	19.76	AZP	90.08	TAL	353.18	TAP	104.71	RCA	151.66	APO	307.50
RC	94.587	GL	1.44	GP	-7.07	ZAL	99.93	ZAP	166.25	ETS	212.30	ZAE	160.63	ETE	337.29	ZAC	76.19	ETC	282.78

V1	29.325																		
V2	24.736																		
LVI	-9.85																		

PLANETOCENTRIC CONIC

C3	24.266	VHL	4.926	DLA	17.35	RAL	40.84	RAD	6644.7	VEL	12.010	PTH	7.00	VHP	6.346	DPA	9.04	RAP	43.49

ECC	1.3994																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 36 39	3530.65	-46.67	130.95	279.91	100.54	13 35 29	2530.7	-37.32	100.71
60.00	12 56 11	3478.64	-40.02	127.53	281.17	95.20	13 54 9	2478.6	-33.61	98.43
70.00	13 25 16	3393.00	-34.14	121.00	281.58	91.04	14 21 49	2393.0	-30.15	93.00
80.00	14 11 25	3248.39	-29.81	110.00	281.54	88.18	15 5 33	2248.4	-27.53	82.81
90.00	15 22 46	3018.07	-28.14	93.00	281.46	87.11	16 13 4	2018.1	-26.51	66.11
100.00	16 54 16	2722.86	-29.81	71.37	281.54	88.18	17 39 39	1722.9	-27.53	44.18
110.00	18 24 42	2439.82	-34.14	49.92	281.58	91.04	19 5 22	1439.8	-30.15	21.92

DIFFERENTIAL CORRECTIONS

TDE	-.3856	TRA	-1.1391	TC3	.5617	BAU	.1964
RDE	-.4561	RRA	.2435	RC3	-.2260	FAU	.08288
FDE	.6105	FRA	1.2876	FC3	-2.9570	BSP	2548
BDE	.5972	BRA	1.1649	BC3	.6055	FSP	409

MID-COURSE EXECUTION ACCURACY

SGT	1560.2	SGR	647.3	SG3	292.4		
RRT	-.2942	RRF	.3366	RTF	-.7781		
SGB	1689.1	R23	-.0688	R13	.7832		
SG1	1573.9	SG2	613.2	THA	171.79		

ORBIT DETERMINATION ACCURACY

ST	30.6	SR	26.9	SS	23.5
CRT	.6095	CRS	.7255	CST	.9840
LSA	43.3	MSA	18.3	SSA	1.6
EL1	36.7	EL2	17.8	ALF	38.99

LAUNCH DATE JUL 27 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 352.172 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	34.112	GAL	-1.65	AZL	89.75	HCA	112.62	SMA	227.47	ECC	.33322	INC	.2473
RP	222.67	LAP	.23	LOP	58.45	VP	24.670	GAP	19.43	AZP	90.10	TAL	353.38	TAP	106.00	RCA	151.67	APO	303.27
RC	96.756	GL	1.74	GP	-7.30	ZAL	99.54	ZAP	165.42	ETS	211.36	ZAE	160.52	ETE	336.51	ZAC	75.91	ETC	282.77

V1 29.328 V2 24.694 LVI -9.55

PLANETOCENTRIC CONIC

C3	23.453	VHL	4.843	DLA	17.52	RAL	40.37	RAD	6644.3	VEL	11.976	PTH	6.97	VHP	6.170	DPA	8.91	RAP	43.82

ECC 1.3660

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 34 1	3525.88	-46.61	130.51	278.79	100.88	13 32 47	2525.9	-37.14	100.38
60.00	12 53 19	3474.50	-39.99	127.19	280.09	95.44	13 51 14	2474.5	-33.49	98.14
70.00	13 22 7	3389.73	-34.14	120.75	280.52	91.19	14 18 37	2389.7	-30.09	92.77
80.00	14 7 57	3246.10	-29.81	109.83	280.49	88.27	15 2 3	2246.1	-27.49	82.65
90.00	15 19 8	3016.29	-28.15	92.87	280.42	87.17	16 9 25	2016.3	-26.48	65.99
100.00	16 50 49	2720.57	-29.81	71.20	280.49	88.27	17 36 9	1720.6	-27.49	44.02
110.00	18 21 33	2436.55	-34.14	49.66	280.52	91.19	19 2 10	1436.6	-30.09	21.69

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3890	TRA	-1.1289	TC3	.6018	BAU	.2041	SGT	1585.3	SGR	651.2	SG3	310.1	ST	31.2	SR	26.6	SS	24.4
RDE	-.4426	RRA	.2447	RC3	-.2480	FAU	.08664	RRT	-.3140	RRF	.3599	RTF	-.7836	CRT	.6113	CRS	.7309	CST	.9832
FDE	.6479	FRA	1.3235	FC3	-3.1981	BSP	2614	SGB	1713.8	R23	-.0743	R13	.7892	LSA	44.1	NSA	18.1	SSA	1.6
BDE	.5892	BRA	1.1551	BC3	.6509	FSP	439	SG1	1600.7	SG2	612.3	THA	171.38	EL1	36.9	EL2	17.8	ALF	37.67

LAUNCH DATE JUL 27 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 355.441 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	34.038	GAL	-1.58	AZL	89.71	HCA	113.71	SMA	225.51	ECC	.32735	INC	.2875
RP	223.06	LAP	.26	LOP	57.54	VP	24.525	GAP	19.10	AZP	90.12	TAL	353.58	TAP	107.29	RCA	151.69	APO	299.34
RC	98.976	GL	2.06	GP	-7.54	ZAL	99.16	ZAP	164.57	ETS	210.52	ZAE	160.45	ETE	335.64	ZAC	75.63	ETC	282.75

V1 29.328 V2 24.652 LVI -9.25

PLANETOCENTRIC CONIC

C3	22.698	VHL	4.764	DLA	17.70	RAL	39.89	RAD	6644.0	VEL	11.945	PTH	6.95	VHP	6.000	DPA	8.76	RAP	44.13

ECC 1.3735

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 31 21	3521.66	-46.56	130.11	277.71	101.18	13 30 2	2521.7	-36.99	100.10
60.00	12 50 23	3470.94	-39.97	126.89	279.04	95.64	13 48 14	2470.9	-33.39	97.89
70.00	13 18 52	3387.10	-34.13	120.54	279.49	91.31	14 15 19	2387.1	-30.03	92.58
80.00	14 4 22	3244.52	-29.82	109.72	279.47	88.33	14 58 26	2244.5	-27.47	82.54
90.00	15 15 23	3015.24	-28.15	92.80	279.40	87.21	16 5 39	2015.2	-26.47	65.91
100.00	16 47 14	2718.99	-29.82	71.09	279.47	88.33	17 32 33	1719.0	-27.47	43.91
110.00	18 18 19	2433.92	-34.13	49.46	279.49	91.31	18 58 52	1433.9	-30.03	21.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3922	TRA	-1.1186	TC3	.6432	BAU	.2119	SGT	1610.1	SGR	655.7	SG3	328.7	ST	31.7	SR	26.2	SS	25.4
RDE	-.4292	RRA	.2461	RC3	-.2717	FAU	.09059	RRT	-.3352	RRF	.3845	RTF	-.7891	CRT	.6126	CRS	.7358	CST	.9823
FDE	.6875	FRA	1.3608	FC3	-3.4552	BSP	2677	SGB	1738.5	R23	-.0799	R13	.7953	LSA	44.8	NSA	18.0	SSA	1.6
BDE	.5814	BRA	1.1454	BC3	.6982	FSP	469	SG1	1627.5	SG2	611.2	THA	170.94	EL1	37.2	EL2	17.7	ALF	36.34

LAUNCH DATE JUL 27 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 358.754 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.968	GAL	-1.51	AZL	89.67	HCA	114.80	SMA	223.69	ECC	.32179	INC	.3281
RP	223.44	LAP	.30	LOP	58.63	VP	24.385	GAP	18.77	AZP	90.14	TAL	353.78	TAP	108.58	RCA	151.71	APO	295.68
RC	101.244	GL	2.38	GP	-7.79	ZAL	98.77	ZAP	163.70	ETS	209.77	ZAE	160.43	ETE	334.68	ZAC	75.34	ETC	282.74

V1 29.325 V2 24.611 LVI -8.94

PLANETOCENTRIC CONIC

C3	21.995	VHL	4.690	DLA	17.89	RAL	39.40	RAD	6643.7	VEL	11.916	PTH	6.92	VHP	5.835	DPA	8.59	RAP	44.43

ECC 1.3620

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 28 36	3517.99	-46.51	129.77	276.66	101.43	13 27 14	2518.0	-36.86	99.85
60.00	12 47 23	3467.98	-39.95	126.64	278.03	95.81	13 45 11	2468.0	-33.31	97.68
70.00	13 15 32	3385.12	-34.13	120.39	278.49	91.40	14 11 57	2385.1	-29.99	92.44
80.00	14 0 40	3243.65	-29.82	109.65	278.48	88.36	14 54 43	2243.7	-27.46	82.48
90.00	15 11 30	3014.98	-28.15	92.77	278.40	87.22	16 1 45	2015.0	-26.47	65.89
100.00	16 43 31	2718.13	-29.82	71.02	278.48	88.36	17 28 50	1718.1	-27.46	43.84
110.00	18 14 58	2431.94	-34.13	49.30	278.49	91.40	18 55 30	1431.9	-29.99	21.36

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3951	TRA	-1.1076	TC3	.6841	BAU	.2193	SGT	1633.0	SGR	661.0	SG3	348.2	ST	32.2	SR	25.9	SS	26.4
RDE	-.4159	RRA	.2478	RC3	-.2970	FAU	.09469	RRT	-.3574	RRF	.4102	RTF	-.7942	CRT	.6134	CRS	.7399	CST	.9815
FDE	.7289	FRA	1.3987	FC3	-3.7269	BSP	2723	SGB	1761.7	R23	-.0858	R13	.8011	LSA	45.6	NSA	17.8	SSA	1.7
BDE	.5737	BRA	1.1350	BC3	.7458	FSP	500	SG1	1652.7	SG2	610.0	THA	170.46	EL1	37.4	EL2	17.6	ALF	35.05

LAUNCH DATE JUL 27 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 362.107 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.901	GAL	-1.45	AZL	89.63	HCA	115.88	SMA	222.00	ECC	.31653	INC	.3696
RP	223.83	LAP	.33	LOP	59.71	VP	24.249	GAP	18.45	AZP	90.16	TAL	353.98	TAP	109.87	RCA	151.73	APO	292.27
RC	103.560	GL	2.71	GP	-8.05	ZAL	98.39	ZAP	162.82	ETS	209.10	ZAE	160.46	ETE	333.63	ZAC	75.04	ETC	282.73

V1 29.325 V2 24.569 LVI -8.63

PLANETOCENTRIC CONIC

C3	21.341	VHL	4.620	DLA	18.09	RAL	38.91	RAD	6643.4	VEL	11.889	PTH	6.90	VHP	5.675	DPA	8.41	RAP	44.72

ECC 1.3512

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 25 48	3514.87	-46.46	129.48	275.66	101.65	13 24 22	2514.9	-36.74	99.64
60.00	12 44 18	3465.61	-39.93	126.44	277.04	95.94	13 42 3	2465.6	-33.25	97.52
70.00	13 12 5	3383.79	-34.13	120.28	277.51	91.47	14 8 29	2383.8	-29.97	92.35
80.00	13 56 50	3243.53	-29.82	109.64	277.51	88.37	14 50 54	2243.5	-27.46	82.47
90.00	15 7 29	3015.46	-28.15	92.81	277.43	87.20	15 57 45	2015.5	-26.47	65.93
100.00	16 39 42	2718.00	-29.82	71.01	277.51	88.37	17 25 0	1718.0	-27.46	43.84
110.00	18 11 31	2430.61	-34.13	49.20	277.51	91.47	18 52 2	1430.6	-29.97	21.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3984	TRA	-1.0962	TC3	.7252	BAU	.2267	SGT	1654.9	SGR	667.1	SG3	368.7	ST	32.7	SR	25.4	SS	27.4
RDE	-.4024	RRA	.2496	RC3	-.3243	FAU	.09901	RRT	-.3804	RRF	.4367	RTF	-.7991	CRT	.6141	CRS	.7443	CST	.9806
FDE	.7749	FRA	1.4372	FC3	-4.0165	BSP	2772	SGB	1784.3	R23	-.0918	R13	.8067	LSA	46.4	NSA	17.7	SSA	1.7
BDE	.5663	BRA	1.1243	BC3	.7945	FSP	534	SG1	1677.3	SG2	608.7	THA	169.94	EL1	37.6	EL2	17.5	ALF	33.72

LAUNCH DATE JUL 27 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 368.497 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.837	GAL	-1.38	AZL	89.59	HCA	118.98	SMA	220.41	ECC	.81156	INC	.4115	VI	29.325
RP	224.22	LAP	.37	LOP	60.79	VP	24.118	GAP	18.13	AZP	90.19	TAL	354.18	TAP	111.18	RCA	151.74	APO	289.08	V2	24.527
RC	109.921	GL	3.06	GP	-8.33	ZAL	98.00	ZAP	161.92	ETS	208.50	ZAE	160.82	ETE	332.47	ZAC	74.73	ETC	282.72	LVI	-8.31

PLANETOCENTRIC CONIC

C3	20.733	VHL	4.553	DLA	18.30	RAL	38.41	RAD	6643.2	VEL	11.863	PTH	6.88	VHP	5.521	DPA	8.21	RAP	45.00	ECC	1.3412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 22 56	3512.32	-46.43	129.25	274.69	101.83	13 21 28	2512.3	-36.66	99.47
60.00	12 41 8	3463.85	-39.92	126.29	276.10	96.04	13 38 52	2463.8	-33.20	97.40
70.00	13 8 33	3383.14	-34.13	120.23	276.57	91.50	14 4 56	2383.1	-29.95	92.30
80.00	13 52 53	3244.16	-29.82	109.69	276.57	88.34	14 46 57	2244.2	-27.47	82.91
90.00	15 3 20	3016.75	-28.15	92.91	276.49	87.16	15 53 37	2016.8	-26.49	66.02
100.00	16 35 45	2718.63	-29.82	71.06	276.57	88.34	17 21 4	1718.6	-27.47	43.88
110.00	18 7 59	2429.96	-34.13	49.15	276.57	91.50	18 48 29	1430.0	-29.95	21.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4016	TRA	-1.0849	TC3	.7663	BAU	.2330	SGT	1676.2	SGR	674.3	SG3	390.4	ST	33.2	SR	25.0	SS	28.5
RDE	-.3890	RRA	.2517	RC3	-.3538	FAU	.10358	RRT	-.4045	RRF	.4645	RTF	-.8037	CRT	.6140	CRS	.7476	CST	.9797
FDE	.8230	FRA	1.4774	FC3	-4.3251	BSP	2830	SGB	1806.8	R23	-.0984	R13	.8120	LSA	47.3	MSA	17.5	SSA	1.7
BDE	.5591	BRA	1.1137	BC3	.8440	FSP	571	SG1	1701.6	SG2	607.5	THA	169.39	EL1	37.8	EL2	17.3	ALF	32.39

LAUNCH DATE JUL 27 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 368.920 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.777	GAL	-1.32	AZL	89.55	HCA	118.04	SMA	218.94	ECC	.30685	INC	.4542	VI	29.325
RP	224.61	LAP	.40	LOP	61.86	VP	23.991	GAP	17.81	AZP	90.21	TAL	354.38	TAP	112.42	RCA	151.76	APO	286.12	V2	24.485
RC	108.326	GL	3.42	GP	-8.62	ZAL	97.62	ZAP	160.99	ETS	207.96	ZAE	160.61	ETE	331.19	ZAC	74.42	ETC	282.71	LVI	-7.98

PLANETOCENTRIC CONIC

C3	20.167	VHL	4.491	DLA	18.52	RAL	37.92	RAD	6642.9	VEL	11.840	PTH	6.86	VHP	5.372	DPA	7.99	RAP	45.26	ECC	1.3319

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 0	3510.33	-46.40	129.06	273.77	101.97	13 18 31	2510.3	-36.58	99.33
60.00	12 37 54	3462.70	-39.91	126.19	275.18	96.11	13 35 36	2462.7	-33.16	97.31
70.00	13 4 54	3383.18	-34.13	120.24	275.66	91.49	14 1 17	2383.2	-29.95	92.31
80.00	13 48 49	3245.56	-29.81	109.79	275.65	88.29	14 42 54	2245.6	-27.49	82.61
90.00	14 59 2	3018.87	-28.14	93.06	275.58	87.08	15 49 21	2018.9	-26.52	66.17
100.00	16 31 40	2720.03	-29.81	71.16	275.65	88.29	17 17 0	1720.0	-27.49	43.98
110.00	18 4 21	2429.99	-34.13	49.15	275.66	91.49	18 44 51	1430.0	-29.95	21.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4052	TRA	-1.0726	TC3	.8069	BAU	.2411	SGT	1695.7	SGR	682.4	SG3	413.2	ST	33.7	SR	24.5	SS	29.7
RDE	-.3752	RRA	.2539	RC3	-.3853	FAU	.10836	RRT	-.4290	RRF	.4926	RTF	-.8078	CRT	.6141	CRS	.7514	CST	.9787
FDE	.8767	FRA	1.5167	FC3	-4.6518	BSP	2877	SGB	1827.9	R23	-.1052	R13	.8171	LSA	48.2	MSA	17.2	SSA	1.8
BDE	.5523	BRA	1.1023	BC3	.8942	FSP	608	SG1	1724.5	SG2	606.2	THA	168.80	EL1	38.0	EL2	17.2	ALF	31.02

LAUNCH DATE JUL 27 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 372.375 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.720	GAL	-1.26	AZL	89.50	HCA	119.11	SMA	217.56	ECC	.30239	INC	.4973	VI	29.325
RP	225.00	LAP	.43	LOP	62.94	VP	23.868	GAP	17.50	AZP	90.24	TAL	354.58	TAP	113.69	RCA	151.77	APO	283.34	V2	24.443
RC	110.773	GL	3.79	GP	-8.92	ZAL	97.25	ZAP	160.05	ETS	207.48	ZAE	160.74	ETE	329.79	ZAC	74.09	ETC	282.71	LVI	-7.65

PLANETOCENTRIC CONIC

C3	19.641	VHL	4.432	DLA	18.75	RAL	37.42	RAD	6642.7	VEL	11.818	PTH	6.84	VHP	5.228	DPA	7.76	RAP	45.51	ECC	1.3232

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 17 2	3508.91	-46.38	128.93	272.88	102.07	13 15 31	2508.9	-36.52	99.24
60.00	12 34 35	3462.17	-39.91	126.15	274.30	96.14	13 32 17	2462.2	-33.15	97.28
70.00	13 1 10	3383.90	-34.13	120.29	274.79	91.46	13 57 34	2383.9	-29.97	92.36
80.00	13 44 36	3247.75	-29.81	109.96	274.77	88.20	14 38 44	2247.8	-27.52	82.77
90.00	14 54 35	3021.84	-28.13	93.28	274.69	86.97	15 44 57	2021.8	-26.55	66.38
100.00	16 27 28	2722.22	-29.81	71.33	274.77	88.20	17 12 50	1722.2	-27.52	44.13
110.00	18 0 36	2430.72	-34.13	49.21	274.79	91.46	18 41 7	1430.7	-29.97	21.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4087	TRA	-1.0606	TC3	.8459	BAU	.2479	SGT	1714.1	SGR	692.0	SG3	437.0	ST	34.2	SR	24.0	SS	30.9
RDE	-.3615	RRA	.2564	RC3	-.4190	FAU	.11333	RRT	-.4538	RRF	.5217	RTF	-.8116	CRT	.6132	CRS	.7535	CST	.9779
FDE	.9318	FRA	1.5578	FC3	-4.9953	BSP	2925	SGB	1848.5	R23	-.1128	R13	.8219	LSA	49.1	MSA	17.0	SSA	1.8
BDE	.5457	BRA	1.0911	BC3	.9439	FSP	649	SG1	1746.7	SG2	605.2	THA	168.18	EL1	38.2	EL2	17.0	ALF	29.65

LAUNCH DATE JUL 27 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 375.858 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.666	GAL	-1.20	AZL	89.46	HCA	120.18	SMA	216.27	ECC	.29817	INC	.5414	VI	29.325
RP	225.39	LAP	.47	LOP	64.01	VP	23.748	GAP	17.18	AZP	90.27	TAL	354.77	TAP	114.95	RCA	151.78	APO	280.75	V2	24.401
RC	113.259	GL	4.17	GP	-9.23	ZAL	96.87	ZAP	159.09	ETS	207.04	ZAE	160.89	ETE	328.26	ZAC	73.76	ETC	282.71	LVI	-7.31

PLANETOCENTRIC CONIC

C3	19.152	VHL	4.376	DLA	19.00	RAL	36.92	RAD	6642.3	VEL	11.797	PTH	6.82	VHP	5.089	DPA	7.50	RAP	45.74	ECC	1.3152

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 0	3508.06	-46.37	128.85	272.04	102.13	13 12 28	2508.1	-36.49	99.18
60.00	12 31 11	3462.27	-39.91	126.16	273.46	96.13	13 28 54	2462.3	-33.15	97.28
70.00	12 57 19	3385.34	-34.13	120.40	273.94	91.39	13 53 44	2385.3	-30.00	92.46
80.00	13 40 15	3250.76	-29.80	110.18	273.92	88.09	14 34 26	2250.8	-27.56	82.98
90.00	14 49 58	3025.68	-28.12	93.56	273.83	86.83	15 40 24	2025.7	-26.60	66.65
100.00	16 23 7	2725.23	-29.80	71.55	273.92	88.09	17 8 32	1725.2	-27.56	44.35
110.00	17 56 45	2432.16	-34.13	49.32	273.94	91.39	18 37 18	1432.2	-30.00	21.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4122	TRA	-1.0484	TC3	.8648	BAU	.2548	SGT	1731.6	SGR	703.2	SG3	462.2	ST	34.7	SR	23.4	SS	32.2
RDE	-.3475	RRA	.2591	RC3	-.4553	FAU	.11861	RRT	-.4795	RRF	.5513	RTF	-.8152	CRT	.6113	CRS	.7552	CST	.9770
FDE	.9920	FRA	1.6000	FC3	-5.3615	BSP	2972	SGB	1869.0	R23	-.1207	R13	.8267	LSA	50.0	MSA	16.8	SSA	1.9
BDE	.5391	BRA	1.0800	BC3	.9951	FSP	692	SG1	1768.6	SG2	604.2	THA	167.50	EL1	38.3	EL2	16.7	ALF	28.24

LAUNCH DATE JUL 27 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 379.367 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.615	GAL	-1.14	AZL	89.41	HCA	121.24	SMA	215.06	ECC	.29418	INC	.5863	V1	29.325
RP	225.78	LAP	.50	LOP	65.07	VP	23.633	GAP	16.87	AZP	90.30	TAL	354.96	TAP	118.21	RCA	151.79	APO	278.33	V2	24.359
RC	115.782	GL	4.56	GP	-9.56	ZAL	96.51	ZAP	158.11	ETS	206.65	ZAE	161.06	ETE	326.58	ZAC	73.41	ETC	282.72	LVI	-6.96

PLANETOCENTRIC CONIC

C3	18.697	VHL	4.324	DLA	19.25	RAL	36.42	RAD	6642.3	VEL	11.778	PTH	6.80	VHP	4.954	DPA	7.23	RAP	45.96	ECC	1.3077

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 54	3507.79	-46.36	128.83	271.24	102.15	13 9 22	2507.8	-36.48	99.16
60.00	12 27 43	3463.00	-39.92	126.22	272.66	96.09	13 25 26	2463.0	-33.17	97.34
70.00	12 53 22	3387.49	-34.13	120.57	273.13	91.29	13 49 49	2387.5	-30.04	92.61
80.00	13 35 46	3254.60	-29.79	110.47	273.09	87.94	14 30 0	2254.6	-27.61	83.25
90.00	14 45 12	3030.43	-28.10	93.90	273.00	86.66	15 35 43	2030.4	-26.65	66.99
100.00	16 18 37	2729.07	-29.79	71.83	273.09	87.94	17 4 6	1729.1	-27.61	44.62
110.00	17 52 48	2434.31	-34.13	49.49	273.13	91.29	18 33 23	1434.3	-30.04	21.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4155	TRA	-1.0345	TC3	.9220	BAU	.2615	SGT	1745.5	SGR	715.9	SG3	488.4	ST	35.1	SR	22.8	SS	33.6
RDE	-.3332	RRA	.2619	RC3	-.4939	FAU	.12410	RRT	-.5051	RRF	.5808	RTF	-.8185	CRT	.6090	CRS	.7565	CST	.9760
FDE	1.0569	FRA	1.6404	FC3	-5.7461	BSP	3008	SGB	1886.6	R23	-.1286	R13	.8312	LSA	51.0	MSA	16.5	SSA	1.9
BDE	.5326	BRA	1.0671	BC3	1.0460	FSP	734	SG1	1787.6	SG2	603.3	THA	166.76	EL1	38.5	EL2	16.5	ALF	26.65

LAUNCH DATE JUL 27 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 382.899 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.567	GAL	-1.09	AZL	89.37	HCA	122.31	SMA	213.93	ECC	.29040	INC	.6319	V1	29.325
RP	226.17	LAP	.51	LOP	66.13	VP	23.520	GAP	16.87	AZP	90.34	TAL	355.15	TAP	117.46	RCA	151.81	APO	276.06	V2	24.318
RC	116.341	GL	4.91	GP	-9.90	ZAL	96.18	ZAP	157.11	ETS	206.29	ZAE	161.26	ETE	324.74	ZAC	73.06	ETC	282.73	LVI	-6.60

PLANETOCENTRIC CONIC

C3	18.275	VHL	4.27	DLA	19.52	RAL	35.93	RAD	6642.1	VEL	11.760	PTH	6.79	VHP	4.824	DPA	6.94	RAP	46.16	ECC	1.3008

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 7 48	3508.09	-46.37	128.86	270.48	102.13	13 8 14	2508.1	-36.49	99.18
60.00	12 24 11	3464.37	-39.93	126.33	271.89	96.01	13 21 55	2464.4	-33.21	97.43
70.00	12 49 18	3390.38	-34.14	120.80	272.35	91.16	13 45 49	2390.4	-30.10	92.82
80.00	13 31 7	3259.31	-29.78	110.82	272.30	87.75	14 25 26	2259.3	-27.68	83.59
90.00	14 40 15	3036.12	-28.07	94.32	272.20	86.45	15 30 51	2036.1	-26.72	67.39
100.00	16 13 59	2733.78	-29.78	72.18	272.30	87.75	16 59 33	1733.8	-27.68	44.96
110.00	17 48 45	2437.20	-34.14	49.72	272.35	91.16	18 29 22	1437.2	-30.10	21.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4185	TRA	-1.0214	TC3	.9578	BAU	.2681	SGT	1759.1	SGR	730.7	SG3	516.0	ST	35.5	SR	22.1	SS	34.9
RDE	-.3188	RRA	.2649	RC3	-.5354	FAU	.12988	RRT	-.5307	RRF	.6108	RTF	-.8211	CRT	.6049	CRS	.7562	CST	.9751
FDE	1.1242	FRA	1.6822	FC3	-6.1527	BSP	3047	SGB	1904.9	R23	-.1378	R13	.8354	LSA	52.0	MSA	16.2	SSA	1.9
BDE	.5261	BRA	1.0552	BC3	1.0971	FSP	781	SG1	1806.9	SG2	603.0	THA	165.97	EL1	38.6	EL2	16.2	ALF	25.42

LAUNCH DATE JUL 27 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 386.485 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.521	GAL	-1.04	AZL	89.32	HCA	123.36	SMA	212.87	ECC	.28682	INC	.6766	V1	29.325
RP	226.56	LAP	.57	LOP	67.19	VP	23.412	GAP	16.27	AZP	90.37	TAL	355.33	TAP	118.70	RCA	151.82	APO	273.93	V2	24.276
RC	120.933	GL	5.39	GP	-10.26	ZAL	95.79	ZAP	156.08	ETS	205.98	ZAE	161.46	ETE	322.73	ZAC	72.69	ETC	282.74	LVI	-6.23

PLANETOCENTRIC CONIC

C3	17.863	VHL	4.229	DLA	19.81	RAL	35.43	RAD	6641.9	VEL	11.744	PTH	6.77	VHP	4.699	DPA	6.62	RAP	46.38	ECC	1.2943

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 33	3508.96	-46.38	128.94	269.76	102.07	13 3 2	2509.0	-36.52	99.24
60.00	12 20 33	3466.36	-39.94	126.50	271.16	95.90	13 18 19	2466.4	-33.27	97.57
70.00	12 45 7	3393.99	-34.14	121.08	271.59	90.99	13 41 41	2394.0	-30.17	93.07
80.00	13 26 19	3264.87	-29.77	111.23	271.53	87.54	14 20 44	2264.9	-27.76	83.98
90.00	14 35 7	3042.75	-28.05	94.80	271.42	86.21	15 25 50	2042.7	-26.79	67.86
100.00	16 9 11	2739.34	-29.77	72.60	271.53	87.54	16 54 30	1739.3	-27.76	45.35
110.00	17 44 34	2440.81	-34.14	50.00	271.59	90.99	18 25 15	1440.8	-30.17	21.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4128	TRA	-.9967	TC3	1.0142	BAU	.2793	SGT	1763.1	SGR	747.4	SG3	544.9	ST	35.3	SR	21.4	SS	36.4
RDE	-.3037	RRA	.2678	RC3	-.5799	FAU	.13595	RRT	-.5647	RRF	.6401	RTF	-.8511	CRT	.5957	CRS	.7559	CST	.9726
FDE	1.1996	FRA	1.7211	FC3	-6.5616	BSP	2962	SGB	1915.0	R23	-.1325	R13	.8462	LSA	52.7	MSA	16.0	SSA	1.9
BDE	.5125	BRA	1.0320	BC3	1.1682	FSP	828	SG1	1819.3	SG2	597.8	THA	164.87	EL1	38.1	EL2	15.9	ALF	24.36

LAUNCH DATE JUL 27 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 390.030 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.477	GAL	-.99	AZL	89.27	HCA	124.42	SMA	211.88	ECC	.28344	INC	.7261	V1	29.325
RP	226.95	LAP	.60	LOP	68.24	VP	23.306	GAP	15.97	AZP	90.41	TAL	355.51	TAP	119.93	RCA	151.82	APO	271.94	V2	24.234
RC	123.556	GL	5.82	GP	-10.63	ZAL	95.45	ZAP	155.04	ETS	205.66	ZAE	161.67	ETE	320.54	ZAC	72.31	ETC	282.76	LVI	-5.86

PLANETOCENTRIC CONIC

C3	17.520	VHL	4.186	DLA	20.10	RAL	34.94	RAD	6641.7	VEL	11.728	PTH	6.76	VHP	4.578	DPA	6.28	RAP	46.52	ECC	1.2883

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 1 18	3510.46	-46.40	129.08	269.09	101.96	12 59 48	2510.5	-36.58	99.34
60.00	12 16 51	3469.05	-39.96	126.73	270.47	95.75	13 14 40	2469.1	-33.34	97.76
70.00	12 40 50	3398.42	-34.15	121.43	270.88	90.79	13 37 28	2398.4	-30.26	93.39
80.00	13 21 21	3271.41	-29.75	111.71	270.79	87.28	14 15 52	2271.4	-27.84	84.45
90.00	14 29 47	3050.45	-28.01	95.36	270.68	85.94	15 20 38	2050.4	-26.88	68.41
100.00	16 4 12	2745.88	-29.75	73.08	270.79	87.28	16 49 58	1745.9	-27.84	45.82
110.00	17 40 16	2445.24	-34.15	50.34	270.88	90.79	18 21 1	1445.2	-30.26	22.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4205	TRA	-.9883	TC3	1.0348	BAU	.2834	SGT	1776.7	SGR	766.7	SG3	575.0	ST	36.0	SR	20.6	SS	38.0
RDE	-.2884	RRA	.2716	RC3	-.6268	FAU	.14220	RRT	-.5855	RRF	.6693	RTF	-.8298	CRT	.5906	CRS	.7524	CST	.9726
FDE	1.2785	FRA	1.7669	FC3	-7.0266	BSP	3063	SGB	1935.1	R23	-.1484	R13	.8472	LSA	54.0	MSA	15.7	SSA	2.0
BDE	.5099	BRA	1.0249	BC3	1.2099	FSP	882	SG1	1839.6	SG2	600.3	THA	164.08	EL1	38.5	EL2	15.6	ALF	22.60

LAUNCH DATE JUL 27 1973 FLIGHT TIME 150.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 393.624 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.436	GAL	-.94	AZL	89.23	HCA	125.47	SMA	210.95	ECC	.28025	INC	.7749	V1	29.325
RP	227.34	LAP	.63	LOP	69.29	VP	23.204	GAP	15.67	AZP	90.45	TAL	355.69	TAP	121.15	RCA	151.83	APO	270.07	V2	24.193
RC	126.208	GL	6.26	GP	-11.03	ZAL	95.11	ZAP	153.97	ETS	205.39	ZAE	161.88	ETE	318.16	ZAC	71.92	ETC	282.78	LVI	-5.47

PLANETOCENTRIC CONIC

C3	17.184	VHL	4.145	DLA	20.41	RAL	34.45	RAD	6641.6	VEL	11.714	PTH	6.75	VHP	4.461	DPA	5.92	RAP	46.68	ECC	1.2828

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 57 59	3512.54	-46.43	129.27	268.46	101.82	12 56 31	2512.5	-36.66	99.48
60.00	12 13 3	3472.41	-39.98	127.01	269.81	95.56	13 10 55	2472.4	-33.43	98.00
70.00	12 36 24	3403.63	-34.15	121.83	270.20	90.55	13 33 8	2403.6	-30.36	93.76
80.00	13 16 12	3278.90	-29.72	112.27	270.09	86.99	14 10 50	2278.9	-27.94	84.98
90.00	14 24 15	3059.21	-27.97	96.00	269.96	85.62	15 15 14	2059.2	-26.97	69.03
100.00	15 59 3	2753.37	-29.72	73.64	270.09	86.99	16 44 57	1753.4	-27.94	46.35
110.00	17 35 51	2450.44	-34.15	50.75	270.20	90.55	18 16 41	1450.4	-30.36	22.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4261	TRA	-.9765	TC3	1.0575	BAU	.2885	SGT	1785.9	SGR	788.5	SG3	606.5	ST	36.5	SR	19.8	SS	39.6
RDE	-.2725	RRA	.2753	RC3	-.6770	FAU	.14873	RRT	-.6072	RRF	.6976	RTF	-.8298	CRT	.5827	CRS	.7476	CST	.9721
FDE	1.3634	FRA	1.8109	FC3	-7.4932	BSP	3120	SGB	1952.2	R23	-.1617	R13	.8496	LSA	55.3	MSA	15.3	SSA	2.0
BDE	.5058	BRA	1.0146	BC3	1.2556	FSP	934	SG1	1856.9	SG2	602.5	THA	163.17	EL1	38.7	EL2	15.2	ALF	20.91

LAUNCH DATE JUL 27 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 397.235 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.397	GAL	-.90	AZL	89.18	HCA	126.51	SMA	210.08	ECC	.27722	INC	.8246	V1	29.325
RP	227.73	LAP	.66	LOP	70.34	VP	23.104	GAP	15.37	AZP	90.49	TAL	355.85	TAP	122.37	RCA	151.84	APO	268.32	V2	24.152
RC	128.887	GL	6.72	GP	-11.43	ZAL	94.79	ZAP	152.87	ETS	205.14	ZAE	162.08	ETE	315.58	ZAC	71.52	ETC	282.81	LVI	-5.08

PLANETOCENTRIC CONIC

C3	16.873	VHL	4.108	DLA	20.74	RAL	33.97	RAD	6641.4	VEL	11.701	PTH	6.73	VHP	4.348	DPA	5.54	RAP	46.82	ECC	1.2777

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 36	3515.23	-46.47	129.52	267.87	101.63	12 53 12	2515.2	-36.76	99.66
60.00	12 9 10	3476.44	-40.01	127.35	269.20	95.33	13 7 7	2476.4	-33.55	98.28
70.00	12 31 51	3409.64	-34.15	122.30	269.55	90.27	13 28 41	2409.6	-30.47	94.19
80.00	13 10 51	3287.38	-29.69	112.90	269.41	86.66	14 5 38	2287.4	-28.05	85.59
90.00	14 18 28	3069.09	-27.91	96.71	269.27	85.26	15 9 37	2069.1	-27.07	69.74
100.00	15 53 43	2761.85	-29.69	74.26	269.41	86.66	16 39 45	1761.9	-28.05	46.96
110.00	17 31 17	2456.46	-34.15	51.22	269.55	90.27	18 12 14	1456.5	-30.47	23.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4315	TRA	-.9634	TC3	1.0792	BAU	.2939	SGT	1792.4	SGR	812.9	SG3	639.4	ST	37.0	SR	18.9	SS	41.4
RDE	-.2558	RRA	.2793	RC3	-.7303	FAU	.15553	RRT	-.6284	RRF	.7249	RTF	-.8300	CRT	.5721	CRS	.7407	CST	.9715
FDE	1.4565	FRA	1.8543	FC3	-7.9803	BSP	3165	SGB	1968.1	R23	-.1741	R13	.8526	LSA	56.7	MSA	15.0	SSA	2.1
BDE	.5016	BRA	1.0030	BC3	1.3031	FSP	992	SG1	1872.8	SG2	605.2	THA	162.17	EL1	38.9	EL2	14.8	ALF	19.18

LAUNCH DATE JUL 27 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 400.862 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.360	GAL	-.86	AZL	89.12	HCA	127.56	SMA	209.28	ECC	.27436	INC	.8755	V1	29.325
RP	228.12	LAP	.69	LOP	71.38	VP	23.007	GAP	15.08	AZP	90.53	TAL	356.02	TAP	123.57	RCA	151.85	APO	266.68	V2	24.110
RC	131.592	GL	7.19	GP	-11.86	ZAL	94.48	ZAP	151.76	ETS	204.91	ZAE	162.26	ETE	312.79	ZAC	71.10	ETC	282.84	LVI	-4.67

PLANETOCENTRIC CONIC

C3	16.586	VHL	4.073	DLA	21.08	RAL	33.48	RAD	6641.3	VEL	11.689	PTH	6.72	VHP	4.240	DPA	5.13	RAP	46.94	ECC	1.2730

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 10	3518.52	-46.51	129.82	267.33	101.40	12 49 49	2518.5	-36.88	99.88
60.00	12 5 12	3481.17	-40.04	127.75	268.62	95.06	13 3 13	2481.2	-33.67	98.61
70.00	12 27 9	3416.49	-34.15	122.84	268.94	89.96	13 24 6	2416.5	-30.60	94.68
80.00	13 5 18	3296.91	-29.65	113.60	268.77	86.29	14 0 14	2296.9	-28.17	86.27
90.00	14 12 26	3080.15	-27.85	97.52	268.61	84.87	15 3 46	2080.2	-27.18	70.53
100.00	15 48 9	2771.38	-29.65	74.97	268.77	86.29	16 34 21	1771.4	-28.17	47.64
110.00	17 26 36	2463.31	-34.15	51.75	268.94	89.96	18 7 39	1463.3	-30.60	23.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4352	TRA	-.9485	TC3	1.0964	BAU	.2992	SGT	1793.8	SGR	839.9	SG3	672.9	ST	37.4	SR	18.0	SS	43.2
RDE	-.2387	RRA	.2833	RC3	-.7864	FAU	.16246	RRT	-.6486	RRF	.7508	RTF	-.8299	CRT	.5575	CRS	.7309	CST	.9707
FDE	1.5534	FRA	1.8959	FC3	-8.4802	BSP	3228	SGB	1980.7	R23	-.1861	R13	.8556	LSA	58.0	MSA	14.7	SSA	2.1
BDE	.4963	BRA	.9899	BC3	1.3493	FSP	1055	SG1	1884.9	SG2	608.4	THA	161.06	EL1	38.9	EL2	14.3	ALF	17.46

LAUNCH DATE JUL 27 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 404.503 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	33.325	GAL	-.82	AZL	89.07	HCA	128.60	SMA	208.90	ECC	.27166	INC	.9278	V1	29.325
RP	228.51	LAP	.73	LOP	72.42	VP	22.914	GAP	14.79	AZP	90.58	TAL	356.17	TAP	124.77	RCA	151.86	APO	265.14	V2	24.069
RC	134.321	GL	7.68	GP	-12.31	ZAL	94.17	ZAP	150.61	ETS	204.69	ZAE	162.42	ETE	309.79	ZAC	70.87	ETC	282.87	LVI	-4.26

PLANETOCENTRIC CONIC

C3	16.321	VHL	4.040	DLA	21.44	RAL	33.01	RAD	6641.2	VEL	11.677	PTH	6.71	VHP	4.135	DPA	4.69	RAP	47.05	ECC	1.2686

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 47 40	3522.44	-46.57	130.19	266.83	101.12	12 46 22	2522.4	-37.02	100.15
60.00	12 1 7	3486.61	-40.07	128.21	268.08	94.75	12 59 14	2486.6	-33.82	99.00
70.00	12 22 18	3424.20	-34.15	123.44	268.36	89.60	13 19 23	2424.2	-30.75	95.24
80.00	12 59 31	3307.55	-29.60	114.39	268.15	85.88	13 54 38	2307.5	-28.30	87.04
90.00	14 6 7	3092.49	-27.77	98.41	267.97	84.43	14 57 40	2092.5	-27.30	71.41
100.00	15 42 22	2782.02	-29.60	75.76	268.15	85.88	16 28 44	1782.0	-28.30	48.41
110.00	17 21 45	2471.02	-34.15	52.36	268.36	89.60	18 2 56	1471.0	-30.75	24.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4388	TRA	-.9337	TC3	1.1141	BAU	.3054	SGT	1794.8	SGR	870.8	SG3	708.7	ST	37.8	SR	17.0	SS	45.1
RDE	-.2206	RRA	.2875	RC3	-.8472	FAU	.16991	RRT	-.6683	RRF	.7758	RTF	-.8299	CRT	.5379	CRS	.7173	CST	.9699
FDE	1.6592	FRA	1.9370	FC3	-9.0129	BSP	3266	SGB	1994.9	R23	-.1976	R13	.8591	LSA	59.5	MSA	14.4	SSA	2.1
BDE	.4912	BRA	.9769	BC3	1.3996	FSP	1118	SG1	1898.6	SG2	612.4	THA	159.85	EL1	39.0	EL2	13.9	ALF	15.64

LAUNCH DATE JUL 27 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 408.158 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.292 GAL -.78 AZL 89.02 HCA 128.63 SMA 207.78 ECC .26911 INC .9813 V1 29.325
RP 228.90 LAP .76 LOP 73.46 VP 22.822 GAP 14.51 AZP 90.63 TAL 356.33 TAP 125.96 RCA 151.86 APO 263.69 V2 24.028
RC 137.073 GL 8.18 GP -12.78 ZAL 93.88 ZAP 149.45 ETS 204.48 ZAE 162.54 ETE 306.96 ZAC 70.22 ETC 282.92 LVI -3.83

PLANETOCENTRIC CONIC

C3 16.077 VHL 4.010 DLA 21.81 RAL 32.54 RAD 6641.0 VEL 11.667 PTH 6.70 VHP 4.035 DPA 4.23 RAP 47.14 ECC 1.2646

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 44 6	3526.98	-46.62	130.61	266.38	100.80	12 42 53	2527.0	-37.18	100.46
60.00	11 56 56	3492.77	-40.10	128.73	267.58	94.40	12 55 9	2492.8	-33.99	99.44
70.00	12 17 18	3432.81	-34.15	124.11	267.81	89.20	13 14 30	2432.8	-30.90	95.86
80.00	12 53 29	3319.35	-29.54	115.26	267.56	85.43	13 48 48	2319.3	-28.43	87.89
90.00	13 59 30	3106.18	-27.68	99.40	267.36	83.94	14 51 16	2106.2	-27.42	72.40
100.00	15 36 21	2793.82	-29.54	76.63	267.56	85.43	16 22 54	1793.8	-28.43	49.26
110.00	17 16 44	2479.63	-34.15	53.03	267.81	89.20	17 58 4	1479.6	-30.90	24.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4410 TRA -.9173 TC3 1.1270 BAU .3115 SGT 1790.9 SGR 904.9 SG3 745.2 ST 38.0 SR 16.0 SS 47.0
RDE -.2021 RRA .2918 RC3 -.9110 FAU .17748 RRT -.6865 RRF .7991 RTF -.8297 CRT .5122 CRS .6984 CST .9690
FDE 1.7683 FRA 1.9772 FC3-9.5573 BSP 3291 SGB 2006.5 R23 -.2084 R13 .8629 LSA 60.9 MSA 14.1 SSA 2.1
BDE .4851 BRA .9626 BC3 1.4491 FSP 1181 SG1 1909.2 SG2 617.2 THA 158.52 EL1 39.0 EL2 13.4 ALF 13.81

LAUNCH DATE JUL 27 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 411.825 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.261 GAL -.74 AZL 88.96 HCA 130.66 SMA 207.10 ECC .26670 INC 1.0364 V1 29.325
RP 229.28 LAP .79 LOP 74.49 VP 22.734 GAP 14.22 AZP 90.68 TAL 356.47 TAP 127.13 RCA 151.87 APO 262.34 V2 23.988
RC 139.847 GL 8.69 GP -13.26 ZAL 93.60 ZAP 148.25 ETS 204.29 ZAE 162.61 ETE 303.17 ZAC 69.76 ETC 282.96 LVI -3.39

PLANETOCENTRIC CONIC

C3 15.854 VHL 3.982 DLA 22.20 RAL 32.07 RAD 6640.9 VEL 11.658 PTH 6.69 VHP 3.938 DPA 3.74 RAP 47.21 ECC 1.2609

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 40 27	3532.16	-46.69	131.09	265.97	100.43	12 39 19	2532.2	-37.37	100.81
60.00	11 52 39	3499.67	-40.14	129.31	267.11	94.00	12 50 58	2499.7	-34.17	99.93
70.00	12 12 6	3442.35	-34.13	124.86	267.30	88.76	13 9 29	2442.3	-31.07	96.55
80.00	12 47 10	3332.39	-29.46	116.22	266.99	84.93	13 42 43	2332.4	-28.58	88.83
90.00	13 52 32	3121.34	-27.56	100.50	266.77	83.40	14 44 34	2121.3	-27.54	73.49
100.00	15 30 2	2806.86	-29.46	77.59	266.99	84.93	16 16 49	1806.9	-28.58	50.20
110.00	17 11 33	2489.17	-34.13	53.77	267.30	88.76	17 53 2	1489.2	-31.07	25.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4439 TRA -.9023 TC3 1.1350 BAU .3176 SGT 1786.4 SGR 942.6 SG3 783.3 ST 38.3 SR 14.9 SS 49.2
RDE -.1820 RRA .2969 RC3 -.9783 FAU .18525 RRT -.7031 RRF .8208 RTF -.8291 CRT .4767 CRS .6712 CST .9682
FDE 1.8909 FRA 2.0225 FC-10.1163 BSP 3308 SGB 2019.9 R23 -.2189 R13 .8668 LSA 62.5 MSA 13.8 SSA 2.2
BDE .4798 BRA .9499 BC3 1.4984 FSP 1247 SG1 1921.3 SG2 623.2 THA 157.10 EL1 39.0 EL2 12.8 ALF 11.78

LAUNCH DATE JUL 27 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 415.504 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.231 GAL -.71 AZL 88.91 HCA 131.69 SMA 206.47 ECC .26443 INC 1.0928 V1 29.325
RP 229.67 LAP .82 LOP 75.52 VP 22.648 GAP 13.94 AZP 90.73 TAL 356.61 TAP 128.30 RCA 151.87 APO 261.06 V2 23.947
RC 142.641 GL 9.22 GP -13.77 ZAL 93.33 ZAP 147.03 ETS 204.11 ZAE 162.62 ETE 299.58 ZAC 69.28 ETC 283.02 LVI -2.93

PLANETOCENTRIC CONIC

C3 15.650 VHL 3.956 DLA 22.61 RAL 31.61 RAD 6640.8 VEL 11.649 PTH 6.69 VHP 3.846 DPA 3.22 RAP 47.27 ECC 1.2576

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 36 44	3537.99	-46.76	131.64	265.61	100.02	12 35 42	2538.0	-37.58	101.21
60.00	11 48 14	3507.35	-40.17	129.96	266.69	93.56	12 46 41	2507.3	-34.37	100.48
70.00	12 6 44	3452.86	-34.12	125.68	266.81	88.28	13 4 16	2452.9	-31.25	97.32
80.00	12 40 33	3346.76	-29.37	117.28	266.45	84.38	13 36 20	2346.8	-28.72	89.87
90.00	13 45 11	3138.10	-27.42	101.70	266.20	82.81	14 37 29	2138.1	-27.67	74.70
100.00	15 23 25	2821.23	-29.37	78.65	266.45	84.38	16 10 27	1821.2	-28.72	51.24
110.00	17 6 10	2499.68	-34.12	54.59	266.81	88.28	17 47 50	1499.7	-31.25	26.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4455 TRA -.8856 TC3 1.1409 BAU .3244 SGT 1778.1 SGR 984.5 SG3 822.6 ST 38.4 SR 13.7 SS 51.3
RDE -.1814 RRA .3018 RC3-1.0502 FAU .19341 RRT -.7181 RRF .8410 RTF -.8281 CRT .4307 CRS .6349 CST .9672
FDE 2.0161 FRA 2.0614 FC-10.6992 BSP 3323 SGB 2032.5 R23 -.2286 R13 .8711 LSA 64.1 MSA 13.5 SSA 2.2
BDE .4739 BRA .9358 BC3 1.5507 FSP 1313 SG1 1932.2 SG2 630.5 THA 155.55 EL1 38.9 EL2 12.2 ALF 9.72

LAUNCH DATE JUL 27 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 419.193 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.203 GAL -.68 AZL 88.85 HCA 132.72 SMA 205.87 ECC .26228 INC 1.1510 V1 29.325
RP 230.05 LAP .85 LOP 76.55 VP 22.564 GAP 13.66 AZP 90.78 TAL 356.74 TAP 129.46 RCA 151.88 APO 259.87 V2 23.907
RC 145.456 GL 9.76 GP -14.30 ZAL 93.08 ZAP 145.79 ETS 203.93 ZAE 162.57 ETE 295.82 ZAC 68.78 ETC 283.08 LVI -2.47

PLANETOCENTRIC CONIC

C3 15.464 VHL 3.932 DLA 23.03 RAL 31.15 RAD 6640.7 VEL 11.641 PTH 6.68 VHP 3.757 DPA 2.67 RAP 47.30 ECC 1.2545

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 32 55	3544.50	-46.84	132.25	265.29	99.55	12 32 0	2544.5	-37.81	101.66
60.00	11 43 41	3515.81	-40.20	130.68	266.30	93.07	12 42 17	2515.8	-34.59	101.10
70.00	12 1 8	3464.40	-34.09	126.58	266.36	87.75	12 58 53	2464.4	-31.45	98.16
80.00	12 33 36	3362.58	-29.26	118.44	265.94	83.78	13 29 39	2362.6	-28.68	91.02
90.00	13 37 23	3156.64	-27.26	103.03	265.66	82.16	14 29 59	2156.6	-27.80	76.04
100.00	15 16 28	2837.05	-29.26	79.81	265.94	83.78	16 3 45	1837.0	-28.68	52.39
110.00	17 0 35	2511.22	-34.09	55.49	266.36	87.75	17 42 26	1511.2	-31.45	27.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4481 TRA -.8694 TC3 1.1400 BAU .3313 SGT 1767.7 SGR 1030.6 SG3 863.5 ST 38.7 SR 12.6 SS 53.6
RDE -.1391 RRA .3070 RC3-1.1264 FAU .20181 RRT -.7306 RRF .8595 RTF -.8262 CRT .3679 CRS .5827 CST .9665
FDE 2.1541 FRA 2.1017 FC-11.2982 BSP 3359 SGB 2046.2 R23 -.2383 R13 .8754 LSA 65.9 MSA 13.3 SSA 2.2
BDE .4692 BRA .9220 BC3 1.6026 FSP 1387 SG1 1943.5 SG2 640.0 THA 153.89 EL1 39.0 EL2 11.6 ALF 7.48

LAUNCH DATE JUL 27 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 422.893 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.177 GAL -.65 AZL 88.79 HCA 133.74 SMA 205.31 ECC .26025 INC 1.2109 V1 29.325
RP 230.44 LAP .87 LOP 77.57 VP 22.482 GAP 13.38 AZP 90.84 TAL 356.86 TAP 130.60 RCA 151.88 APO 258.75 V2 23.867
RC 148.289 GL 10.33 GP -14.86 ZAL 92.84 ZAP 144.51 ETS 203.76 ZAE 162.44 ETE 291.94 ZAC 68.27 ETC 283.15 LVI -1.98

PLANETOCENTRIC CONIC

C3 15.296 VHL 3.911 DLA 23.48 RAL 30.69 RAD 6640.7 VEL 11.634 PTH 6.67 VHP 3.671 DPA 2.10 RAP 47.32 ECC 1.2517

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 29 1	3551.67	-46.91	132.92	265.02	99.04	12 28 13	2551.7	-36.06	102.16
60.00	11 39 0	3525.08	-40.23	131.47	265.95	92.54	12 37 45	2525.1	-34.83	101.77
70.00	11 55 19	3476.99	-34.05	127.56	265.93	87.17	12 53 16	2477.0	-31.65	99.08
80.00	12 26 16	3379.93	-29.13	119.71	265.44	83.12	13 22 35	2379.9	-29.04	92.29
90.00	13 29 4	3177.13	-27.06	104.50	265.12	81.46	14 22 1	2177.1	-27.92	77.53
100.00	15 9 7	2854.40	-29.13	81.08	265.44	83.12	15 56 42	1854.4	-29.04	53.66
110.00	16 54 45	2523.81	-34.05	56.47	265.93	87.17	17 36 49	1523.8	-31.65	28.00

DIFFERENTIAL CORRECTIONS

TDE -.4391 TRA -.8435 TC3 1.1566 BAU .3420
RDE -.1167 RRA .3116 RC3-1.2079 FAU .21063
FDE 2.2880 FRA 2.1312 FC-11.9218 BSP 3267
BDE .4544 BRA .8992 BC3 1.6723 FSP 1448

MID-COURSE EXECUTION ACCURACY

SGT 1745.7 SGR 1081.5 SG3 905.3
RRT -.7496 RRF .8764 RTF -.8299
SGB 2053.6 R23 -.2345 R13 .8639
SG1 1951.1 SG2 640.4 THA 151.78

ORBIT DETERMINATION ACCURACY

ST 38.0 SR 11.4 SS 55.8
CRT .2812 CRS .5134 CST .9642
LSA 67.1 MSA 13.0 SSA 2.2
EL1 38.2 EL2 10.9 ALF 5.27

LAUNCH DATE JUL 27 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 426.600 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.152 GAL -.62 AZL 88.73 HCA 134.76 SMA 204.79 ECC .25834 INC 1.2726 V1 29.325
RP 230.82 LAP .90 LOP 78.59 VP 22.403 GAP 13.11 AZP 90.90 TAL 356.98 TAP 131.74 RCA 151.88 APO 257.70 V2 23.827
RC 151.140 GL 10.91 GP -15.44 ZAL 92.61 ZAP 143.21 ETS 203.59 ZAE 162.22 ETE 287.97 ZAC 67.74 ETC 283.22 LVI -1.49

PLANETOCENTRIC CONIC

C3 15.145 VHL 3.892 DLA 23.95 RAL 30.25 RAD 6640.6 VEL 11.627 PTH 6.67 VHP 3.590 DPA 1.49 RAP 47.32 ECC 1.2492

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 25 1	3559.58	-47.00	133.67	264.80	98.47	12 24 21	2559.6	-38.34	102.72
60.00	11 34 9	3535.24	-40.26	132.33	265.64	91.96	12 33 5	2535.2	-35.08	102.51
70.00	11 49 15	3490.78	-34.00	128.63	265.54	86.53	12 47 26	2490.8	-31.87	100.10
80.00	12 18 29	3399.08	-28.96	121.11	264.97	82.40	13 15 8	2399.1	-29.19	93.69
90.00	13 20 8	3199.95	-26.82	106.13	264.61	80.68	14 13 28	2200.0	-28.04	79.18
100.00	15 1 20	2873.55	-28.96	82.48	264.97	82.40	15 49 13	1873.6	-29.19	55.06
110.00	16 48 41	2537.60	-34.00	57.55	265.54	86.53	17 30 59	1537.6	-31.87	29.02

DIFFERENTIAL CORRECTIONS

TDE -.4469 TRA -.8336 TC3 1.1251 BAU .3467
RDE -.0914 RRA .3177 RC3-1.2906 FAU .21909
FDE 2.4472 FRA 2.1735 FC-12.5239 BSP 3390
BDE .4561 BRA .8921 BC3 1.7122 FSP 1535

MID-COURSE EXECUTION ACCURACY

SGT 1732.9 SGR 1135.4 SG3 947.5
RRT -.7514 RRF .8914 RTF -.8213
SGB 2071.7 R23 -.2516 R13 .8855
SG1 1963.4 SG2 661.2 THA 150.05

ORBIT DETERMINATION ACCURACY

ST 38.6 SR 10.3 SS 58.4
CRT .1623 CRS .4049 CST .9641
LSA 69.5 MSA 12.8 SSA 2.2
EL1 38.6 EL2 10.2 ALF 2.67

LAUNCH DATE JUL 27 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 430.315 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.128 GAL -.59 AZL 88.66 HCA 135.77 SMA 204.30 ECC .25654 INC 1.3365 V1 29.325
RP 231.20 LAP .93 LOP 79.60 VP 22.326 GAP 12.83 AZP 90.96 TAL 357.09 TAP 132.86 RCA 151.89 APO 256.71 V2 23.787
RC 154.008 GL 11.50 GP -16.04 ZAL 92.40 ZAP 141.88 ETS 203.42 ZAE 161.91 ETE 283.95 ZAC 67.19 ETC 283.30 LVI -.97

PLANETOCENTRIC CONIC

C3 15.011 VHL 3.874 DLA 24.43 RAL 29.81 RAD 6640.5 VEL 11.622 PTH 6.66 VHP 3.512 DPA .85 RAP 47.31 ECC 1.2470

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 20 55	3568.20	-47.08	134.49	264.62	97.84	12 20 23	2568.2	-38.64	103.33
60.00	11 29 9	3546.27	-40.28	133.27	265.37	91.32	12 28 15	2546.3	-35.35	103.32
70.00	11 42 53	3505.77	-33.93	129.80	265.18	85.85	12 41 19	2505.8	-32.09	101.21
80.00	12 10 11	3420.15	-28.76	122.65	264.51	81.62	13 7 11	2420.1	-29.35	95.24
90.00	13 10 30	3225.38	-26.53	107.93	264.10	79.82	14 4 15	2225.4	-28.14	81.04
100.00	14 53 3	2894.62	-28.76	84.02	264.51	81.62	15 41 17	1894.6	-29.35	56.61
110.00	16 42 20	2552.59	-33.93	58.71	265.18	85.85	17 24 52	1552.6	-32.09	30.13

DIFFERENTIAL CORRECTIONS

TDE -.4490 TRA -.8182 TC3 1.0986 BAU .3535
RDE -.0646 RRA .3238 RC3-1.3772 FAU .22763
FDE 2.6133 FRA 2.2114 FC-13.1287 BSP 3403
BDE .4536 BRA .8799 BC3 1.7617 FSP 1605

MID-COURSE EXECUTION ACCURACY

SGT 1712.2 SGR 1193.6 SG3 990.1
RRT -.7555 RRF .9048 RTF -.8454
SGB 2087.2 R23 -.2598 R13 .8898
SG1 1973.9 SG2 678.3 THA 148.01

ORBIT DETERMINATION ACCURACY

ST 38.7 SR 9.4 SS 61.1
CRT -.0022 CRS .2512 CST .9633
LSA 71.8 MSA 12.6 SSA 2.2
EL1 38.7 EL2 9.4 ALF 179.97

LAUNCH DATE JUL 27 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 434.039 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.106 GAL -.57 AZL 88.60 HCA 136.78 SMA 203.84 ECC .25484 INC 1.4024 V1 29.325
RP 231.58 LAP .96 LOP 80.62 VP 22.251 GAP 12.56 AZP 91.02 TAL 357.19 TAP 133.98 RCA 151.89 APO 255.78 V2 23.748
RC 156.890 GL 12.12 GP -16.67 ZAL 92.20 ZAP 140.52 ETS 203.24 ZAE 161.49 ETE 279.94 ZAC 66.62 ETC 283.39 LVI -.44

PLANETOCENTRIC CONIC

C3 14.892 VHL 3.859 DLA 24.94 RAL 29.37 RAD 6640.5 VEL 11.617 PTH 6.66 VHP 3.438 DPA .17 RAP 47.28 ECC 1.2451

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 16 42	3577.57	-47.16	135.38	264.49	97.16	12 16 19	2577.6	-38.96	104.00
60.00	11 23 57	3558.23	-40.30	134.28	265.14	90.63	12 23 15	2558.2	-35.63	104.21
70.00	11 36 13	3522.08	-33.84	131.06	264.84	85.10	12 34 55	2522.1	-32.32	102.43
80.00	12 1 17	3443.41	-28.52	124.33	264.07	80.76	12 58 41	2443.4	-29.49	96.95
90.00	12 59 57	3253.94	-26.17	109.94	263.59	78.87	13 54 11	2253.9	-28.22	83.12
100.00	14 44 9	2917.88	-28.52	85.70	264.07	80.76	15 32 47	1917.9	-29.49	58.32
110.00	16 35 40	2568.90	-33.84	59.98	264.84	85.10	17 18 28	1568.9	-32.32	31.34

DIFFERENTIAL CORRECTIONS

TDE -.4474 TRA -.8006 TC3 1.0724 BAU .3622
RDE -.0367 RRA .3298 RC3-1.4693 FAU .23652
FDE 2.7821 FRA 2.2438 FC-13.7496 BSP 3450
BDE .4489 BRA .8658 BC3 1.8190 FSP 1691

MID-COURSE EXECUTION ACCURACY

SGT 1686.6 SGR 1257.2 SG3 1033.8
RRT -.7594 RRF .9169 RTF -.8098
SGB 2103.6 R23 -.2634 R13 .8954
SG1 1985.6 SG2 694.8 THA 145.71

ORBIT DETERMINATION ACCURACY

ST 38.6 SR 8.7 SS 63.7
CRT -.2108 CRS .0476 CST .9620
LSA 73.9 MSA 12.4 SSA 2.2
EL1 38.7 EL2 8.5 ALF 177.14

LAUNCH DATE JUL 27 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC — DISTANCE 437.769 — EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.085 GAL -.55 AZL 88.53 HCA 137.79 SMA 203.41 ECC .25385 INC 1.4707 V1 29.328
RP 231.95 LAP .99 LOP 81.63 VP 22.178 GAP 12.29 AZP 91.09 TAL 357.29 TAP 135.08 RCA 151.89 APO 254.92 V2 23.708
RC 159.785 GL 12.76 GP -17.33 ZAL 92.00 ZAP 139.13 ETS 203.07 ZAE 160.98 ETE 275.96 ZAC 66.03 ETC 283.49 LVI .11

PLANETOCENTRIC CONIC

C3 14.789 VHL 3.846 DLA 25.47 RAL 28.93 RAD 6640.4 VEL 11.612 PTH 6.65 VHP 3.368 DPA -.53 RAP 47.23 ECC 1.2434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 12 21	3587.72	-47.24	136.34	264.41	96.42	12 12 8	2587.7	-39.30	104.73
60.00	11 18 33	3571.17	-40.30	135.39	264.94	89.88	12 18 4	2571.2	-35.93	105.18
70.00	11 29 12	3539.81	-33.73	132.43	264.52	84.30	12 28 11	2539.8	-32.56	103.75
80.00	11 51 41	3469.22	-28.22	126.19	263.63	79.83	12 49 30	2469.2	-29.63	98.86
90.00	12 48 17	3286.39	-25.72	112.21	263.07	77.82	13 43 4	2286.4	-28.27	85.49
100.00	14 34 33	2943.69	-28.22	87.56	263.63	79.83	15 23 36	1943.7	-29.63	60.23
110.00	16 28 38	2586.63	-33.73	61.35	264.52	84.30	17 11 44	1586.6	-32.56	32.67

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4447 TRA -.7831 TC3 1.0458 BAU .3727 — SGT 1660.1 SGR 1327.6 SG3 1079.5 — ST 38.4 SR 8.5 SS 66.4
RDE -.0068 RRA .3359 RC3-1.5683 FAU .24591 — RRT -.7622 RRF .9278 RTF -.8039 — CRT -.4478 CRS -.1984 CST .9604
FDE 2.9612 FRA 2.2725 FC-14.3953 BSP 3468 — SGB 2125.7 R23 -.2639 R13 .9019 — LSA 76.2 NSA 12.3 SSA 2.1
BDE .4448 BRA .8521 BC3 1.8850 FSP 1767 — SG1 2002.8 SG2 712.4 THA 143.24 — EL1 38.6 EL2 7.6 ALF 174.10

LAUNCH DATE JUL 27 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC — DISTANCE 441.505 — EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.065 GAL -.53 AZL 88.46 HCA 138.80 SMA 203.00 ECC .25175 INC 1.5414 V1 29.325
RP 232.33 LAP 1.02 LOP 82.63 VP 22.107 GAP 12.03 AZP 91.16 TAL 357.37 TAP 136.17 RCA 151.90 APO 254.10 V2 23.670
RC 162.693 GL 13.41 GP -18.01 ZAL 91.85 ZAP 137.71 ETS 202.89 ZAE 160.35 ETE 272.08 ZAC 65.42 ETC 283.59 LVI .68

PLANETOCENTRIC CONIC

C3 14.702 VHL 3.834 DLA 26.02 RAL 28.50 RAD 6640.4 VEL 11.608 PTH 6.65 VHP 3.302 DPA -1.28 RAP 47.16 ECC 1.2420

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 7 51	3598.67	-47.32	137.39	264.38	95.62	12 7 49	2598.7	-39.66	105.53
60.00	11 12 55	3585.14	-40.29	136.57	264.77	89.08	12 12 41	2585.1	-36.25	106.23
70.00	11 21 46	3559.09	-33.59	133.92	264.23	83.43	12 21 5	2559.1	-32.80	105.21
80.00	11 41 12	3498.04	-27.86	128.26	263.18	78.80	12 39 30	2498.0	-29.74	100.99
90.00	12 35 7	3323.87	-25.16	114.81	262.53	76.64	13 30 31	2323.9	-28.27	88.23
100.00	14 24 4	2972.51	-27.86	89.63	263.18	78.80	15 13 37	1972.5	-29.74	62.36
110.00	16 21 12	2605.91	-33.59	62.84	264.23	83.43	17 4 38	1605.9	-32.80	34.13

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4379 TRA -.7618 TC3 1.0081 BAU .3833 — SGT 1621.9 SGR 1400.7 SG3 1123.5 — ST 37.9 SR 8.9 SS 69.1
RDE .0245 RRA .3413 RC3-1.6692 FAU .25492 — RRT -.7626 RRF .9372 RTF -.7965 — CRT -.6633 CRS -.4394 CST .9582
FDE 3.1431 FRA 2.2906 FC-15.0110 BSP 3487 — SGB 2143.0 R23 -.2605 R13 .9091 — LSA 78.3 NSA 12.1 SSA 2.1
BDE .4385 BRA .8348 BC3 1.9500 FSP 1848 — SG1 2015.1 SG2 729.2 THA 140.46 — EL1 38.3 EL2 6.6 ALF 170.85

LAUNCH DATE JUL 27 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC — DISTANCE 445.248 — EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.047 GAL -.51 AZL 88.39 HCA 139.80 SMA 202.62 ECC .25033 INC 1.6147 V1 29.325
RP 232.70 LAP 1.04 LOP 83.63 VP 22.038 GAP 11.76 AZP 91.23 TAL 357.45 TAP 137.25 RCA 151.90 APO 253.34 V2 23.631
RC 165.610 GL 14.09 GP -18.72 ZAL 91.69 ZAP 136.27 ETS 202.70 ZAE 159.62 ETE 268.32 ZAC 64.79 ETC 283.71 LVI 1.27

PLANETOCENTRIC CONIC

C3 14.630 VHL 3.825 DLA 26.60 RAL 28.07 RAD 6640.3 VEL 11.605 PTH 6.65 VHP 3.239 DPA -2.05 RAP 47.08 ECC 1.2408

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 3 11	3610.46	-47.40	138.52	264.39	94.75	12 3 21	2610.5	-40.04	106.40
60.00	11 7 2	3600.18	-40.27	137.85	264.64	88.21	12 7 2	2600.2	-36.58	107.37
70.00	11 13 52	3580.07	-33.42	135.53	263.95	82.49	12 13 32	2580.1	-33.04	106.80
80.00	11 29 38	3530.52	-27.41	130.57	262.73	77.67	12 28 29	2530.5	-29.82	103.40
90.00	12 19 50	3368.36	-24.42	117.86	261.93	75.28	13 15 58	2368.4	-28.20	91.48
100.00	14 12 30	3004.99	-27.41	91.93	262.73	77.67	15 2 35	2005.0	-29.82	64.77
110.00	16 13 18	2626.89	-33.42	64.45	263.95	82.49	16 57 5	1626.9	-33.04	35.71

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4232 TRA -.7322 TC3 .9919 BAU .3986 — SGT 1575.5 SGR 1482.0 SG3 1169.8 — ST 36.7 SR 9.9 SS 71.7
RDE .0572 RRA .3452 RC3-1.7803 FAU .26485 — RRT -.7696 RRF .9456 RTF -.[illegible]52 — CRT -.8212 CRS -.6326 CST .9550
FDE 3.3267 FRA 2.2902 FC-15.6733 BSP 3427 — SGB 2163.0 R23 -.2449 R13 .9194 — LSA 80.2 NSA 12.0 SSA 2.0
BDE .4270 BRA .8095 BC3 2.0379 FSP 1914 — SG1 2035.2 SG2 732.5 THA 137.27 — EL1 37.6 EL2 5.5 ALF 167.23

LAUNCH DATE JUL 27 1973 FLIGHT TIME 188.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC — DISTANCE 448.994 — EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.029 GAL -.49 AZL 88.31 HCA 140.80 SMA 202.27 ECC .24901 INC 1.6910 V1 29.325
RP 233.07 LAP 1.07 LOP 84.63 VP 21.970 GAP 11.50 AZP 91.31 TAL 357.52 TAP 138.32 RCA 151.90 APO 252.63 V2 23.593
RC 168.537 GL 14.79 GP -19.46 ZAL 91.55 ZAP 134.80 ETS 202.50 ZAE 158.78 ETE 264.73 ZAC 64.13 ETC 283.83 LVI 1.88

PLANETOCENTRIC CONIC

C3 14.573 VHL 3.817 DLA 27.21 RAL 27.64 RAD 6640.3 VEL 11.603 PTH 6.64 VHP 3.180 DPA -2.86 RAP 46.99 ECC 1.2398

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 58 22	3623.18	-47.46	139.75	264.45	93.81	11 58 45	2623.2	-40.45	107.35
60.00	11 0 53	3616.46	-40.22	139.24	264.55	87.27	12 1 9	2616.5	-36.92	108.62
70.00	11 5 26	3603.05	-33.20	137.29	263.69	81.47	12 5 29	2603.1	-33.28	108.55
80.00	11 16 38	3567.87	-26.84	133.19	262.25	76.40	12 16 6	2567.9	-29.86	106.18
90.00	12 1 4	3424.27	-23.40	121.64	261.24	73.65	12 58 8	2424.3	-27.98	95.56
100.00	13 59 30	3042.34	-26.84	94.56	262.25	76.40	14 50 12	2042.3	-29.86	67.54
110.00	16 4 52	2649.87	-33.20	66.21	263.69	81.47	16 49 2	1649.9	-33.28	37.47

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4323 TRA -.7266 TC3 .9029 BAU .4070 — SGT 1549.1 SGR 1564.1 SG3 1213.6 — ST 37.3 SR 11.8 SS 75.5
RDE .0975 RRA .3540 RC3-1.8836 FAU .27287 — RRT -.7507 RRF .9527 RTF -.7734 — CRT -.9212 CRS -.7818 CST .9550
FDE 3.5664 FRA 2.3309 FC-16.2103 BSP 3611 — SGB 2201.5 R23 -.2501 R13 .9235 — LSA 84.1 NSA 11.9 SSA 2.0
BDE .4432 BRA .8083 BC3 2.0888 FSP 2020 — SG1 2059.7 SG2 777.2 THA 134.63 — EL1 38.9 EL2 4.4 ALF 163.58

LAUNCH DATE JUL 27 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC — DISTANCE 452.748 — EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 33.013 GAL -.48 AZL 88.23 HCA 141.79 SMA 201.83 ECC .24777 INC 1.7702 V1 29.325
RP 233.44 LAP 1.09 LOP 85.63 VP 21.905 GAP 11.24 AZP 91.39 TAL 357.59 TAP 139.38 RCA 151.90 APO 251.97 V2 23.554
RC 171.472 GL 15.52 GP -20.23 ZAL 91.42 ZAP 133.30 ETS 202.28 ZAE 157.84 ETE 261.30 ZAC 63.46 ETC 283.96 LVI 2.81

PLANETOCENTRIC CONIC

C3 14.532 VHL 3.812 DLA 27.84 RAL 27.22 RAD 6640.3 VEL 11.601 PTH 6.64 VHP 3.124 DPA -3.71 RAP 46.88 ECC 1.2392

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 53 20	3636.91	-47.51	141.06	264.57	92.80	11 53 57	2636.8	-40.87	108.38
60.00	10 54 24	3633.97	-40.16	140.72	264.48	86.27	11 54 58	2634.0	-37.26	109.96
70.00	10 56 22	3628.18	-32.93	139.20	263.43	80.37	11 56 50	2628.2	-33.50	110.47
80.00	11 1 37	3611.66	-26.10	136.24	261.72	74.96	12 1 49	2611.7	-29.82	109.43
90.00	11 34 55	3503.96	-21.78	126.91	260.29	71.50	12 33 19	2504.0	-27.44	101.32
100.00	13 44 29	3086.13	-26.10	97.61	261.72	74.96	14 35 55	2086.1	-29.82	70.80
110.00	15 55 48	2674.99	-32.93	68.12	263.43	80.37	16 40 23	1675.0	-33.50	39.39

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4248 TRA -.7087 TC3 .8403 BAU .4208 — SGT 1806.4 SGR 1653.8 SG3 1257.7 — ST 36.7 SR 14.0 SS 78.6
RDE .1374 RRA .3606 RC3-1.9964 FAU .28162 — RRT -.7407 RRF .9591 RTF -.7584 — CRT -.9684 CRS -.8658 CST .9523
FDE 3.7857 FRA 2.3457 FC-16.7779 BSP 3663 — SGB 2237.0 R23 -.2396 R13 .9314 — LSA 87.1 MSA 11.9 SSA 2.0
BDE .4465 BRA .7952 BC3 2.1661 FSP 2100 — SG1 2088.6 SG2 801.3 THA 131.40 — EL1 39.1 EL2 3.3 ALF 159.55

LAUNCH DATE JUL 27 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC — DISTANCE 456.502 — EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.998 GAL -.47 AZL 88.15 HCA 142.78 SMA 201.62 ECC .24660 INC 1.6526 V1 29.326
RP 233.80 LAP 1.12 LOP 86.62 VP 21.841 GAP 10.98 AZP 91.48 TAL 357.64 TAP 140.43 RCA 151.90 APO 251.34 V2 23.517
RC 174.413 GL 16.27 GP -21.03 ZAL 91.31 ZAP 131.78 ETS 202.06 ZAE 156.79 ETE 258.07 ZAC 62.76 ETC 284.10 LVI 3.16

PLANETOCENTRIC CONIC

C3 14.506 VHL 3.809 DLA 28.50 RAL 26.79 RAD 6640.3 VEL 11.600 PTH 6.64 VHP 3.072 DPA -4.60 RAP 46.76 ECC 1.2387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 48 6	3651.43	-47.55	142.47	264.72	91.71	11 48 57	2651.4	-41.32	109.50
60.00	10 47 34	3652.85	-40.06	142.32	264.44	85.19	11 48 27	2652.9	-37.62	111.45
70.00	10 46 33	3655.83	-32.59	141.29	263.17	79.18	11 47 29	2655.8	-33.71	112.60
80.00	10 43 31	3665.37	-25.10	139.91	261.08	73.27	11 44 37	2665.4	-29.64	113.41
86.35	10 18 45	3745.38	-18.56	143.31	258.60	67.98	11 21 10	2745.4	-26.02	118.72
100.00	13 26 23	3139.84	-25.10	101.28	261.08	73.27	14 18 43	2139.8	-29.64	74.78
110.00	15 46 0	2702.65	-32.59	70.21	263.17	79.18	16 31 2	1702.6	-33.71	41.52

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4152 TRA -.6889 TC3 .7754 BAU .4370 — SGT 1459.4 SGR 1750.4 SG3 1302.0 — ST 35.9 SR 16.7 SS 81.8
RDE .1801 RRA .3662 RC3-2.1159 FAU .29060 — RRT -.7283 RRF .9647 RTF -.7416 — CRT -.9886 CRS -.9150 CST .9491
FDE 4.0112 FRA 2.3466 FC-17.3440 BSP 3716 — SGB 2279.0 R23 -.2246 R13 .9399 — LSA 90.1 MSA 11.8 SSA 1.9
BDE .4526 BRA .7802 BC3 2.2535 FSP 2176 — SG1 2124.8 SG2 823.9 THA 127.95 — EL1 39.5 EL2 2.3 ALF 155.27

LAUNCH DATE JUL 27 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC — DISTANCE 460.262 — EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.983 GAL -.45 AZL 88.06 HCA 143.77 SMA 201.33 ECC .24551 INC 1.9389 V1 29.325
RP 234.17 LAP 1.15 LOP 87.61 VP 21.779 GAP 10.72 AZP 91.56 TAL 357.69 TAP 141.47 RCA 151.90 APO 250.76 V2 23.479
RC 177.360 GL 17.04 GP -21.86 ZAL 91.21 ZAP 130.22 ETS 201.82 ZAE 155.65 ETE 255.02 ZAC 62.04 ETC 284.25 LVI 3.84

PLANETOCENTRIC CONIC

C3 14.495 VHL 3.807 DLA 29.18 RAL 26.36 RAD 6640.3 VEL 11.600 PTH 6.64 VHP 3.025 DPA -5.52 RAP 46.63 ECC 1.2386

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 42 36	3667.10	-47.57	143.99	264.93	90.55	11 43 44	2667.1	-41.78	110.72
60.00	10 40 19	3673.21	-39.93	144.03	264.43	84.03	11 41 32	2673.2	-37.98	113.06
70.00	10 35 49	3686.47	-32.18	143.58	262.90	77.89	11 37 16	2686.5	-33.90	114.98
80.00	10 19 27	3738.01	-23.59	144.78	260.21	71.14	11 21 45	2738.0	-29.20	118.76
82.48	9 45 32	3846.91	-18.99	150.96	258.35	67.42	10 49 39	2846.9	-26.64	126.33
100.00	13 2 19	3212.48	-23.59	106.15	260.21	71.14	13 55 52	2212.5	-29.20	80.13
110.00	15 35 16	2733.28	-32.18	72.30	262.90	77.89	16 20 49	1733.3	-33.90	43.89

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.4043 TRA -.6719 TC3 .8949 BAU .4533 — SGT 1411.3 SGR 1850.2 SG3 1343.3 — ST 35.0 SR 19.7 SS 85.2
RDE .2263 RRA .3737 RC3-2.2335 FAU .29854 — RRT -.7097 RRF .9694 RTF -.7593 — CRT -.9943 CRS -.9451 CST .9493
FDE 4.2481 FRA 2.3591 FC-17.8304 BSP 3810 — SGB 2327.0 R23 -.2086 R13 .9477 — LSA 93.5 MSA 11.9 SSA 1.8
BDE .4634 BRA .7689 BC3 2.3391 FSP 2264 — SG1 2166.6 SG2 849.0 THA 124.44 — EL1 40.2 EL2 1.8 ALF 150.68

LAUNCH DATE JUL 27 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC — DISTANCE 464.026 — EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.970 GAL -.45 AZL 87.97 HCA 144.76 SMA 201.06 ECC .24449 INC 2.0290 V1 29.326
RP 234.53 LAP 1.17 LOP 88.60 VP 21.718 GAP 10.46 AZP 91.66 TAL 357.73 TAP 142.49 RCA 151.90 APO 250.22 V2 23.442
RC 180.313 GL 17.85 GP -22.72 ZAL 91.13 ZAP 128.65 ETS 201.55 ZAE 154.41 ETE 252.18 ZAC 61.30 ETC 284.42 LVI 4.54

PLANETOCENTRIC CONIC

C3 14.501 VHL 3.808 DLA 29.90 RAL 25.93 RAD 6640.3 VEL 11.600 PTH 6.64 VHP 2.981 DPA -6.48 RAP 46.48 ECC 1.2387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 36 51	3683.88	-47.57	145.61	265.18	89.30	11 38 15	2683.9	-42.26	112.05
60.00	10 32 36	3695.22	-39.76	145.88	264.43	82.79	11 34 11	2695.2	-38.35	114.82
70.00	10 23 57	3720.74	-31.66	146.12	262.61	76.47	11 25 58	2720.7	-34.05	117.64
79.86	9 23 27	3912.26	-19.43	156.00	258.12	66.81	10 28 39	2912.3	-27.28	131.33
79.86	9 23 27	3912.26	-19.43	156.00	258.12	66.81	10 28 39	2912.3	-27.28	131.33
79.86	9 23 27	3912.26	-19.43	156.00	258.12	66.81	10 28 39	2912.3	-27.28	131.33
110.00	15 23 24	2767.56	-31.66	75.04	262.61	76.47	16 9 31	1767.6	-34.05	46.56

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.3897 TRA -.6496 TC3 .6212 BAU .4735 — SGT 1356.1 SGR 1958.9 SG3 1385.5 — ST 33.9 SR 23.1 SS 88.5
RDE .2755 RRA .3775 RC3-2.3621 FAU .30723 — RRT -.6900 RRF .9736 RTF -.6961 — CRT -.9922 CRS -.9639 CST .9404
FDE 4.4873 FRA 2.3349 FC-18.3420 BSP 3852 — SGB 2382.5 R23 -.1871 R13 .9561 — LSA 96.8 MSA 11.8 SSA 1.8
BDE .4773 BRA .7513 BC3 2.4424 FSP 2319 — SG1 2219.4 SG2 866.4 THA 120.70 — EL1 40.9 EL2 2.4 ALF 145.77

LAUNCH DATE JUL 27 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 467.793 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.857 GAL -.44 AZL 87.88 HCA 145.74 SMA 200.81 ECC .24393 INC 2.1232 V1 29.325
RP 234.89 LAP 1.20 LOP 89.59 VP 21.659 GAP 10.21 AZP 91.76 TAL 357.77 TAP 143.51 RCA 151.90 APO 249.71 V2 23.405
RC 183.270 GL 18.69 GP -23.61 ZAL 91.06 ZAP 127.05 ETS 201.27 ZAE 153.09 ETE 249.32 ZAC 60.53 ETC 284.59 LVI 5.26

PLANETOCENTRIC CONIC

C3 14.524 VHL 3.811 DLA 30.65 RAL 25.49 RAD 6640.3 VEL 11.601 PTH 6.64 VHP 2.940 DPA -7.48 RAP 46.33 ECC 1.2390

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 30 47	3701.86	-47.54	147.35	265.47	87.96	11 32 28	2701.9	-42.75	113.49
60.00	10 24 21	3719.03	-39.54	147.87	264.45	81.46	11 26 20	2719.0	-38.71	116.74
70.00	10 10 36	3759.62	-31.01	148.96	262.26	74.91	11 13 16	2759.6	-34.14	120.67
77.66	9 5 18	3964.76	-19.88	160.12	257.92	66.18	10 11 23	2964.8	-27.95	135.42
77.66	9 5 18	3964.76	-19.88	160.12	257.92	66.18	10 11 23	2964.8	-27.95	135.42
77.66	9 5 18	3964.76	-19.88	160.12	257.92	66.18	10 11 23	2964.8	-27.95	135.42
110.00	15 10 3	2806.43	-31.01	77.88	262.26	74.91	15 56 49	1806.4	-34.14	49.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3720 TRA -.6274 TC3 .5357 BAU .4942 SGT 1296.8 SGR 2070.4 SG3 1423.7 ST 32.4 SR 26.8 SS 91.9
RDE .3287 RRA .3817 RC3-2.4883 FAU .31478 RRT -.6638 RRF .9772 RTF -.6668 CRT -.9855 CRS -.9758 CST .9341
FDE 4.7347 FRA 2.3105 FC-18.7637 BSP 3938 SGB 2442.9 R23 -.1646 R13 .9635 LSA 100.4 NSA 11.9 SSA 1.7
BDE .4964 BRA .7344 BC3 2.5454 FSP 2388 SG1 2278.5 SG2 881.2 THA 116.92 EL1 41.9 EL2 3.5 ALF 140.51

LAUNCH DATE JUL 27 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 471.564 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.946 GAL -.43 AZL 87.78 HCA 146.72 SMA 200.87 ECC .24264 INC 2.2220 V1 29.325
RP 235.24 LAP 1.22 LOP 90.57 VP 21.602 GAP 9.96 AZP 91.86 TAL 357.79 TAP 144.51 RCA 151.91 APO 249.24 V2 23.369
RC 186.232 GL 19.56 GP -24.54 ZAL 91.00 ZAP 125.43 ETS 200.97 ZAE 151.68 ETE 247.03 ZAC 59.74 ETC 284.77 LVI 6.02

PLANETOCENTRIC CONIC

C3 14.564 VHL 3.816 DLA 31.43 RAL 25.05 RAD 6640.3 VEL 11.603 PTH 6.64 VHP 2.904 DPA -8.52 RAP 46.17 ECC 1.2397

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 24 21	3721.12	-47.48	149.21	265.80	86.53	11 26 22	2721.1	-43.26	115.06
60.00	10 15 27	3744.87	-39.25	150.01	264.47	80.03	11 17 52	2744.9	-39.06	118.84
70.00	9 55 13	3804.67	-30.16	152.20	261.84	73.16	10 58 38	2804.7	-34.14	124.19
75.67	8 49 24	4009.97	-20.33	163.75	257.74	65.50	9 56 14	3010.0	-28.64	139.01
75.67	8 49 24	4009.97	-20.33	163.75	257.74	65.50	9 56 14	3010.0	-28.64	139.01
75.67	8 49 24	4009.97	-20.33	163.75	257.74	65.50	9 56 14	3010.0	-28.64	139.01
110.00	14 54 40	2851.49	-30.16	81.11	261.84	73.16	15 42 11	1851.5	-34.14	53.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3437 TRA -.5979 TC3 .4665 BAU .5199 SGT 1224.6 SGR 2192.1 SG3 1461.7 ST 30.2 SR 30.5 SS 94.6
RDE .3814 RRA .3817 RC3-2.6289 FAU .32340 RRT -.6394 RRF .9803 RTF -.6382 CRT -.9747 CRS -.9831 CST .9240
FDE 4.9518 FRA 2.2489 FC-19.2243 BSP 3961 SGB 2510.9 R23 -.1389 R13 .9706 LSA 103.2 NSA 11.8 SSA 1.6
BDE .5134 BRA .7094 BC3 2.6700 FSP 2422 SG1 2352.7 SG2 877.3 THA 113.04 EL1 42.7 EL2 4.8 ALF 134.75

LAUNCH DATE JUL 27 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 475.334 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.935 GAL -.43 AZL 87.67 HCA 147.70 SMA 200.36 ECC .24182 INC 2.3258 V1 29.325
RP 235.59 LAP 1.24 LOP 91.54 VP 21.546 GAP 9.71 AZP 91.97 TAL 357.81 TAP 145.51 RCA 151.91 APO 248.81 V2 23.332
RC 189.197 GL 20.46 GP -25.49 ZAL 90.96 ZAP 123.80 ETS 200.64 ZAE 150.21 ETE 244.73 ZAC 58.92 ETC 284.97 LVI 6.80

PLANETOCENTRIC CONIC

C3 14.623 VHL 3.824 DLA 32.25 RAL 24.61 RAD 6640.3 VEL 11.605 PTH 6.65 VHP 2.872 DPA -9.59 RAP 46.01 ECC 1.2407

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 17 33	3741.84	-47.38	151.20	266.17	85.00	11 19 55	2741.8	-43.77	116.79
60.00	10 5 50	3773.12	-38.90	152.32	264.49	78.50	11 8 43	2773.1	-39.40	121.17
70.00	9 36 47	3859.08	-29.03	156.02	261.27	71.16	10 41 6	2859.1	-33.99	128.43
73.81	8 34 57	4050.54	-20.80	167.06	257.60	64.78	9 42 27	3050.5	-29.36	142.29
73.81	8 34 57	4050.54	-20.80	167.06	257.60	64.78	9 42 27	3050.5	-29.36	142.29
73.81	8 34 57	4050.54	-20.80	167.06	257.60	64.78	9 42 27	3050.5	-29.36	142.29
110.00	14 36 13	2905.90	-29.03	84.94	261.27	71.16	15 24 39	1905.9	-33.99	57.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3369 TRA -.5943 TC3 .3253 BAU .5405 SGT 1193.9 SGR 2312.4 SG3 1493.8 ST 29.8 SR 35.4 SS 99.1
RDE .4499 RRA .3927 RC3-2.7454 FAU .32810 RRT -.5778 RRF .9830 RTF -.5766 CRT -.9639 CRS -.9885 CST .9174
FDE 5.2587 FRA 2.2672 FC-19.4245 BSP 4227 SGB 2602.4 R23 -.1214 R13 .9755 LSA 108.7 NSA 12.0 SSA 1.5
BDE .5620 BRA .7123 BC3 2.7646 FSP 2526 SG1 2431.9 SG2 926.5 THA 109.56 EL1 45.9 EL2 6.1 ALF 129.87

LAUNCH DATE JUL 27 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 479.108 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.924 GAL -.42 AZL 87.56 HCA 148.67 SMA 200.15 ECC .24105 INC 2.4349 V1 29.325
RP 235.94 LAP 1.27 LOP 92.52 VP 21.492 GAP 9.46 AZP 92.08 TAL 357.82 TAP 146.49 RCA 151.91 APO 248.40 V2 23.297
RC 192.165 GL 21.40 GP -26.48 ZAL 90.93 ZAP 122.15 ETS 200.28 ZAE 148.65 ETE 242.57 ZAC 58.08 ETC 285.18 LVI 7.60

PLANETOCENTRIC CONIC

C3 14.702 VHL 3.834 DLA 33.11 RAL 24.15 RAD 6640.4 VEL 11.608 PTH 6.65 VHP 2.844 DPA -10.70 RAP 45.84 ECC 1.2420

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 10 17	3764.06	-47.22	153.33	266.57	83.37	11 13 1	2764.1	-44.30	118.67
60.00	9 55 18	3804.04	-38.45	154.83	264.48	76.85	10 58 43	2804.0	-39.70	123.74
70.00	9 12 53	3929.82	-27.38	160.86	260.41	68.73	10 18 23	2929.8	-33.56	133.91
72.02	8 21 33	4087.61	-21.28	170.15	257.49	64.02	9 29 40	3087.6	-30.10	145.35
72.02	8 21 33	4087.61	-21.28	170.15	257.49	64.02	9 29 40	3087.6	-30.10	145.35
72.02	8 21 33	4087.61	-21.28	170.15	257.49	64.02	9 29 40	3087.6	-30.10	145.35
110.00	14 12 19	2976.64	-27.38	89.78	260.41	68.73	15 1 56	1976.6	-33.56	62.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3136 TRA -.5756 TC3 .2131 BAU .5666 SGT 1140.4 SGR 2440.9 SG3 1523.5 ST 28.0 SR 40.2 SS 102.6
RDE .5175 RRA .3962 RC3-2.8749 FAU .33369 RRT -.5203 RRF .9853 RTF -.5173 CRT -.9486 CRS -.9919 CST .9046
FDE 5.5238 FRA 2.2233 FC-19.6499 BSP 4382 SGB 2694.2 R23 -.0989 R13 .9803 LSA 113.1 NSA 12.1 SSA 1.4
BDE .6051 BRA .6987 BC3 2.8828 FSP 2583 SG1 2524.2 SG2 941.8 THA 105.94 EL1 48.5 EL2 7.4 ALF 124.38

LAUNCH DATE JUL 27 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 482.884 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.915	GAL	-.42	AZL	87.45	HCA	148.64	SMA	199.96	ECC	.24034	INC	2.5501	V1	29.325
RP	236.29	LAP	1.29	LOP	93.49	VP	21.439	GAP	9.21	AZP	92.20	TAL	357.82	TAP	147.46	RCA	151.91	APO	248.02	V2	23.261
RC	195.134	GL	22.37	GP	-27.50	ZAL	90.91	ZAP	120.48	ETS	199.90	ZAE	147.04	ETE	240.56	ZAC	57.22	ETC	285.40	LVI	8.44

PLANETOCENTRIC CONIC

C3	14.802	VHL	3.847	DLA	34.00	RAL	23.68	RAD	6640.4	VEL	11.613	PTH	6.65	VHP	2.821	DPA	-11.85	RAP	45.67	ECC	1.2436

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 2 29	3787.96	-47.01	158.60	266.89	81.63	11 5 37	2788.0	-44.82	120.73
60.00	9 43 42	3838.18	-37.88	157.55	264.44	75.08	10 47 40	2838.2	-39.97	126.61
70.00	8 31 26	4053.40	-24.06	160.93	258.61	65.00	9 39 0	3053.4	-32.18	143.28
70.28	8 8 53	4122.18	-21.77	173.09	257.40	63.21	9 17 36	3122.2	-30.86	148.27
70.28	8 8 53	4122.18	-21.77	173.09	257.40	63.21	9 17 36	3122.2	-30.86	148.27
70.28	8 8 53	4122.18	-21.77	173.09	257.40	63.21	9 17 36	3122.2	-30.86	148.27
110.00	13 30 52	3100.22	-24.06	97.85	258.61	65.00	14 22 33	2100.2	-32.18	72.20

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.2865	TRA	-.5574	TC3	.0949	BAU	.5945	SGT	1090.9	SGR	2574.1	SG3	1548.9			ST	26.1	SR	45.4	SS	106.2
RDE	.5909	RRA	.3989	RC3	-3.0027	FAU	.33828	RRT	-.4493	RRF	.9873	RTF	-.4447			CRT	-.9285	CRS	-.9942	CST	.8666
FDE	5.7927	FRA	2.1705	FC	-19.7852	BSP	4574	SGB	2795.7	R23	-.0777	R13	.9842			LSA	117.8	MSA	12.2	SSA	1.4
BDE	.6567	BRA	.6855	BC3	3.0042	FSP	2642	SG1	2627.6	SG2	954.8	THA	102.45			EL1	51.7	EL2	8.5	ALF	118.93

LAUNCH DATE JUL 27 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 486.662 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.906	GAL	-.42	AZL	87.33	HCA	150.61	SMA	199.79	ECC	.23968	INC	2.6717	V1	29.325
RP	236.63	LAP	1.31	LOP	94.46	VP	21.387	GAP	8.96	AZP	92.33	TAL	357.82	TAP	148.43	RCA	151.91	APO	247.58	V2	23.226
RC	198.104	GL	23.39	GP	-28.55	ZAL	90.91	ZAP	118.81	ETS	199.48	ZAE	145.36	ETE	238.67	ZAC	56.32	ETC	285.64	LVI	9.31

PLANETOCENTRIC CONIC

C3	14.925	VHL	3.863	DLA	34.94	RAL	23.19	RAD	6640.5	VEL	11.618	PTH	6.66	VHP	2.802	DPA	-13.03	RAP	45.50	ECC	1.2456

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 54 6	3813.74	-46.73	158.02	267.42	79.78	10 57 39	2813.7	-45.34	123.00
60.00	9 30 42	3876.26	-37.17	160.54	264.33	73.16	10 35 19	2876.3	-40.18	129.83
68.57	7 56 50	4154.71	-22.26	175.91	257.34	62.35	9 6 5	3154.7	-31.66	151.07
68.57	7 56 50	4154.71	-22.26	175.91	257.34	62.35	9 6 5	3154.7	-31.66	151.07
68.57	7 56 50	4154.71	-22.26	175.91	257.34	62.35	9 6 5	3154.7	-31.66	151.07
68.57	7 56 50	4154.71	-22.26	175.91	257.34	62.35	9 6 5	3154.7	-31.66	151.07
68.57	7 56 50	4154.71	-22.26	175.91	257.34	62.35	9 6 5	3154.7	-31.66	151.07

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.2541	TRA	-.5396	TC3	-.0304	BAU	.6239	SGT	1046.6	SGR	2710.0	SG3	1568.4			ST	23.9	SR	50.9	SS	109.6
RDE	.6683	RRA	.4009	RC3	-3.1265	FAU	.34165	RRT	-.3613	RRF	.9890	RTF	-.3550			CRT	-.9004	CRS	-.9958	CST	.8597
FDE	6.0487	FRA	2.1094	FC	-19.8177	BSP	4764	SGB	2905.1	R23	-.0580	R13	.9873			LSA	122.5	MSA	12.4	SSA	1.3
BDE	.7150	BRA	.6722	BC3	3.1266	FSP	2684	SG1	2740.1	SG2	965.2	THA	99.08			EL1	55.4	EL2	9.5	ALF	113.64

LAUNCH DATE JUL 27 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 490.441 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.898	GAL	-.42	AZL	87.20	HCA	151.58	SMA	199.63	ECC	.23907	INC	2.8004	V1	29.325
RP	236.98	LAP	1.33	LOP	95.43	VP	21.337	GAP	8.72	AZP	92.46	TAL	357.81	TAP	149.38	RCA	151.91	APO	247.36	V2	23.191
RC	201.073	GL	24.46	GP	-29.63	ZAL	90.91	ZAP	117.12	ETS	199.03	ZAE	143.63	ETE	236.90	ZAC	55.41	ETC	285.89	LVI	10.20

PLANETOCENTRIC CONIC

C3	15.074	VHL	3.882	DLA	35.92	RAL	22.68	RAD	6640.6	VEL	11.624	PTH	6.66	VHP	2.787	DPA	-14.26	RAP	45.34	ECC	1.2481

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 44 59	3841.60	-46.36	160.61	267.84	77.82	10 49 1	2841.6	-45.84	125.50
60.00	9 15 55	3919.37	-36.27	163.84	264.11	71.08	10 21 14	2919.4	-40.29	133.49
66.87	7 45 16	4185.60	-22.76	178.65	257.30	61.43	8 55 1	3185.6	-32.48	153.80
66.87	7 45 16	4185.60	-22.76	178.65	257.30	61.43	8 55 1	3185.6	-32.48	153.80
66.87	7 45 16	4185.60	-22.76	178.65	257.30	61.43	8 55 1	3185.6	-32.48	153.80
66.87	7 45 16	4185.60	-22.76	178.65	257.30	61.43	8 55 1	3185.6	-32.48	153.80
66.87	7 45 16	4185.60	-22.76	178.65	257.30	61.43	8 55 1	3185.6	-32.48	153.80

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.2168	TRA	-.5199	TC3	-.1442	BAU	.6581	SGT	1006.2	SGR	2859.7	SG3	1587.7			ST	21.4	SR	56.7	SS	112.9
RDE	.7519	RRA	.3991	RC3	-3.2625	FAU	.34567	RRT	-.2643	RRF	.9905	RTF	-.2362			CRT	-.8592	CRS	-.9970	CST	.8193
FDE	6.3009	FRA	2.0208	FC	-19.8534	BSP	4928	SGB	3031.5	R23	-.0407	R13	.9897			LSA	127.5	MSA	12.5	SSA	1.2
BDE	.7825	BRA	.6554	BC3	3.2657	FSP	2694	SG1	2873.6	SG2	965.7	THA	95.99			EL1	59.7	EL2	10.4	ALF	108.56

LAUNCH DATE JUL 27 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 494.221 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.891	GAL	-.43	AZL	87.06	HCA	152.54	SMA	199.48	ECC	.23851	INC	2.9369	V1	29.325
RP	237.31	LAP	1.35	LOP	96.39	VP	21.288	GAP	8.47	AZP	92.61	TAL	357.79	TAP	150.32	RCA	151.91	APO	247.06	V2	23.157
RC	204.040	GL	25.57	GP	-30.75	ZAL	90.93	ZAP	115.44	ETS	198.55	ZAE	141.85	ETE	235.23	ZAC	54.47	ETC	286.15	LVI	11.13

PLANETOCENTRIC CONIC

C3	15.250	VHL	3.905	DLA	36.94	RAL	22.15	RAD	6640.6	VEL	11.632	PTH	6.67	VHP	2.777	DPA	-15.51	RAP	45.18	ECC	1.2510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 35 3	3871.86	-45.89	163.38	268.24	75.73	10 39 35	2871.9	-46.32	128.26
60.00	8 58 39	3969.37	-35.10	167.57	263.71	68.78	10 4 48	2969.4	-40.26	137.74
65.17	7 34 1	4215.28	-23.26	181.34	257.30	60.45	8 44 16	3215.3	-33.33	156.49
65.17	7 34 1	4215.28	-23.26	181.34	257.30	60.45	8 44 16	3215.3	-33.33	156.49
65.17	7 34 1	4215.28	-23.26	181.34	257.30	60.45	8 44 16	3215.3	-33.33	156.49
65.17	7 34 1	4215.28	-23.26	181.34	257.30	60.45	8 44 16	3215.3	-33.33	156.49
65.17	7 34 1	4215.28	-23.26	181.34	257.30	60.45	8 44 16	3215.3	-33.33	156.49

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.1788	TRA	-.5058	TC3	-.2842	BAU	.6908	SGT	990.0	SGR	3004.5	SG3	1596.6			ST	19.1	SR	63.0	SS	116.3
RDE	.8443	RRA	.3996	RC3	-3.3765	FAU	.34652	RRT	-.1414	RRF	.9917	RTF	-.1328			CRT	-.7996	CRS	-.9978	CST	.7602
FDE	6.5605	FRA	1.9451	FC	-19.6718	BSP	5196	SGB	3163.4	R23	-.0243	R13	.9915			LSA	133.1	MSA	12.6	SSA	1.1
BDE	.8630	BRA	.6446	BC3	3.3884	FSP	2734	SG1	3008.1	SG2	978.9	THA	92.98			EL1	64.9	EL2	11.2	ALF	104.07

LAUNCH DATE JUL 27 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 498.001 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.884 GAL -.43 AZL 86.92 HCA 153.50 SMA 199.35 ECC .23799 INC 3.0822 V1 29.328
RP 237.65 LAP 1.38 LOP 97.35 VP 21.241 GAP 8.23 AZP 92.76 TAL 357.76 TAP 151.26 RCA 151.91 APO 246.79 V2 23.123
RC 207.005 GL 26.73 GP -31.90 ZAL 90.96 ZAP 113.75 ETS 198.02 ZAE 140.03 ETE 233.66 ZAC 53.50 ETC 286.44 LVI 12.09

PLANETOCENTRIC CONIC

C3 15.458 VHL 3.932 DLA 38.02 RAL 21.59 RAD 6640.7 VEL 11.641 PTH 6.68 VHP 2.773 DPA -16.80 RAP 45.04 ECC 1.2544

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 24 7	3904.85	-45.29	166.33	268.59	73.52	10 29 12	2904.8	-46.76	131.32
60.00	8 37 34	4029.71	-33.53	171.91	263.02	66.19	9 44 43	3029.7	-40.00	142.85
63.46	7 23 2	4243.89	-23.77	184.00	257.32	59.41	8 33 46	3243.9	-34.20	159.15
63.46	7 23 2	4243.89	-23.77	184.00	257.32	59.41	8 33 46	3243.9	-34.20	159.15
63.46	7 23 2	4243.89	-23.77	184.00	257.32	59.41	8 33 46	3243.9	-34.20	159.15
63.46	7 23 2	4243.89	-23.77	184.00	257.32	59.41	8 33 46	3243.9	-34.20	159.15
63.46	7 23 2	4243.89	-23.77	184.00	257.32	59.41	8 33 46	3243.9	-34.20	159.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1344 TRA -.4887 TC3 -.4174 BAU .7269 SGT 981.4 SGR 3156.7 SG3 1601.1 ST 16.7 SR 69.7 SS 119.6
RDE .9437 RRA .3939 RC3-3.4926 FAU .34697 RRT -.0086 RRF .9928 RTF .0005 CRT -.7022 CRS -.9984 CST .6627
FDE 6.8082 FRA 1.8318 FC-19.4331 BSP 5448 SGB 3305.7 R23 -.0100 R13 .9928 LSA 138.9 MSA 12.8 SSA 1.0
BDE .9532 BRA .6277 BC3 3.5175 FSP 2749 SG1 3156.7 SG2 981.4 THA 90.17 EL1 70.8 EL2 11.7 ALF 99.83

LAUNCH DATE JUL 27 1973 FLIGHT TIME 216.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 501.785 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.877 GAL -.44 AZL 86.76 HCA 154.45 SMA 199.22 ECC .23752 INC 3.2371 V1 29.325
RP 237.98 LAP 1.40 LOP 98.31 VP 21.194 GAP 7.99 AZP 92.92 TAL 357.73 TAP 152.18 RCA 151.90 APO 246.54 V2 23.090
RC 209.964 GL 27.94 GP -33.08 ZAL 91.00 ZAP 112.06 ETS 197.46 ZAE 138.16 ETE 232.16 ZAC 52.51 ETC 286.74 LVI 13.08

PLANETOCENTRIC CONIC

C3 15.700 VHL 3.962 DLA 39.14 RAL 21.00 RAD 6640.9 VEL 11.651 PTH 6.69 VHP 2.773 DPA -18.13 RAP 44.90 ECC 1.2584

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 11 57	3941.03	-44.54	169.50	268.86	71.18	10 17 38	2941.0	-47.13	134.74
60.00	8 9 22	4109.36	-31.20	177.38	261.76	63.08	9 17 51	3109.4	-39.29	149.50
61.73	7 12 16	4271.60	-24.27	186.63	257.36	58.30	8 23 28	3271.6	-35.10	161.81
61.73	7 12 16	4271.60	-24.27	186.63	257.36	58.30	8 23 28	3271.6	-35.10	161.81
61.73	7 12 16	4271.60	-24.27	186.63	257.36	58.30	8 23 28	3271.6	-35.10	161.81
61.73	7 12 16	4271.60	-24.27	186.63	257.36	58.30	8 23 28	3271.6	-35.10	161.81
61.73	7 12 16	4271.60	-24.27	186.63	257.36	58.30	8 23 28	3271.6	-35.10	161.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0746 TRA -.4666 TC3 -.5289 BAU .7677 SGT 971.7 SGR 3317.0 SG3 1600.6 ST 14.1 SR 76.2 SS 121.8
RDE 1.0414 RRA .3827 RC3-3.6191 FAU .34786 RRT .1300 RRF .9938 RTF .1412 CRT -.5043 CRS -.9988 CST .4633
FDE 6.9909 FRA 1.6893 FC-19.1819 BSP 5614 SGB 3456.4 R23 -.0001 R13 .9939 LSA 143.7 MSA 12.6 SSA 1.0
BDE 1.0440 BRA .6035 BC3 3.6576 FSP 2703 SG1 3319.6 SG2 962.7 THA 87.62 EL1 76.5 EL2 12.1 ALF 95.48

LAUNCH DATE JUL 27 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 505.565 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.872 GAL -.44 AZL 86.60 HCA 155.41 SMA 199.11 ECC .23709 INC 3.4028 V1 29.325
RP 238.30 LAP 1.42 LOP 99.27 VP 21.149 GAP 7.75 AZP 93.09 TAL 357.69 TAP 153.09 RCA 151.90 APO 246.32 V2 23.056
RC 212.919 GL 29.21 GP -34.30 ZAL 91.05 ZAP 110.39 ETS 196.87 ZAE 136.27 ETE 230.74 ZAC 51.49 ETC 287.06 LVI 14.11

PLANETOCENTRIC CONIC

C3 15.982 VHL 3.998 DLA 40.32 RAL 20.37 RAD 6641.0 VEL 11.663 PTH 6.70 VHP 2.779 DPA -19.48 RAP 44.79 ECC 1.2630

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 58 16	3981.15	-43.61	172.90	269.00	68.70	10 4 37	2981.1	-47.41	138.57
59.97	7 1 39	4298.59	-24.78	189.25	257.44	57.11	8 13 18	3298.6	-36.03	164.48
59.97	7 1 39	4298.59	-24.78	189.25	257.44	57.11	8 13 18	3298.6	-36.03	164.48
59.97	7 1 39	4298.59	-24.78	189.25	257.44	57.11	8 13 18	3298.6	-36.03	164.48
59.97	7 1 39	4298.59	-24.78	189.25	257.44	57.11	8 13 18	3298.6	-36.03	164.48
59.97	7 1 39	4298.59	-24.78	189.25	257.44	57.11	8 13 18	3298.6	-36.03	164.48
59.97	7 1 39	4298.59	-24.78	189.25	257.44	57.11	8 13 18	3298.6	-36.03	164.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0263 TRA -.4615 TC3 -.6805 BAU .8058 SGT 1024.7 SGR 3478.3 SG3 1592.7 ST 13.2 SR 84.3 SS 125.4
RDE 1.1648 RRA .3823 RC3-3.7093 FAU .34451 RRT .2602 RRF .9946 RTF .1102 CRT -.2648 CRS -.9991 CST .2256
FDE 7.2527 FRA 1.6086 FC-18.6619 BSP 5974 SGB 3626.1 R23 .0116 R13 .9946 LSA 151.1 MSA 13.1 SSA .9
BDE 1.1651 BRA .5992 BC3 3.7712 FSP 2728 SG1 3489.4 SG2 986.2 THA 85.24 EL1 84.4 EL2 12.7 ALF 92.42

LAUNCH DATE JUL 27 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 509.348 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.867 GAL -.45 AZL 86.42 HCA 156.36 SMA 199.01 ECC .23671 INC 3.5805 V1 29.325
RP 238.63 LAP 1.44 LOP 100.22 VP 21.106 GAP 7.51 AZP 93.28 TAL 357.64 TAP 154.00 RCA 151.90 APO 246.12 V2 23.024
RC 215.868 GL 30.55 GP -35.55 ZAL 91.10 ZAP 108.74 ETS 196.23 ZAE 134.35 ETE 229.38 ZAC 50.44 ETC 287.40 LVI 15.17

PLANETOCENTRIC CONIC

C3 16.309 VHL 4.038 DLA 41.55 RAL 19.69 RAD 6641.1 VEL 11.677 PTH 6.71 VHP 2.791 DPA -20.87 RAP 44.69 ECC 1.2684

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 42 37	4026.09	-42.43	176.58	268.94	66.06	9 49 43	3026.1	-47.57	142.91
58.19	6 51 4	4325.17	-25.26	191.89	257.54	55.84	8 3 9	3325.2	-36.97	167.19
58.19	6 51 4	4325.17	-25.26	191.89	257.54	55.84	8 3 9	3325.2	-36.97	167.19
58.19	6 51 4	4325.17	-25.26	191.89	257.54	55.84	8 3 9	3325.2	-36.97	167.19
58.19	6 51 4	4325.17	-25.26	191.89	257.54	55.84	8 3 9	3325.2	-36.97	167.19
58.19	6 51 4	4325.17	-25.26	191.89	257.54	55.84	8 3 9	3325.2	-36.97	167.19
58.19	6 51 4	4325.17	-25.26	191.89	257.54	55.84	8 3 9	3325.2	-36.97	167.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0374 TRA -.4478 TC3 -.8157 BAU .8464 SGT 1076.0 SGR 3637.2 SG3 1574.9 ST 13.0 SR 92.1 SS 127.9
RDE 1.2868 RRA .3686 RC3-3.7954 FAU .34037 RRT .3892 RRF .9953 RTF .3989 CRT .0944 CRS -.9993 CST -.1291
FDE 7.4475 FRA 1.4607 FC-18.0680 BSP 6268 SGB 3793.0 R23 .0208 R13 .9952 LSA 157.6 MSA 13.2 SSA .8
BDE 1.2894 BRA .5800 BC3 3.8821 FSP 2702 SG1 3663.1 SG2 984.1 THA 82.92 EL1 92.1 EL2 13.0 ALF 89.22

LAUNCH DATE JUL 27 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 513.130 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.862 GAL -.46 AZL 86.23 HCA 157.30 SMA 198.92 ECC .23636 INC 3.7716 V1 29.325
RP 230.95 LAP 1.45 LOP 101.17 VP 21.063 GAP 7.27 AZP 93.48 TAL 357.59 TAP 154.89 RCA 151.90 APO 245.93 V2 22.991
RC 218.810 GL 31.95 GP -36.83 ZAL 91.17 ZAP 107.09 ETS 195.54 ZAE 132.41 ETE 226.07 ZAC 49.37 ETC 287.76 LVI 16.27

PLANETOCENTRIC CONIC

C3 16.688 VHL 4.085 DLA 42.85 RAL 18.96 RAD 6641.3 VEL 11.693 PTH 6.73 VHP 2.810 DPA -22.28 RAP 44.63 ECC 1.2746

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 24 18	4077.42	-40.93	180.59	268.58	63.25	9 32 16	3077.4	-47.52	147.87
56.36	6 40 30	4351.27	-25.74	194.55	257.66	54.48	7 53 1	3351.3	-37.94	169.94
56.36	6 40 30	4351.27	-25.74	194.55	257.66	54.48	7 53 1	3351.3	-37.94	169.94
56.36	6 40 30	4351.27	-25.74	194.55	257.66	54.48	7 53 1	3351.3	-37.94	169.94
56.36	6 40 30	4351.27	-25.74	194.55	257.66	54.48	7 53 1	3351.3	-37.94	169.94
56.36	6 40 30	4351.27	-25.74	194.55	257.66	54.48	7 53 1	3351.3	-37.94	169.94
56.36	6 40 30	4351.27	-25.74	194.55	257.66	54.48	7 53 1	3351.3	-37.94	169.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1083 TRA -.4392 TC3 -.9480 BAU .8892 SGT 1152.8 SGR 3801.2 SG3 1550.6 ST 14.8 SR 100.4 SS 130.1
RDE 1.4220 RRA .3572 RC3-3.8714 FAU .33494 RRT .4971 RRF .9960 RTF .5065 CRT .4277 CRS -.9995 CST -.4550
FDE 7.6152 FRA 1.3305 FC-17.3759 BSP 6581 SGB 3972.1 R23 .0283 R13 .9956 LSA 164.4 MSA 13.4 SSA .8
BDE 1.4261 BRA .5661 BC3 3.9858 FSP 2665 SG1 3847.2 SG2 988.3 THA 80.81 EL1 100.6 EL2 13.3 ALF 86.34

LAUNCH DATE JUL 27 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 516.912 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.858 GAL -.47 AZL 86.02 HCA 158.25 SMA 198.83 ECC .23605 INC 3.9779 V1 29.325
RP 239.26 LAP 1.47 LOP 102.12 VP 21.022 GAP 7.04 AZP 93.70 TAL 357.53 TAP 155.78 RCA 151.90 APO 245.77 V2 22.960
RC 221.744 GL 33.42 GP -38.14 ZAL 91.24 ZAP 105.48 ETS 194.82 ZAE 130.45 ETE 226.81 ZAC 48.26 ETC 288.15 LVI 17.40

PLANETOCENTRIC CONIC

C3 17.127 VHL 4.138 DLA 44.20 RAL 18.16 RAD 6641.5 VEL 11.712 PTH 6.74 VHP 2.835 DPA -23.73 RAP 44.59 ECC 1.2819

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 2 6	4137.93	-38.98	185.07	267.74	60.20	9 11 4	3137.9	-47.17	153.68
54.49	6 29 52	4377.14	-26.20	197.24	257.79	53.03	7 42 49	3377.1	-38.91	172.78
54.49	6 29 52	4377.14	-26.20	197.24	257.79	53.03	7 42 49	3377.1	-38.91	172.78
54.49	6 29 52	4377.14	-26.20	197.24	257.79	53.03	7 42 49	3377.1	-38.91	172.78
54.49	6 29 52	4377.14	-26.20	197.24	257.79	53.03	7 42 49	3377.1	-38.91	172.78
54.49	6 29 52	4377.14	-26.20	197.24	257.79	53.03	7 42 49	3377.1	-38.91	172.78
54.49	6 29 52	4377.14	-26.20	197.24	257.79	53.03	7 42 49	3377.1	-38.91	172.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1866 TRA -.4304 TC3-1.0719 BAU .9343 SGT 1243.0 SGR 3969.8 SG3 1519.8 ST 16.0 SR 109.1 SS 132.1
RDE 1.5684 RRA .3373 RC3-3.9373 FAU .32833 RRT .5899 RRF .9965 RTF .5987 CRT .6553 CRS -.9996 CST -.6750
FDE 7.7664 FRA 1.1683 FC-16.5967 BSP 6908 SGB 4159.8 R23 .0344 R13 .9960 LSA 171.7 MSA 13.6 SSA .7
BDE 1.5795 BRA .5468 BC3 4.0806 FSP 2615 SG1 4041.3 SG2 985.9 THA 78.86 EL1 109.8 EL2 13.5 ALF 83.73

LAUNCH DATE JUL 27 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 520.694 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.854 GAL -.48 AZL 85.80 HCA 159.19 SMA 198.76 ECC .23577 INC 4.2013 V1 29.325
RP 239.57 LAP 1.49 LOP 103.07 VP 20.981 GAP 6.80 AZP 93.93 TAL 357.46 TAP 156.66 RCA 151.90 APO 245.62 V2 22.928
RC 224.672 GL 34.97 GP -39.49 ZAL 91.31 ZAP 103.89 ETS 194.06 ZAE 128.48 ETE 225.59 ZAC 47.13 ETC 288.57 LVI 18.57

PLANETOCENTRIC CONIC

C3 17.637 VHL 4.200 DLA 45.63 RAL 17.29 RAD 6641.8 VEL 11.733 PTH 6.76 VHP 2.868 DPA -25.20 RAP 44.59 ECC 1.2903

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 33 16	4213.98	-36.27	190.33	266.09	56.80	8 43 30	3214.0	-46.28	160.80
52.57	6 19 5	4402.93	-26.62	199.98	257.93	51.47	7 32 28	3402.9	-39.90	175.71
52.57	6 19 5	4402.93	-26.62	199.98	257.93	51.47	7 32 28	3402.9	-39.90	175.71
52.57	6 19 5	4402.93	-26.62	199.98	257.93	51.47	7 32 28	3402.9	-39.90	175.71
52.57	6 19 5	4402.93	-26.62	199.98	257.93	51.47	7 32 28	3402.9	-39.90	175.71
52.57	6 19 5	4402.93	-26.62	199.98	257.93	51.47	7 32 28	3402.9	-39.90	175.71
52.57	6 19 5	4402.93	-26.62	199.98	257.93	51.47	7 32 28	3402.9	-39.90	175.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .2736 TRA -.4248 TC3-1.1901 BAU .9818 SGT 1351.0 SGR 4141.6 SG3 1481.5 ST 22.5 SR 118.2 SS 133.6
RDE 1.7261 RRA .3134 RC3-3.9903 FAU .32045 RRT .6853 RRF .9970 RTF .6136 CRT .7871 CRS -.9997 CST -.8011
FDE 7.8828 FRA 1.0004 FC-15.7299 BSP 7242 SGB 4356.4 R23 .0394 R13 .9963 LSA 179.2 MSA 13.7 SSA .6
BDE 1.7477 BRA .5279 BC3 4.1640 FSP 2549 SG1 4243.7 SG2 984.4 THA 77.05 EL1 119.5 EL2 13.7 ALF 81.37

LAUNCH DATE JUL 27 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 12 1974

HELIOCENTRIC CONIC DISTANCE 524.476 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.851 GAL -.50 AZL 85.56 HCA 160.13 SMA 198.70 ECC .23553 INC 4.4444 V1 29.325
RP 239.88 LAP 1.51 LOP 104.01 VP 20.942 GAP 6.57 AZP 94.18 TAL 357.39 TAP 157.52 RCA 151.90 APO 245.49 V2 22.897
RC 227.591 GL 36.60 GP -40.87 ZAL 91.39 ZAP 102.34 ETS 193.25 ZAE 126.51 ETE 224.41 ZAC 45.98 ETC 289.02 LVI 19.78

PLANETOCENTRIC CONIC

C3 18.230 VHL 4.270 DLA 47.12 RAL 16.31 RAD 6642.0 VEL 11.758 PTH 6.79 VHP 2.910 DPA -26.70 RAP 44.62 ECC 1.3000

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 46 52	4331.84	-31.61	197.72	262.34	52.39	7 59 3	3331.8	-44.01	171.23
50.60	6 8 5	4428.72	-27.00	202.77	258.08	49.80	7 21 54	3428.7	-40.89	178.75
50.60	6 8 5	4428.72	-27.00	202.77	258.08	49.80	7 21 54	3428.7	-40.89	178.75
50.60	6 8 5	4428.72	-27.00	202.77	258.08	49.80	7 21 54	3428.7	-40.89	178.75
50.60	6 8 5	4428.72	-27.00	202.77	258.08	49.80	7 21 54	3428.7	-40.89	178.75
50.60	6 8 5	4428.72	-27.00	202.77	258.08	49.80	7 21 54	3428.7	-40.89	178.75
50.60	6 8 5	4428.72	-27.00	202.77	258.08	49.80	7 21 54	3428.7	-40.89	178.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .3698 TRA -.4225 TC3-1.3036 BAU 1.0281 SGT 1476.3 SGR 4308.7 SG3 1433.5 ST 27.8 SR 127.9 SS 134.8
RDE 1.9009 RRA .2876 RC3-4.0118 FAU .30987 RRT .7242 RRF .9974 RTF .7318 CRT .8614 CRS -.9998 CST -.8714
FDE 7.9779 FRA .8383 FC-14.7158 BSP 7639 SGB 4554.6 R23 .0441 R13 .9965 LSA 187.4 MSA 13.9 SSA .6
BDE 1.9366 BRA .5111 BC3 4.2183 FSP 2488 SG1 4446.5 SG2 986.4 THA 75.33 EL1 130.2 EL2 13.9 ALF 79.26

LAUNCH DATE JUL 27 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC DISTANCE 528.257 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.848	GAL	-.51	AZL	85.29	HCA	161.07	SMA	198.64	ECC	.23532	INC	4.7098	V1	29.325
RP	240.18	LAP	1.53	LOP	104.95	VP	20.904	GAP	6.33	AZP	94.46	TAL	357.32	TAP	158.38	RCA	151.90	APO	245.38	V2	22.866
RC	230.502	GL	38.32	GP	-42.28	ZAL	91.47	ZAP	100.83	ETS	192.40	ZAE	124.54	ETE	223.25	ZAC	44.79	ETC	289.50	LVI	21.03

PLANETOCENTRIC CONIC

C3	18.922	VHL	4.350	DLA	48.68	RAL	15.23	RAD	6642.4	VEL	11.787	PTH	6.81	VHP	2.960	DPA	-28.23	RAP	44.71	ECC	1.3114

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
48.57	5 56 47	4454.69	-27.34	205.62	258.20	48.02	7 11 2	3454.7	-41.86	181.93
48.57	5 56 47	4454.69	-27.34	205.62	258.20	48.02	7 11 2	3454.7	-41.86	181.93
48.57	5 56 47	4454.69	-27.34	205.62	258.20	48.02	7 11 2	3454.7	-41.86	181.93
48.57	5 56 47	4454.69	-27.34	205.62	258.20	48.02	7 11 2	3454.7	-41.86	181.93
48.57	5 56 47	4454.69	-27.34	205.62	258.20	48.02	7 11 2	3454.7	-41.86	181.93
48.57	5 56 47	4454.69	-27.34	205.62	258.20	48.02	7 11 2	3454.7	-41.86	181.93
48.57	5 56 47	4454.69	-27.34	205.62	258.20	48.02	7 11 2	3454.7	-41.86	181.93

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4774	TRA	-.4233	TC3	-1.4058	BAU	1.0772	SGT	1613.7	SGR	4473.0	SG3	1376.6	ST	33.9	SR	137.5	SS	135.0
RDE	2.0831	RRA	.2516	RC3	-4.0194	FAU	.29830	RRT	.7728	RRF	.9977	RTF	.7798	CRT	.9058	CRS	-.9998	CST	-.9130
FDE	8.0055	FRA	.6537	FC	-13.6480	BSP	7948	SGB	4755.2	R23	.0479	R13	.9966	LSA	195.2	MSA	14.0	SSA	.5
BDE	2.1371	BRA	.4924	BC3	4.2582	FSP	2380	SG1	4652.2	SG2	984.7	THA	73.67	EL1	140.9	EL2	14.0	ALF	77.27

LAUNCH DATE JUL 27 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 16 1974

HELIOCENTRIC CONIC DISTANCE 532.037 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.845	GAL	-.53	AZL	85.00	HCA	162.00	SMA	198.59	ECC	.23514	INC	5.0010	V1	29.325
RP	240.48	LAP	1.54	LOP	105.89	VP	20.867	GAP	6.10	AZP	94.76	TAL	357.23	TAP	159.24	RCA	151.89	APO	245.29	V2	22.836
RC	233.405	GL	40.13	GP	-43.73	ZAL	91.56	ZAP	99.37	ETS	191.51	ZAE	122.57	ETE	222.12	ZAC	43.57	ETC	290.02	LVI	22.31

PLANETOCENTRIC CONIC

C3	19.734	VHL	4.442	DLA	50.31	RAL	14.00	RAD	6642.7	VEL	11.821	PTH	6.84	VHP	3.022	DPA	-29.77	RAP	44.85	ECC	1.3248

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
46.48	5 45 5	4480.94	-27.60	208.54	258.30	46.11	6 59 46	3480.9	-42.81	185.27
46.48	5 45 5	4480.94	-27.60	208.54	258.30	46.11	6 59 46	3480.9	-42.81	185.27
46.48	5 45 5	4480.94	-27.60	208.54	258.30	46.11	6 59 46	3480.9	-42.81	185.27
46.48	5 45 5	4480.94	-27.60	208.54	258.30	46.11	6 59 46	3480.9	-42.81	185.27
46.48	5 45 5	4480.94	-27.60	208.54	258.30	46.11	6 59 46	3480.9	-42.81	185.27
46.48	5 45 5	4480.94	-27.60	208.54	258.30	46.11	6 59 46	3480.9	-42.81	185.27
46.48	5 45 5	4480.94	-27.60	208.54	258.30	46.11	6 59 46	3480.9	-42.81	185.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5946	TRA	-.4282	TC3	-1.4948	BAU	1.1283	SGT	1760.6	SGR	4644.0	SG3	1314.5	ST	40.5	SR	147.8	SS	135.0
RDE	2.2887	RRA	.2089	RC3	-4.0071	FAU	.28541	RRT	.8105	RRF	.9980	RTF	.8170	CRT	.9327	CRS	-.9999	CST	-.9381
FDE	8.0138	FRA	.4676	FC	-12.5210	BSP	8301	SGB	4966.5	R23	.0510	R13	.9968	LSA	203.8	MSA	14.2	SSA	.5
BDE	2.3647	BRA	.4764	BC3	4.2768	FSP	2272	SG1	4868.2	SG2	983.7	THA	72.17	EL1	152.6	EL2	14.2	ALF	75.53

LAUNCH DATE JUL 27 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 18 1974

HELIOCENTRIC CONIC DISTANCE 535.816 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.843	GAL	-.54	AZL	84.68	HCA	162.93	SMA	198.55	ECC	.23499	INC	5.3221	V1	29.325
RP	240.78	LAP	1.56	LOP	106.83	VP	20.831	GAP	5.87	AZP	95.09	TAL	357.14	TAP	160.08	RCA	151.89	APO	245.21	V2	22.807
RC	236.297	GL	42.04	GP	-45.21	ZAL	91.64	ZAP	97.96	ETS	190.57	ZAE	120.62	ETE	221.01	ZAC	42.33	ETC	290.58	LVI	23.64

PLANETOCENTRIC CONIC

C3	20.692	VHL	4.549	DLA	52.02	RAL	12.61	RAD	6643.1	VEL	11.862	PTH	6.88	VHP	3.094	DPA	-31.33	RAP	45.04	ECC	1.3405

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
44.33	5 32 50	4507.73	-27.78	211.54	258.34	44.07	6 47 58	3507.7	-43.71	188.79
44.33	5 32 50	4507.73	-27.78	211.54	258.34	44.07	6 47 58	3507.7	-43.71	188.79
44.33	5 32 50	4507.73	-27.78	211.54	258.34	44.07	6 47 58	3507.7	-43.71	188.79
44.33	5 32 50	4507.73	-27.78	211.54	258.34	44.07	6 47 58	3507.7	-43.71	188.79
44.33	5 32 50	4507.73	-27.78	211.54	258.34	44.07	6 47 58	3507.7	-43.71	188.79
44.33	5 32 50	4507.73	-27.78	211.54	258.34	44.07	6 47 58	3507.7	-43.71	188.79
44.33	5 32 50	4507.73	-27.78	211.54	258.34	44.07	6 47 58	3507.7	-43.71	188.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7244	TRA	-.4373	TC3	-1.5695	BAU	1.1807	SGT	1916.3	SGR	4810.4	SG3	1244.1	ST	47.6	SR	158.3	SS	134.2
RDE	2.5104	RRA	.1559	RC3	-3.9691	FAU	.27096	RRT	.8413	RRF	.9983	RTF	.8172	CRT	.9504	CRS	-.9999	CST	-.9544
FDE	7.9647	FRA	.2740	FC	-11.3368	BSP	8649	SGB	5178.0	R23	.0535	R13	.9969	LSA	212.4	MSA	14.3	SSA	.4
BDE	2.6129	BRA	.4643	BC3	4.2682	FSP	2148	SG1	5084.5	SG2	980.0	THA	70.73	EL1	164.7	EL2	14.2	ALF	73.92

LAUNCH DATE JUL 27 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 20 1974

HELIOCENTRIC CONIC DISTANCE 539.594 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.841	GAL	-.56	AZL	84.32	HCA	163.86	SMA	198.51	ECC	.23487	INC	5.6782	V1	29.325
RP	241.07	LAP	1.58	LOP	107.76	VP	20.797	GAP	5.64	AZP	95.46	TAL	357.05	TAP	160.91	RCA	151.89	APO	245.14	V2	22.777
RC	239.179	GL	44.06	GP	-46.73	ZAL	91.72	ZAP	96.61	ETS	189.61	ZAE	118.69	ETE	219.91	ZAC	41.05	ETC	291.19	LVI	25.01

PLANETOCENTRIC CONIC

C3	21.828	VHL	4.672	DLA	53.80	RAL	11.01	RAD	6643.6	VEL	11.909	PTH	6.92	VHP	3.181	DPA	-32.92	RAP	45.31	ECC	1.3592

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CBT TIM	INJ 2 LAT	INJ 2 LONG
42.12	5 19 53	4535.22	-27.85	214.61	258.28	41.91	6 35 28	3535.2	-44.55	192.53
42.12	5 19 53	4535.22	-27.85	214.61	258.28	41.91	6 35 28	3535.2	-44.55	192.53
42.12	5 19 53	4535.22	-27.85	214.61	258.28	41.91	6 35 28	3535.2	-44.55	192.53
42.12	5 19 53	4535.22	-27.85	214.61	258.28	41.91	6 35 28	3535.2	-44.55	192.53
42.12	5 19 53	4535.22	-27.85	214.61	258.28	41.91	6 35 28	3535.2	-44.55	192.53
42.12	5 19 53	4535.22	-27.85	214.61	258.28	41.91	6 35 28	3535.2	-44.55	192.53
42.12	5 19 53	4535.22	-27.85	214.61	258.28	41.91	6 35 28	3535.2	-44.55	192.53

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8668	TRA	-.4530	TC3	-1.6283	BAU	1.2345	SGT	2080.8	SGR	4972.4	SG3	1166.2	ST	55.0	SR	168.7	SS	132.4
RDE	2.7501	RRA	.0977	RC3	-3.9042	FAU	.25507	RRT	.8645	RRF	.9985	RTF	.8701	CRT	.9618	CRS	-.9999	CST	-.9649
FDE	7.8545	FRA	.0948	FC	-10.1162	BSP	9020	SGB	5390.2	R23	.0558	R13	.9970	LSA	221.0	MSA	14.5	SSA	.4
BDE	2.8835	BRA	.4634	BC3	4.2302	FSP	2019	SG1	5300.2	SG2	981.0	THA	69.37	EL1	176.9	EL2	14.4	ALF	72.46

LAUNCH DATE JUL 27 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 22 1974

HELIOCENTRIC CONIC DISTANCE 543.370 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.840 GAL -.58 AZL 83.92 HCA 164.79 SMA 198.49 ECC .23478 INC 6.0757 V1 29.325
RP 241.36 LAP 1.59 LOP 108.69 VP 20.763 GAP 5.41 AZP 95.86 TAL 356.85 TAP 161.74 RCA 151.89 APO 245.09 V2 22.749
RC 242.049 GL 46.20 GP -48.27 ZAL 91.79 ZAP 95.33 ETS 188.61 ZAE 116.79 ETE 218.83 ZAC 39.74 ETC 291.85 LVI 28.41

PLANETOCENTRIC CONIC

C3 23.188 VHL 4.815 DLA 55.66 RAL 9.16 RAD 6644.2 VEL 11.965 PTH 6.96 VHP 3.283 DPA -34.51 RAP 45.65 ECC 1.3816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.84	5 6 1	4563.64	-27.79	217.76	258.07	39.62	6 22 5	3563.6	-45.28	196.50
39.84	5 6 1	4563.64	-27.79	217.76	258.07	39.62	6 22 5	3563.6	-45.28	196.50
39.84	5 6 1	4563.64	-27.79	217.76	258.07	39.62	6 22 5	3563.6	-45.28	196.50
39.84	5 6 1	4563.64	-27.79	217.76	258.07	39.62	6 22 5	3563.6	-45.28	196.50
39.84	5 6 1	4563.64	-27.79	217.76	258.07	39.62	6 22 5	3563.6	-45.28	196.50
39.84	5 6 1	4563.64	-27.79	217.76	258.07	39.62	6 22 5	3563.6	-45.28	196.50
39.84	5 6 1	4563.64	-27.79	217.76	258.07	39.62	6 22 5	3563.6	-45.28	196.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.0234 TRA -.4732 TC3-1.6662 BAU 1.2694 SGT 2248.1 SGR 5132.8 SG3 1082.4 ST 62.7 SR 179.5 SS 129.9
RDE 3.0154 RRA .0220 RC3-3.8110 FAU .23785 RRT .8850 RRF .9987 RTF .6902 CRT .9701 CRS -.9899 CST -.9726
FDE 7.6923 FRA -.0961 FC3-8.8803 BSP 9422 SGB 5603.6 R23 .0571 R13 .9971 LSA 229.8 MSA 14.5 SSA .3
BDE 3.1843 BRA .4738 BC3 4.1594 FSP 1884 SG1 5518.4 SG2 973.5 THA 68.10 EL1 189.6 EL2 14.4 ALF 71.15

LAUNCH DATE JUL 27 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 24 1974

HELIOCENTRIC CONIC DISTANCE 547.144 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.839 GAL -.60 AZL 83.48 HCA 165.71 SMA 198.47 ECC .23471 INC 6.5221 V1 29.325
RP 241.64 LAP 1.61 LOP 109.62 VP 20.730 GAP 5.18 AZP 96.32 TAL 356.85 TAP 162.56 RCA 151.88 APO 245.05 V2 22.720
RC 244.907 GL 48.46 GP -49.85 ZAL 91.86 ZAP 94.12 ETS 187.58 ZAE 114.91 ETE 217.77 ZAC 38.41 ETC 292.58 LVI 27.86

PLANETOCENTRIC CONIC

C3 24.829 VHL 4.983 DLA 57.58 RAL 6.99 RAD 6644.9 VEL 12.033 PTH 7.02 VHP 3.404 DPA -36.12 RAP 46.06 ECC 1.4086

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.50	4 51 0	4593.27	-27.56	220.98	257.64	37.21	6 7 33	3593.3	-45.87	200.70
37.50	4 51 0	4593.27	-27.56	220.98	257.64	37.21	6 7 33	3593.3	-45.87	200.70
37.50	4 51 0	4593.27	-27.56	220.98	257.64	37.21	6 7 33	3593.3	-45.87	200.70
37.50	4 51 0	4593.27	-27.56	220.98	257.64	37.21	6 7 33	3593.3	-45.87	200.70
37.50	4 51 0	4593.27	-27.56	220.98	257.64	37.21	6 7 33	3593.3	-45.87	200.70
37.50	4 51 0	4593.27	-27.56	220.98	257.64	37.21	6 7 33	3593.3	-45.87	200.70
37.50	4 51 0	4593.27	-27.56	220.98	257.64	37.21	6 7 33	3593.3	-45.87	200.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.1916 TRA -.5024 TC3-1.6861 BAU 1.3462 SGT 2421.2 SGR 5286.4 SG3 992.6 ST 70.4 SR 189.9 SS 126.1
RDE 3.3016 RRA -.0679 RC3-3.6885 FAU .21945 RRT .9013 RRF .9988 RTF .9061 CRT .9759 CRS-1.0000 CST -.9779
FDE 7.4553 FRA -.2789 FC3-7.6516 BSP 9791 SGB 5814.5 R23 .0582 R13 .9972 LSA 238.2 MSA 14.6 SSA .3
BDE 3.5100 BRA .5069 BC3 4.0557 FSP 1733 SG1 5733.4 SG2 967.2 THA 66.87 EL1 202.0 EL2 14.5 ALF 70.00

LAUNCH DATE JUL 27 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 26 1974

HELIOCENTRIC CONIC DISTANCE 550.916 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.838 GAL -.62 AZL 82.97 HCA 166.63 SMA 198.45 ECC .23467 INC 7.0275 V1 29.325
RP 241.92 LAP 1.62 LOP 110.55 VP 20.698 GAP 4.95 AZP 96.84 TAL 356.74 TAP 163.37 RCA 151.88 APO 245.02 V2 22.692
RC 247.751 GL 50.86 GP -51.46 ZAL 91.92 ZAP 93.00 ETS 186.53 ZAE 113.08 ETE 216.72 ZAC 37.05 ETC 293.38 LVI 29.34

PLANETOCENTRIC CONIC

C3 26.830 VHL 5.180 DLA 59.57 RAL 4.40 RAD 6645.7 VEL 12.116 PTH 7.09 VHP 3.546 DPA -37.72 RAP 46.57 ECC 1.4416

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.11	4 34 30	4624.34	-27.13	224.24	256.90	34.69	5 51 34	3624.3	-46.27	205.13
35.11	4 34 30	4624.34	-27.13	224.24	256.90	34.69	5 51 34	3624.3	-46.27	205.13
35.11	4 34 30	4624.34	-27.13	224.24	256.90	34.69	5 51 34	3624.3	-46.27	205.13
35.11	4 34 30	4624.34	-27.13	224.24	256.90	34.69	5 51 34	3624.3	-46.27	205.13
35.11	4 34 30	4624.34	-27.13	224.24	256.90	34.69	5 51 34	3624.3	-46.27	205.13
35.11	4 34 30	4624.34	-27.13	224.24	256.90	34.69	5 51 34	3624.3	-46.27	205.13
35.11	4 34 30	4624.34	-27.13	224.24	256.90	34.69	5 51 34	3624.3	-46.27	205.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.3710 TRA -.5406 TC3-1.6834 BAU 1.4068 SGT 2595.1 SGR 5441.4 SG3 899.4 ST 77.9 SR 200.1 SS 121.3
RDE 3.6136 RRA -.1754 RC3-3.5423 FAU .20037 RRT .9147 RRF .9989 RTF .6993 CRT .9799 CRS-1.0000 CST -.9816
FDE 7.1486 FRA -.4504 FC3-6.4653 BSP 10141 SGB 6028.5 R23 .0586 R13 .9973 LSA 246.2 MSA 14.6 SSA .3
BDE 3.8668 BRA .5683 BC3 3.9219 FSP 1570 SG1 5951.8 SG2 958.6 THA 65.76 EL1 214.3 EL2 14.5 ALF 69.02

LAUNCH DATE JUL 27 1973 FLIGHT TIME 244.00 ARRIVAL DATE MAR 28 1974

HELIOCENTRIC CONIC DISTANCE 554.686 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.838 GAL -.64 AZL 82.40 HCA 167.55 SMA 198.44 ECC .23465 INC 7.6047 V1 29.325
RP 242.19 LAP 1.64 LOP 111.48 VP 20.668 GAP 4.72 AZP 97.43 TAL 356.63 TAP 164.18 RCA 151.88 APO 245.01 V2 22.685
RC 250.580 GL 53.40 GP -53.09 ZAL 91.96 ZAP 91.96 ETS 185.46 ZAE 111.31 ETE 215.70 ZAC 35.66 ETC 294.26 LVI 30.85

PLANETOCENTRIC CONIC

C3 29.301 VHL 5.413 DLA 61.60 RAL 1.30 RAD 6646.7 VEL 12.216 PTH 7.17 VHP 3.716 DPA -39.33 RAP 47.18 ECC 1.4822

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.69	4 16 4	4657.23	-26.46	227.52	255.70	32.09	5 33 41	3657.2	-46.42	209.77
32.69	4 16 4	4657.23	-26.46	227.52	255.70	32.09	5 33 41	3657.2	-46.42	209.77
32.69	4 16 4	4657.23	-26.46	227.52	255.70	32.09	5 33 41	3657.2	-46.42	209.77
32.69	4 16 4	4657.23	-26.46	227.52	255.70	32.09	5 33 41	3657.2	-46.42	209.77
32.69	4 16 4	4657.23	-26.46	227.52	255.70	32.09	5 33 41	3657.2	-46.42	209.77
32.69	4 16 4	4657.23	-26.46	227.52	255.70	32.09	5 33 41	3657.2	-46.42	209.77
32.69	4 16 4	4657.23	-26.46	227.52	255.70	32.09	5 33 41	3657.2	-46.42	209.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.5579 TRA -.5895 TC3-1.6569 BAU 1.4697 SGT 2767.4 SGR 5591.0 SG3 802.5 ST 84.8 SR 209.6 SS 115.0
RDE 3.9545 RRA -.3040 RC3-3.3663 FAU .18040 RRT .9260 RRF .9990 RTF .9304 CRT .9828 CRS-1.0000 CST -.9842
FDE 6.7571 FRA -.6055 FC3-5.3301 BSP 10524 SGB 6238.4 R23 .0583 R13 .9974 LSA 253.3 MSA 14.7 SSA .2
BDE 4.2503 BRA .6633 BC3 3.7520 FSP 1407 SG1 6166.1 SG2 947.3 THA 64.74 EL1 225.6 EL2 14.6 ALF 68.22

LAUNCH DATE JUL 27 1973 FLIGHT TIME 246.00 ARRIVAL DATE MAR 30 1974

HELIOCENTRIC CONIC DISTANCE 558.452 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.837	GAL	-.66	AZL	81.73	HCA	168.46	SMA	198.44	ECC	.23466	INC	8.2703	V1	29.328
RP	242.46	LAP	1.65	LOP	118.40	VP	20.638	GAP	4.50	AZP	98.11	TAL	356.92	TAP	164.98	RCA	151.87	APO	245.00	V2	22.638
RC	253.394	GL	56.09	GP	-54.73	ZAL	91.99	ZAP	91.02	ETS	184.40	ZAE	109.59	ETE	214.69	ZAC	34.26	ETC	295.22	LVI	32.39

PLANETOCENTRIC CONIC

C3	32.393	VHL	5.691	DLA	63.66	RAL	357.51	RAD	6647.9	VEL	12.341	PTH	7.27	VHP	3.918	DPA	-40.92	RAP	47.90	ECC	1.5331

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.25	3 55 8	4692.31	-25.51	230.78	253.86	29.45	5 13 20	3692.3	-46.26	214.55
30.25	3 55 8	4692.31	-25.51	230.78	253.86	29.45	5 13 20	3692.3	-46.26	214.55
30.25	3 55 8	4692.31	-25.51	230.78	253.86	29.45	5 13 20	3692.3	-46.26	214.55
30.25	3 55 8	4692.31	-25.51	230.78	253.86	29.45	5 13 20	3692.3	-46.26	214.55
30.25	3 55 8	4692.31	-25.51	230.78	253.86	29.45	5 13 20	3692.3	-46.26	214.55
30.25	3 55 8	4692.31	-25.51	230.78	253.86	29.45	5 13 20	3692.3	-46.26	214.55
30.25	3 55 8	4692.31	-25.51	230.78	253.86	29.45	5 13 20	3692.3	-46.26	214.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.7424	TRA	-.6515	TC3	-1.6076	BAU	1.5376	SGT	2934.3	SGR	5736.4	SG3	703.5	ST	90.5	SR	217.6	SS	107.1
RDE	4.3095	RRA	-.4618	RC3	-3.1658	FAU	.15995	RRT	.9359	RRF	.9991	RTF	.9401	CRT	.9847	CRS	-1.0000	CST	-.9860
FDE	6.2646	FRA	-.7439	FC3	-4.2750	BSP	10902	SGB	6443.3	R23	.0570	R13	.9975	LSA	258.4	MSA	14.7	SSA	.2
BDE	4.6484	BRA	.7986	BC3	3.5506	FSP	1239	SG1	6375.8	SG2	930.2	THA	63.82	EL1	235.2	EL2	14.6	ALF	67.63

LAUNCH DATE JUL 27 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 1 1974

HELIOCENTRIC CONIC DISTANCE 562.215 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.837	GAL	-.68	AZL	80.95	HCA	169.37	SMA	198.44	ECC	.23468	INC	9.0465	V1	29.325
RP	242.73	LAP	1.66	LOP	113.32	VP	20.609	GAP	4.27	AZP	98.89	TAL	356.40	TAP	165.77	RCA	151.87	APO	245.01	V2	22.612
RC	256.191	GL	58.94	GP	-56.39	ZAL	92.00	ZAP	90.18	ETS	183.35	ZAE	107.95	ETE	213.71	ZAC	32.84	ETC	296.29	LVI	33.95

PLANETOCENTRIC CONIC

C3	36.326	VHL	6.027	DLA	65.71	RAL	352.84	RAD	6649.4	VEL	12.499	PTH	7.39	VHP	4.160	DPA	-42.49	RAP	48.72	ECC	1.5978

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.85	3 30 55	4730.02	-24.22	233.97	251.13	26.81	4 49 45	3730.0	-45.71	219.38
27.85	3 30 55	4730.02	-24.22	233.97	251.13	26.81	4 49 45	3730.0	-45.71	219.38
27.85	3 30 55	4730.02	-24.22	233.97	251.13	26.81	4 49 45	3730.0	-45.71	219.38
27.85	3 30 55	4730.02	-24.22	233.97	251.13	26.81	4 49 45	3730.0	-45.71	219.38
27.85	3 30 55	4730.02	-24.22	233.97	251.13	26.81	4 49 45	3730.0	-45.71	219.38
27.85	3 30 55	4730.02	-24.22	233.97	251.13	26.81	4 49 45	3730.0	-45.71	219.38
27.85	3 30 55	4730.02	-24.22	233.97	251.13	26.81	4 49 45	3730.0	-45.71	219.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.9053	TRA	-.7308	TC3	-1.5367	BAU	1.6109	SGT	3092.6	SGR	5880.6	SG3	604.2	ST	94.1	SR	223.3	SS	97.4
RDE	4.6725	RRA	-.6555	RC3	-2.9397	FAU	.13905	RRT	.9440	RRF	.9991	RTF	.9481	CRT	.9854	CRS	-1.0000	CST	-.9866
FDE	5.6669	FRA	-.8575	FC3	-3.3138	BSP	11244	SGB	6644.2	R23	.0553	R13	.9976	LSA	260.8	MSA	14.9	SSA	.2
BDE	5.0460	BRA	.9817	BC3	3.3171	FSP	1065	SG1	6581.3	SG2	911.8	THA	63.04	EL1	241.9	EL2	14.8	ALF	67.36

LAUNCH DATE JUL 27 1973 FLIGHT TIME 296.00 ARRIVAL DATE MAY 19 1974

HELIOCENTRIC CONIC DISTANCE 653.149 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.898	GAL	-1.68	AZL	99.48	HCA	191.27	SMA	199.62	ECC	.24063	INC	9.4810	V1	29.325
RP	247.58	LAP	1.84	LOP	134.94	VP	20.181	GAP	-.82	AZP	80.70	TAL	351.32	TAP	182.58	RCA	151.59	APO	247.66	V2	22.133
RC	317.282	GL	-59.37	GP	52.66	ZAL	97.15	ZAP	74.41	ETS	204.02	ZAE	90.76	ETE	181.36	ZAC	139.19	ETC	291.99	LVI	-73.22

PLANETOCENTRIC CONIC

C3	39.628	VHL	6.295	DLA	-39.71	RAL	63.68	RAD	6650.5	VEL	12.629	PTH	7.48	VHP	4.040	DPA	52.22	RAP	345.87	ECC	1.6522

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 30 50	2423.13	-3.55	63.18	296.30	137.48	19 11 13	1423.1	14.76	47.25
60.00	21 5 50	2008.05	10.44	39.18	309.43	129.15	21 39 18	1008.1	25.26	19.19
60.88	21 56 26	1865.15	15.81	31.40	313.73	126.91	22 27 31	865.2	29.41	9.83
60.88	21 56 26	1865.15	15.81	31.40	313.73	126.91	22 27 31	865.2	29.41	9.83
60.88	21 56 26	1865.15	15.81	31.40	313.73	126.91	22 27 31	865.2	29.41	9.83
60.88	21 56 26	1865.15	15.81	31.40	313.73	126.91	22 27 31	865.2	29.41	9.83
60.88	21 56 26	1865.15	15.81	31.40	313.73	126.91	22 27 31	865.2	29.41	9.83

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.3877	TRA	3.7434	TC3	-3.5544	BAU	2.2422	SGT	7455.8	SGR	5175.4	SG3	620.2	ST	210.5	SR	122.3	SS	53.4
RDE	2.3934	RRA	-3.1254	RC3	2.2974	FAU	.15702	RRT	-.9853	RRF	-.9977	RTF	.5496	CRT	-.9888	CRS	.9987	CST	-.9799
FDE	-2.9125	FRA	4.2968	FC3	-3.4303	BSP	15671	SGB	9076.0	R23	.1355	R13	-.9887	LSA	248.6	MSA	18.0	SSA	.3
BDE	4.9980	BRA	4.8766	BC3	4.2323	FSP	1090	SG1	9046.7	SG2	728.4	THA	145.37	EL1	243.0	EL2	15.8	ALF	149.99

LAUNCH DATE JUL 27 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 21 1974

HELIOCENTRIC CONIC DISTANCE 656.886 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.902	GAL	-1.73	AZL	98.81	HCA	192.14	SMA	199.71	ECC	.24103	INC	8.8120	V1	29.325
RP	247.71	LAP	1.85	LOP	135.83	VP	20.173	GAP	-1.03	AZP	81.38	TAL	351.09	TAP	183.24	RCA	151.57	APO	247.84	V2	22.120
RC	319.522	GL	-56.96	GP	50.78	ZAL	97.74	ZAP	72.99	ETS	204.47	ZAE	89.78	ETE	182.48	ZAC	137.49	ETC	291.23	LVI	-71.66

PLANETOCENTRIC CONIC

C3	36.115	VHL	6.010	DLA	-37.42	RAL	62.74	RAD	6649.3	VEL	12.490	PTH	7.38	VHP	3.850	DPA	50.64	RAP	347.54	ECC	1.5944

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 7 6	2466.35	-5.72	64.99	292.35	137.31	18 48 12	1466.3	12.64	49.17
60.00	20 6 45	2147.25	4.39	45.96	301.97	130.10	20 42 32	1147.3	19.93	27.10
64.40	22 9 51	1792.23	15.92	25.44	310.83	124.32	22 39 44	792.2	28.54	3.28
64.40	22 9 51	1792.23	15.92	25.44	310.83	124.32	22 39 44	792.2	28.54	3.28
64.40	22 9 51	1792.23	15.92	25.44	310.83	124.32	22 39 44	792.2	28.54	3.28
64.40	22 9 51	1792.23	15.92	25.44	310.83	124.32	22 39 44	792.2	28.54	3.28
64.40	22 9 51	1792.23	15.92	25.44	310.83	124.32	22 39 44	792.2	28.54	3.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.1964	TRA	3.7097	TC3	-3.9367	BAU	2.2223	SGT	7630.6	SGR	4992.2	SG3	702.6	ST	211.0	SR	115.9	SS	56.3
RDE	2.1609	RRA	-2.9407	RC3	2.3848	FAU	.17396	RRT	-.9851	RRF	-.9977	RTF	.9795	CRT	-.9884	CRS	.9985	CST	-.9786
FDE	-3.0630	FRA	4.7471	FC3	-4.1701	BSP	15820	SGB	9118.5	R23	.1398	R13	-.9880	LSA	246.6	MSA	18.1	SSA	.3
BDE	4.7201	BRA	4.7339	BC3	4.6027	FSP	1239	SG1	9090.0	SG2	721.0	THA	146.96	EL1	240.3	EL2	15.5	ALF	151.37

LAUNCH DATE JUL 27 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 23 1974

HELIOCENTRIC CONIC DISTANCE 660.623 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.906	GAL	-1.77	AZL	98.23	HCA	193.01	SMA	199.79	ECC	.24143	INC	8.2321	V1	29.325
RP	247.84	LAP	1.85	LOP	136.71	VP	20.166	GAP	-1.23	AZP	81.98	TAL	350.87	TAP	183.88	RCA	151.55	APO	248.02	V2	22.107
RC	321.734	GL	-54.70	GP	48.94	ZAL	98.34	ZAP	71.59	ETS	204.82	ZAE	86.77	ETE	183.49	ZAC	135.80	ETC	290.55	LVI	-70.07

PLANETOCENTRIC CONIC

C3	33.293	VHL	5.770	DLA	-35.24	RAL	61.96	RAD	6648.3	VEL	12.378	PTH	7.29	VHP	3.692	DPA	49.08	RAP	349.09	ECC	1.5479

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 47 28	2504.32	-7.61	66.60	289.19	137.11	18 29 13	1504.3	10.77	50.83
60.00	19 31 40	2226.79	.90	49.77	297.32	130.29	20 8 47	1226.8	16.71	31.35
68.04	22 26 20	1713.63	15.84	19.07	308.27	121.90	22 54 53	713.6	27.53	356.46
68.04	22 26 20	1713.63	15.84	19.07	308.27	121.90	22 54 53	713.6	27.53	356.46
68.04	22 26 20	1713.63	15.84	19.07	308.27	121.90	22 54 53	713.6	27.53	356.46
68.04	22 26 20	1713.63	15.84	19.07	308.27	121.90	22 54 53	713.6	27.53	356.46
68.04	22 26 20	1713.63	15.84	19.07	308.27	121.90	22 54 53	713.6	27.53	356.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.0219	TRA	3.6850	TC3	-4.3193	BAU	2.2109	SGT	7801.8	SGR	4812.7	SG3	781.0	ST	210.8	SR	109.6	SS	58.5
RDE	1.9567	RRA	-2.7738	RC3	2.4530	FAU	.18988	RRT	-.9849	RRF	-.9975	RTF	.9793	CRT	-.9880	CRS	.9982	CST	-.9770
FDE	-3.1662	FRA	5.1602	FC3	-4.9375	BSP	15928	SGB	9166.8	R23	.1436	R13	-.9873	LSA	244.0	MSA	18.3	SSA	.3
BDE	4.4726	BRA	4.6123	BC3	4.9672	FSP	1378	SG1	9139.1	SG2	712.1	THA	148.51	EL1	237.1	EL2	15.1	ALF	152.69

LAUNCH DATE JUL 27 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 25 1974

HELIOCENTRIC CONIC DISTANCE 664.362 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.910	GAL	-1.82	AZL	97.72	HCA	193.89	SMA	199.87	ECC	.24185	INC	7.7245	V1	29.325
RP	247.97	LAP	1.85	LOP	137.59	VP	20.160	GAP	-1.44	AZP	82.50	TAL	350.63	TAP	184.52	RCA	151.53	APO	248.21	V2	22.095
RC	323.917	GL	-52.58	GP	47.16	ZAL	98.93	ZAP	70.21	ETS	205.10	ZAE	87.73	ETE	184.41	ZAC	134.15	ETC	289.95	LVI	-68.48

PLANETOCENTRIC CONIC

C3	30.994	VHL	5.567	DLA	-33.18	RAL	61.32	RAD	6647.4	VEL	12.285	PTH	7.22	VHP	3.561	DPA	47.57	RAP	350.53	ECC	1.5101

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 30 50	2538.83	-9.33	68.08	286.65	136.87	18 13 9	1538.8	9.06	52.32
60.00	19 5 15	2287.55	-1.78	52.67	293.85	130.27	19 43 22	1287.6	14.18	34.49
70.00	21 33 30	1850.46	9.20	25.49	302.01	123.04	22 4 21	850.5	21.86	4.30
71.89	22 46 51	1625.30	15.61	12.03	306.00	119.65	23 13 57	625.3	26.44	349.07
71.89	22 46 51	1625.30	15.61	12.03	306.00	119.65	23 13 57	625.3	26.44	349.07
71.89	22 46 51	1625.30	15.61	12.03	306.00	119.65	23 13 57	625.3	26.44	349.07
110.00	2 36 53	6185.32	9.20	292.31	302.01	123.04	4 19 58	5185.3	21.86	271.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.8612	TRA	3.6670	TC3	-4.7006	BAU	2.2072	SGT	7969.7	SGR	4635.9	SG3	854.6	ST	210.0	SR	103.4	SS	60.0
RDE	1.7749	RRA	-2.6192	RC3	2.5057	FAU	.20490	RRT	-.9847	RRF	-.9974	RTF	.9792	CRT	-.9875	CRS	.9979	CST	-.9752
FDE	-3.2232	FRA	5.5295	FC3	-5.7234	BSP	16005	SGB	9220.0	R23	.1469	R13	-.9866	LSA	241.0	MSA	18.4	SSA	.4
BDE	4.2496	BRA	4.5064	BC3	5.3268	FSP	1504	SG1	9193.4	SG2	700.1	THA	150.00	EL1	233.7	EL2	14.7	ALF	153.96

LAUNCH DATE JUL 27 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 27 1974

HELIOCENTRIC CONIC DISTANCE 668.101 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.915	GAL	-1.87	AZL	97.28	HCA	194.76	SMA	199.96	ECC	.24229	INC	7.2763	V1	29.325
RP	248.09	LAP	1.85	LOP	138.47	VP	20.155	GAP	-1.64	AZP	82.96	TAL	350.39	TAP	185.16	RCA	151.51	APO	248.41	V2	22.084
RC	326.069	GL	-50.57	GP	45.43	ZAL	99.52	ZAP	68.87	ETS	205.31	ZAE	86.68	ETE	185.24	ZAC	132.54	ETC	289.40	LVI	-66.91

PLANETOCENTRIC CONIC

C3	29.100	VHL	5.394	DLA	-31.21	RAL	60.79	RAD	6646.7	VEL	12.208	PTH	7.16	VHP	3.451	DPA	46.11	RAP	351.88	ECC	1.4789

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 16 30	2570.85	-10.92	69.46	284.57	136.60	17 59 21	1570.9	7.46	53.69
60.00	18 43 50	2338.45	-4.02	55.11	291.13	130.13	19 22 49	1338.5	12.02	37.07
70.00	20 46 32	1977.32	4.43	32.21	297.49	123.90	21 19 30	977.3	17.76	11.85
76.21	23 13 38	1519.42	15.26	3.77	304.01	117.56	23 38 58	519.4	25.29	340.54
76.21	23 13 38	1519.42	15.26	3.77	304.01	117.56	23 38 58	519.4	25.29	340.54
76.21	23 13 38	1519.42	15.26	3.77	304.01	117.56	23 38 58	519.4	25.29	340.54
110.00	1 49 55	1024.14	4.43	321.13	297.49	123.90	2 6 59	24.1	17.76	300.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.7097	TRA	3.6599	TC3	-5.0724	BAU	2.2062	SGT	8132.1	SGR	4460.6	SG3	922.4	ST	208.6	SR	97.3	SS	60.8
RDE	1.6106	RRA	-2.4800	RC3	2.5358	FAU	.21832	RRT	-.9845	RRF	-.9971	RTF	.9790	CRT	-.9869	CRS	.9974	CST	-.9728
FDE	-3.2334	FRA	5.8662	FC3	-6.4952	BSP	16119	SGB	9275.1	R23	.1502	R13	-.9859	LSA	237.4	MSA	18.6	SSA	.4
BDE	4.0443	BRA	4.4210	BC3	5.6709	FSP	1625	SG1	9249.6	SG2	688.5	THA	151.46	EL1	229.8	EL2	14.2	ALF	155.18

LAUNCH DATE JUL 27 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 29 1974

HELIOCENTRIC CONIC DISTANCE 671.840 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.919	GAL	-1.92	AZL	96.88	HCA	195.64	SMA	200.08	ECC	.24273	INC	6.8777	V1	29.325
RP	248.20	LAP	1.85	LOP	139.35	VP	20.150	GAP	-1.85	AZP	83.37	TAL	350.15	TAP	185.79	RCA	151.49	APO	248.60	V2	22.073
RC	328.191	GL	-48.68	GP	43.77	ZAL	100.11	ZAP	67.55	ETS	205.45	ZAE	85.60	ETE	186.00	ZAC	130.98	ETC	288.92	LVI	-65.37

PLANETOCENTRIC CONIC

C3	27.524	VHL	5.246	DLA	-29.34	RAL	60.36	RAD	6646.0	VEL	12.144	PTH	7.11	VHP	3.359	DPA	44.69	RAP	353.14	ECC	1.4530

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 3 58	2600.95	-12.40	70.78	282.87	136.31	17 47 19	1600.9	5.96	54.96
60.00	18 25 51	2383.13	-5.97	57.26	288.96	129.93	19 5 34	1383.1	10.11	39.29
70.00	20 15 40	2060.08	1.28	36.54	294.43	124.13	20 50 0	1060.1	14.91	16.57
80.00	22 53 6	1566.73	10.42	4.68	299.97	118.14	23 19 13	566.7	21.10	342.39
81.84	23 53 56	1371.79	14.82	352.53	302.25	115.61	24 16 48	371.8	24.11	329.10
100.00	1 39 54	1041.20	10.42	326.05	299.97	118.14	1 57 15	41.2	21.10	303.76
110.00	1 19 2	1106.90	1.28	325.46	294.43	124.13	1 37 29	106.9	14.91	305.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.5668	TRA	3.6619	TC3	-5.4345	BAU	2.2089	SGT	8290.7	SGR	4290.3	SG3	984.7	ST	206.7	SR	91.4	SS	61.0
RDE	1.4640	RRA	-2.3532	RC3	2.5500	FAU	.23052	RRT	-.9843	RRF	-.9969	RTF	.9788	CRT	-.9863	CRS	.9968	CST	-.9701
FDE	-3.2069	FRA	6.1690	FC3	-7.2508	BSP	16255	SGB	9335.0	R23	.1529	R13	-.9852	LSA	233.4	MSA	18.8	SSA	.4
BDE	3.8556	BRA	4.3528	BC3	6.0030	FSP	1736	SG1	9310.6	SG2	675.0	THA	152.85	EL1	225.6	EL2	13.8	ALF	156.34

LAUNCH DATE JUL 27 1973 FLIGHT TIME 308.00 ARRIVAL DATE MAY 31 1974

HELIOCENTRIC CONIC DISTANCE 675.579 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.924 GAL -1.97 AZL 96.52 HCA 196.51 SMA 200.14 ECC .24318 INC 6.5205 V1 29.325
RP 248.30 LAP 1.85 LOP 140.23 VP 20.146 GAP -2.05 AZP 83.75 TAL 349.90 TAP 186.42 RCA 151.47 APO 248.80 V2 22.062
RC 330.283 GL -46.88 GP 42.17 ZAL 100.70 ZAP 66.27 ETS 205.55 ZAE 84.52 ETE 186.68 ZAC 129.47 ETC 288.49 LVI -63.87

PLANETOCENTRIC CONIC

C3 26.202 VHL 5.119 DLA -27.56 RAL 60.01 RAD 6645.5 VEL 12.090 PTH 7.07 VHP 3.281 DPA 43.34 RAP 354.32 ECC 1.4312

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 52 55	2629.49	-13.81	72.04	281.48	136.00	17 36 44	1629.5	4.53	56.17
60.00	18 10 22	2423.47	-7.73	59.21	287.21	129.68	18 50 45	1423.5	8.36	41.27
70.00	19 51 43	2125.44	-1.22	39.95	292.10	124.13	20 27 8	1125.4	12.58	20.20
80.00	22 0 15	1723.05	5.29	13.44	296.13	119.43	22 28 58	723.0	16.87	352.07
90.00	0 7 46	1324.52	9.28	346.28	298.29	116.83	0 29 50	324.5	19.54	323.94
100.00	0 47 3	1197.52	5.29	334.81	296.13	119.43	1 7 0	197.5	16.87	313.44
110.00	0 55 5	1172.26	-1.22	328.87	292.10	124.13	1 14 37	172.3	12.58	309.12

DIFFERENTIAL CORRECTIONS

TDE-3.4356 TRA 3.6681 TC3-5.7903 BAU 2.2163
RDE 1.3351 RRA-2.2362 RC3 2.5500 FAU .24150
FDE-3.1550 FRA 6.4374 FC3-7.9793 BSP 16369
BDE 3.6859 BRA 4.2960 BC3 6.3269 FSP 1835

MID-COURSE EXECUTION ACCURACY

SGT 8448.5 SGR 4125.6 SG3 1041.3
RRT -.9840 RRF -.9965 RTF .9786
SGB 9402.0 R23 .1551 R13 -.9845
SG1 9378.7 SG2 661.4 THA 154.20

ORBIT DETERMINATION ACCURACY

ST 204.6 SR 86.0 SS 60.9
CRT -.9858 CRS .9960 CST -.9670
LSA 229.4 MSA 19.0 SSA .5
EL1 221.6 EL2 13.3 ALF 157.42

LAUNCH DATE JUL 27 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 2 1974

HELIOCENTRIC CONIC DISTANCE 679.318 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.928 GAL -2.02 AZL 96.20 HCA 197.39 SMA 200.23 ECC .24363 INC 6.1986 V1 29.325
RP 248.40 LAP 1.85 LOP 141.11 VP 20.142 GAP -2.26 AZP 84.08 TAL 349.65 TAP 187.04 RCA 151.44 APO 249.01 V2 22.052
RC 332.344 GL -45.19 GP 40.64 ZAL 101.29 ZAP 65.02 ETS 205.61 ZAE 83.42 ETE 187.30 ZAC 128.01 ETC 288.10 LVI -62.42

PLANETOCENTRIC CONIC

C3 25.084 VHL 5.008 DLA -25.87 RAL 59.73 RAD 6645.0 VEL 12.044 PTH 7.03 VHP 3.216 DPA 42.04 RAP 355.42 ECC 1.4128

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 43 5	2656.71	-15.14	73.26	280.35	135.66	17 27 22	1656.7	3.16	57.31
60.00	17 56 50	2460.54	-9.34	61.03	285.78	129.39	18 37 51	1460.5	6.75	43.08
70.00	19 31 57	2180.90	-3.34	42.85	290.28	124.01	20 8 18	1180.9	10.56	23.22
80.00	21 28 10	1817.16	2.12	18.63	293.67	119.79	21 58 27	817.2	14.08	357.66
90.00	23 16 16	1468.51	4.77	354.44	295.13	117.91	23 40 45	468.5	15.81	332.86
100.00	0 14 58	1291.63	2.12	340.00	293.67	119.79	0 36 29	291.6	14.08	319.03
110.00	0 35 19	1227.72	-3.34	331.77	290.28	124.01	0 55 47	227.7	10.56	312.14

DIFFERENTIAL CORRECTIONS

TDE-3.3091 TRA 3.6829 TC3-6.1313 BAU 2.2251
RDE 1.2184 RRA-2.1283 RC3 2.5359 FAU .25112
FDE-3.0718 FRA 6.6734 FC3-8.6669 BSP 16512
BDE 3.5262 BRA 4.2536 BC3 6.6350 FSP 1923

MID-COURSE EXECUTION ACCURACY

SGT 8600.8 SGR 3964.4 SG3 1091.9
RRT -.9839 RRF -.9962 RTF .9784
SGB 9470.5 R23 .1567 R13 -.9838
SG1 9448.5 SG2 645.9 THA 155.48

ORBIT DETERMINATION ACCURACY

ST 202.1 SR 80.7 SS 60.4
CRT -.9853 CRS .9950 CST -.9634
LSA 225.0 MSA 19.2 SSA .5
EL1 217.2 EL2 12.8 ALF 158.44

LAUNCH DATE JUL 27 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 4 1974

HELIOCENTRIC CONIC DISTANCE 683.056 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.933 GAL -2.07 AZL 95.91 HCA 198.26 SMA 200.32 ECC .24410 INC 5.9068 V1 29.325
RP 248.50 LAP 1.85 LOP 141.99 VP 20.140 GAP -2.46 AZP 84.39 TAL 349.40 TAP 187.66 RCA 151.42 APO 249.21 V2 22.043
RC 334.376 GL -43.58 GP 39.17 ZAL 101.87 ZAP 63.81 ETS 205.62 ZAE 82.33 ETE 187.86 ZAC 126.60 ETC 287.75 LVI -61.01

PLANETOCENTRIC CONIC

C3 24.135 VHL 4.913 DLA -24.25 RAL 59.52 RAD 6644.6 VEL 12.005 PTH 7.00 VHP 3.162 DPA 40.80 RAP 356.47 ECC 1.3972

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 34 17	2682.80	-16.40	74.45	279.44	135.31	17 19 0	1682.8	1.85	58.40
60.00	17 44 52	2495.06	-10.82	62.73	284.63	129.06	18 26 27	1495.1	5.24	44.74
70.00	19 15 5	2229.82	-5.19	45.42	288.83	123.80	19 52 15	1229.8	8.75	25.86
80.00	21 3 38	1890.13	-.35	22.63	291.83	119.86	21 35 8	890.1	11.82	1.89
90.00	22 45 39	1561.08	1.80	359.63	293.03	118.23	23 11 40	561.1	13.20	338.40
100.00	23 46 30	1364.60	-.35	344.00	291.83	119.86	24 9 14	364.6	11.82	323.26
110.00	0 18 28	1276.64	-5.19	334.33	288.83	123.80	0 39 44	276.6	8.75	314.77

DIFFERENTIAL CORRECTIONS

TDE-3.1917 TRA 3.7018 TC3-6.4641 BAU 2.2376
RDE 1.1162 RRA-2.0288 RC3 2.5112 FAU .25961
FDE-2.9742 FRA 6.8606 FC3-9.3123 BSP 16653
BDE 3.3812 BRA 4.2213 BC3 6.9347 FSP 2002

MID-COURSE EXECUTION ACCURACY

SGT 8753.1 SGR 3810.1 SG3 1137.1
RRT -.9836 RRF -.9957 RTF .9783
SGB 9546.4 R23 .1577 R13 -.9832
SG1 9525.5 SG2 630.7 THA 156.71

ORBIT DETERMINATION ACCURACY

ST 199.4 SR 75.9 SS 59.7
CRT -.9849 CRS .9937 CST -.9594
LSA 220.7 MSA 19.4 SSA .5
EL1 213.0 EL2 12.3 ALF 159.37

LAUNCH DATE JUL 27 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 6 1974

HELIOCENTRIC CONIC DISTANCE 686.794 EARTH TO MARS

RL 151.93 LAL -.00 LOL 303.82 VL 32.937 GAL -2.13 AZL 95.64 HCA 199.13 SMA 200.41 ECC .24458 INC 5.6410 V1 29.328
RP 248.59 LAP 1.85 LOP 142.87 VP 20.138 GAP -2.66 AZP 84.67 TAL 349.14 TAP 188.27 RCA 151.39 APO 249.43 V2 22.034
RC 336.377 GL -42.06 GP 37.77 ZAL 102.45 ZAP 62.63 ETS 205.61 ZAE 81.23 ETE 188.36 ZAC 125.25 ETC 287.44 LVI -59.66

PLANETOCENTRIC CONIC

C3 23.324 VHL 4.829 DLA -22.71 RAL 59.36 RAD 6644.3 VEL 11.971 PTH 6.97 VHP 3.116 DPA 39.62 RAP 357.46 ECC 1.3838

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 26 22	2707.88	-17.61	75.60	278.71	134.94	17 11 30	1707.9	.59	59.45
60.00	17 34 11	2527.49	-12.21	64.35	283.71	128.71	18 16 19	1527.5	3.82	46.30
70.00	19 0 25	2274.03	-6.86	47.75	287.66	123.54	19 38 19	1274.0	7.10	28.21
80.00	20 43 28	1951.49	-2.43	26.00	290.40	119.77	21 16 0	951.5	9.86	5.39
90.00	22 21 54	1634.01	-.55	3.70	291.45	118.28	22 49 8	634.0	11.04	342.67
100.00	23 26 20	1425.97	-2.43	347.37	290.40	119.77	23 50 6	426.0	9.86	326.76
110.00	0 3 47	1320.85	-6.86	336.67	287.66	123.54	0 25 48	320.8	7.10	317.13

DIFFERENTIAL CORRECTIONS

TDE-3.0789 TRA 3.7272 TC3-6.7817 BAU 2.2509
RDE 1.0233 RRA-1.9374 RC3 2.4734 FAU .26658
FDE-2.8532 FRA 7.0634 FC3-9.8951 BSP 16820
BDE 3.2445 BRA 4.2006 BC3 7.2187 FSP 2073

MID-COURSE EXECUTION ACCURACY

SGT 8901.0 SGR 3659.1 SG3 1176.2
RRT -.9833 RRF -.9952 RTF .9781
SGB 9623.7 R23 .1586 R13 -.9825
SG1 9604.0 SG2 616.7 THA 157.89

ORBIT DETERMINATION ACCURACY

ST 196.5 SR 71.4 SS 58.6
CRT -.9844 CRS .9920 CST -.9545
LSA 216.3 MSA 19.7 SSA .6
EL1 208.8 EL2 11.8 ALF 160.26

LAUNCH DATE JUL 27 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 8 1974

HELIOCENTRIC CONIC DISTANCE 690.531 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.942	GAL	-2.18	AZL	95.40	HCA	200.01	SMA	200.50	ECC	.24507	INC	5.3978	V1	29.325
RP	248.67	LAP	1.84	LOP	143.75	VP	20.137	GAP	-2.86	AZP	84.93	TAL	348.88	TAP	188.89	RCA	151.37	APO	249.64	V2	22.026
RC	338.347	GL	-40.62	GP	36.44	ZAL	103.04	ZAP	61.49	ETS	205.57	ZAE	80.13	ETE	188.82	ZAC	123.95	ETC	287.16	LVI	-58.36

PLANETOCENTRIC CONIC

C3	22.628	VHL	4.757	DLA	-21.23	RAL	59.25	RAD	6644.0	VEL	11.942	PTH	6.95	VHP	3.078	DPA	38.51	RAP	358.40	ECC	1.3724

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 19 12	2732.05	-18.77	76.73	278.14	134.56	17 4 44	1732.1	-.62	60.46
60.00	17 24 38	2558.17	-13.51	65.90	282.98	128.34	18 7 13	1558.2	2.47	47.77
70.00	18 47 26	2314.62	-8.38	49.91	286.74	123.23	19 26 1	1314.6	5.57	30.36
80.00	20 26 16	2005.29	-4.24	28.96	289.28	119.58	20 59 42	1005.3	8.10	8.43
90.00	22 2 13	1695.79	-2.54	7.15	290.22	118.18	22 30 29	695.8	9.16	346.23
100.00	23 9 8	1479.76	-4.24	350.33	289.28	119.58	23 33 48	479.8	8.10	329.79
110.00	23 46 52	1361.44	-8.38	338.83	286.74	123.23	24 9 34	361.4	5.57	319.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.9731	TRA	3.7552	TC3	-7.0908	BAU	2.2676	SGT	9048.7	SGR	3515.3	SG3	1210.6	ST	193.5	SR	67.2	SS	57.5
RDE	.9418	RRA	-1.8512	RC3	2.4309	FAU	.27281	RRT	-.9831	RRF	-.9947	RTF	.9779	CRT	-.9842	CRS	.9898	CST	-.9493
FDE	-2.7240	FRA	7.2155	FC	-10.4377	BSP	16971	SGB	9707.5	R23	.1585	R13	-.9820	LSA	211.9	MSA	19.9	SSA	.6
BDE	3.1187	BRA	4.1867	BC3	7.4959	FSP	2131	SG1	9888.9	SG2	601.2	THA	159.01	EL1	204.6	EL2	11.2	ALF	161.07

LAUNCH DATE JUL 27 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 10 1974

HELIOCENTRIC CONIC DISTANCE 694.268 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.947	GAL	-2.24	AZL	95.17	HCA	200.88	SMA	200.60	ECC	.24556	INC	5.1742	V1	29.325
RP	248.75	LAP	1.84	LOP	144.63	VP	20.136	GAP	-3.06	AZP	85.16	TAL	348.62	TAP	189.49	RCA	151.34	APO	249.86	V2	22.019
RC	340.287	GL	-39.24	GP	35.17	ZAL	103.62	ZAP	60.39	ETS	205.50	ZAE	79.04	ETE	189.23	ZAC	122.70	ETC	286.91	LVI	-57.11

PLANETOCENTRIC CONIC

C3	22.030	VHL	4.694	DLA	-19.83	RAL	59.18	RAD	6643.7	VEL	11.917	PTH	6.92	VHP	3.046	DPA	37.44	RAP	359.30	ECC	1.3626

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 12 42	2755.39	-19.88	77.84	277.72	134.16	16 58 37	1755.4	-1.80	61.43
60.00	17 15 54	2587.33	-14.74	67.38	282.41	127.95	17 59 1	1587.3	1.19	49.17
70.00	18 35 50	2352.34	-9.78	51.93	286.01	122.89	19 15 2	1352.3	4.14	32.34
80.00	20 11 16	2053.66	-5.86	31.64	288.40	119.33	20 45 30	1053.7	6.51	11.13
90.00	21 45 21	1750.18	-4.28	10.19	289.26	117.98	22 14 31	750.2	7.47	349.33
100.00	22 54 8	1528.13	-5.86	353.01	288.40	119.33	23 19 36	528.1	6.51	332.49
110.00	23 35 16	1399.15	-9.78	340.85	286.01	122.89	23 58 35	399.2	4.14	321.26

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.8725	TRA	3.7877	TC3	-7.3861	BAU	2.2854	SGT	9193.8	SGR	3376.5	SG3	1239.7	ST	190.5	SR	63.4	SS	56.2
RDE	.8694	RRA	-1.7713	RC3	2.3800	FAU	.27783	RRT	-.9828	RRF	-.9940	RTF	.9778	CRT	-.9842	CRS	.9871	CST	-.9436
FDE	-2.5867	FRA	7.3456	FC	-10.9185	BSP	17131	SGB	9794.2	R23	.1578	R13	-.9814	LSA	207.5	MSA	20.1	SSA	.6
BDE	3.0012	BRA	4.1814	BC3	7.7600	FSP	2180	SG1	9776.6	SG2	586.4	THA	160.08	EL1	200.5	EL2	10.7	ALF	161.82

LAUNCH DATE JUL 27 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 12 1974

HELIOCENTRIC CONIC DISTANCE 698.005 EARTH TO MARS

RL	151.93	LAL	-.00	LOL	303.82	VL	32.952	GAL	-2.29	AZL	94.97	HCA	201.75	SMA	200.69	ECC	.24607	INC	4.9680	V1	29.325
RP	248.82	LAP	1.84	LOP	145.50	VP	20.136	GAP	-3.26	AZP	85.38	TAL	348.35	TAP	190.10	RCA	151.31	APO	250.08	V2	22.012
RC	342.196	GL	-37.93	GP	33.95	ZAL	104.19	ZAP	59.32	ETS	205.42	ZAE	77.96	ETE	189.60	ZAC	121.51	ETC	286.68	LVI	-55.91

PLANETOCENTRIC CONIC

C3	21.514	VHL	4.638	DLA	-18.48	RAL	59.15	RAD	6643.5	VEL	11.896	PTH	6.91	VHP	3.021	DPA	36.44	RAP	.16	ECC	1.3541

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 6 47	2777.96	-20.95	78.92	277.41	133.75	16 53 5	1778.0	-2.93	62.38
60.00	17 8 0	2615.17	-15.90	68.82	281.98	127.53	17 51 35	1615.2	-.04	50.50
70.00	18 25 23	2387.69	-11.08	53.84	285.45	122.51	19 5 10	1387.7	2.79	34.19
80.00	19 57 58	2097.92	-7.33	34.10	287.71	119.02	20 32 56	1097.9	5.03	13.58
90.00	21 30 33	1799.22	-5.84	12.95	288.52	117.72	22 0 33	799.2	5.93	352.11
100.00	22 40 49	1572.39	-7.33	355.47	287.71	119.02	23 7 2	572.4	5.03	334.95
110.00	23 24 49	1434.51	-11.08	342.76	285.45	122.51	23 48 43	434.5	2.79	323.11

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.7754	TRA	3.8250	TC3	-7.6674	BAU	2.3043	SGT	9336.1	SGR	3242.8	SG3	1264.0	ST	187.3	SR	59.8	SS	54.9
RDE	.8048	RRA	-1.6970	RC3	2.3226	FAU	.28178	RRT	-.9825	RRF	-.9933	RTF	.9776	CRT	-.9844	CRS	.9837	CST	-.9371
FDE	-2.4413	FRA	7.4550	FC	-11.3390	BSP	17318	SGB	9883.3	R23	.1565	R13	-.9809	LSA	203.1	MSA	20.4	SSA	.7
BDE	2.8897	BRA	4.1846	BC3	8.0114	FSP	2225	SG1	9866.7	SG2	572.1	THA	161.09	EL1	196.4	EL2	10.0	ALF	162.50

LAUNCH DATE JUL 28 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 13 1973

HELIOCENTRIC CONIC DISTANCE 315.201 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	35.510	GAL	-2.53	AZL	90.22	HCA	97.71	SMA	272.90	ECC	.44511	INC	.2226	V1	29.328
RP	217.98	LAP	-.22	LOP	42.49	VP	27.043	GAP	23.91	AZP	89.97	TAL	351.79	TAP	89.50	RCA	151.43	APO	394.37	V2	25.208
RC	74.281	GL	-1.26	GP	-5.01	ZAL	102.62	ZAP	174.33	ETS	243.90	ZAE	165.68	ETE	341.43	ZAC	78.91	ETC	283.08	LVI	-12.87

PLANETOCENTRIC CONIC

C3	39.710	VHL	6.302	DLA	15.82	RAL	45.30	RAD	6650.6	VEL	12.633	PTH	7.48	VHP	8.923	DPA	9.77	RAP	39.29	ECC	1.6535

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 56 47	3622.53	-47.46	139.68	295.06	93.86	13 57 9	2622.5	-40.43	107.30
60.00	13 18 22	3565.07	-40.30	134.87	295.42	90.24	14 17 47	2565.1	-35.79	104.72
70.00	13 49 59	3472.02	-34.07	127.17	295.25	87.40	14 47 51	2472.0	-31.57	98.72
80.00	14 38 45	3319.18	-29.54	115.25	294.92	85.43	15 34 4	2319.2	-28.43	87.88
90.00	15 51 23	3084.72	-27.82	97.85	294.75	84.70	16 42 48	2084.7	-27.22	70.86
100.00	17 21 37	2793.65	-29.54	76.62	294.92	85.43	18 8 11	1793.6	-28.43	49.25
110.00	18 49 25	2518.63	-34.07	56.09	295.25	87.40	19 31 24	1518.6	-31.57	27.64

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3627	TRA	-1.2158	TC3	.1811	BAU	.1027	SGT	1217.0	SGR	617.0	SG3	143.1	ST	23.9	SR	28.6	SS	14.7
RDE	-.6236	RRA	.2411	RC3	-.0670	FAU	.05120	RRT	-.1256	RRF	.1422	RTF	-.6768	CRT	.5998	CRS	.6696	CST	.9907
FDE	.3162	FRA	.8732	FC3	-1.1162	BSP	1839	SGB	1364.4	R23	-.0288	R13	.6787	LSA	36.0	MSA	17.4	SSA	1.3
BDE	.7214	BRA	1.2395	BC3	.1934	FSP	175	SG1	1220.2	SG2	610.5	THA	175.14	EL1	33.5	EL2	16.3	ALF	53.39

LAUNCH DATE JUL 28 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 317.274 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	35.362	GAL	-2.43	AZL	90.19	HCA	98.85	SMA	267.16	ECC	.43308	INC	.1862	V1	29.328
RP	218.35	LAP	-.18	LOP	43.63	VP	26.812	GAP	23.54	AZP	89.97	TAL	351.94	TAP	90.78	RCA	151.46	APO	382.86	V2	25.168
RC	75.647	GL	-1.07	GP	-5.15	ZAL	102.34	ZAP	173.83	ETS	238.34	ZAE	164.93	ETE	341.48	ZAC	78.70	ETC	283.05	LVI	-12.63

PLANETOCENTRIC CONIC

C3	37.774	VHL	6.146	DLA	15.92	RAL	44.97	RAD	6649.9	VEL	12.556	PTH	7.43	VHP	8.659	DPA	9.77	RAP	39.71	ECC	1.6217

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 55 3	3611.88	-47.40	138.66	293.56	94.65	13 55 15	2611.9	-40.09	106.50
60.00	13 16 31	3554.75	-40.29	133.99	294.03	90.83	14 15 46	2554.8	-35.55	103.95
70.00	13 47 58	3462.15	-34.09	126.40	293.94	87.85	14 45 40	2462.2	-31.41	97.99
80.00	14 36 35	3309.81	-29.59	114.55	293.65	85.79	15 31 45	2309.8	-28.32	87.20
90.00	15 49 9	3075.59	-27.88	97.19	293.49	85.03	16 40 25	2075.6	-27.14	70.20
100.00	17 19 27	2784.28	-29.59	75.92	293.65	85.79	18 5 51	1784.3	-28.32	48.57
110.00	18 47 25	2508.97	-34.09	55.32	293.94	87.85	19 29 14	1509.0	-31.41	26.91

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3648	TRA	-1.2077	TC3	.2021	BAU	.1090	SGT	1244.2	SGR	620.0	SG3	152.2	ST	24.4	SR	28.6	SS	15.3
RDE	-.6082	RRA	.2400	RC3	-.0760	FAU	.05319	RRT	-.1333	RRF	.1533	RTF	-.6843	CRT	.6024	CRS	.6746	CST	.9905
FDE	.3326	FRA	.9008	FC3	-1.2190	BSP	1895	SGB	1390.1	R23	-.0331	R13	.6864	LSA	36.5	MSA	17.6	SSA	1.3
BDE	.7092	BRA	1.2314	BC3	.2159	FSP	188	SG1	1247.8	SG2	612.7	THA	174.99	EL1	33.8	EL2	16.5	ALF	52.27

LAUNCH DATE JUL 28 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 319.516 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	35.223	GAL	-2.34	AZL	90.15	HCA	99.98	SMA	261.98	ECC	.42174	INC	.1495	V1	29.328
RP	218.71	LAP	-.15	LOP	44.76	VP	26.590	GAP	23.17	AZP	89.97	TAL	352.09	TAP	92.08	RCA	151.48	APO	372.44	V2	25.127
RC	77.098	GL	-.88	GP	-5.29	ZAL	102.04	ZAP	173.28	ETS	233.65	ZAE	164.22	ETE	341.44	ZAC	78.49	ETC	283.02	LVI	-12.38

PLANETOCENTRIC CONIC

C3	35.983	VHL	5.999	DLA	16.02	RAL	44.61	RAD	6649.2	VEL	12.485	PTH	7.38	VHP	8.405	DPA	9.76	RAP	40.12	ECC	1.5922

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 53 14	3601.66	-47.34	137.68	292.08	95.40	13 53 16	2601.7	-39.76	105.75
60.00	13 14 34	3544.88	-40.28	133.15	292.66	91.40	14 13 39	2544.9	-35.31	103.22
70.00	13 45 52	3452.75	-34.12	125.67	292.64	88.28	14 43 24	2452.8	-31.25	97.31
80.00	14 34 19	3300.92	-29.63	113.90	292.38	86.14	15 29 20	2300.9	-28.22	86.56
90.00	15 46 48	3068.96	-27.92	96.56	292.24	85.34	16 37 55	2067.0	-27.05	69.59
100.00	17 17 11	2775.39	-29.63	75.27	292.38	86.14	18 3 26	1775.4	-28.22	47.93
110.00	18 45 18	2499.57	-34.12	54.58	292.64	88.28	19 26 58	1499.6	-31.25	26.23

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3654	TRA	-1.2012	TC3	.2303	BAU	.1181	SGT	1274.0	SGR	622.8	SG3	161.9	ST	25.0	SR	28.5	SS	15.9
RDE	-.5931	RRA	.2392	RC3	-.0851	FAU	.05531	RRT	-.1440	RRF	.1652	RTF	-.6952	CRT	.6029	CRS	.6799	CST	.9900
FDE	.3503	FRA	.9291	FC3	-1.3306	BSP	1957	SGB	1418.0	R23	-.0351	R13	.6975	LSA	37.1	MSA	17.8	SSA	1.3
BDE	.6966	BRA	1.2248	BC3	.2456	FSP	204	SG1	1278.1	SG2	614.3	THA	174.76	EL1	34.1	EL2	16.7	ALF	51.21

LAUNCH DATE JUL 28 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 321.906 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	35.091	GAL	-2.25	AZL	90.11	HCA	101.11	SMA	257.24	ECC	.41102	INC	.1128	V1	29.328
RP	219.08	LAP	-.11	LOP	45.89	VP	26.376	GAP	22.81	AZP	89.98	TAL	352.28	TAP	93.37	RCA	151.51	APO	362.97	V2	25.087
RC	78.631	GL	-.68	GP	-5.44	ZAL	101.72	ZAP	172.68	ETS	229.69	ZAE	163.58	ETE	341.33	ZAC	78.27	ETC	282.98	LVI	-12.13

PLANETOCENTRIC CONIC

C3	34.325	VHL	5.859	DLA	16.12	RAL	44.24	RAD	6648.6	VEL	12.419	PTH	7.33	VHP	8.159	DPA	9.74	RAP	40.53	ECC	1.5649

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 51 19	3591.88	-47.28	136.74	290.62	96.12	13 51 11	2591.9	-39.44	105.03
60.00	13 12 31	3535.47	-40.26	132.35	291.31	91.94	14 11 26	2535.5	-35.08	102.53
70.00	13 43 39	3443.83	-34.13	124.97	291.35	88.69	14 41 2	2443.8	-31.10	96.66
80.00	14 31 55	3292.54	-29.67	113.28	291.13	86.46	15 26 48	2292.5	-28.11	85.96
90.00	15 44 19	3058.85	-27.97	95.97	290.99	85.63	16 35 18	2058.9	-26.97	69.01
100.00	17 14 47	2767.02	-29.67	74.65	291.13	86.46	18 0 54	1767.0	-28.11	47.33
110.00	18 43 5	2490.65	-34.13	53.89	291.35	88.69	19 24 36	1490.7	-31.10	25.58

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3663	TRA	-1.1934	TC3	.2592	BAU	.1267	SGT	1302.5	SGR	625.4	SG3	172.2	ST	25.6	SR	28.5	SS	16.5
RDE	-.5782	RRA	.2386	RC3	-.0950	FAU	.05755	RRT	-.1550	RRF	.1780	RTF	-.7049	CRT	.6039	CRS	.6856	CST	.9894
FDE	.3693	FRA	.9576	FC3	-1.4516	BSP	2017	SGB	1444.9	R23	-.0377	R13	.7073	LSA	37.6	MSA	17.9	SSA	1.3
BDE	.6845	BRA	1.2170	BC3	.2760	FSP	219	SG1	1307.1	SG2	615.6	THA	174.53	EL1	34.4	EL2	16.9	ALF	50.14

LAUNCH DATE JUL 28 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 324.427 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	34.985	GAL	-2.16	AZL	90.08	HCA	102.24	SMA	292.94	ECC	.40091	INC	.0753	V1	29.328
RP	219.45	LAP	-.08	LOP	47.02	VP	26.170	GAP	22.44	AZP	89.98	TAL	332.43	TAP	94.67	RCA	151.53	APO	354.34	V2	25.046
RC	80.245	GL	-.47	GP	-5.60	ZAL	101.40	ZAP	172.04	ETS	226.35	ZAE	163.00	ETE	341.15	ZAC	78.04	ETC	282.95	LVI	-11.88

PLANETOCENTRIC CONIC

C3	32.788	VHL	5.726	DLA	16.23	RAL	43.85	RAD	6648.1	VEL	12.357	PTH	7.28	VHP	7.922	DPA	9.72	RAP	40.93	ECC	1.5396

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 49 19	3582.57	-47.20	135.85	289.19	96.80	13 49 2	2582.6	-39.13	104.36
60.00	13 10 22	3526.53	-40.24	131.59	289.97	92.46	14 9 9	2526.5	-34.86	101.87
70.00	13 41 19	3435.42	-34.14	124.31	290.08	89.08	14 38 35	2435.4	-30.95	98.05
80.00	14 29 25	3284.70	-29.70	112.70	289.89	86.77	15 24 10	2284.7	-28.02	85.40
90.00	15 41 44	3051.29	-28.01	95.42	289.76	85.90	16 32 35	2051.3	-26.89	68.47
100.00	17 12 17	2759.17	-29.70	74.07	289.89	86.77	17 58 16	1759.2	-28.02	46.77
110.00	18 40 46	2482.24	-34.14	53.23	290.08	89.08	19 22 8	1482.2	-30.95	24.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3671	TRA	-1.1856	TC3	.2901	BAU	.1354	SGT	1331.1	SGR	628.0	SG3	183.2	ST	26.1	SR	28.4	SS	17.1
RDE	-.5636	RRA	.2381	RC3	-.1059	FAU	.05993	RRT	-.1672	RRF	.1918	RTF	-.7145	CRT	.6047	CRS	.6909	CST	.9888
FDE	.3892	FRA	.9872	FC3	-1.5824	BSP	2068	SGB	1471.8	R23	-.0402	R13	.7172	LSA	38.1	MSA	18.1	SSA	1.4
BDE	.6726	BRA	1.2092	BC3	.3089	FSP	236	SG1	1336.4	SG2	616.7	THA	174.27	EL1	34.6	EL2	17.1	ALF	49.06

LAUNCH DATE JUL 28 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 327.066 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	34.847	GAL	-2.08	AZL	90.04	HCA	103.36	SMA	249.00	ECC	.39135	INC	.0370	V1	29.328
RP	219.82	LAP	-.04	LOP	48.14	VP	25.971	GAP	22.08	AZP	89.99	TAL	352.61	TAP	95.97	RCA	151.56	APO	346.45	V2	25.005
RC	81.936	GL	-.25	GP	-5.77	ZAL	101.06	ZAP	171.36	ETS	223.51	ZAE	162.47	ETE	340.90	ZAC	77.81	ETC	282.92	LVI	-11.62

PLANETOCENTRIC CONIC

C3	31.364	VHL	5.600	DLA	16.34	RAL	43.45	RAD	6647.5	VEL	12.300	PTH	7.24	VHP	7.693	DPA	9.68	RAP	41.32	ECC	1.5162

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 47 14	3573.73	-47.13	135.01	287.79	97.44	13 46 48	2573.7	-38.83	103.72
60.00	13 8 8	3518.10	-40.21	130.87	288.66	92.94	14 6 46	2518.1	-34.65	101.26
70.00	13 38 54	3427.52	-34.15	123.70	288.82	89.45	14 36 2	2427.5	-30.81	95.48
80.00	14 26 49	3277.40	-29.72	112.16	288.66	87.05	15 21 26	2277.4	-27.92	84.88
90.00	15 39 2	3044.30	-28.04	94.91	288.55	86.16	16 29 46	2044.3	-26.81	67.97
100.00	17 9 40	2751.87	-29.72	73.52	288.66	87.05	17 55 32	1751.9	-27.92	46.25
110.00	18 38 21	2474.34	-34.15	52.62	288.82	89.45	19 19 35	1474.3	-30.81	24.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3687	TRA	-1.1780	TC3	.3224	BAU	.1439	SGT	1360.1	SGR	630.4	SG3	194.7	ST	26.7	SR	28.4	SS	17.8
RDE	-.5493	RRA	.2378	RC3	-.1177	FAU	.06243	RRT	-.1798	RRF	.2065	RTF	-.7232	CRT	.6060	CRS	.6965	CST	.9882
FDE	.4105	FRA	1.0165	FC3	-1.7233	BSP	2135	SGB	1499.2	R23	-.0434	R13	.7261	LSA	38.7	MSA	18.2	SSA	1.4
BDE	.6615	BRA	1.2018	BC3	.3432	FSP	254	SG1	1386.1	SG2	617.5	THA	174.01	EL1	34.9	EL2	17.2	ALF	47.90

LAUNCH DATE JUL 28 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 329.809 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	34.734	GAL	-1.99	AZL	90.00	HCA	104.48	SMA	245.40	ECC	.38231	INC	.0000	V1	29.328
RP	220.19	LAP	-.00	LOP	49.26	VP	25.781	GAP	21.73	AZP	90.00	TAL	352.79	TAP	97.28	RCA	151.58	APO	339.22	V2	24.964
RC	83.701	GL	-.02	GP	-5.94	ZAL	100.70	ZAP	170.67	ETS	221.10	ZAE	162.01	ETE	340.59	ZAC	77.58	ETC	282.89	LVI	-11.36

PLANETOCENTRIC CONIC

C3	30.043	VHL	5.481	DLA	16.46	RAL	43.02	RAD	6647.0	VEL	12.247	PTH	7.19	VHP	7.471	DPA	9.63	RAP	41.71	ECC	1.4944

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 45 4	3565.36	-47.05	134.22	286.42	98.05	13 44 30	2565.4	-38.54	103.13
60.00	13 5 49	3510.17	-40.18	130.20	287.37	93.40	14 4 19	2510.2	-34.45	100.69
70.00	13 36 23	3420.17	-34.15	123.12	287.58	89.79	14 33 23	2420.2	-30.67	94.95
80.00	14 24 5	3270.66	-29.75	111.66	287.45	87.31	15 18 36	2270.7	-27.83	84.40
90.00	15 36 12	3037.89	-28.07	94.45	287.35	86.39	16 26 50	2037.9	-26.74	67.52
100.00	17 6 57	2745.15	-29.75	73.03	287.45	87.31	17 52 42	1745.2	-27.83	45.77
110.00	18 35 49	2466.99	-34.15	52.04	287.58	89.79	19 16 56	1467.0	-30.67	23.87

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3703	TRA	-1.1699	TC3	.3556	BAU	.1522	SGT	1388.5	SGR	632.9	SG3	206.8	ST	27.2	SR	28.2	SS	18.4
RDE	-.5331	RRA	.2378	RC3	-.1306	FAU	.06505	RRT	-.1932	RRF	.2222	RTF	-.7317	CRT	.6074	CRS	.7019	CST	.9876
FDE	.4331	FRA	1.0471	FC3	-1.8746	BSP	2193	SGB	1526.0	R23	-.0467	R13	.7349	LSA	39.3	MSA	18.2	SSA	1.4
BDE	.6508	BRA	1.1938	BC3	.3790	FSP	273	SG1	1395.2	SG2	618.0	THA	173.73	EL1	35.2	EL2	17.4	ALF	46.74

LAUNCH DATE JUL 28 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 332.645 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	34.627	GAL	-1.91	AZL	89.97	HCA	105.60	SMA	242.09	ECC	.37376	INC	.0313	V1	29.328
RP	220.57	LAP	.03	LOP	50.38	VP	25.596	GAP	21.38	AZP	90.01	TAL	352.98	TAP	98.58	RCA	151.60	APO	332.57	V2	24.923
RC	85.836	GL	.22	GP	-6.12	ZAL	100.34	ZAP	169.94	ETS	219.02	ZAE	161.60	ETE	340.21	ZAC	77.34	ETC	282.86	LVI	-11.09

PLANETOCENTRIC CONIC

C3	28.816	VHL	5.368	DLA	16.59	RAL	42.59	RAD	6646.5	VEL	12.197	PTH	7.15	VHP	7.257	DPA	9.57	RAP	42.08	ECC	1.4742

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 42 49	3557.50	-46.98	133.47	285.08	98.62	13 42 7	2557.5	-38.27	102.57
60.00	13 3 23	3502.73	-40.15	129.57	286.11	93.83	14 1 46	2502.7	-34.25	100.15
70.00	13 33 46	3413.33	-34.15	122.59	286.36	90.10	14 30 39	2413.3	-30.54	94.46
80.00	14 21 15	3264.31	-29.77	111.20	286.26	87.55	15 15 39	2264.5	-27.75	83.96
90.00	15 33 16	3032.05	-28.09	94.02	286.16	86.60	16 23 48	2032.1	-26.67	67.10
100.00	17 4 7	2738.98	-29.77	72.57	286.26	87.55	17 49 46	1739.0	-27.75	45.33
110.00	18 33 12	2460.15	-34.15	51.51	286.36	90.10	19 14 12	1460.1	-30.54	23.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3597	TRA	-1.1487	TC3	.4078	BAU	.1666	SGT	1405.6	SGR	635.1	SG3	219.5	ST	27.2	SR	28.1	SS	19.3
RDE	-.5209	RRA	.2382	RC3	-.1442	FAU	.06762	RRT	-.2169	RRF	.2373	RTF	-.7523	CRT	.5996	CRS	.7099	CST	.9850
FDE	.4624	FRA	1.0820	FC3	-2.0316	BSP	2100	SGB	1542.4	R23	-.0360	R13	.7552	LSA	39.5	MSA	18.3	SSA	1.4
BDE	.6330	BRA	1.1731	BC3	.4326	FSP	297	SG1	1413.9	SG2	616.3	THA	173.08	EL1	34.9	EL2	17.5	ALF	46.61

LAUNCH DATE JUL 28 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 335.567 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	34.526	GAL	-1.83	AZL	89.93	HCA	106.71	SMA	239.04	ECC	.36570	INC	.0706	V1	29.328
RP	220.95	LAP	.07	LOP	51.49	VP	25.419	GAP	21.03	AZP	90.02	TAL	353.18	TAP	99.89	RCA	151.62	APO	326.46	V2	24.882
RC	87.440	GL	.47	GP	-6.30	ZAL	99.97	ZAP	169.20	ETS	217.22	ZAE	161.25	ETE	339.76	ZAC	77.10	ETC	282.84	LVI	-10.82

PLANETOCENTRIC CONIC

C3	27.679	VHL	5.261	DLA	16.72	RAL	42.14	RAD	6646.1	VEL	12.150	PTH	7.12	VHP	7.050	DPA	9.50	RAP	42.45	ECC	1.4555

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 40 30	3550.17	-46.90	132.78	283.78	99.15	13 39 40	2550.2	-38.01	102.06
60.00	13 0 53	3495.87	-40.12	128.99	284.87	94.22	13 59 9	2495.9	-34.07	99.66
70.00	13 31 3	3407.11	-34.15	122.10	285.17	90.39	14 27 50	2407.1	-30.43	94.01
80.00	14 18 18	3259.00	-29.78	110.79	285.09	87.76	15 12 37	2259.0	-27.68	83.57
90.00	15 30 13	3026.90	-28.11	93.65	285.00	86.79	16 20 39	2026.9	-26.61	66.74
100.00	17 1 10	2733.47	-29.78	72.16	285.09	87.76	17 46 44	1733.5	-27.68	44.93
110.00	18 30 29	2453.93	-34.15	51.02	285.17	90.39	19 11 23	1453.9	-30.43	22.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3662	TRA	-1.1448	TC3	.4389	BAU	.1728	SGT	1437.7	SGR	637.8	SG3	233.1	ST	27.9	SR	27.9	SS	19.9
RDE	-.5073	RRA	.2383	RC3	-.1595	FAU	.07063	RRT	-.2290	RRF	.2558	RTF	-.7553	CRT	.6046	CRS	.7144	CST	.9850
FDE	.4861	FRA	1.1116	FC3	-2.2091	BSP	2215	SGB	1572.8	R23	-.0450	R13	.7587	L&A	40.2	MSA	18.3	SSA	1.5
BDE	.6257	BRA	1.1693	BC3	.4670	FSP	317	SG1	1446.7	SG2	617.0	THA	172.90	EL1	35.4	EL2	17.6	ALF	45.01

LAUNCH DATE JUL 28 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 338.564 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	34.431	GAL	-1.75	AZL	89.89	HCA	107.82	SMA	236.23	ECC	.35807	INC	.1095	V1	29.328
RP	221.33	LAP	.10	LOP	52.60	VP	25.248	GAP	20.68	AZP	90.03	TAL	353.37	TAP	101.19	RCA	151.64	APO	320.82	V2	24.840
RC	89.407	GL	.73	GP	-6.50	ZAL	99.59	ZAP	168.44	ETS	215.67	ZAE	160.96	ETE	339.25	ZAC	76.85	ETC	282.81	LVI	-10.55

PLANETOCENTRIC CONIC

C3	26.623	VHL	5.160	DLA	16.86	RAL	41.68	RAD	6645.7	VEL	12.107	PTH	7.08	VHP	6.851	DPA	9.42	RAP	42.81	ECC	1.4382

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 38 6	3543.35	-46.82	132.14	282.50	99.63	13 37 9	2543.4	-37.77	101.58
60.00	12 58 18	3489.55	-40.08	128.46	283.66	94.58	13 56 28	2489.6	-33.90	99.21
70.00	13 28 14	3401.47	-34.15	121.66	284.00	90.65	14 24 55	2401.5	-30.32	93.61
80.00	14 15 15	3254.11	-29.79	110.43	283.94	87.95	15 9 29	2254.1	-27.61	83.22
90.00	15 27 2	3022.39	-28.13	93.32	283.85	86.95	16 17 25	2022.4	-26.56	66.42
100.00	16 58 7	2728.58	-29.79	71.80	283.94	87.95	17 43 36	1728.6	-27.61	44.59
110.00	18 27 40	2448.29	-34.15	50.58	284.00	90.65	19 8 28	1448.3	-30.32	22.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3713	TRA	-1.1383	TC3	.4730	BAU	.1796	SGT	1467.2	SGR	640.6	SG3	247.6	ST	28.6	SR	27.7	SS	20.7
RDE	-.4937	RRA	.2387	RC3	-.1761	FAU	.07376	RRT	-.2431	RRF	.2748	RTF	-.7599	CRT	.6085	CRS	.7200	CST	.9846
FDE	.5136	FRA	1.1430	FC3	-2.3985	BSP	2311	SGB	1600.9	R23	-.0518	R13	.7638	L&A	41.0	MSA	18.3	SSA	1.5
BDE	.6178	BRA	1.1631	BC3	.5047	FSP	339	SG1	1477.2	SG2	617.2	THA	172.65	EL1	35.7	EL2	17.6	ALF	43.54

LAUNCH DATE JUL 28 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 341.630 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	34.340	GAL	-1.67	AZL	89.85	HCA	108.92	SMA	233.63	ECC	.35085	INC	.1477	V1	29.328
RP	221.71	LAP	.14	LOP	53.70	VP	25.083	GAP	20.34	AZP	90.05	TAL	353.58	TAP	102.50	RCA	151.66	APO	315.60	V2	24.799
RC	91.436	GL	1.01	GP	-6.70	ZAL	99.21	ZAP	167.65	ETS	214.31	ZAE	160.72	ETE	338.67	ZAC	76.59	ETC	282.79	LVI	-10.27

PLANETOCENTRIC CONIC

C3	25.642	VHL	5.064	DLA	17.00	RAL	41.22	RAD	6645.3	VEL	12.067	PTH	7.05	VHP	6.657	DPA	9.32	RAP	43.16	ECC	1.4220

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 35 38	3537.06	-46.75	131.55	281.27	100.08	13 34 35	2537.1	-37.55	101.15
60.00	12 55 39	3483.78	-40.05	127.97	282.48	94.91	13 53 42	2483.8	-33.75	98.80
70.00	13 25 19	3396.42	-34.14	121.27	282.86	90.88	14 21 56	2396.4	-30.22	93.25
80.00	14 12 5	3249.86	-29.80	110.11	282.81	88.12	15 6 15	2249.9	-27.55	82.92
90.00	15 23 45	3018.55	-28.14	93.04	282.73	87.09	16 14 3	2018.5	-26.51	66.15
100.00	16 54 57	2724.33	-29.80	71.48	282.81	88.12	17 40 21	1724.3	-27.55	44.28
110.00	18 24 46	2443.24	-34.14	50.19	282.86	90.88	19 5 29	1443.2	-30.22	22.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3757	TRA	-1.1302	TC3	.5086	BAU	.1866	SGT	1494.8	SGR	643.5	SG3	262.7	ST	29.2	SR	27.5	SS	21.5
RDE	-.4603	RRA	.2392	RC3	-.1940	FAU	.07705	RRT	-.2586	RRF	.2948	RTF	-.7646	CRT	.6120	CRS	.7259	CST	.9840
FDE	.5431	FRA	1.1736	FC3	-2.6012	BSP	2396	SGB	1627.4	R23	-.0584	R13	.7690	L&A	41.7	MSA	18.2	SSA	1.5
BDE	.6098	BRA	1.1553	BC3	.5444	FSP	363	SG1	1505.9	SG2	617.0	THA	172.36	EL1	36.1	EL2	17.6	ALF	42.15

LAUNCH DATE JUL 28 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 344.759 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	34.254	GAL	-1.59	AZL	89.81	HCA	110.02	SMA	231.23	ECC	.34402	INC	.1862	V1	29.328
RP	222.09	LAP	.18	LOP	54.80	VP	24.924	GAP	20.00	AZP	90.06	TAL	353.78	TAP	103.80	RCA	151.68	APO	310.78	V2	24.757
RC	93.523	GL	1.29	GP	-6.91	ZAL	98.82	ZAP	166.85	ETS	213.12	ZAE	160.54	ETE	338.02	ZAC	76.33	ETC	282.77	LVI	-9.98

PLANETOCENTRIC CONIC

C3	24.731	VHL	4.973	DLA	17.15	RAL	40.74	RAD	6644.9	VEL	12.029	PTH	7.02	VHP	6.471	DPA	9.21	RAP	43.50	ECC	1.4070

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 33 6	3531.30	-46.68	131.01	280.07	100.49	13 31 57	2531.3	-37.34	100.75
60.00	12 52 54	3478.58	-40.02	127.53	281.33	95.21	13 50 53	2478.6	-33.60	98.43
70.00	13 22 19	3391.97	-34.14	120.92	281.74	91.09	14 18 51	2392.0	-30.13	92.93
80.00	14 8 49	3246.26	-29.81	109.85	281.71	88.26	15 2 55	2246.3	-27.50	82.66
90.00	15 20 20	3015.38	-28.15	92.81	281.63	87.21	16 10 36	2015.4	-26.47	65.92
100.00	16 51 41	2720.73	-29.81	71.21	281.71	88.26	17 37 1	1720.7	-27.50	44.03
110.00	18 21 45	2438.79	-34.14	49.84	281.74	91.09	19 2 24	1438.8	-30.13	21.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3789	TRA	-1.1220	TC3	.5473	BAU	.1942	SGT	1522.2	SGR	646.9	SG3	278.8	ST	29.8	SR	27.3	SS	22.3
RDE	-.4671	RRA	.2400	RC3	-.2135	FAU	.08052	RRT	-.2765	RRF	.3163	RTF	-.7702	CRT	.6140	CRS	.7311	CST	.9833
FDE	.5745	FRA	1.2067	FC3	-2.8188	BSP	2461	SGB	1653.9	R23	-.0639	R13	.7750	L&A	42.4	MSA	18.2	SSA	1.6
BDE	.6014	BRA	1.1474	BC3	.5875	FSP	388	SG1	1534.7	SG2	616.6	THA	172.00	EL1	36.3	EL2	17.7	ALF	40.84

LAUNCH DATE JUL 28 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 347.944 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	34.172	GAL	-1.52	AZL	89.77	HCA	111.12	SMA	229.00	ECC	.33756	INC	.2259	V1	29.328
RP	222.48	LAP	.21	LOP	55.90	VP	24.770	GAP	19.66	AZP	90.08	TAL	353.98	TAP	105.10	RCA	151.70	APO	306.30	V2	24.715
RC	95.665	GL	1.56	GP	-7.13	ZAL	98.42	ZAP	166.03	ETS	212.07	ZAE	160.41	ETE	337.29	ZAC	76.06	ETC	282.75	LVI	-9.69

PLANETOCENTRIC CONIC

C3	23.884	VHL	4.887	DLA	17.31	RAL	40.25	RAD	6644.5	VEL	11.994	PTH	6.99	VHP	6.290	DPA	9.08	RAP	43.83	ECC	1.3931

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 30 30	3526.08	-46.61	130.52	278.91	100.86	13 29 16	2526.1	-37.15	100.40
60.00	12 50 5	3473.94	-39.99	127.14	280.21	95.47	13 47 59	2473.9	-33.48	98.10
70.00	13 19 13	3388.14	-34.13	120.62	280.65	91.27	14 15 41	2388.1	-30.05	92.66
80.00	14 5 26	3243.33	-29.82	109.63	280.63	88.37	14 59 29	2243.3	-27.46	82.45
90.00	15 16 48	3012.92	-28.16	92.63	280.56	87.30	16 7 1	2012.9	-26.44	65.75
100.00	16 48 17	2717.80	-29.82	71.00	280.63	88.37	17 33 35	1717.8	-27.46	43.82
110.00	18 18 40	2434.95	-34.13	49.54	280.65	91.27	18 59 15	1435.0	-30.05	21.57

DIFFERENTIAL CORRECTIONS

TDE	-.3830	TRA	-1.1130	TC3	.5867	BAU	.2017												
RDE	-.4538	RRA	.2410	RC3	-.2343	FAU	.08414												
FDE	.6089	FRA	1.2411	FC3	-3.0497	BSP	2532												
BDE	.5938	BRA	1.1388	BC3	.6318	FSP	416												

MID-COURSE EXECUTION ACCURACY

SGT	1548.7	SGR	650.5	SG3	295.8														
RRT	-.2948	RRF	.3386	RTF	-.7758														
SGB	1679.8	R23	-.0699	R13	.7812														
SG1	1562.8	SG2	616.0	THA	171.63														

ORBIT DETERMINATION ACCURACY

ST	30.4	SR	27.0	SS	23.2														
CRT	.6167	CRS	.7363	CST	.9827														
LSA	43.1	MSA	18.1	SSA	1.6														
EL1	36.6	EL2	17.6	ALF	39.48														

LAUNCH DATE JUL 28 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 351.181 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	34.095	GAL	-1.45	AZL	89.73	HCA	112.21	SMA	226.93	ECC	.33144	INC	.2655	V1	29.328
RP	222.86	LAP	.25	LOP	56.99	VP	24.621	GAP	19.33	AZP	90.10	TAL	354.19	TAP	106.40	RCA	151.72	APO	302.15	V2	24.673
RC	97.860	GL	1.69	GP	-7.37	ZAL	98.03	ZAP	165.19	ETS	211.14	ZAE	160.32	ETE	336.48	ZAC	75.79	ETC	282.73	LVI	-9.39

PLANETOCENTRIC CONIC

C3	23.096	VHL	4.806	DLA	17.48	RAL	39.76	RAD	6644.2	VEL	11.962	PTH	6.96	VHP	6.115	DPA	8.95	RAP	44.15	ECC	1.3801

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 27 50	3521.39	-46.55	130.09	277.79	101.19	13 26 31	2521.4	-36.98	100.08
60.00	12 47 11	3469.88	-39.96	126.80	279.13	95.70	13 45 1	2469.9	-33.36	97.82
70.00	13 16 2	3384.93	-34.13	120.37	279.58	91.41	14 12 27	2384.9	-29.99	92.43
80.00	14 1 56	3241.09	-29.82	109.46	279.58	88.46	14 55 57	2241.1	-27.42	82.29
90.00	15 13 9	3011.17	-28.17	92.50	279.51	87.36	16 3 20	2011.2	-26.42	65.63
100.00	16 44 47	2715.56	-29.82	70.83	279.58	88.46	17 30 3	1715.6	-27.42	43.66
110.00	18 15 28	2431.75	-34.13	49.29	279.58	91.41	18 56 0	1431.7	-29.99	21.35

DIFFERENTIAL CORRECTIONS

TDE	-.3853	TRA	-1.1024	TC3	.6283	BAU	.2096												
RDE	-.4407	RRA	.2421	RC3	-.2569	FAU	.08797												
FDE	.6446	FRA	1.2741	FC3	-3.2975	BSP	2586												
BDE	.5854	BRA	1.1287	BC3	.6788	FSP	444												

MID-COURSE EXECUTION ACCURACY

SGT	1573.1	SGR	654.7	SG3	313.6														
RRT	-.3153	RRF	.3622	RTF	-.7815														
SGB	1703.9	R23	-.0751	R13	.7874														
SG1	1589.0	SG2	615.1	THA	171.19														

ORBIT DETERMINATION ACCURACY

ST	30.9	SR	26.7	SS	24.0														
CRT	.6179	CRS	.7414	CST	.9817														
LSA	43.8	MSA	18.0	SSA	1.6														
EL1	36.8	EL2	17.6	ALF	38.25														

LAUNCH DATE JUL 28 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 354.464 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	34.021	GAL	-1.38	AZL	89.69	HCA	113.30	SMA	225.01	ECC	.32566	INC	.3054	V1	29.328
RP	223.25	LAP	.28	LOP	58.08	VP	24.477	GAP	19.00	AZP	90.12	TAL	354.40	TAP	107.70	RCA	151.73	APO	298.29	V2	24.631
RC	100.104	GL	2.20	GP	-7.61	ZAL	97.63	ZAP	164.34	ETS	210.31	ZAE	160.29	ETE	335.59	ZAC	75.50	ETC	282.72	LVI	-9.09

PLANETOCENTRIC CONIC

C3	22.364	VHL	4.729	DLA	17.66	RAL	39.27	RAD	6643.9	VEL	11.931	PTH	6.94	VHP	5.946	DPA	8.79	RAP	44.45	ECC	1.3681

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 25 6	3517.26	-46.50	129.71	276.70	101.49	13 23 43	2517.3	-36.83	99.80
60.00	12 44 12	3466.40	-39.94	126.50	278.08	95.90	13 41 59	2466.4	-33.27	97.57
70.00	13 12 45	3382.36	-34.12	120.17	278.55	91.53	14 9 7	2382.4	-29.94	92.25
80.00	13 58 19	3239.55	-29.82	109.35	278.55	88.52	14 52 18	2239.5	-27.40	82.19
90.00	15 9 23	3010.16	-28.17	92.42	278.48	87.40	15 59 33	2010.2	-26.41	65.55
100.00	16 41 11	2714.02	-29.82	70.72	278.55	88.52	17 26 25	1714.0	-27.40	43.55
110.00	18 12 11	2429.18	-34.12	49.09	278.55	91.53	18 52 41	1429.2	-29.94	21.16

DIFFERENTIAL CORRECTIONS

TDE	-.3886	TRA	-1.0914	TC3	.6696	BAU	.2171												
RDE	-.4275	RRA	.2434	RC3	-.2811	FAU	.09196												
FDE	.6848	FRA	1.3087	FC3	-3.5599	BSP	2641												
BDE	.5777	BRA	1.1182	BC3	.7262	FSP	474												

MID-COURSE EXECUTION ACCURACY

SGT	1596.4	SGR	659.4	SG3	332.3														
RRT	-.3363	RRF	.3866	RTF	-.[illegible]70														
SGB	1727.2	R23	-.0805	R13	.7935														
SG1	1614.4	SG2	614.1	THA	170.74														

ORBIT DETERMINATION ACCURACY

ST	31.4	SR	26.3	SS	25.0														
CRT	.6197	CRS	.7468	CST	.9808														
LSA	44.6	MSA	17.8	SSA	1.7														
EL1	37.1	EL2	17.5	ALF	36.95														

LAUNCH DATE JUL 28 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 357.790 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.952	GAL	-1.31	AZL	89.65	HCA	114.39	SMA	223.22	ECC	.32019	INC	.3460	V1	29.328
RP	223.64	LAP	.32	LOP	59.17	VP	24.338	GAP	18.67	AZP	90.14	TAL	354.60	TAP	108.99	RCA	151.75	APO	294.69	V2	24.590
RC	102.397	GL	2.53	GP	-7.86	ZAL	97.23	ZAP	163.46	ETS	209.57	ZAE	160.29	ETE	334.60	ZAC	75.21	ETC	282.70	LVI	-8.78

PLANETOCENTRIC CONIC

C3	21.684	VHL	4.657	DLA	17.85	RAL	38.76	RAD	6643.6	VEL	11.903	PTH	6.91	VHP	5.783	DPA	8.62	RAP	44.75	ECC	1.3569

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 22 19	3513.68	-46.45	129.37	275.66	101.74	13 20 53	2513.7	-36.70	99.56
60.00	12 41 9	3463.51	-39.92	126.26	277.06	96.06	13 38 53	2463.5	-33.19	97.37
70.00	13 9 22	3380.43	-34.12	120.02	277.54	91.62	14 5 43	2380.4	-29.90	92.11
80.00	13 54 35	3238.72	-29.83	109.29	277.55	88.55	14 48 34	2238.7	-27.39	82.13
90.00	15 5 29	3009.90	-28.17	92.41	277.49	87.41	15 55 38	2009.9	-26.41	65.54
100.00	16 37 27	2713.20	-29.83	70.66	277.55	88.55	17 22 40	1713.2	-27.39	43.50
110.00	18 8 49	2427.25	-34.12	48.94	277.54	91.62	18 49 16	1427.3	-29.90	21.03

DIFFERENTIAL CORRECTIONS

TDE	-.3912	TRA	-1.0806	TC3	.7108	BAU	.2245												
RDE	-.4145	RRA	.2449	RC3	-.3072	FAU	.09617												
FDE	.7258	FRA	1.3443	FC3	-3.8397	BSP	2700												
BDE	.5700	BRA	1.1080	BC3	.7743	FSP	507												

MID-COURSE EXECUTION ACCURACY

SGT	1619.0	SGR	664.9	SG3	352.1														
RRT	-.3586	RRF	.4125	RTF	-.7919														
SGB	1750.2	R23	-.0866	R13	.7991														
SG1	1639.3	SG2	613.0	THA	170.24														

ORBIT DETERMINATION ACCURACY

ST	31.9	SR	25.9	SS	26.0														
CRT	.6204	CRS	.7509	CST	.9799														
LSA	45.3	MSA	17.7	SSA	1.7														
EL1	37.3	EL2	17.4	ALF	35.69														

LAUNCH DATE JUL 28 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 361.156 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.886	GAL	-1.24	AZL	89.61	HCA	115.47	SMA	221.85	ECC	.31501	INC	.3873	V1	29.328
RP	224.03	LAP	.35	LOP	60.25	VP	24.203	GAP	18.35	AZP	90.17	TAL	354.81	TAP	110.28	RCA	151.76	APO	291.34	V2	24.548
RC	104.735	GL	2.86	GP	-8.12	ZAL	96.83	ZAP	162.57	ETS	208.92	ZAE	160.34	ETE	333.51	ZAC	74.92	ETC	282.69	LVI	-8.47

PLANETOCENTRIC CONIC

C3	21.051	VHL	4.588	DLA	18.04	RAL	38.26	RAD	6643.3	VEL	11.877	PTH	6.89	VHP	5.625	DPA	8.44	RAP	45.03	ECC	1.3464

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 19 28	3510.65	-46.41	129.09	274.65	101.95	13 17 59	2510.6	-36.59	99.35
60.00	12 38 2	3461.22	-39.90	126.07	276.07	96.19	13 35 43	2461.2	-33.12	97.21
70.00	13 5 54	3379.17	-34.12	119.92	276.57	91.68	14 2 14	2379.2	-29.87	92.02
80.00	13 50 45	3238.63	-29.83	109.28	276.58	88.56	14 44 43	2238.6	-27.39	82.12
90.00	15 1 27	3010.42	-28.17	92.44	276.51	87.39	15 51 37	2010.4	-26.41	65.57
100.00	16 33 37	2713.10	-29.83	70.65	276.58	88.56	17 18 50	1713.1	-27.39	43.49
110.00	18 5 21	2425.98	-34.12	48.84	276.57	91.68	18 45 47	1426.0	-29.87	20.94

DIFFERENTIAL CORRECTIONS

TDE	-.3950	TRA	-1.0688	TC3	.7522	BAU	.2318
RDE	-.4012	RRA	.2465	RC3	-.3352	FAU	.10060
FDE	.7725	FRA	1.3794	FC3	-4.1373	BSP	2751
BDE	.5630	BRA	1.0968	BC3	.8235	FSP	541

MID-COURSE EXECUTION ACCURACY

SGT	1640.2	SGR	671.1	SG3	372.9				
RRT	-.3811	RRF	.4388	RTF	-.7967				
SGB	1772.2	R23	-.0929	R13	.8046				
SG1	1663.2	SG2	611.9	THA	169.73				

ORBIT DETERMINATION ACCURACY

ST	32.4	SR	25.5	SS	27.0				
CRT	.6221	CRS	.7559	CST	.9789				
LSA	46.1	MSA	17.5	SSA	1.7				
EL1	37.5	EL2	17.3	ALF	34.36				

LAUNCH DATE JUL 28 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 364.557 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.823	GAL	-1.18	AZL	89.57	HCA	116.55	SMA	220.00	ECC	.31010	INC	.4291	V1	29.328
RP	224.42	LAP	.38	LOP	61.33	VP	24.073	GAP	18.03	AZP	90.19	TAL	355.01	TAP	111.56	RCA	151.78	APO	288.22	V2	24.506
RC	107.119	GL	3.21	GP	-8.40	ZAL	96.44	ZAP	161.66	ETS	208.33	ZAE	160.42	ETE	332.32	ZAC	74.61	ETC	282.69	LVI	-8.15

PLANETOCENTRIC CONIC

C3	20.462	VHL	4.524	DLA	18.25	RAL	37.75	RAD	6643.0	VEL	11.852	PTH	6.87	VHP	5.472	DPA	8.23	RAP	45.29	ECC	1.3368

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 16 34	3508.18	-46.37	128.86	273.69	102.12	13 15 3	2508.2	-36.50	99.19
60.00	12 34 51	3459.53	-39.89	125.93	275.12	96.29	13 32 30	2459.5	-33.07	97.09
70.00	13 2 21	3378.57	-34.12	119.88	275.63	91.71	13 58 39	2378.6	-29.86	91.98
80.00	13 46 47	3239.28	-29.83	109.33	275.64	88.53	14 40 46	2239.3	-27.40	82.17
90.00	14 57 17	3011.73	-28.16	92.54	275.57	87.34	15 47 29	2011.7	-26.43	65.66
100.00	16 29 39	2713.76	-29.83	70.70	275.64	88.53	17 14 52	1713.8	-27.40	43.54
110.00	18 1 47	2425.38	-34.12	48.79	275.63	91.71	18 42 12	1425.4	-29.86	20.90

DIFFERENTIAL CORRECTIONS

TDE	-.3985	TRA	-1.0574	TC3	.7933	BAU	.2389
RDE	-.3879	RRA	.2483	RC3	-.3652	FAU	.10522
FDE	.8215	FRA	1.4158	FC3	-4.4517	BSP	2798
BDE	.5562	BRA	1.0861	BC3	.8733	FSP	578

MID-COURSE EXECUTION ACCURACY

SGT	1660.9	SGR	678.4	SG3	394.7				
RRT	-.4048	RRF	.4662	RTF	-.8012				
SGB	1794.1	R23	-.0995	R13	.8100				
SG1	1687.0	SG2	610.8	THA	169.18				

ORBIT DETERMINATION ACCURACY

ST	32.9	SR	25.1	SS	28.2				
CRT	.6228	CRS	.7600	CST	.9780				
LSA	47.0	MSA	17.3	SSA	1.8				
EL1	37.7	EL2	17.1	ALF	33.02				

LAUNCH DATE JUL 28 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 367.991 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.764	GAL	-1.12	AZL	89.53	HCA	117.62	SMA	218.55	ECC	.30547	INC	.4714	V1	29.328
RP	224.81	LAP	.42	LOP	62.40	VP	23.947	GAP	17.71	AZP	90.22	TAL	355.22	TAP	112.84	RCA	151.79	APO	285.31	V2	24.464
RC	109.544	GL	3.57	GP	-8.69	ZAL	96.05	ZAP	160.73	ETS	207.80	ZAE	160.54	ETE	331.01	ZAC	74.29	ETC	282.68	LVI	-7.83

PLANETOCENTRIC CONIC

C3	19.915	VHL	4.463	DLA	18.47	RAL	37.25	RAD	6642.8	VEL	11.829	PTH	6.85	VHP	5.324	DPA	8.01	RAP	45.55	ECC	1.3278

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 13 37	3506.27	-46.34	128.69	272.76	102.25	13 12 4	2506.3	-36.43	99.06
60.00	12 31 35	3456.44	-39.88	125.84	274.21	96.35	13 29 13	2458.4	-33.04	97.02
70.00	12 58 41	3378.64	-34.12	119.88	274.72	91.70	13 55 0	2378.6	-29.86	91.98
80.00	13 42 42	3240.71	-29.82	109.43	274.73	88.48	14 36 42	2240.7	-27.42	82.27
90.00	14 52 58	3013.85	-28.16	92.69	274.66	87.26	15 43 12	2013.9	-26.45	65.81
100.00	16 25 33	2715.18	-29.82	70.80	274.73	88.48	17 10 49	1715.2	-27.42	43.64
110.00	17 58 8	2425.46	-34.12	48.80	274.72	91.70	18 38 33	1425.5	-29.86	20.90

DIFFERENTIAL CORRECTIONS

TDE	-.4013	TRA	-1.0450	TC3	.8334	BAU	.2458
RDE	-.3746	RRA	.2503	RC3	-.3973	FAU	.11006
FDE	.8731	FRA	1.4523	FC3	-4.7842	BSP	2856
BDE	.5489	BRA	1.0746	BC3	.9232	FSP	617

MID-COURSE EXECUTION ACCURACY

SGT	1679.2	SGR	686.8	SG3	417.5				
RRT	-.4294	RRF	.4944	RTF	-.8153				
SGB	1814.2	R23	-.1062	R13	.8150				
SG1	1708.8	SG2	609.6	THA	168.57				

ORBIT DETERMINATION ACCURACY

ST	33.4	SR	24.6	SS	29.3				
CRT	.6225	CRS	.7633	CST	.9770				
LSA	47.8	MSA	17.1	SSA	1.8				
EL1	37.8	EL2	17.0	ALF	31.72				

LAUNCH DATE JUL 28 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 371.455 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.708	GAL	-1.06	AZL	89.49	HCA	118.69	SMA	217.19	ECC	.30108	INC	.5144	V1	29.328
RP	225.20	LAP	.45	LOP	63.47	VP	23.825	GAP	17.40	AZP	90.25	TAL	355.42	TAP	114.11	RCA	151.80	APO	282.58	V2	24.422
RC	112.011	GL	3.94	GP	-8.99	ZAL	95.66	ZAP	159.79	ETS	207.32	ZAE	160.69	ETE	329.57	ZAC	73.97	ETC	282.68	LVI	-7.50

PLANETOCENTRIC CONIC

C3	19.407	VHL	4.405	DLA	18.70	RAL	36.74	RAD	6642.6	VEL	11.808	PTH	6.83	VHP	5.182	DPA	7.77	RAP	45.79	ECC	1.3194

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 37	3504.92	-46.32	128.56	271.88	102.35	13 9 2	2504.9	-36.38	98.97
60.00	12 28 15	3457.97	-39.88	125.80	273.33	96.37	13 25 53	2458.0	-33.03	96.98
70.00	12 54 56	3379.41	-34.12	119.94	273.84	91.67	13 51 15	2379.4	-29.88	92.04
80.00	13 38 29	3242.91	-29.82	109.60	273.84	88.39	14 32 32	2242.9	-27.45	82.42
90.00	14 48 31	3016.81	-28.15	92.91	273.77	87.15	15 38 48	2016.8	-26.49	66.02
100.00	16 21 21	2717.38	-29.82	70.97	273.84	88.39	17 6 38	1717.4	-27.45	43.79
110.00	17 54 22	2426.23	-34.12	48.86	273.84	91.67	18 34 49	1426.2	-29.88	20.96

DIFFERENTIAL CORRECTIONS

TDE	-.4055	TRA	-1.0327	TC3	.8732	BAU	.2527
RDE	-.3610	RRA	.2524	RC3	-.4319	FAU	.11520
FDE	.9297	FRA	1.4898	FC3	-5.1390	BSP	2892
BDE	.5427	BRA	1.0631	BC3	.9741	FSP	656

MID-COURSE EXECUTION ACCURACY

SGT	1697.2	SGR	696.6	SG3	441.8				
RRT	-.4540	RRF	.5233	RTF	-.8091				
SGB	1834.6	R23	-.1139	R13	.8199				
SG1	1730.7	SG2	608.7	THA	167.93				

ORBIT DETERMINATION ACCURACY

ST	33.9	SR	24.0	SS	30.5				
CRT	.6226	CRS	.7663	CST	.9761				
LSA	48.7	MSA	16.8	SSA	1.9				
EL1	38.0	EL2	16.8	ALF	30.34				

LAUNCH DATE JUL 28 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 374.947 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.694	GAL	-1.00	AZL	89.44	HCA	119.76	SMA	215.92	ECC	.29693	INC	.5583	V1	29.328
RP	225.59	LAP	.48	LOP	64.54	VP	23.706	GAP	17.09	AZP	90.28	TAL	355.61	TAP	115.37	RCA	151.81	APO	280.04	V2	24.380
RC	114.516	GL	4.32	GP	-9.30	ZAL	95.28	ZAP	158.82	ETS	206.98	ZAE	160.86	ETE	328.00	ZAC	73.64	ETC	282.69	LVI	-7.16

PLANETOCENTRIC CONIC

C3	18.934	VHL	4.351	DLA	18.94	RAL	36.23	RAD	6642.4	VEL	11.788	PTH	6.81	VHP	5.044	DPA	7.52	RAP	46.01	ECC	1.3116

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 7 34	3504.14	-46.31	128.49	271.04	102.40	13 5 58	2504.1	-36.35	98.92
60.00	12 24 51	3458.13	-39.88	125.81	272.49	96.37	13 22 29	2458.1	-33.03	97.00
70.00	12 51 5	3380.87	-34.12	120.06	272.99	91.60	13 47 26	2380.9	-29.91	92.14
80.00	13 34 8	3245.92	-29.81	109.82	272.99	88.27	14 28 14	2245.9	-27.49	82.64
90.00	14 43 55	3020.64	-28.14	93.19	272.91	87.02	15 34 16	2020.6	-26.54	66.29
100.00	16 17 0	2720.39	-29.81	71.19	272.99	88.27	17 2 20	1720.4	-27.49	44.00
110.00	17 50 31	2427.69	-34.12	48.97	272.99	91.60	18 30 59	1427.7	-29.91	21.06

DIFFERENTIAL CORRECTIONS

TDE	-.4083	TRA	-1.0203	TC3	.9113	BAU	.2594
RDE	-.3472	RRA	.2548	RC3	-.4687	FAU	.12054
FDE	.9893	FRA	1.5279	FC3	-5.5114	BSP	2942
BDE	.5359	BRA	1.0516	BC3	1.0248	FSP	700

MID-COURSE EXECUTION ACCURACY

SGT	1713.3	SGR	708.0	SG3	467.1		
RRT	-.4794	RRF	.5527	RTF	-.8125		
SGB	1853.8	R23	-.1216	R13	.8246		
SG1	1751.3	SG2	607.8	THA	167.23		

ORBIT DETERMINATION ACCURACY

ST	34.3	SR	23.5	SS	31.8
CRT	.6210	CRS	.7683	CST	.9751
LSA	49.6	MSA	16.6	SSA	1.9
EL1	38.1	EL2	16.6	ALF	28.98

LAUNCH DATE JUL 28 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 378.464 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.604	GAL	-.95	AZL	89.40	HCA	120.82	SMA	214.74	ECC	.29300	INC	.6028	V1	29.328
RP	225.98	LAP	.52	LOP	65.60	VP	23.591	GAP	16.78	AZP	90.31	TAL	355.81	TAP	116.63	RCA	151.82	APO	277.65	V2	24.338
RC	117.057	GL	4.72	GP	-9.63	ZAL	94.91	ZAP	157.83	ETS	206.49	ZAE	161.06	ETE	326.28	ZAC	73.29	ETC	282.69	LVI	-6.81

PLANETOCENTRIC CONIC

C3	18.496	VHL	4.301	DLA	19.19	RAL	35.72	RAD	6642.2	VEL	11.769	PTH	6.80	VHP	4.910	DPA	7.24	RAP	46.22	ECC	1.3044

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 27	3503.93	-46.31	128.47	270.24	102.42	13 2 51	2503.9	-36.34	98.91
60.00	12 21 22	3456.90	-39.89	125.87	271.69	96.32	13 19 1	2458.9	-33.06	97.05
70.00	12 47 8	3383.05	-34.12	120.23	272.18	91.50	13 43 31	2383.0	-29.95	92.30
80.00	13 29 39	3249.75	-29.80	110.11	272.17	88.12	14 23 49	2249.7	-27.55	82.91
90.00	14 39 10	3025.36	-28.12	93.53	272.08	86.84	15 29 35	2025.4	-26.59	66.63
100.00	16 12 31	2724.22	-29.80	71.47	272.17	88.12	16 57 55	1724.2	-27.55	44.28
110.00	17 46 34	2429.87	-34.12	49.14	272.18	91.50	18 27 4	1429.9	-29.95	21.21

DIFFERENTIAL CORRECTIONS

TDE	-.4114	TRA	-1.0074	TC3	.9486	BAU	.2661
RDE	-.3332	RRA	.2573	RC3	-.5082	FAU	.12618
FDE	1.0534	FRA	1.5662	FC3	-5.9061	BSP	2972
BDE	.5294	BRA	1.0398	BC3	1.0762	FSP	743

MID-COURSE EXECUTION ACCURACY

SGT	1727.9	SGR	721.1	SG3	493.8		
RRT	-.5050	RRF	.5824	RTF	-.8156		
SGB	1872.3	R23	-.1298	R13	.8291		
SG1	1771.2	SG2	607.2	THA	166.48		

ORBIT DETERMINATION ACCURACY

ST	34.7	SR	22.9	SS	33.1
CRT	.6187	CRS	.7696	CST	.9741
LSA	50.5	MSA	16.3	SSA	1.9
EL1	38.3	EL2	16.3	ALF	27.58

LAUNCH DATE JUL 28 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 382.004 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.556	GAL	-.90	AZL	89.35	HCA	121.88	SMA	213.63	ECC	.28928	INC	.6483	V1	29.328
RP	226.37	LAP	.55	LOP	66.66	VP	23.480	GAP	16.47	AZP	90.34	TAL	356.00	TAP	117.88	RCA	151.83	APO	275.43	V2	24.297
RC	119.633	GL	5.12	GP	-9.98	ZAL	94.54	ZAP	156.82	ETS	206.13	ZAE	161.27	ETE	324.39	ZAC	72.94	ETC	282.70	LVI	-6.45

PLANETOCENTRIC CONIC

C3	18.088	VHL	4.253	DLA	19.46	RAL	35.22	RAD	6642.0	VEL	11.752	PTH	6.78	VHP	4.782	DPA	6.94	RAP	46.42	ECC	1.2977

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 1 18	3504.30	-46.31	128.51	269.48	102.39	12 59 42	2504.3	-36.35	98.93
60.00	12 17 49	3460.31	-39.90	125.99	270.92	96.24	13 15 29	2460.3	-33.10	97.15
70.00	12 43 4	3385.95	-34.13	120.45	271.40	91.37	13 39 30	2385.9	-30.01	92.50
80.00	13 25 2	3254.43	-29.79	110.45	271.37	87.94	14 19 16	2254.4	-27.61	83.24
90.00	14 34 14	3031.00	-28.10	93.94	271.28	86.64	15 24 45	2031.0	-26.66	67.03
100.00	16 7 53	2728.90	-29.79	71.82	271.37	87.94	16 53 22	1728.9	-27.61	44.61
110.00	17 42 30	2432.77	-34.13	49.37	271.40	91.37	18 23 3	1432.8	-30.01	21.42

DIFFERENTIAL CORRECTIONS

TDE	-.4158	TRA	-.9939	TC3	.9836	BAU	.2726
RDE	-.3187	RRA	.2600	RC3	-.5503	FAU	.13204
FDE	1.1243	FRA	1.6045	FC3	-6.3195	BSP	3020
BDE	.5239	BRA	1.0273	BC3	1.1271	FSP	792

MID-COURSE EXECUTION ACCURACY

SGT	1740.7	SGR	735.9	SG3	521.6		
RRT	-.5298	RRF	.6117	RTF	-.[illegible]85		
SGB	1889.9	R23	-.1386	R13	.8335		
SG1	1789.7	SG2	607.0	THA	165.70		

ORBIT DETERMINATION ACCURACY

ST	35.2	SR	22.2	SS	34.5
CRT	.6165	CRS	.7704	CST	.9733
LSA	51.6	MSA	16.0	SSA	2.0
EL1	38.4	EL2	16.0	ALF	26.10

LAUNCH DATE JUL 28 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 385.566 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.511	GAL	-.85	AZL	89.31	HCA	122.93	SMA	212.89	ECC	.28576	INC	.6945	V1	29.328
RP	226.76	LAP	.58	LOP	67.72	VP	23.372	GAP	16.17	AZP	90.38	TAL	356.18	TAP	119.12	RCA	151.84	APO	273.33	V2	24.258
RC	122.240	GL	5.54	GP	-10.34	ZAL	94.18	ZAP	155.79	ETS	205.81	ZAE	161.49	ETE	322.33	ZAC	72.57	ETC	282.72	LVI	-6.09

PLANETOCENTRIC CONIC

C3	17.710	VHL	4.208	DLA	19.74	RAL	34.72	RAD	6641.8	VEL	11.736	PTH	6.77	VHP	4.657	DPA	6.62	RAP	46.60	ECC	1.2918

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 58 5	3505.22	-46.33	128.59	268.76	102.33	12 56 30	2505.2	-36.39	98.99
60.00	12 14 11	3462.34	-39.91	126.16	270.19	96.13	13 11 53	2462.3	-33.15	97.29
70.00	12 38 54	3389.56	-34.14	120.73	270.66	91.20	13 35 23	2389.6	-30.08	92.76
80.00	13 20 15	3259.95	-29.78	110.86	270.61	87.73	14 14 35	2260.0	-27.69	83.63
90.00	14 29 8	3037.56	-28.07	94.42	270.51	86.40	15 19 46	2037.6	-26.73	67.49
100.00	16 3 6	2734.42	-29.78	72.23	270.61	87.73	16 48 41	1734.4	-27.69	45.00
110.00	17 38 20	2436.38	-34.14	49.65	270.66	91.20	18 18 57	1436.4	-30.08	21.68

DIFFERENTIAL CORRECTIONS

TDE	-.4091	TRA	-.9707	TC3	1.0384	BAU	.2834
RDE	-.3043	RRA	.2626	RC3	-.5957	FAU	.13828
FDE	1.1945	FRA	1.6397	FC3	-6.7596	BSP	2937
BDE	.5098	BRA	1.0056	BC3	1.1971	FSP	838

MID-COURSE EXECUTION ACCURACY

SGT	1745.1	SGR	753.2	SG3	550.8		
RRT	-.5636	RRF	.6414	RTF	-.8277		
SGB	1900.7	R23	-.1348	R13	.8437		
SG1	1802.8	SG2	602.3	THA	164.56		

ORBIT DETERMINATION ACCURACY

ST	34.9	SR	21.5	SS	35.9
CRT	.6069	CRS	.7697	CST	.9709
LSA	52.1	MSA	15.8	SSA	2.0
EL1	37.9	EL2	15.8	ALF	25.12

LAUNCH DATE JUL 28 1973 FLIGHT TIME 156.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 389.148 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.468	GAL	-.80	AZL	89.26	HCA	123.99	SMA	211.61	ECC	.28244	INC	.7418
RP	227.15	LAP	.62	LOP	68.77	VP	23.267	GAP	15.87	AZP	90.41	TAL	356.36	TAP	120.35	RCA	151.84	APO	271.38
RC	124.878	GL	5.97	GP	-10.71	ZAL	93.83	ZAP	154.73	ETS	205.51	ZAE	181.71	ETE	320.08	ZAC	72.19	ETC	282.73

V1	29.328																		
V2	24.214																		
LVI	-5.72																		

PLANETOCENTRIC CONIC

C3	17.360	VHL	4.167	DLA	20.03	RAL	34.22	RAD	6641.6	VEL	11.721	PTH	6.75	VHP	4.537	DPA	6.28	RAP	46.76
ECC	1.2857																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 49	3508.75	-46.35	128.73	268.10	102.22	12 53 16	2506.8	-36.44	99.09
60.00	12 10 29	3465.05	-39.93	126.39	269.50	95.97	13 8 14	2465.0	-33.23	97.48
70.00	12 34 37	3393.97	-34.14	121.08	269.95	91.00	13 31 11	2394.0	-30.17	93.07
80.00	13 15 18	3266.43	-29.76	111.34	269.88	87.48	14 9 45	2266.4	-27.78	84.09
90.00	14 23 50	3045.17	-28.04	94.98	269.77	86.13	15 14 36	2045.2	-26.82	68.03
100.00	15 58 10	2740.90	-29.76	72.71	269.88	87.48	16 43 51	1740.9	-27.78	45.46
110.00	17 34 3	2440.79	-34.14	50.00	269.95	91.00	18 14 44	1440.8	-30.17	21.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4169	TRA	-.9606	TC3	1.0605	BAU	.2879	SGT	1756.8	SGR	772.6	SG3	581.4	ST	35.6	SR	20.7	SS	37.4
RDE	-.2890	RRA	.2657	RC3	-.6437	FAU	.14472	RRT	-.5842	RRF	.6702	RTF	-.8268	CRT	.6036	CRS	.7677	CST	.9707
FDE	1.2751	FRA	1.6786	FC3	-7.2172	BSP	3024	SGB	1919.2	R23	-.1500	R13	.8452	LSA	53.4	MSA	15.5	SSA	2.0
BDE	.5073	BRA	.9967	BC3	1.2405	FSP	892	SG1	1821.4	SG2	604.8	THA	163.75	EL1	38.2	EL2	15.4	ALF	23.37

LAUNCH DATE JUL 28 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 392.747 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.427	GAL	-.76	AZL	89.21	HCA	125.03	SMA	210.70	ECC	.27930	INC	.7901
RP	227.54	LAP	.65	LOP	69.82	VP	23.166	GAP	15.57	AZP	90.45	TAL	356.54	TAP	121.57	RCA	151.85	APO	269.55
RC	127.544	GL	6.41	GP	-11.10	ZAL	93.50	ZAP	153.66	ETS	205.23	ZAE	161.93	ETE	317.64	ZAC	71.80	ETC	282.76

V1	29.328																		
V2	24.172																		
LVI	-5.34																		

PLANETOCENTRIC CONIC

C3	17.036	VHL	4.128	DLA	20.33	RAL	33.72	RAD	6641.5	VEL	11.708	PTH	6.74	VHP	4.422	DPA	5.91	RAP	46.91
ECC	1.2804																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 30	3508.87	-46.38	128.93	267.47	102.07	12 49 59	2508.9	-36.52	99.24
60.00	12 6 42	3468.41	-39.95	126.67	268.85	95.78	13 4 30	2468.4	-33.32	97.71
70.00	12 30 13	3399.15	-34.15	121.48	269.27	90.76	13 26 52	2399.2	-30.27	93.44
80.00	13 10 11	3273.84	-29.74	111.89	269.17	87.19	14 4 45	2273.8	-27.88	84.62
90.00	14 18 21	3053.82	-27.99	95.61	269.05	85.81	15 9 14	2053.8	-26.91	68.65
100.00	15 53 3	2748.31	-29.74	73.26	269.17	87.19	16 38 52	1748.3	-27.88	45.99
110.00	17 29 39	2445.97	-34.15	50.40	269.27	90.76	18 10 25	1446.0	-30.27	22.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4237	TRA	-.9494	TC3	1.0809	BAU	.2926	SGT	1765.6	SGR	794.3	SG3	613.3	ST	36.2	SR	19.9	SS	39.2
RDE	-.2730	RRA	.2691	RC3	-.6945	FAU	.15137	RRT	-.6050	RRF	.6982	RTF	-.8264	CRT	.5973	CRS	.7640	CST	.9702
FDE	1.3645	FRA	1.7190	FC3	-7.6921	BSP	3090	SGB	1936.1	R23	-.1638	R13	.8474	LSA	54.8	MSA	15.2	SSA	2.1
BDE	.5041	BRA	.9868	BC3	1.2848	FSP	947	SG1	1838.3	SG2	607.5	THA	162.84	EL1	38.5	EL2	15.0	ALF	21.60

LAUNCH DATE JUL 28 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 396.364 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.389	GAL	-.71	AZL	89.16	HCA	126.08	SMA	209.84	ECC	.27633	INC	.8394
RP	227.93	LAP	.68	LOP	70.86	VP	23.087	GAP	15.28	AZP	90.49	TAL	356.71	TAP	122.79	RCA	151.86	APO	267.83
RC	130.237	GL	6.87	GP	-11.51	ZAL	93.17	ZAP	152.56	ETS	204.98	ZAE	162.14	ETE	315.00	ZAC	71.40	ETC	282.79

V1	29.328																		
V2	24.131																		
LVI	-4.95																		

PLANETOCENTRIC CONIC

C3	16.737	VHL	4.091	DLA	20.65	RAL	33.24	RAD	6641.3	VEL	11.695	PTH	6.73	VHP	4.310	DPA	5.53	RAP	47.04
ECC	1.2754																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 48 8	3511.58	-46.42	129.18	266.89	101.88	12 46 40	2511.6	-36.62	99.42
60.00	12 2 50	3472.45	-39.98	127.01	268.24	95.55	13 0 42	2472.4	-33.44	98.00
70.00	12 25 41	3405.13	-34.15	121.95	268.62	90.48	13 22 27	2405.1	-30.39	93.87
80.00	13 4 54	3282.22	-29.71	112.51	268.50	86.86	13 59 36	2282.2	-27.98	85.22
90.00	14 12 37	3063.56	-27.94	96.31	268.37	85.46	15 3 41	2063.6	-27.02	69.34
100.00	15 47 45	2756.70	-29.71	73.88	268.50	86.86	16 33 42	1756.7	-27.98	46.39
110.00	17 25 8	2451.95	-34.15	50.87	268.62	90.48	18 6 0	1451.9	-30.39	22.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4266	TRA	-.9364	TC3	1.1005	BAU	.2978	SGT	1769.8	SGR	819.0	SG3	645.9	ST	36.6	SR	19.0	SS	40.8
RDE	-.2571	RRA	.2725	RC3	-.7483	FAU	.15822	RRT	-.6263	RRF	.7253	RTF	-.8261	CRT	.5863	CRS	.7577	CST	.9693
FDE	1.4513	FRA	1.7570	FC3	-8.1839	BSP	3149	SGB	1950.1	R23	-.1761	R13	.8500	LSA	56.0	MSA	14.9	SSA	2.1
BDE	.4981	BRA	.9752	BC3	1.3308	FSP	1006	SG1	1852.2	SG2	610.1	THA	161.79	EL1	38.5	EL2	14.6	ALF	19.96

LAUNCH DATE JUL 28 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 399.995 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.352	GAL	-.67	AZL	89.11	HCA	127.12	SMA	209.04	ECC	.27352	INC	.8899
RP	228.32	LAP	.71	LOP	71.90	VP	22.971	GAP	14.99	AZP	90.54	TAL	356.87	TAP	123.99	RCA	151.86	APO	266.22
RC	132.954	GL	7.34	GP	-11.94	ZAL	92.85	ZAP	151.43	ETS	204.74	ZAE	162.33	ETE	312.14	ZAC	70.99	ETC	282.82

V1	29.328																		
V2	24.090																		
LVI	-4.54																		

PLANETOCENTRIC CONIC

C3	16.460	VHL	4.057	DLA	20.99	RAL	32.75	RAD	6641.2	VEL	11.683	PTH	6.72	VHP	4.203	DPA	5.11	RAP	47.15
ECC	1.2709																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 44 43	3514.89	-46.46	129.49	266.35	101.65	12 43 17	2514.9	-36.74	99.64
60.00	11 58 53	3477.16	-40.01	127.41	267.66	95.29	12 56 50	2477.2	-33.56	98.33
70.00	12 21 2	3411.92	-34.15	122.48	268.01	90.17	13 17 54	2411.9	-30.52	94.35
80.00	12 59 24	3291.63	-29.67	113.21	267.86	86.50	13 54 15	2291.6	-28.10	85.90
90.00	14 6 40	3074.46	-27.88	97.10	267.71	85.07	14 57 54	2074.5	-27.13	70.12
100.00	15 42 15	2766.10	-29.67	74.58	267.86	86.50	16 28 22	1766.1	-28.10	47.26
110.00	17 20 28	2458.74	-34.15	51.40	268.01	90.17	18 1 27	1458.7	-30.52	23.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4307	TRA	-.9226	TC3	1.1188	BAU	.3034	SGT	1772.4	SGR	846.7	SG3	680.4	ST	36.9	SR	18.1	SS	42.6
RDE	-.2401	RRA	.2761	RC3	-.8058	FAU	.16543	RRT	-.6465	RRF	.7513	RTF	-.8261	CRT	.5729	CRS	.7489	CST	.9685
FDE	1.5492	FRA	1.7958	FC3	-8.7010	BSP	3196	SGB	1964.3	R23	-.1881	R13	.8533	LSA	57.3	MSA	14.6	SSA	2.1
BDE	.4931	BRA	.9630	BC3	1.3788	FSP	1068	SG1	1866.0	SG2	613.6	THA	160.67	EL1	38.6	EL2	14.2	ALF	18.22

LAUNCH DATE JUL 26 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 403.641 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 33.318 GAL -.63 AZL 89.06 HCA 128.16 SMA 208.29 ECC .27087 INC .9417 V1 29.328
RP 228.70 LAP .74 LOP 72.94 VP 22.878 GAP 14.70 AZP 90.58 TAL 357.03 TAP 125.19 RCA 151.87 APO 264.70 V2 24.049
RC 135.694 GL 7.82 GP -12.39 ZAL 92.55 ZAP 150.28 ETS 204.52 ZAE 162.48 ETE 309.07 ZAC 70.56 ETC 282.86 LVI -4.13

PLANETOCENTRIC CONIC

C3 16.206 VHL 4.026 DLA 21.34 RAL 32.27 RAD 6641.1 VEL 11.672 PTH 6.71 VHP 4.099 DPA 4.68 RAP 47.25 ECC 1.2667

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 41 13	3518.61	-46.52	129.85	265.85	101.38	12 39 52	2518.8	-36.89	99.90
60.00	11 54 50	3482.57	-40.04	127.87	267.13	94.98	12 52 52	2482.6	-33.71	98.71
70.00	12 16 13	3419.56	-34.15	123.08	267.44	89.81	13 13 13	2419.6	-30.66	94.90
80.00	12 53 41	3302.11	-29.62	113.99	267.25	86.09	13 48 43	2302.1	-28.23	86.65
90.00	14 0 26	3086.59	-27.81	97.98	267.08	84.64	14 51 53	2086.6	-27.24	70.99
100.00	15 36 32	2776.59	-29.62	75.35	267.25	86.09	16 22 49	1776.6	-28.23	48.02
110.00	17 15 40	2466.37	-34.15	51.99	267.44	89.81	17 56 46	1466.4	-30.66	23.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4337 TRA -.9084 TC3 1.1337 BAU .3092 SGT 1772.3 SGR 877.6 SG3 716.1 ST 37.3 SR 17.1 SS 44.4
RDE -.2224 RRA .2801 RC3 -.8666 FAU .17287 RRT -.6659 RRF .7759 RTF -.8261 CRT .5542 CRS .7361 CST .9677
FDE 1.6537 FRA 1.8363 FC3-9.2349 BSP 3222 SGB 1977.7 R23 -.1993 R13 .8569 LSA 58.7 MSA 14.3 SSA 2.2
BDE .4874 BRA .9506 BC3 1.4270 FSP 1129 SG1 1878.8 SG2 617.7 THA 159.43 EL1 38.6 EL2 13.7 ALF 16.41

LAUNCH DATE JUL 28 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 407.300 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 33.285 GAL -.60 AZL 89.01 HCA 129.19 SMA 207.58 ECC .26836 INC .9947 V1 29.328
RP 229.09 LAP .77 LOP 73.98 VP 22.788 GAP 14.41 AZP 90.63 TAL 357.18 TAP 126.38 RCA 151.87 APO 263.29 V2 24.008
RC 138.457 GL 8.31 GP -12.85 ZAL 92.25 ZAP 149.11 ETS 204.31 ZAE 162.60 ETE 305.79 ZAC 70.11 ETC 282.90 LVI -3.71

PLANETOCENTRIC CONIC

C3 15.972 VHL 3.996 DLA 21.71 RAL 31.80 RAD 6641.0 VEL 11.663 PTH 6.70 VHP 4.000 DPA 4.21 RAP 47.33 ECC 1.2629

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 37 40	3523.34	-46.58	130.27	265.40	101.06	12 36 24	2523.3	-37.05	100.21
60.00	11 50 41	3488.69	-40.08	128.38	266.63	94.63	12 48 49	2488.7	-33.88	99.15
70.00	12 11 16	3428.07	-34.15	123.74	266.89	89.42	13 8 24	2428.1	-30.82	95.52
80.00	12 47 43	3313.73	-29.57	114.84	266.66	85.64	13 42 57	2313.7	-28.37	87.48
90.00	13 53 55	3100.04	-27.72	98.96	266.47	84.16	14 45 35	2100.0	-27.36	71.96
100.00	15 30 35	2788.20	-29.57	76.21	266.66	85.64	16 17 3	1788.2	-28.37	48.85
110.00	17 10 42	2474.88	-34.15	52.66	266.89	89.42	17 51 57	1474.9	-30.82	24.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4376 TRA -.8932 TC3 1.1440 BAU .3149 SGT 1769.0 SGR 911.6 SG3 753.0 ST 37.6 SR 16.0 SS 46.5
RDE -.2036 RRA .2841 RC3 -.9310 FAU .18054 RRT -.6830 RRF .7990 RTF -.8254 CRT .5310 CRS .7190 CST .9670
FDE 1.7675 FRA 1.8734 FC3-9.7862 BSP 3235 SGB 1990.1 R23 -.2108 R13 .8606 LSA 60.2 MSA 14.0 SSA 2.2
BDE .4826 BRA .9373 BC3 1.4750 FSP 1190 SG1 1890.0 SG2 623.2 THA 158.11 EL1 38.7 EL2 13.2 ALF 14.50

LAUNCH DATE JUL 28 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 410.972 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 33.255 GAL -.56 AZL 88.95 HCA 130.22 SMA 208.92 ECC .26599 INC 1.0492 V1 29.328
RP 229.48 LAP .80 LOP 75.01 VP 22.700 GAP 14.13 AZP 90.68 TAL 357.33 TAP 127.55 RCA 151.88 APO 261.95 V2 23.967
RC 141.241 GL 8.82 GP -13.34 ZAL 91.97 ZAP 147.91 ETS 204.11 ZAE 162.67 ETE 302.31 ZAC 69.65 ETC 282.95 LVI -3.27

PLANETOCENTRIC CONIC

C3 15.757 VHL 3.970 DLA 22.09 RAL 31.33 RAD 6640.9 VEL 11.653 PTH 6.69 VHP 3.904 DPA 3.72 RAP 47.39 ECC 1.2593

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 34 3	3528.50	-46.64	130.75	265.00	100.69	12 32 51	2528.5	-37.24	100.56
60.00	11 46 25	3495.54	-40.12	128.96	266.17	94.24	12 44 41	2495.5	-34.06	99.64
70.00	12 6 8	3437.49	-34.14	124.48	266.38	88.99	13 3 25	2437.5	-30.99	96.20
80.00	12 41 30	3326.56	-29.50	115.79	266.10	85.15	13 36 57	2326.6	-28.51	88.41
90.00	13 47 3	3114.91	-27.61	100.03	265.89	83.63	14 38 58	2114.9	-27.49	73.03
100.00	15 24 22	2801.03	-29.50	77.16	266.10	85.15	16 11 3	1801.0	-28.51	49.78
110.00	17 5 34	2484.30	-34.14	53.39	266.38	88.99	17 46 58	1484.3	-30.99	25.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4395 TRA -.8769 TC3 1.1506 BAU .3210 SGT 1761.5 SGR 949.3 SG3 791.2 ST 37.8 SR 14.9 SS 48.5
RDE -.1640 RRA .2881 RC3 -.9992 FAU .18849 RRT -.6991 RRF .8205 RTF -.8245 CRT .4991 CRS .6953 CST .9661
FDE 1.8871 FRA 1.9086 FC-10.3560 BSP 3272 SGB 2001.0 R23 -.2210 R13 .8646 LSA 61.8 MSA 13.7 SSA 2.2
BDE .4768 BRA .9230 BC3 1.5239 FSP 1261 SG1 1899.4 SG2 629.5 THA 156.64 EL1 38.6 EL2 12.7 ALF 12.53

LAUNCH DATE JUL 28 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 414.654 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 33.225 GAL -.53 AZL 88.89 HCA 131.25 SMA 206.29 ECC .26376 INC 1.1052 V1 29.328
RP 229.86 LAP .83 LOP 76.03 VP 22.614 GAP 13.85 AZP 90.73 TAL 357.47 TAP 128.72 RCA 151.88 APO 260.71 V2 23.927
RC 144.046 GL 9.38 GP -13.88 ZAL 91.71 ZAP 146.68 ETS 203.92 ZAE 162.68 ETE 298.65 ZAC 69.18 ETC 283.01 LVI -2.82

PLANETOCENTRIC CONIC

C3 15.561 VHL 3.945 DLA 22.50 RAL 30.86 RAD 6640.8 VEL 11.645 PTH 6.68 VHP 3.813 DPA 3.20 RAP 47.43 ECC 1.2561

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 30 21	3534.29	-46.72	131.29	264.64	100.28	12 29 16	2534.3	-37.45	100.96
60.00	11 42 3	3503.14	-40.15	129.61	265.75	93.80	12 40 26	2503.1	-34.26	100.18
70.00	12 0 49	3447.86	-34.13	125.29	265.90	88.51	12 58 17	2447.9	-31.17	96.95
80.00	12 35 0	3340.67	-29.41	116.83	265.57	84.61	13 30 40	2340.7	-28.66	89.43
90.00	13 39 50	3131.33	-27.48	101.22	265.33	83.05	14 32 1	2131.3	-27.62	74.21
100.00	15 17 52	2815.14	-29.41	78.20	265.57	84.61	16 4 47	1815.1	-28.66	50.80
110.00	17 0 15	2494.68	-34.13	54.20	265.90	88.51	17 41 50	1494.7	-31.17	25.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4411 TRA -.8616 TC3 1.1537 BAU .3275 SGT 1753.2 SGR 991.0 SG3 830.6 ST 38.0 SR 13.8 SS 50.6
RDE -.1636 RRA .2923 RC3-1.0714 FAU .19669 RRT -.7135 RRF .8405 RTF -.8229 CRT .4561 CRS .6621 CST .9650
FDE 2.0125 FRA 1.9435 FC-10.9428 BSP 3294 SGB 2013.9 R23 -.2312 R13 .8686 LSA 63.3 MSA 13.4 SSA 2.2
BDE .4705 BRA .9098 BC3 1.5745 FSP 1331 SG1 1910.4 SG2 637.2 THA 155.07 EL1 38.5 EL2 12.1 ALF 10.45

LAUNCH DATE JUL 28 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 418.346 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.198	GAL	-.50	AZL	88.84	HCA	132.27	SMA	205.71	ECC	.26165	INC	1.1627	V1	29.328
RP	230.25	LAP	.86	LOP	77.06	VP	22.531	GAP	13.57	AZP	90.78	TAL	357.60	TAP	129.87	RCA	151.88	APO	259.53	V2	23.867
RC	146.870	GL	9.89	GP	-14.38	ZAL	91.45	ZAP	145.43	ETS	203.74	ZAE	162.62	ETE	294.83	ZAC	68.69	ETC	283.07	LVI	-2.36

PLANETOCENTRIC CONIC

C3	15.383	VHL	3.922	DLA	22.92	RAL	30.41	RAD	6640.7	VEL	11.638	PTH	6.68	VHP	3.725	DPA	2.65	RAP	47.46	ECC	1.2532

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 26 35	3540.75	-46.79	131.90	264.32	99.82	12 25 36	2540.7	-37.68	101.40
60.00	11 37 34	3511.51	-40.19	130.32	265.37	93.32	12 36 5	2511.5	-34.48	100.78
70.00	11 55 18	3459.22	-34.10	126.17	265.46	87.98	12 52 58	2459.2	-31.36	97.78
80.00	12 28 10	3356.18	-29.31	117.97	265.06	84.02	13 24 6	2356.2	-28.82	90.56
90.00	13 32 11	3149.45	-27.33	102.52	264.79	82.41	14 24 41	2149.5	-27.75	75.52
100.00	15 11 2	2830.65	-29.31	79.34	265.06	84.02	15 58 12	1830.6	-28.82	51.93
110.00	16 54 45	2506.04	-34.10	55.09	265.46	87.98	17 36 31	1506.0	-31.36	26.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4428	TRA	-.8438	TC3	1.1488	BAU	.3338	SGT	1738.2	SGR	1036.0	SG3	870.6	ST	38.1	SR	12.6	SS	52.9
RDE	-.1418	RRA	.2964	RC3	-1.1469	FAU	.20499	RRT	-.7251	RRF	.8585	RTF	-.8206	CRT	.3992	CRS	.6161	CST	.9642
FDE	2.1487	FRA	1.9727	FC	-11.5365	BSP	3297	SGB	2023.5	R23	-.2404	R13	.8729	LSA	65.0	MSA	13.2	SSA	2.2
BDE	.4650	BRA	.8943	BC3	1.6233	FSP	1398	SG1	1917.3	SG2	646.7	THA	153.36	EL1	38.5	EL2	11.4	ALF	8.26

LAUNCH DATE JUL 28 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 422.049 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.172	GAL	-.47	AZL	88.78	HCA	133.29	SMA	205.16	ECC	.25966	INC	1.2220	V1	29.328
RP	230.63	LAP	.89	LOP	78.08	VP	22.450	GAP	13.29	AZP	90.84	TAL	357.72	TAP	131.02	RCA	151.89	APO	258.43	V2	23.847
RC	149.713	GL	10.45	GP	-14.93	ZAL	91.21	ZAP	144.15	ETS	203.56	ZAE	162.48	ETE	290.89	ZAC	68.18	ETC	283.14	LVI	-1.88

PLANETOCENTRIC CONIC

C3	15.222	VHL	3.902	DLA	23.35	RAL	29.95	RAD	6640.6	VEL	11.631	PTH	6.67	VHP	3.641	DPA	2.07	RAP	47.46	ECC	1.2505

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 22 43	3547.85	-46.87	132.56	264.05	99.31	12 21 51	2547.8	-37.93	101.90
60.00	11 32 56	3520.66	-40.22	131.09	265.02	92.80	12 31 36	2520.7	-34.71	101.45
70.00	11 49 34	3471.61	-34.07	127.14	265.04	87.41	12 47 26	2471.6	-31.57	98.69
80.00	12 20 58	3373.16	-29.18	119.22	264.57	83.38	13 17 11	2373.2	-28.98	91.80
90.00	13 24 3	3169.44	-27.14	103.95	264.27	81.72	14 16 53	2169.4	-27.87	76.97
100.00	15 3 49	2847.64	-29.18	80.59	264.57	83.38	15 51 17	1847.6	-28.98	53.16
110.00	16 49 1	2518.43	-34.07	56.06	265.04	87.41	17 30 59	1518.4	-31.57	27.61

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4357	TRA	-.8186	TC3	1.1662	BAU	.3451	SGT	1718.1	SGR	1088.0	SG3	914.1	ST	37.6	SR	11.4	SS	55.1
RDE	-.1194	RRA	.3001	RC3	-1.2310	FAU	.21434	RRT	-.7438	RRF	.8757	RTF	-.8243	CRT	.3191	CRS	.5522	CST	.9622
FDE	2.2857	FRA	1.9959	FC	-12.1904	BSP	3252	SGB	2033.7	R23	-.2367	R13	.8820	LSA	66.4	MSA	12.9	SSA	2.2
BDE	.4518	BRA	.8718	BC3	1.6957	FSP	1471	SG1	1927.6	SG2	648.2	THA	151.22	EL1	37.8	EL2	10.8	ALF	6.04

LAUNCH DATE JUL 28 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 425.758 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.147	GAL	-.44	AZL	88.72	HCA	134.31	SMA	204.65	ECC	.25779	INC	1.2830	V1	29.328
RP	231.01	LAP	.92	LOP	79.10	VP	22.372	GAP	13.01	AZP	90.90	TAL	357.84	TAP	132.15	RCA	151.89	APO	257.40	V2	23.807
RC	152.572	GL	11.02	GP	-15.50	ZAL	90.99	ZAP	142.84	ETS	203.38	ZAE	162.25	ETE	286.87	ZAC	67.65	ETC	283.21	LVI	-1.39

PLANETOCENTRIC CONIC

C3	15.078	VHL	3.883	DLA	23.81	RAL	29.51	RAD	6640.6	VEL	11.625	PTH	6.66	VHP	3.560	DPA	1.46	RAP	47.46	ECC	1.2481

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 47	3555.67	-46.96	133.30	263.83	98.75	12 18 2	2555.7	-38.21	102.44
60.00	11 28 9	3530.68	-40.25	131.94	264.72	92.22	12 27 0	2530.7	-34.97	102.16
70.00	11 43 36	3485.16	-34.02	128.19	264.65	86.79	12 41 41	2485.2	-31.78	99.68
80.00	12 13 20	3391.68	-29.03	120.59	264.11	82.67	13 9 52	2391.9	-29.14	93.16
90.00	13 15 21	3191.65	-26.91	105.54	263.77	80.96	14 8 32	2191.6	-28.00	78.58
100.00	14 56 12	2866.35	-29.03	81.96	264.11	82.67	15 43 59	1866.3	-29.14	54.53
110.00	16 43 3	2531.98	-34.02	57.11	264.65	86.79	17 25 15	1532.0	-31.78	28.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4439	TRA	-.8109	TC3	1.1282	BAU	.3489	SGT	1705.0	SGR	1141.1	SG3	936.1	ST	38.2	SR	10.2	SS	57.8
RDE	-.0937	RRA	.3062	RC3	-1.3126	FAU	.22263	RRT	-.7445	RRF	.8905	RTF	-.8247	CRT	.2019	CRS	.4470	CST	.9621
FDE	2.4510	FRA	2.0411	FC	-12.7827	BSP	3330	SGB	2051.7	R23	-.2544	R13	.8832	LSA	68.9	MSA	12.7	SSA	2.2
BDE	.4537	BRA	.8668	BC3	1.7309	FSP	1547	SG1	1939.2	SG2	669.9	THA	149.49	EL1	38.3	EL2	10.0	ALF	3.33

LAUNCH DATE JUL 28 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 429.477 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	33.124	GAL	-.42	AZL	88.65	HCA	135.32	SMA	204.16	ECC	.25603	INC	1.3459	V1	29.328
RP	231.39	LAP	.95	LOP	80.11	VP	22.295	GAP	12.74	AZP	90.96	TAL	357.95	TAP	133.27	RCA	151.89	APO	256.44	V2	23.767
RC	155.447	GL	11.61	GP	-16.10	ZAL	90.78	ZAP	141.50	ETS	203.20	ZAE	161.92	ETE	282.81	ZAC	67.11	ETC	283.29	LVI	-.88

PLANETOCENTRIC CONIC

C3	14.950	VHL	3.867	DLA	24.29	RAL	29.07	RAD	6640.5	VEL	11.619	PTH	6.66	VHP	3.484	DPA	.82	RAP	47.43	ECC	1.2460

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 14 43	3564.19	-47.04	134.11	263.66	98.14	12 14 8	2564.2	-38.50	103.04
60.00	11 23 13	3541.55	-40.27	132.87	264.45	91.59	12 22 15	2541.5	-35.23	102.97
70.00	11 37 22	3499.67	-33.96	129.34	264.29	86.12	12 35 42	2499.9	-32.01	100.77
80.00	12 5 14	3412.42	-28.84	122.09	263.66	81.91	13 2 7	2412.4	-29.29	94.67
90.00	13 5 58	3216.31	-26.63	107.29	263.27	80.12	13 59 34	2216.3	-28.10	80.38
100.00	14 48 6	2886.89	-28.84	83.45	263.66	81.91	15 36 13	1886.9	-29.29	56.04
110.00	16 36 48	2546.69	-33.96	58.25	264.29	86.12	17 19 15	1546.7	-32.01	29.69

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4438	TRA	-.7953	TC3	1.0991	BAU	.3556	SGT	1681.3	SGR	1198.7	SG3	998.3	ST	38.2	SR	9.2	SS	60.3
RDE	-.0679	RRA	.3112	RC3	-1.3993	FAU	.23123	RRT	-.7481	RRF	.9038	RTF	-.8080	CRT	.0459	CRS	.3045	CST	.9609
FDE	2.6095	FRA	2.0704	FC	-13.3905	BSP	3384	SGB	2064.8	R23	-.2621	R13	.8875	LSA	70.9	MSA	12.5	SSA	2.2
BDE	.4490	BRA	.8540	BC3	1.7793	FSP	1631	SG1	1947.2	SG2	686.8	THA	147.37	EL1	38.2	EL2	9.2	ALF	.68

LAUNCH DATE JUL 28 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 433.202 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 33.103 GAL -.40 AZL 88.59 HCA 136.33 SMA 203.71 ECC .25437 INC 1.4110 V1 29.328
RP 231.77 LAP .97 LOP 81.12 VP 22.221 GAP 12.47 AZP 91.02 TAL 358.05 TAP 134.38 RCA 151.89 APO 255.53 V2 23.728
RC 158.336 GL 12.22 GP -16.73 ZAL 90.59 ZAP 140.13 ETS 203.02 ZAE 161.49 ETE 278.76 ZAC 66.54 ETC 283.39 LVI -.36

PLANETOCENTRIC CONIC

C3 14.837 VHL 3.852 DLA 24.79 RAL 28.63 RAD 6640.4 VEL 11.614 PTH 6.66 VHP 3.410 DPA .15 RAP 47.39 ECC 1.2442

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 10 34	3573.43	-47.13	134.98	263.53	97.46	12 10 7	2573.4	-38.82	103.70
60.00	11 18 7	3553.31	-40.29	133.87	264.22	90.91	12 17 20	2553.3	-35.52	103.84
70.00	11 30 49	3515.85	-33.88	130.58	263.96	85.39	12 29 25	2515.8	-32.24	101.96
80.00	11 56 34	3435.04	-28.61	123.73	263.23	81.07	12 53 50	2435.0	-29.44	96.33
90.00	12 55 45	3243.91	-26.30	109.24	262.78	79.20	13 49 49	2243.9	-28.20	82.39
100.00	14 39 26	2909.51	-28.61	85.10	263.23	81.07	15 27 56	1909.5	-29.44	57.70
110.00	16 30 16	2562.67	-33.88	59.49	263.96	85.39	17 12 58	1562.7	-32.24	30.88

DIFFERENTIAL CORRECTIONS

TDE -.4416 TRA -.7766 TC3 1.0803 BAU .3657
RDE -.0400 RRA .3159 RC3-1.4942 FAU .24066
FDE 2.7813 FRA 2.0945 FC-14.0426 BSP 3416
BDE .4434 BRA .8384 BC3 1.8438 FSP 1715

MID-COURSE EXECUTION ACCURACY

SGT 1656.2 SGR 1263.5 SG3 1043.7
RRT -.7539 RRF .9161 RTF -.8041
SGB 2083.2 R23 -.2623 R13 .8946
SG1 1961.7 SG2 700.9 THA 144.99

ORBIT DETERMINATION ACCURACY

ST 38.0 SR 8.5 SS 63.0
CRT -.1629 CRS .1036 CST .9595
LSA 73.0 MSA 12.3 SSA 2.2
EL1 38.0 EL2 8.4 ALF 177.81

LAUNCH DATE JUL 28 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 436.934 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 33.082 GAL -.37 AZL 88.52 HCA 137.34 SMA 203.29 ECC .25280 INC 1.4783 V1 29.328
RP 232.14 LAP 1.00 LOP 82.13 VP 22.149 GAP 12.20 AZP 91.09 TAL 358.14 TAP 135.48 RCA 151.90 APO 254.68 V2 23.689
RC 161.238 GL 12.84 GP -17.38 ZAL 90.41 ZAP 138.74 ETS 202.84 ZAE 160.95 ETE 274.77 ZAC 65.96 ETC 283.48 LVI .19

PLANETOCENTRIC CONIC

C3 14.739 VHL 3.839 DLA 25.31 RAL 28.20 RAD 6640.4 VEL 11.610 PTH 6.65 VHP 3.341 DPA -.56 RAP 47.33 ECC 1.2426

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 6 17	3583.44	-47.21	135.94	263.45	96.74	12 6 0	2583.4	-39.16	104.42
60.00	11 12 48	3566.03	-40.30	134.95	264.03	90.18	12 12 14	2566.0	-35.82	104.79
70.00	11 23 57	3533.20	-33.78	131.92	263.65	84.60	12 22 50	2533.2	-32.47	103.26
80.00	11 47 15	3460.08	-28.33	125.54	262.80	80.16	12 44 55	2460.1	-29.58	98.18
90.00	12 44 31	3275.11	-25.88	111.43	262.28	78.18	13 39 6	2275.1	-28.26	84.67
100.00	14 30 6	2934.55	-28.33	86.90	262.80	80.16	15 19 1	1934.6	-29.58	59.55
110.00	16 23 23	2580.02	-33.78	60.84	263.65	84.60	17 6 23	1580.0	-32.47	32.18

DIFFERENTIAL CORRECTIONS

TDE -.4401 TRA -.7616 TC3 1.0454 BAU .3754
RDE -.0106 RRA .3213 RC3-1.5928 FAU .25007
FDE 2.9591 FRA 2.1206 FC-14.6880 BSP 3457
BDE .4402 BRA .8266 BC3 1.9052 FSP 1797

MID-COURSE EXECUTION ACCURACY

SGT 1629.8 SGR 1333.2 SG3 1089.3
RRT -.7540 RRF .9269 RTF -.7959
SGB 2105.6 R23 -.2647 R13 .9005
SG1 1978.1 SG2 721.6 THA 142.51

ORBIT DETERMINATION ACCURACY

ST 37.9 SR 8.2 SS 65.7
CRT -.4064 CRS -.1470 CST .9581
LSA 75.3 MSA 12.2 SSA 2.2
EL1 38.0 EL2 7.5 ALF 174.77

LAUNCH DATE JUL 28 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 440.673 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 33.063 GAL -.36 AZL 88.45 HCA 138.34 SMA 202.89 ECC .25133 INC 1.5479 V1 29.328
RP 232.51 LAP 1.03 LOP 83.13 VP 22.078 GAP 11.93 AZP 91.16 TAL 358.23 TAP 136.57 RCA 151.90 APO 253.88 V2 23.650
RC 164.150 GL 13.49 GP -18.06 ZAL 90.24 ZAP 137.32 ETS 202.65 ZAE 160.31 ETE 270.88 ZAC 65.36 ETC 283.59 LVI .75

PLANETOCENTRIC CONIC

C3 14.657 VHL 3.828 DLA 25.86 RAL 27.77 RAD 6640.4 VEL 11.607 PTH 6.65 VHP 3.275 DPA -1.30 RAP 47.25 ECC 1.2412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 1 51	3594.22	-47.29	136.97	263.41	95.95	12 1 45	2594.2	-39.51	105.20
60.00	11 7 17	3579.75	-40.30	136.12	263.87	89.39	12 6 57	2579.7	-36.13	105.82
70.00	11 16 41	3552.04	-33.65	133.38	263.37	83.75	12 15 53	2552.0	-32.71	104.68
80.00	11 37 6	3487.93	-27.99	127.54	262.38	79.16	12 35 14	2487.9	-29.71	100.24
90.00	12 31 55	3310.87	-25.36	113.91	261.76	77.04	13 27 6	2310.9	-28.28	87.28
100.00	14 19 58	2962.40	-27.99	88.90	262.38	79.16	15 9 21	1962.4	-29.71	61.61
110.00	16 16 7	2598.86	-33.65	62.29	263.37	83.75	16 59 26	1598.9	-32.71	33.59

DIFFERENTIAL CORRECTIONS

TDE -.4337 TRA -.7401 TC3 1.0088 BAU .3865
RDE .0206 RRA .3254 RC3-1.6949 FAU .25935
FDE 3.1434 FRA 2.1296 FC-15.3194 BSP 3452
BDE .4342 BRA .8085 BC3 1.9723 FSP 1871

MID-COURSE EXECUTION ACCURACY

SGT 1591.5 SGR 1406.3 SG3 1134.0
RRT -.7543 RRF .9364 RTF -.[illegible]86
SGB 2123.9 R23 -.2596 R13 .9083
SG1 1991.6 SG2 737.8 THA 139.67

ORBIT DETERMINATION ACCURACY

ST 37.4 SR 8.5 SS 68.4
CRT -.6376 CRS -.4035 CST .9560
LSA 77.5 MSA 12.1 SSA 2.2
EL1 37.8 EL2 6.5 ALF 171.51

LAUNCH DATE JUL 28 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 444.417 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 33.044 GAL -.34 AZL 88.38 HCA 139.34 SMA 202.52 ECC .24995 INC 1.6202 V1 29.328
RP 232.89 LAP 1.06 LOP 84.13 VP 22.010 GAP 11.87 AZP 91.23 TAL 358.31 TAP 137.65 RCA 151.90 APO 253.14 V2 23.612
RC 167.073 GL 14.16 GP -18.77 ZAL 90.09 ZAP 135.87 ETS 202.45 ZAE 159.56 ETE 267.12 ZAC 64.73 ETC 283.70 LVI 1.32

PLANETOCENTRIC CONIC

C3 14.588 VHL 3.819 DLA 26.42 RAL 27.34 RAD 6640.3 VEL 11.604 PTH 6.65 VHP 3.213 DPA -2.07 RAP 47.16 ECC 1.2401

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 57 17	3605.81	-47.37	138.08	263.43	95.09	11 57 22	2605.8	-39.89	106.05
60.00	11 1 31	3594.50	-40.28	137.37	263.74	88.54	12 1 26	2594.5	-36.45	106.94
70.00	11 8 59	3572.49	-33.48	134.95	263.10	82.83	12 8 31	2572.5	-32.96	106.22
80.00	11 25 58	3519.16	-27.57	129.76	261.94	78.06	12 24 37	2519.2	-29.80	102.56
90.00	12 17 27	3352.82	-24.69	116.80	261.19	75.75	13 13 20	2352.8	-28.23	90.35
100.00	14 8 50	2993.63	-27.57	91.13	261.94	78.06	14 58 44	1993.6	-29.80	63.93
110.00	16 8 25	2619.31	-33.48	63.87	263.10	82.83	16 52 5	1619.3	-32.96	35.14

DIFFERENTIAL CORRECTIONS

TDE -.4171 TRA -.7128 TC3 .9870 BAU .4011
RDE .0522 RRA .3290 RC3-1.8046 FAU .26915
FDE 3.3202 FRA 2.1317 FC-15.9729 BSP 3365
BDE .4203 BRA .7851 BC3 2.0568 FSP 1930

MID-COURSE EXECUTION ACCURACY

SGT 1544.5 SGR 1486.7 SG3 1179.7
RRT -.7606 RRF .9448 RTF -.7861
SGB 2143.8 R23 -.2442 R13 .9186
SG1 2011.6 SG2 741.1 THA 136.44

ORBIT DETERMINATION ACCURACY

ST 36.1 SR 9.4 SS 70.9
CRT -.8069 CRS -.6079 CST .9522
LSA 79.2 MSA 12.0 SSA 2.1
EL1 36.9 EL2 5.4 ALF 167.88

LAUNCH DATE JUL 28 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 448.165 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 33.027 GAL -.32 AZL 88.30 HCA 140.34 SMA 202.17 ECC .24865 INC 1.6952 V1 29.328
RP 233.25 LAP 1.08 LOP 85.13 VP 21.943 GAP 11.41 AZP 91.31 TAL 358.38 TAP 138.72 RCA 151.90 APO 252.44 V2 23.573
RC 170.003 GL 14.85 GP -19.50 ZAL 89.96 ZAP 134.40 ETS 202.24 ZAE 158.70 ETE 263.54 ZAC 64.09 ETC 283.83 LVI 1.92

PLANETOCENTRIC CONIC

C3 14.535 VHL 3.813 DLA 27.02 RAL 26.92 RAD 6640.3 VEL 11.601 PTH 6.64 VHP 3.155 DPA -2.88 RAP 47.05 ECC 1.2392

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 52 33	3618.31	-47.44	139.28	263.49	94.17	11 52 51	2618.3	-40.30	106.98
60.00	10 55 30	3610.45	-40.24	138.73	263.65	87.62	11 55 40	2610.4	-36.79	108.16
70.00	11 0 47	3594.86	-33.28	136.66	262.85	81.84	12 0 42	2594.9	-33.19	107.92
80.00	11 13 31	3554.84	-27.04	132.28	261.49	76.84	12 12 46	2554.8	-29.85	105.21
90.00	12 0 4	3404.42	-23.78	120.31	260.56	74.22	12 56 49	2404.4	-28.07	94.11
100.00	13 56 23	3029.32	-27.04	93.65	261.49	76.84	14 46 53	2029.3	-29.85	66.58
110.00	16 0 13	2641.68	-33.28	65.58	262.85	81.84	16 44 15	1641.7	-33.19	36.84

DIFFERENTIAL CORRECTIONS

TDE -.4233 TRA -.7082 TC3 .8972 BAU .4100
RDE .0906 RRA .3366 RC3-1.9098 FAU .27756
FDE 3.5462 FRA 2.1656 FC-16.5320 BSP 3541
BDE .4329 BRA .7841 BC3 2.1100 FSP 2031

MID-COURSE EXECUTION ACCURACY

SGT 1516.5 SGR 1568.9 SG3 1223.9
RRT -.7402 RRF .9520 RTF -.7624
SGB 2182.0 R23 -.2488 R13 .9229
SG1 2035.6 SG2 786.0 THA 133.69

ORBIT DETERMINATION ACCURACY

ST 36.5 SR 11.1 SS 74.3
CRT -.9145 CRS -.7658 CST .9515
LSA 82.7 MSA 12.0 SSA 2.1
EL1 37.9 EL2 4.3 ALF 164.23

LAUNCH DATE JUL 28 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 451.918 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 33.011 GAL -.31 AZL 88.23 HCA 141.33 SMA 201.84 ECC .24744 INC 1.7731 V1 29.328
RP 233.62 LAP 1.11 LOP 86.13 VP 21.878 GAP 11.15 AZP 91.38 TAL 358.44 TAP 139.77 RCA 151.90 APO 251.79 V2 23.536
RC 172.941 GL 15.56 GP -20.26 ZAL 89.84 ZAP 132.89 ETS 202.02 ZAE 157.74 ETE 260.13 ZAC 63.43 ETC 283.96 LVI 2.54

PLANETOCENTRIC CONIC

C3 14.497 VHL 3.807 DLA 27.63 RAL 26.50 RAD 6640.3 VEL 11.600 PTH 6.64 VHP 3.100 DPA -3.72 RAP 46.93 ECC 1.2386

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 47 36	3631.68	-47.50	140.56	263.60	93.18	11 48 9	2631.7	-40.72	107.99
60.00	10 49 10	3627.58	-40.18	140.18	263.59	86.63	11 49 38	2627.6	-37.14	109.48
70.00	10 51 59	3619.25	-33.03	138.52	262.60	80.76	11 52 19	2619.3	-33.43	109.79
80.00	10 59 19	3596.22	-26.37	135.17	260.99	75.46	11 59 15	2596.2	-29.84	108.28
90.00	11 37 14	3473.61	-22.42	124.92	259.74	72.29	12 35 8	2473.6	-27.67	99.14
100.00	13 42 11	3070.69	-26.37	96.54	260.99	75.46	14 33 22	2070.7	-29.84	69.65
110.00	15 51 26	2666.07	-33.03	67.44	262.60	80.76	16 35 52	1666.1	-33.43	38.71

DIFFERENTIAL CORRECTIONS

TDE -.4203 TRA -.6896 TC3 .8324 BAU .4240
RDE .1324 RRA .3409 RC3-2.0234 FAU .28655
FDE 3.7876 FRA 2.1659 FC-17.1125 BSP 3631
BDE .4406 BRA .7693 BC3 2.1880 FSP 2128

MID-COURSE EXECUTION ACCURACY

SGT 1474.4 SGR 1658.1 SG3 1269.3
RRT -.7286 RRF .9584 RTF -.7467
SGB 2216.8 R23 -.2367 R13 .9314
SG1 2065.4 SG2 810.8 THA 130.41

ORBIT DETERMINATION ACCURACY

ST 36.2 SR 13.4 SS 77.9
CRT -.9676 CRS -.8617 CST .9498
LSA 86.1 MSA 11.9 SSA 2.0
EL1 38.5 EL2 3.2 ALF 160.12

LAUNCH DATE JUL 28 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 455.676 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 32.996 GAL -.30 AZL 88.15 HCA 142.32 SMA 201.54 ECC .24630 INC 1.8542 V1 29.328
RP 233.99 LAP 1.13 LOP 87.12 VP 21.815 GAP 10.89 AZP 91.47 TAL 358.49 TAP 140.82 RCA 151.90 APO 251.18 V2 23.498
RC 175.886 GL 16.30 GP -21.05 ZAL 89.73 ZAP 131.37 ETS 201.78 ZAE 156.68 ETE 256.91 ZAC 62.74 ETC 284.10 LVI 3.18

PLANETOCENTRIC CONIC

C3 14.473 VHL 3.804 DLA 28.28 RAL 26.08 RAD 6640.3 VEL 11.599 PTH 6.64 VHP 3.049 DPA -4.60 RAP 46.80 ECC 1.2382

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 42 30	3646.01	-47.54	141.95	263.76	92.12	11 43 16	2646.0	-41.15	109.08
60.00	10 42 30	3646.01	-40.10	141.74	263.55	85.58	11 43 16	2646.0	-37.49	110.92
70.00	10 42 30	3646.02	-32.72	140.55	262.36	79.60	11 43 16	2646.0	-33.64	111.85
80.00	10 42 29	3646.04	-25.47	138.60	260.41	73.87	11 43 15	2646.0	-29.72	111.98
89.83	10 41 10	3650.32	-18.44	136.31	257.80	68.17	11 42 1	2650.3	-25.83	111.72
100.00	13 25 21	3120.51	-25.47	99.97	260.41	73.87	14 17 22	2120.5	-29.72	73.35
110.00	15 41 56	2692.84	-32.72	69.47	262.36	79.60	16 26 49	1692.8	-33.64	40.77

DIFFERENTIAL CORRECTIONS

TDE -.4061 TRA -.6740 TC3 .7661 BAU .4404
RDE .1715 RRA .3471 RC3-2.1431 FAU .29566
FDE 3.9868 FRA 2.1784 FC-17.6859 BSP 3670
BDE .4408 BRA .7582 BC3 2.2759 FSP 2196

MID-COURSE EXECUTION ACCURACY

SGT 1429.2 SGR 1754.4 SG3 1313.2
RRT -.7150 RRF .9640 RTF -.[illegible]
SGB 2262.9 R23 -.2223 R13 .9396
SG1 2103.9 SG2 833.2 THA 126.95

ORBIT DETERMINATION ACCURACY

ST 35.1 SR 15.9 SS 80.6
CRT -.9877 CRS -.9105 CST .9451
LSA 88.6 MSA 11.9 SSA 1.9
EL1 38.5 EL2 2.3 ALF 155.86

LAUNCH DATE JUL 28 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 459.437 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 32.982 GAL -.29 AZL 88.06 HCA 143.31 SMA 201.26 ECC .24523 INC 1.9368 V1 29.328
RP 234.35 LAP 1.16 LOP 88.11 VP 21.753 GAP 10.63 AZP 91.55 TAL 358.54 TAP 141.85 RCA 151.90 APO 250.61 V2 23.461
RC 178.836 GL 17.06 GP -21.87 ZAL 89.64 ZAP 129.81 ETS 201.52 ZAE 155.52 ETE 253.90 ZAC 62.03 ETC 284.25 LVI 3.85

PLANETOCENTRIC CONIC

C3 14.464 VHL 3.803 DLA 28.95 RAL 25.66 RAD 6640.3 VEL 11.598 PTH 6.64 VHP 3.002 DPA -5.52 RAP 46.65 ECC 1.2380

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 37 9	3661.35	-47.57	143.43	263.96	90.98	11 38 10	2661.3	-41.61	110.27
60.00	10 35 27	3665.87	-39.98	143.42	263.54	84.45	11 36 33	2665.9	-37.86	112.48
70.00	10 32 10	3675.57	-32.33	142.77	262.11	78.34	11 33 25	2675.6	-33.84	114.13
80.00	10 21 4	3710.47	-24.18	142.95	259.66	71.93	11 22 55	2710.5	-29.39	116.74
83.51	9 47 4	3819.79	-18.86	148.91	257.55	67.62	10 50 44	2819.8	-26.44	124.28
100.00	13 3 56	3184.94	-24.18	104.32	259.66	71.93	13 57 1	2184.9	-29.39	78.11
110.00	15 31 36	2722.38	-32.33	71.69	262.11	78.34	16 16 58	1722.4	-33.84	43.05

DIFFERENTIAL CORRECTIONS

TDE -.3980 TRA -.6535 TC3 .6771 BAU .4556
RDE .2191 RRA .3503 RC3-2.2567 FAU .30314
FDE 4.2408 FRA 2.1598 FC-18.1437 BSP 3773
BDE .4543 BRA .7414 BC3 2.3560 FSP 2288

MID-COURSE EXECUTION ACCURACY

SGT 1374.9 SGR 1849.1 SG3 1352.7
RRT -.6924 RRF .9686 RTF -.7025
SGB 2304.2 R23 -.2039 R13 .9479
SG1 2138.7 SG2 857.7 THA 123.27

ORBIT DETERMINATION ACCURACY

ST 34.4 SR 19.0 SS 84.3
CRT -.9935 CRS -.9445 CST .9421
LSA 92.2 MSA 11.9 SSA 1.9
EL1 39.3 EL2 1.9 ALF 151.18

LAUNCH DATE JUL 28 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 463.201 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 32.989 GAL -.28 AZL 87.97 HCA 144.30 SMA 200.99 ECC .24423 INC 2.0271 V1 29.328
RP 234.71 LAP 1.18 LOP 89.09 VP 21.693 GAP 10.37 AZP 91.65 TAL 358.58 TAP 142.88 RCA 151.90 APO 250.08 V2 23.424
RC 181.791 GL 17.85 GP -22.72 ZAL 89.57 ZAP 128.24 ETS 201.25 ZAE 154.27 ETE 251.07 ZAC 61.30 ETC 284.41 LVI 4.54

PLANETOCENTRIC CONIC

C3 14.471 VHL 3.804 DLA 29.66 RAL 25.24 RAD 6640.3 VEL 11.599 PTH 6.64 VHP 2.958 DPA -6.47 RAP 46.50 ECC 1.2382

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 31 31	3677.76	-47.58	145.02	264.21	89.75	11 32 49	2677.8	-42.09	111.56
60.00	10 27 57	3687.29	-39.82	145.22	263.56	83.23	11 29 24	2687.3	-38.22	114.18
70.00	10 20 47	3708.46	-31.85	145.21	261.84	76.97	11 22 35	2708.5	-34.00	116.69
80.00	9 46 46	3815.81	-21.78	149.85	258.40	69.06	10 50 22	2815.8	-28.46	124.43
80.67	9 22 56	3892.01	-19.29	154.43	257.33	67.03	10 27 48	2892.0	-27.07	129.77
100.00	12 29 38	3290.28	-21.78	111.22	258.40	69.06	13 24 28	2290.3	-28.46	85.79
110.00	15 20 13	2755.28	-31.85	74.13	261.84	76.97	16 6 9	1755.3	-34.00	45.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3830 TRA -.6359 TC3 .6025 BAU .4760 SGT 1325.8 SGR 1958.6 SG3 1396.2 ST 33.3 SR 22.3 SS 87.5
RDE .2671 RRA .3555 RC3-2.3857 FAU .31205 RRT -.6713 RRF .9729 RTF -.6775 CRT -.9908 CRS -.9634 CST .9366
FDE 4.4764 FRA 2.1547 FC-18.6682 BSP 3830 SGB 2365.1 R23 -.1829 R13 .9562 LSA 95.5 MSA 11.9 SSA 1.8
BDE .4670 BRA .7286 BC3 2.4606 FSP 2349 SG1 2196.9 SG2 876.1 THA 119.60 EL1 40.0 EL2 2.5 ALF 146.24

LAUNCH DATE JUL 28 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 466.969 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 32.957 GAL -.27 AZL 87.88 HCA 145.28 SMA 200.74 ECC .24330 INC 2.1194 V1 29.328
RP 235.06 LAP 1.21 LOP 90.08 VP 21.635 GAP 10.12 AZP 91.74 TAL 358.61 TAP 143.89 RCA 151.90 APO 249.59 V2 23.387
RC 184.750 GL 18.67 GP -23.59 ZAL 89.51 ZAP 126.64 ETS 200.96 ZAE 152.94 ETE 248.44 ZAC 60.55 ETC 284.59 LVI 5.25

PLANETOCENTRIC CONIC

C3 14.494 VHL 3.807 DLA 30.39 RAL 24.81 RAD 6640.3 VEL 11.600 PTH 6.64 VHP 2.919 DPA -7.46 RAP 46.33 ECC 1.2385

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 25 37	3695.32	-47.56	146.72	264.50	88.45	11 27 12	2695.3	-42.57	112.96
60.00	10 19 57	3710.43	-39.62	147.15	263.58	81.94	11 21 48	2710.4	-38.58	116.04
70.00	10 8 4	3745.52	-31.25	147.93	261.53	75.47	11 10 30	2745.5	-34.12	119.57
78.38	9 3 53	3947.68	-19.73	158.78	257.13	66.40	10 9 41	2947.7	-27.72	134.09
78.38	9 3 53	3947.68	-19.73	158.78	257.13	66.40	10 9 41	2947.7	-27.72	134.09
78.38	9 3 53	3947.68	-19.73	158.78	257.13	66.40	10 9 41	2947.7	-27.72	134.09
110.00	15 7 31	2792.34	-31.25	76.85	261.53	75.47	15 54 3	1792.3	-34.12	48.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3635 TRA -.6146 TC3 .5229 BAU .4985 SGT 1267.9 SGR 2072.9 SG3 1437.1 ST 31.7 SR 25.8 SS 90.6
RDE .3179 RRA .3579 RC3-2.5187 FAU .32066 RRT -.6449 RRF .9766 RTF -.6475 CRT -.9833 CRS -.9753 CST .9294
FDE 4.7105 FRA 2.1226 FC-19.1529 BSP 3903 SGB 2429.9 R23 -.1593 R13 .9636 LSA 98.7 MSA 11.9 SSA 1.7
BDE .4829 BRA .7112 BC3 2.5724 FSP 2413 SG1 2261.8 SG2 888.1 THA 115.79 EL1 40.8 EL2 3.7 ALF 140.93

LAUNCH DATE JUL 28 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 470.739 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 32.945 GAL -.27 AZL 87.78 HCA 146.26 SMA 200.52 ECC .24243 INC 2.2162 V1 29.328
RP 235.42 LAP 1.23 LOP 91.06 VP 21.578 GAP 9.87 AZP 91.84 TAL 358.63 TAP 144.89 RCA 151.90 APO 249.13 V2 23.351
RC 187.714 GL 19.52 GP -24.50 ZAL 89.46 ZAP 125.03 ETS 200.64 ZAE 151.52 ETE 245.99 ZAC 59.77 ETC 284.77 LVI 5.98

PLANETOCENTRIC CONIC

C3 14.534 VHL 3.812 DLA 31.16 RAL 24.38 RAD 6640.3 VEL 11.601 PTH 6.64 VHP 2.883 DPA -8.49 RAP 46.16 ECC 1.2392

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 19 23	3714.14	-47.51	148.53	264.84	87.05	11 21 17	2714.1	-43.08	114.49
60.00	10 11 22	3735.53	-39.36	149.23	263.62	80.54	11 13 38	2735.5	-38.94	118.08
70.00	9 53 34	3788.12	-30.48	151.01	261.15	73.80	10 56 42	2788.1	-34.15	122.90
76.34	8 47 28	3994.83	-20.18	162.53	256.96	65.74	9 54 2	2994.8	-28.40	137.80
76.34	8 47 28	3994.83	-20.18	162.53	256.96	65.74	9 54 2	2994.8	-28.40	137.80
76.34	8 47 28	3994.83	-20.18	162.53	256.96	65.74	9 54 2	2994.8	-28.40	137.80
110.00	14 53 1	2834.94	-30.48	79.93	261.15	73.80	15 40 16	1834.9	-34.15	51.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3500 TRA -.6012 TC3 .3916 BAU .5167 SGT 1216.9 SGR 2178.6 SG3 1467.0 ST 30.7 SR 30.0 SS 94.3
RDE .3760 RRA .3629 RC3-2.6299 FAU .32557 RRT -.5918 RRF .9796 RTF -.5932 CRT -.9732 CRS -.9833 CST .9223
FDE 4.9770 FRA 2.1071 FC-19.3923 BSP 4044 SGB 2495.4 R23 -.1381 R13 .9699 LSA 102.9 MSA 12.0 SSA 1.6
BDE .5137 BRA .7022 BC3 2.6569 FSP 2481 SG1 2319.1 SG2 921.5 THA 111.93 EL1 42.6 EL2 5.0 ALF 135.70

LAUNCH DATE JUL 28 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 474.512 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 32.935 GAL -.26 AZL 87.68 HCA 147.23 SMA 200.30 ECC .24163 INC 2.3177 V1 29.328
RP 235.77 LAP 1.25 LOP 92.03 VP 21.523 GAP 9.62 AZP 91.95 TAL 358.65 TAP 145.88 RCA 151.90 APO 248.70 V2 23.315
RC 190.680 GL 20.41 GP -25.44 ZAL 89.43 ZAP 123.39 ETS 200.30 ZAE 150.04 ETE 243.70 ZAC 58.97 ETC 284.96 LVI 6.75

PLANETOCENTRIC CONIC

C3 14.592 VHL 3.820 DLA 31.96 RAL 23.94 RAD 6640.3 VEL 11.604 PTH 6.65 VHP 2.851 DPA -9.55 RAP 45.98 ECC 1.2402

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 12 46	3734.28	-47.42	150.47	265.20	85.56	11 15 1	2734.3	-43.59	116.15
60.00	10 2 5	3762.80	-39.03	151.48	263.65	79.05	11 4 48	2762.8	-39.28	120.32
70.00	9 36 30	3838.51	-29.47	154.59	260.66	71.90	10 40 28	2838.5	-34.07	126.83
74.45	8 32 41	4036.59	-20.64	165.92	256.82	65.04	9 39 58	3036.6	-29.10	141.16
74.45	8 32 41	4036.59	-20.64	165.92	256.82	65.04	9 39 58	3036.6	-29.10	141.16
74.45	8 32 41	4036.59	-20.64	165.92	256.82	65.04	9 39 58	3036.6	-29.10	141.16
110.00	14 35 56	2885.33	-29.47	83.50	260.66	71.90	15 24 1	1885.3	-34.07	55.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3293 TRA -.5853 TC3 .2886 BAU .5417 SGT 1167.6 SGR 2302.9 SG3 1502.4 ST 29.2 SR 34.4 SS 97.9
RDE .4376 RRA .3667 RC3-2.7619 FAU .33246 RRT -.5431 RRF .9824 RTF -.5422 CRT -.9599 CRS -.9884 CST .9115
FDE 5.2400 FRA 2.0785 FC-19.7245 BSP 4205 SGB 2582.0 R23 -.1153 R13 .9756 LSA 107.1 MSA 12.1 SSA 1.6
BDE .5477 BRA .6907 BC3 2.7769 FSP 2557 SG1 2405.3 SG2 938.6 THA 108.27 EL1 44.6 EL2 6.3 ALF 130.13

LAUNCH DATE JUL 28 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 478.286 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.925	GAL	-.26	AZL	87.58	HCA	148.20	SMA	200.10	ECC	.24088	INC	2.4244	V1	29.328
RP	236.12	LAP	1.28	LOP	93.01	VP	21.469	GAP	9.37	AZP	92.06	TAL	358.66	TAP	146.86	RCA	151.90	APO	248.30	V2	23.279
RC	193.649	GL	21.32	GP	-26.41	ZAL	89.41	ZAP	121.74	ETS	199.93	ZAE	148.48	ETE	241.56	ZAC	58.15	ETC	285.17	LVI	7.53

PLANETOCENTRIC CONIC

C3	14.669	VHL	3.830	DLA	32.80	RAL	23.49	RAD	6640.4	VEL	11.607	PTH	6.65	VHP	2.824	DPA	-10.64	RAP	45.80	ECC	1.2414

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 5 44	3755.89	-47.28	152.55	265.60	83.97	11 8 20	2755.9	-44.11	117.97
60.00	9 51 59	3792.60	-38.62	153.90	263.67	77.45	10 55 12	2792.6	-39.60	122.79
70.00	9 15 10	3901.70	-28.06	156.96	259.94	69.67	10 20 11	2901.7	-33.77	131.74
72.65	8 19 2	4074.66	-21.11	169.06	256.70	64.30	9 26 57	3074.7	-29.83	144.28
72.65	8 19 2	4074.66	-21.11	169.06	256.70	64.30	9 26 57	3074.7	-29.83	144.28
72.65	8 19 2	4074.66	-21.11	169.06	256.70	64.30	9 26 57	3074.7	-29.83	144.28
110.00	14 14 36	2948.52	-28.06	87.87	259.94	69.67	15 3 44	1948.5	-33.77	60.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3053	TRA	-.5690	TC3	.1854	BAU	.5698	SGT	1120.0	SGR	2435.9	SG3	1536.2	ST	27.4	SR	39.1	SS	101.4
RDE	.5032	RRA	.3701	RC3	-2.8995	FAU	.33925	RRT	-.4861	RRF	.9848	RTF	-.4830	CRT	-.9432	CRS	-.9918	CST	.8972
FDE	5.5000	FRA	2.0428	FC3	-20.0214	BSP	4347	SGB	2681.0	R23	-.0932	R13	.9804	LSA	111.4	MSA	12.3	SSA	1.5
BDE	.5886	BRA	.6788	BC3	2.9054	FSP	2607	SG1	2506.6	SG2	951.1	THA	104.77	EL1	47.1	EL2	7.6	ALF	124.53

LAUNCH DATE JUL 28 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 482.063 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.915	GAL	-.26	AZL	87.46	HCA	149.17	SMA	199.92	ECC	.24018	INC	2.5368	V1	29.328
RP	236.46	LAP	1.30	LOP	93.98	VP	21.416	GAP	9.12	AZP	92.18	TAL	358.66	TAP	147.83	RCA	151.90	APO	247.94	V2	23.244
RC	196.619	GL	22.28	GP	-27.41	ZAL	89.41	ZAP	120.08	ETS	199.53	ZAE	146.86	ETE	239.57	ZAC	57.30	ETC	285.39	LVI	8.35

PLANETOCENTRIC CONIC

C3	14.766	VHL	3.843	DLA	33.67	RAL	23.03	RAD	6640.4	VEL	11.611	PTH	6.65	VHP	2.800	DPA	-11.78	RAP	45.62	ECC	1.2430

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 58 13	3779.09	-47.09	154.76	266.02	82.27	11 1 12	2779.1	-44.63	119.96
60.00	9 40 53	3825.37	-38.10	156.53	263.65	75.74	10 44 39	2825.4	-39.88	125.53
70.00	8 44 3	3994.23	-25.71	165.13	258.70	66.70	9 50 37	2994.2	-32.94	138.83
70.91	8 6 14	4109.94	-21.59	172.04	256.61	63.51	9 14 44	3109.9	-30.58	147.23
70.91	8 6 14	4109.94	-21.59	172.04	256.61	63.51	9 14 44	3109.9	-30.58	147.23
70.91	8 6 14	4109.94	-21.59	172.04	256.61	63.51	9 14 44	3109.9	-30.58	147.23
110.00	13 43 29	3041.05	-25.71	94.05	258.70	66.70	14 34 11	2041.0	-32.94	67.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2771	TRA	-.5525	TC3	.0583	BAU	.5964	SGT	1073.5	SGR	2562.1	SG3	1559.0	ST	25.4	SR	44.0	SS	104.8
RDE	.5736	RRA	.3718	RC3	-3.0207	FAU	.34319	RRT	-.4060	RRF	.9868	RTF	-.4012	CRT	-.9208	CRS	-.9941	CST	.8769
FDE	5.7584	FRA	1.9913	FC3	-20.1211	BSP	4521	SGB	2777.9	R23	-.0716	R13	.9842	LSA	115.8	MSA	12.4	SSA	1.4
BDE	.6370	BRA	.6659	BC3	3.0212	FSP	2658	SG1	2604.9	SG2	964.9	THA	101.21	EL1	50.1	EL2	8.7	ALF	118.96

LAUNCH DATE JUL 28 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 485.841 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.907	GAL	-.26	AZL	87.34	HCA	150.14	SMA	199.75	ECC	.23954	INC	2.6552	V1	29.328
RP	236.81	LAP	1.32	LOP	94.95	VP	21.365	GAP	8.87	AZP	92.30	TAL	358.65	TAP	148.79	RCA	151.90	APO	247.60	V2	23.209
RC	199.569	GL	23.27	GP	-28.44	ZAL	89.42	ZAP	118.41	ETS	199.10	ZAE	145.19	ETE	237.70	ZAC	56.43	ETC	285.62	LVI	9.20

PLANETOCENTRIC CONIC

C3	14.885	VHL	3.858	DLA	34.59	RAL	22.56	RAD	6640.5	VEL	11.616	PTH	6.66	VHP	2.781	DPA	-12.94	RAP	45.44	ECC	1.2450

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 50 7	3804.07	-46.84	157.11	266.46	80.47	10 53 32	2804.1	-45.15	122.14
60.00	9 28 33	3861.73	-37.45	159.41	263.58	73.89	10 32 55	2861.7	-40.11	128.39
69.20	7 54 6	4142.93	-22.07	174.88	256.55	62.67	9 3 9	3142.9	-31.36	150.05
69.20	7 54 6	4142.93	-22.07	174.88	256.55	62.67	9 3 9	3142.9	-31.36	150.05
69.20	7 54 6	4142.93	-22.07	174.88	256.55	62.67	9 3 9	3142.9	-31.36	150.05
69.20	7 54 6	4142.93	-22.07	174.88	256.55	62.67	9 3 9	3142.9	-31.36	150.05
69.20	7 54 6	4142.93	-22.07	174.88	256.55	62.67	9 3 9	3142.9	-31.36	150.05

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2497	TRA	-.5320	TC3	-.0591	BAU	.6280	SGT	1027.6	SGR	2701.9	SG3	1582.8	ST	23.2	SR	49.4	SS	108.3
RDE	.6505	RRA	.3674	RC3	-3.1583	FAU	.34801	RRT	-.3160	RRF	.9886	RTF	-.3098	CRT	-.8911	CRS	-.9958	CST	.8492
FDE	6.0232	FRA	1.8958	FC3	-20.2402	BSP	4700	SGB	2890.7	R23	-.0510	R13	.9872	LSA	120.7	MSA	12.4	SSA	1.3
BDE	.6953	BRA	.6465	BC3	3.1559	FSP	2694	SG1	2724.2	SG2	987.0	THA	97.85	EL1	53.8	EL2	9.7	ALF	113.53

LAUNCH DATE JUL 28 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 489.621 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.899	GAL	-.26	AZL	87.22	HCA	151.10	SMA	199.60	ECC	.23894	INC	2.7806	V1	29.328
RP	237.14	LAP	1.34	LOP	95.91	VP	21.316	GAP	8.63	AZP	92.43	TAL	358.64	TAP	149.74	RCA	151.90	APO	247.29	V2	23.174
RC	202.557	GL	24.31	GP	-29.50	ZAL	89.44	ZAP	116.73	ETS	198.64	ZAE	143.46	ETE	235.94	ZAC	55.54	ETC	285.87	LVI	10.07

PLANETOCENTRIC CONIC

C3	15.029	VHL	3.877	DLA	35.54	RAL	22.07	RAD	6640.5	VEL	11.622	PTH	6.66	VHP	2.767	DPA	-14.14	RAP	45.26	ECC	1.2473

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 41 23	3831.00	-46.51	159.63	266.89	78.56	10 45 14	2831.0	-45.66	124.54
60.00	9 14 37	3902.59	-36.63	162.56	263.42	71.88	10 19 39	2902.6	-40.26	132.06
67.51	7 42 26	4174.31	-22.56	177.64	256.52	61.78	8 52 1	3174.3	-32.16	152.79
67.51	7 42 26	4174.31	-22.56	177.64	256.52	61.78	8 52 1	3174.3	-32.16	152.79
67.51	7 42 26	4174.31	-22.56	177.64	256.52	61.78	8 52 1	3174.3	-32.16	152.79
67.51	7 42 26	4174.31	-22.56	177.64	256.52	61.78	8 52 1	3174.3	-32.16	152.79
67.51	7 42 26	4174.31	-22.56	177.64	256.52	61.78	8 52 1	3174.3	-32.16	152.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2069	TRA	-.5170	TC3	-.1848	BAU	.6599	SGT	997.9	SGR	2842.0	SG3	1598.6	ST	20.8	SR	55.0	SS	111.4
RDE	.7299	RRA	.3689	RC3	-3.2792	FAU	.35081	RRT	-.2097	RRF	.9901	RTF	-.2016	CRT	-.8444	CRS	-.9969	CST	.8026
FDE	6.2620	FRA	1.8395	FC3	-20.2087	BSP	4911	SGB	3012.1	R23	-.0343	R13	.9895	LSA	125.3	MSA	12.6	SSA	1.2
BDE	.7587	BRA	.6351	BC3	3.2844	FSP	2729	SG1	2850.7	SG2	972.7	THA	94.77	EL1	57.8	EL2	10.6	ALF	108.34

LAUNCH DATE JUL 28 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 493.401 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.892	GAL	-.27	AZL	87.09	HCA	152.06	SMA	199.45	ECC	.23640	INC	2.9135
RP	237.48	LAP	1.36	LOP	96.87	VP	21.267	GAP	8.38	AZP	92.57	TAL	358.62	TAP	150.68	RCA	151.90	APO	247.00
RC	205.523	GL	25.39	GP	-30.60	ZAL	89.47	ZAP	115.05	ETS	198.15	ZAE	141.68	ETE	234.29	ZAC	54.62	ETC	286.13

V1	29.328	V2	23.140	LVI	10.97														

PLANETOCENTRIC CONIC

C3	15.198	VHL	3.899	DLA	36.54	RAL	21.56	RAD	6640.6	VEL	11.630	PTH	6.67	VHP	2.757	DPA	-15.38	RAP	45.09

ECC	1.2501																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 31 52	3860.19	-46.08	162.32	267.32	76.53	10 36 12	2860.2	-46.14	127.19
60.00	8 58 32	3949.42	-35.58	166.10	263.11	69.68	10 4 21	2949.4	-40.29	136.04
65.83	7 31 11	4204.25	-23.06	180.33	256.51	60.83	8 41 16	3204.3	-32.99	155.48
65.83	7 31 11	4204.25	-23.06	180.33	256.51	60.83	8 41 16	3204.3	-32.99	155.48
65.83	7 31 11	4204.25	-23.06	180.33	256.51	60.83	8 41 16	3204.3	-32.99	155.48
65.83	7 31 11	4204.25	-23.06	180.33	256.51	60.83	8 41 16	3204.3	-32.99	155.48
65.83	7 31 11	4204.25	-23.06	180.33	256.51	60.83	8 41 16	3204.3	-32.99	155.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1695	TRA	-.5040	TC3	-.3294	BAU	.6923	SGT	989.0	SGR	2982.5	SG3	1607.5	ST	18.6	SR	61.2	SS	114.9
RDE	.8201	RRA	.3672	RC3	-3.3912	FAU	.35160	RRT	-.0815	RRF	.9913	RTF	-.0732	CRT	-.7794	CRS	-.9978	CST	.7383
FDE	6.5236	FRA	1.7606	FC	-20.0280	BSP	5166	SGB	3142.2	R23	-.0175	R13	.9912	LSA	130.9	MSA	12.8	SSA	1.1
BDE	.8374	BRA	.6236	BC3	3.4071	FSP	2764	SG1	2983.7	SG2	985.3	THA	91.74	EL1	63.0	EL2	11.3	ALF	103.79

LAUNCH DATE JUL 28 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC DISTANCE 497.182 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.885	GAL	-.27	AZL	86.95	HCA	153.02	SMA	199.32	ECC	.23790	INC	3.0546
RP	237.81	LAP	1.39	LOP	97.83	VP	21.220	GAP	8.14	AZP	92.72	TAL	358.59	TAP	151.61	RCA	151.90	APO	246.74
RC	208.485	GL	26.52	GP	-31.72	ZAL	89.52	ZAP	113.37	ETS	197.62	ZAE	139.87	ETE	232.73	ZAC	53.68	ETC	286.40

V1	29.328	V2	23.106	LVI	11.91														

PLANETOCENTRIC CONIC

C3	15.397	VHL	3.924	DLA	37.59	RAL	21.02	RAD	6640.7	VEL	11.638	PTH	6.68	VHP	2.751	DPA	-16.65	RAP	44.93

ECC	1.2534																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 21 26	3891.91	-45.53	165.18	267.70	74.38	10 26 18	2891.9	-46.60	130.11
60.00	8 39 19	4004.79	-34.20	170.14	262.57	67.24	9 46 4	3004.8	-40.14	140.74
64.13	7 20 12	4233.15	-23.56	182.98	256.53	59.82	8 30 45	3233.2	-33.85	158.14
64.13	7 20 12	4233.15	-23.56	182.98	256.53	59.82	8 30 45	3233.2	-33.85	158.14
64.13	7 20 12	4233.15	-23.56	182.98	256.53	59.82	8 30 45	3233.2	-33.85	158.14
64.13	7 20 12	4233.15	-23.56	182.98	256.53	59.82	8 30 45	3233.2	-33.85	158.14
64.13	7 20 12	4233.15	-23.56	182.98	256.53	59.82	8 30 45	3233.2	-33.85	158.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1247	TRA	-.4878	TC3	-.4608	BAU	.7289	SGT	985.8	SGR	3133.4	SG3	1613.9	ST	16.3	SR	67.7	SS	118.1
RDE	.9160	RRA	.3590	RC3	-3.5109	FAU	.35261	RRT	.0513	RRF	.9925	RTF	.0601	CRT	-.6715	CRS	-.9984	CST	.6304
FDE	6.7686	FRA	1.6424	FC	-19.8258	BSP	5434	SGB	3284.8	R23	-.0037	R13	.9925	LSA	136.5	MSA	12.9	SSA	1.1
BDE	.9245	BRA	.6056	BC3	3.5410	FSP	2787	SG1	3133.9	SG2	984.3	THA	88.97	EL1	68.6	EL2	11.9	ALF	99.45

LAUNCH DATE JUL 28 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC DISTANCE 500.966 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.879	GAL	-.28	AZL	86.80	HCA	153.98	SMA	199.20	ECC	.23744	INC	3.2048
RP	238.14	LAP	1.41	LOP	98.79	VP	21.175	GAP	7.90	AZP	92.88	TAL	358.55	TAP	152.53	RCA	151.90	APO	246.50
RC	211.443	GL	27.71	GP	-32.88	ZAL	89.57	ZAP	111.70	ETS	197.05	ZAE	138.01	ETE	231.24	ZAC	52.72	ETC	286.70

V1	29.328	V2	23.073	LVI	12.87														

PLANETOCENTRIC CONIC

C3	15.629	VHL	3.953	DLA	38.68	RAL	20.45	RAD	6640.8	VEL	11.648	PTH	6.69	VHP	2.751	DPA	-17.95	RAP	44.78

ECC	1.2572																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 9 53	3926.56	-44.85	168.24	268.01	72.11	10 15 19	2926.6	-46.99	133.37
60.00	8 14 50	4074.42	-32.26	175.02	261.60	64.40	9 22 44	3074.4	-39.65	146.60
62.42	7 9 28	4261.00	-24.06	185.60	256.58	58.74	8 20 29	3261.0	-34.73	160.77
62.42	7 9 28	4261.00	-24.06	185.60	256.58	58.74	8 20 29	3261.0	-34.73	160.77
62.42	7 9 28	4261.00	-24.06	185.60	256.58	58.74	8 20 29	3261.0	-34.73	160.77
62.42	7 9 28	4261.00	-24.06	185.60	256.58	58.74	8 20 29	3261.0	-34.73	160.77
62.42	7 9 28	4261.00	-24.06	185.60	256.58	58.74	8 20 29	3261.0	-34.73	160.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0652	TRA	-.4680	TC3	-.5679	BAU	.7713	SGT	982.6	SGR	3298.6	SG3	1618.1	ST	13.9	SR	74.0	SS	120.3
RDE	1.0106	RRA	.3483	RC3	-3.6475	FAU	.35470	RRT	.1835	RRF	.9935	RTF	.1246	CRT	-.4573	CRS	-.9988	CST	.4150
FDE	6.9523	FRA	1.5136	FC	-19.6477	BSP	5588	SGB	3441.8	R23	.0048	R13	.9936	LSA	141.3	MSA	12.9	SSA	1.0
BDE	1.0127	BRA	.5834	BC3	3.6914	FSP	2736	SG1	3304.0	SG2	964.4	THA	86.58	EL1	74.3	EL2	12.3	ALF	95.04

LAUNCH DATE JUL 28 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC DISTANCE 504.746 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.874	GAL	-.29	AZL	86.63	HCA	154.93	SMA	199.09	ECC	.23703	INC	3.3652
RP	238.47	LAP	1.43	LOP	99.75	VP	21.130	GAP	7.66	AZP	93.05	TAL	358.51	TAP	153.44	RCA	151.90	APO	246.28
RC	214.394	GL	28.94	GP	-34.06	ZAL	89.64	ZAP	110.04	ETS	196.44	ZAE	136.13	ETE	229.83	ZAC	51.73	ETC	287.01

V1	29.328	V2	23.040	LVI	13.87														

PLANETOCENTRIC CONIC

C3	15.899	VHL	3.987	DLA	39.83	RAL	19.84	RAD	6641.0	VEL	11.659	PTH	6.70	VHP	2.757	DPA	-19.27	RAP	44.66

ECC	1.2616																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 56 58	3964.80	-44.00	171.53	268.22	69.69	10 3 3	2964.8	-47.32	137.01
60.00	7 37 12	4180.10	-28.93	181.99	259.58	60.62	8 46 52	3180.1	-38.31	155.26
60.69	6 58 53	4288.19	-24.55	188.21	256.65	57.59	8 10 22	3288.2	-35.63	163.43
60.69	6 58 53	4288.19	-24.55	188.21	256.65	57.59	8 10 22	3288.2	-35.63	163.43
60.69	6 58 53	4288.19	-24.55	188.21	256.65	57.59	8 10 22	3288.2	-35.63	163.43
60.69	6 58 53	4288.19	-24.55	188.21	256.65	57.59	8 10 22	3288.2	-35.63	163.43
60.69	6 58 53	4288.19	-24.55	188.21	256.65	57.59	8 10 22	3288.2	-35.63	163.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0161	TRA	-.4632	TC3	-.7333	BAU	.8064	SGT	1045.8	SGR	3440.6	SG3	1604.1	ST	13.1	SR	81.5	SS	123.5
RDE	1.1251	RRA	.3429	RC3	-3.7225	FAU	.34993	RRT	.3175	RRF	.9943	RTF	.3269	CRT	-.2011	CRS	-.9991	CST	.1612
FDE	7.1895	FRA	1.4178	FC	-19.0551	BSP	5914	SGB	3596.0	R23	.0179	R13	.9942	LSA	148.0	MSA	13.2	SSA	.9
BDE	1.1252	BRA	.5763	BC3	3.7940	FSP	2748	SG1	3458.0	SG2	986.7	THA	84.00	EL1	81.6	EL2	12.8	ALF	91.90

LAUNCH DATE JUL 26 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC DISTANCE 508.529 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.868	GAL	-.29	AZL	86.46	HCA	155.88	SMA	198.99	ECC	.23666	INC	3.5370	V1	29.328
RP	238.78	LAP	1.44	LOP	100.70	VP	21.087	GAP	7.42	AZP	93.23	TAL	358.46	TAP	154.34	RCA	151.90	APO	246.09	V2	23.008
RC	217.340	GL	30.24	GP	-35.28	ZAL	89.71	ZAP	108.39	ETS	195.80	ZAE	134.23	ETE	228.48	ZAC	50.71	ETC	287.34	LVI	14.90

PLANETOCENTRIC CONIC

C3	16.210	VHL	4.026	DLA	41.03	RAL	19.19	RAD	6641.1	VEL	11.673	PTH	6.71	VHP	2.768	DPA	-20.63	RAP	44.55	ECC	1.2668

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 42 19	4007.34	-42.94	175.06	268.26	67.14	9 49 7	3007.3	-47.52	141.10
58.93	6 48 23	4314.78	-25.04	190.83	256.75	56.36	8 0 18	3314.8	-36.56	166.10
58.93	6 48 23	4314.78	-25.04	190.83	256.75	56.36	8 0 18	3314.8	-36.56	166.10
58.93	6 48 23	4314.78	-25.04	190.83	256.75	56.36	8 0 18	3314.8	-36.56	166.10
58.93	6 48 23	4314.78	-25.04	190.83	256.75	56.36	8 0 18	3314.8	-36.56	166.10
58.93	6 48 23	4314.78	-25.04	190.83	256.75	56.36	8 0 18	3314.8	-36.56	166.10
58.93	6 48 23	4314.78	-25.04	190.83	256.75	56.36	8 0 18	3314.8	-36.56	166.10

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.0447	TRA	-.4537	TC3	-.8666	BAU	.8481	SGT 1106.2	SGR 3605.5	SG3 1592.1	ST 13.3	SR 89.5	SS 126.5
RDE	1.2496	RRA	.3331	RC3	-3.8162	FAU	.34665	RRT .4311	RRF .9951	RTF .4402	CRT .1404	CRS -.9993	CST -.1751
FDE	7.4123	FRA	1.3011	FC	-18.5141	BSP	6244	SGB 3771.4	R23 .0262	R13 .9948	LSA 155.0	MSA 13.3	SSA .8
BDE	1.2504	BRA	.5629	BC3	3.9134	FSP	2742	SG1 3639.5	SG2 988.8	THA 81.86	EL1 89.5	EL2 13.1	ALF 88.78

LAUNCH DATE JUL 28 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 512.311 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.864	GAL	-.30	AZL	86.28	HCA	156.82	SMA	198.91	ECC	.23632	INC	3.7215	V1	29.328
RP	239.10	LAP	1.46	LOP	101.65	VP	21.045	GAP	7.18	AZP	93.42	TAL	358.41	TAP	155.23	RCA	151.90	APO	245.91	V2	22.975
RC	220.278	GL	31.60	GP	-36.53	ZAL	89.80	ZAP	106.76	ETS	195.11	ZAE	132.30	ETE	227.18	ZAC	49.67	ETC	287.69	LVI	15.97

PLANETOCENTRIC CONIC

C3	16.570	VHL	4.071	DLA	42.29	RAL	18.49	RAD	6641.3	VEL	11.688	PTH	6.72	VHP	2.785	DPA	-22.02	RAP	44.46	ECC	1.2727

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 25 23	4055.44	-41.59	178.90	268.05	64.42	9 32 58	3055.4	-47.57	145.75
57.14	6 37 55	4340.92	-25.52	193.46	256.86	55.05	7 50 16	3340.9	-37.51	168.82
57.14	6 37 55	4340.92	-25.52	193.46	256.86	55.05	7 50 16	3340.9	-37.51	168.82
57.14	6 37 55	4340.92	-25.52	193.46	256.86	55.05	7 50 16	3340.9	-37.51	168.82
57.14	6 37 55	4340.92	-25.52	193.46	256.86	55.05	7 50 16	3340.9	-37.51	168.82
57.14	6 37 55	4340.92	-25.52	193.46	256.86	55.05	7 50 16	3340.9	-37.51	168.82
57.14	6 37 55	4340.92	-25.52	193.46	256.86	55.05	7 50 16	3340.9	-37.51	168.82

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.1156	TRA	-.4461	TC3	-.9963	BAU	.8915	SGT 1185.2	SGR 3768.7	SG3 1570.4	ST 15.2	SR 97.4	SS 128.7
RDE	1.3766	RRA	.3205	RC3	-3.8991	FAU	.34196	RRT .5311	RRF .9957	RTF .5401	CRT .4587	CRS -.9995	CST -.4857
FDE	7.5780	FRA	1.1756	FC	-17.8665	BSP	6545	SGB 3950.6	R23 .0329	R13 .9953	LSA 161.6	MSA 13.5	SSA .8
BDE	1.3814	BRA	.5493	BC3	4.0244	FSP	2703	SG1 3824.7	SG2 989.5	THA 79.83	EL1 97.7	EL2 13.4	ALF 85.84

LAUNCH DATE JUL 28 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC DISTANCE 516.094 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.860	GAL	-.32	AZL	86.08	HCA	157.77	SMA	198.83	ECC	.23602	INC	3.9201	V1	29.328
RP	239.42	LAP	1.48	LOP	102.60	VP	21.004	GAP	6.95	AZP	93.63	TAL	358.34	TAP	156.11	RCA	151.90	APO	245.75	V2	22.944
RC	223.209	GL	33.03	GP	-37.80	ZAL	89.89	ZAP	105.16	ETS	194.38	ZAE	130.36	ETE	225.93	ZAC	48.60	ETC	288.06	LVI	17.07

PLANETOCENTRIC CONIC

C3	16.988	VHL	4.121	DLA	43.61	RAL	17.73	RAD	6641.5	VEL	11.706	PTH	6.74	VHP	2.809	DPA	-23.43	RAP	44.41	ECC	1.2795

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 5 13	4111.16	-39.87	183.12	267.45	61.51	9 13 44	3111.2	-47.36	151.12
55.30	6 27 25	4366.75	-25.97	196.12	257.00	53.65	7 40 11	3366.8	-38.47	171.60
55.30	6 27 25	4366.75	-25.97	196.12	257.00	53.65	7 40 11	3366.8	-38.47	171.60
55.30	6 27 25	4366.75	-25.97	196.12	257.00	53.65	7 40 11	3366.8	-38.47	171.60
55.30	6 27 25	4366.75	-25.97	196.12	257.00	53.65	7 40 11	3366.8	-38.47	171.60
55.30	6 27 25	4366.75	-25.97	196.12	257.00	53.65	7 40 11	3366.8	-38.47	171.60
55.30	6 27 25	4366.75	-25.97	196.12	257.00	53.65	7 40 11	3366.8	-38.47	171.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.1931	TRA	-.4390	TC3	-1.1285	BAU	.9351	SGT 1283.6	SGR 3926.4	SG3 1536.4	ST 18.5	SR 105.7	SS 130.5
RDE	1.5143	RRA	.2990	RC3	-3.9601	FAU	.33496	RRT .6186	RRF .9963	RTF .6269	CRT .6705	CRS -.9996	CST -.6900
FDE	7.7209	FRA	1.0161	FC	-17.0725	BSP	6858	SGB 4130.9	R23 .0394	R13 .9956	LSA 168.4	MSA 13.7	SSA .7
BDE	1.5265	BRA	.5311	BC3	4.1178	FSP	2650	SG1 4011.1	SG2 987.2	THA 77.82	EL1 106.5	EL2 13.6	ALF 83.20

LAUNCH DATE JUL 28 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC DISTANCE 519.876 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.856	GAL	-.33	AZL	85.86	HCA	158.71	SMA	198.76	ECC	.23575	INC	4.1349	V1	29.328
RP	239.73	LAP	1.50	LOP	103.54	VP	20.984	GAP	6.71	AZP	93.85	TAL	358.28	TAP	156.99	RCA	151.90	APO	245.61	V2	22.912
RC	226.132	GL	34.53	GP	-39.12	ZAL	89.99	ZAP	103.58	ETS	193.61	ZAE	128.41	ETE	224.72	ZAC	47.50	ETC	288.46	LVI	18.20

PLANETOCENTRIC CONIC

C3	17.467	VHL	4.179	DLA	44.99	RAL	16.90	RAD	6641.7	VEL	11.726	PTH	6.76	VHP	2.840	DPA	-24.87	RAP	44.39	ECC	1.2875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 40 1	4178.70	-37.56	187.94	266.24	58.32	8 49 40	3178.7	-46.75	157.53
53.42	6 18 47	4392.45	-26.40	198.82	257.14	52.14	7 29 59	3392.4	-39.44	174.47
53.42	6 18 47	4392.45	-26.40	198.82	257.14	52.14	7 29 59	3392.4	-39.44	174.47
53.42	6 18 47	4392.45	-26.40	198.82	257.14	52.14	7 29 59	3392.4	-39.44	174.47
53.42	6 18 47	4392.45	-26.40	198.82	257.14	52.14	7 29 59	3392.4	-39.44	174.47
53.42	6 18 47	4392.45	-26.40	198.82	257.14	52.14	7 29 59	3392.4	-39.44	174.47
53.42	6 18 47	4392.45	-26.40	198.82	257.14	52.14	7 29 59	3392.4	-39.44	174.47

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.2783	TRA	-.4357	TC3	-1.2510	BAU	.9811	SGT 1397.3	SGR 4092.2	SG3 1501.5	ST 23.0	SR 114.6	SS 132.2
RDE	1.6662	RRA	.2770	RC3	-4.0109	FAU	.32692	RRT .6862	RRF .9968	RTF .6938	CRT .7924	CRS -.9997	CST -.8063
FDE	7.8479	FRA	.8664	FC	-16.2035	BSP	7173	SGB 4324.2	R23 .0445	R13 .9958	LSA 175.9	MSA 13.8	SSA .7
BDE	1.6893	BRA	.5163	BC3	4.2015	FSP	2582	SG1 4209.8	SG2 988.1	THA 76.03	EL1 116.1	EL2 13.8	ALF 80.85

LAUNCH DATE JUL 28 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 13 1974

HELIOCENTRIC CONIC DISTANCE 523.658 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.883	GAL	-.34	AZL	85.83	HCA	159.65	SMA	198.69	ECC	.23552	INC	4.3680	V1	29.328
RP	240.03	LAP	1.52	LOP	104.48	VP	20.925	GAP	6.48	AZP	94.10	TAL	358.20	TAP	157.85	RCA	151.90	APO	245.49	V2	22.882
RC	229.048	GL	36.11	GP	-40.46	ZAL	90.10	ZAP	102.04	ETS	192.80	ZAE	126.46	ETE	223.54	ZAC	46.36	ETC	286.89	LVI	19.37

PLANETOCENTRIC CONIC

C3	18.025	VHL	4.246	DLA	46.44	RAL	15.98	RAD	6641.9	VEL	11.750	PTH	6.78	VHP	2.878	DPA	-26.34	RAP	44.41	ECC	1.2966

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 4 44	4270.01	-34.12	193.95	263.78	54.59	8 15 54	3270.0	-45.33	165.87
51.49	6 6 0	4418.06	-26.80	201.56	257.28	50.54	7 19 38	3418.1	-40.42	177.44
51.49	6 6 0	4418.06	-26.80	201.56	257.28	50.54	7 19 38	3418.1	-40.42	177.44
51.49	6 6 0	4418.06	-26.80	201.56	257.28	50.54	7 19 38	3418.1	-40.42	177.44
51.49	6 6 0	4418.06	-26.80	201.56	257.28	50.54	7 19 38	3418.1	-40.42	177.44
51.49	6 6 0	4418.06	-26.80	201.56	257.28	50.54	7 19 38	3418.1	-40.42	177.44
51.49	6 6 0	4418.06	-26.80	201.56	257.28	50.54	7 19 38	3418.1	-40.42	177.44

DIFFERENTIAL CORRECTIONS

TDE	.3726	TRA	-.4339	TC3	-1.3660	BAU	1.0288												
RDE	1.8296	RRA	.2453	RC3	-4.0450	FAU	.31738												
FDE	7.9370	FRA	.6896	FC	-15.2439	BSP	7548												
BDE	1.8671	BRA	.4984	BC3	4.2694	FSP	2518												

MID-COURSE EXECUTION ACCURACY

SGT	1523.2	SGR	4257.2	SG3	1456.3						
RRT	.7429	RRF	.9972	RTF	.7499						
SGB	4521.5	R23	.0487	R13	.9961						
SG1	4413.2	SG2	983.7	THA	74.32						

ORBIT DETERMINATION ACCURACY

ST	28.2	SR	123.8	SS	133.4						
CRT	.8643	CRS	-.9998	CST	-.8742						
LSA	183.6	MSA	13.9	SSA	.8						
EL1	126.2	EL2	13.9	ALF	78.70						

LAUNCH DATE JUL 28 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 15 1974

HELIOCENTRIC CONIC DISTANCE 527.439 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.850	GAL	-.36	AZL	85.38	HCA	160.58	SMA	198.64	ECC	.23532	INC	4.6220	V1	29.328
RP	240.34	LAP	1.54	LOP	105.42	VP	20.888	GAP	6.25	AZP	94.36	TAL	358.12	TAP	158.71	RCA	151.90	APO	245.38	V2	22.851
RC	231.955	GL	37.78	GP	-41.83	ZAL	90.21	ZAP	100.54	ETS	191.95	ZAE	124.51	ETE	222.39	ZAC	45.23	ETC	289.35	LVI	20.58

PLANETOCENTRIC CONIC

C3	18.674	VHL	4.321	DLA	47.95	RAL	14.95	RAD	6642.2	VEL	11.777	PTH	6.80	VHP	2.926	DPA	-27.82	RAP	44.47	ECC	1.3073

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.51	5 54 56	4443.79	-27.15	204.36	257.42	48.82	7 9 0	3443.8	-41.39	180.53
49.51	5 54 56	4443.79	-27.15	204.36	257.42	48.82	7 9 0	3443.8	-41.39	180.53
49.51	5 54 56	4443.79	-27.15	204.36	257.42	48.82	7 9 0	3443.8	-41.39	180.53
49.51	5 54 56	4443.79	-27.15	204.36	257.42	48.82	7 9 0	3443.8	-41.39	180.53
49.51	5 54 56	4443.79	-27.15	204.36	257.42	48.82	7 9 0	3443.8	-41.39	180.53
49.51	5 54 56	4443.79	-27.15	204.36	257.42	48.82	7 9 0	3443.8	-41.39	180.53
49.51	5 54 56	4443.79	-27.15	204.36	257.42	48.82	7 9 0	3443.8	-41.39	180.53

DIFFERENTIAL CORRECTIONS

TDE	.4778	TRA	-.4373	TC3	-1.4705	BAU	1.0770												
RDE	2.0042	RRA	.2174	RC3	-4.0554	FAU	.30597												
FDE	7.9799	FRA	.5443	FC	-14.1849	BSP	7870												
BDE	2.0603	BRA	.4884	BC3	4.3138	FSP	2419												

MID-COURSE EXECUTION ACCURACY

SGT	1663.1	SGR	4419.4	SG3	1402.2						
RRT	.7844	RRF	.9975	RTF	.7910						
SGB	4722.0	R23	.0524	R13	.9962						
SG1	4617.6	SG2	987.4	THA	72.74						

ORBIT DETERMINATION ACCURACY

ST	34.3	SR	133.1	SS	133.9						
CRT	.9058	CRS	-.9998	CST	-.9132						
LSA	191.4	MSA	14.2	SSA	.5						
EL1	136.7	EL2	14.1	ALF	76.72						

LAUNCH DATE JUL 28 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 17 1974

HELIOCENTRIC CONIC DISTANCE 531.219 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.848	GAL	-.37	AZL	85.10	HCA	161.52	SMA	198.59	ECC	.23515	INC	4.8998	V1	29.328
RP	240.63	LAP	1.55	LOP	106.36	VP	20.851	GAP	6.01	AZP	94.65	TAL	358.04	TAP	159.55	RCA	151.90	APO	245.29	V2	22.821
RC	234.852	GL	39.53	GP	-43.24	ZAL	90.33	ZAP	99.09	ETS	191.06	ZAE	122.57	ETE	221.26	ZAC	44.05	ETC	289.84	LVI	21.83

PLANETOCENTRIC CONIC

C3	19.433	VHL	4.408	DLA	49.54	RAL	13.80	RAD	6642.6	VEL	11.809	PTH	6.83	VHP	2.983	DPA	-29.33	RAP	44.59	ECC	1.3198

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.47	5 43 30	4469.80	-27.43	207.23	257.53	46.98	6 58 0	3469.8	-42.33	183.78
47.47	5 43 30	4469.80	-27.43	207.23	257.53	46.98	6 58 0	3469.8	-42.33	183.78
47.47	5 43 30	4469.80	-27.43	207.23	257.53	46.98	6 58 0	3469.8	-42.33	183.78
47.47	5 43 30	4469.80	-27.43	207.23	257.53	46.98	6 58 0	3469.8	-42.33	183.78
47.47	5 43 30	4469.80	-27.43	207.23	257.53	46.98	6 58 0	3469.8	-42.33	183.78
47.47	5 43 30	4469.80	-27.43	207.23	257.53	46.98	6 58 0	3469.8	-42.33	183.78
47.47	5 43 30	4469.80	-27.43	207.23	257.53	46.98	6 58 0	3469.8	-42.33	183.78

DIFFERENTIAL CORRECTIONS

TDE	.5926	TRA	-.4431	TC3	-1.5636	BAU	1.1270												
RDE	2.1928	RRA	.1745	RC3	-4.0483	FAU	.29322												
FDE	7.9785	FRA	.3632	FC	-13.0631	BSP	8244												
BDE	2.2715	BRA	.4762	BC3	4.3379	FSP	2323												

MID-COURSE EXECUTION ACCURACY

SGT	1811.4	SGR	4579.4	SG3	1340.5						
RRT	.8201	RRF	.9978	RTF	.8261						
SGB	4924.7	R23	.0553	R13	.9964						
SG1	4825.4	SG2	983.8	THA	71.22						

ORBIT DETERMINATION ACCURACY

ST	40.8	SR	142.7	SS	133.7						
CRT	.9325	CRS	-.9999	CST	-.9380						
LSA	199.3	MSA	14.3	SSA	.5						
EL1	147.7	EL2	14.2	ALF	74.93						

LAUNCH DATE JUL 28 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 19 1974

HELIOCENTRIC CONIC DISTANCE 534.998 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.846	GAL	-.39	AZL	84.79	HCA	162.45	SMA	198.56	ECC	.23501	INC	5.2053	V1	29.328
RP	240.93	LAP	1.57	LOP	107.30	VP	20.816	GAP	5.78	AZP	94.96	TAL	357.95	TAP	160.39	RCA	151.89	APO	245.22	V2	22.792
RC	237.739	GL	41.38	GP	-44.68	ZAL	90.45	ZAP	97.70	ETS	190.13	ZAE	120.64	ETE	220.16	ZAC	42.83	ETC	290.38	LVI	23.12

PLANETOCENTRIC CONIC

C3	20.323	VHL	4.508	DLA	51.20	RAL	12.49	RAD	6643.0	VEL	11.846	PTH	6.86	VHP	3.051	DPA	-30.86	RAP	44.76	ECC	1.3345

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.37	5 31 37	4496.16	-27.65	210.17	257.60	45.03	6 46 33	3496.2	-43.25	187.19
45.37	5 31 37	4496.16	-27.65	210.17	257.60	45.03	6 46 33	3496.2	-43.25	187.19
45.37	5 31 37	4496.16	-27.65	210.17	257.60	45.03	6 46 33	3496.2	-43.25	187.19
45.37	5 31 37	4496.16	-27.65	210.17	257.60	45.03	6 46 33	3496.2	-43.25	187.19
45.37	5 31 37	4496.16	-27.65	210.17	257.60	45.03	6 46 33	3496.2	-43.25	187.19
45.37	5 31 37	4496.16	-27.65	210.17	257.60	45.03	6 46 33	3496.2	-43.25	187.19
45.37	5 31 37	4496.16	-27.65	210.17	257.60	45.03	6 46 33	3496.2	-43.25	187.19

DIFFERENTIAL CORRECTIONS

TDE	.7189	TRA	-.4541	TC3	-1.6408	BAU	1.1805												
RDE	2.4011	RRA	.1257	RC3	-4.0229	FAU	.27970												
FDE	7.9414	FRA	.1873	FC	-11.9149	BSP	8564												
BDE	2.5064	BRA	.4711	BC3	4.3447	FSP	2196												

MID-COURSE EXECUTION ACCURACY

SGT	1967.6	SGR	4747.0	SG3	1274.0						
RRT	.8479	RRF	.9981	RTF	.8536						
SGB	5138.6	R23	.0574	R13	.9966						
SG1	5044.0	SG2	981.7	THA	69.84						

ORBIT DETERMINATION ACCURACY

ST	47.8	SR	152.7	SS	133.1						
CRT	.9497	CRS	-.9999	CST	-.9538						
LSA	207.7	MSA	14.4	SSA	.4						
EL1	159.4	EL2	14.3	ALF	73.31						

LAUNCH DATE JUL 28 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 21 1974

HELIOCENTRIC CONIC DISTANCE 538.776 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.844	GAL	-.41	AZL	84.46	HCA	163.37	SMA	198.82	ECC	.23490	INC	5.5432
RP	241.22	LAP	1.58	LOP	108.23	VP	20.782	GAP	5.55	AZP	95.31	TAL	357.85	TAP	161.22	RCA	151.89	APO	245.16
RC	240.615	GL	43.33	GP	-46.15	ZAL	90.56	ZAP	96.36	ETS	189.17	ZAE	118.73	ETE	219.07	ZAC	41.59	ETC	290.95

V1 29.328
V2 22.763
LVI 24.45

PLANETOCENTRIC CONIC

C3	21.375	VHL	4.623	DLA	52.92	RAL	11.00	RAD	6643.4	VEL	11.890	PTH	6.90	VHP	3.132	DPA	-32.41	RAP	45.00

ECC 1.3518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.20	5 19 4	4523.19	-27.76	213.18	257.58	42.94	6 34 28	3523.2	-44.10	190.80
43.20	5 19 4	4523.19	-27.76	213.18	257.58	42.94	6 34 28	3523.2	-44.10	190.80
43.20	5 19 4	4523.19	-27.76	213.18	257.58	42.94	6 34 28	3523.2	-44.10	190.80
43.20	5 19 4	4523.19	-27.76	213.18	257.58	42.94	6 34 28	3523.2	-44.10	190.80
43.20	5 19 4	4523.19	-27.76	213.18	257.58	42.94	6 34 28	3523.2	-44.10	190.80
43.20	5 19 4	4523.19	-27.76	213.18	257.58	42.94	6 34 28	3523.2	-44.10	190.80
43.20	5 19 4	4523.19	-27.76	213.18	257.58	42.94	6 34 28	3523.2	-44.10	190.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8573	TRA	-.4690	TC3	-1.7025	BAU	1.2334	SGT	2129.9	SGR	4908.1	SG3	1199.4	ST	55.1	SR	163.1	SS	131.8
RDE	2.6298	RRA	.0665	RC3	-3.9661	FAU	.26416	RRT	.8709	RRF	.9983	RTF	.8761	CRT	.9615	CRS	-.9999	CST	-.9647
FDE	7.8586	FRA	.0081	FC	-10.6987	BSP	8999	SGB	5350.4	R23	.0592	R13	.9967	LSA	216.3	MSA	14.5	SSA	.4
BDE	2.7660	BRA	.4737	BC3	4.3161	FSP	2089	SG1	5260.4	SG2	976.8	THA	68.52	EL1	171.5	EL2	14.4	ALF	71.87

LAUNCH DATE JUL 28 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 23 1974

HELIOCENTRIC CONIC DISTANCE 542.552 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.843	GAL	-.43	AZL	84.08	HCA	164.30	SMA	198.50	ECC	.23481	INC	5.9188
RP	241.50	LAP	1.60	LOP	109.16	VP	20.748	GAP	5.32	AZP	95.70	TAL	357.75	TAP	162.05	RCA	151.89	APO	245.11
RC	243.479	GL	45.39	GP	-47.66	ZAL	90.68	ZAP	95.09	ETS	188.17	ZAE	116.85	ETE	218.00	ZAC	40.32	ETC	291.58

V1 29.328
V2 22.734
LVI 25.81

PLANETOCENTRIC CONIC

C3	22.627	VHL	4.757	DLA	54.73	RAL	9.28	RAD	6644.0	VEL	11.942	PTH	6.95	VHP	3.227	DPA	-33.97	RAP	45.30

ECC 1.3724

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.98	5 5 46	4550.98	-27.76	216.26	257.44	40.74	6 21 37	3551.0	-44.87	194.62
40.98	5 5 46	4550.98	-27.76	216.26	257.44	40.74	6 21 37	3551.0	-44.87	194.62
40.98	5 5 46	4550.98	-27.76	216.26	257.44	40.74	6 21 37	3551.0	-44.87	194.62
40.98	5 5 46	4550.98	-27.76	216.26	257.44	40.74	6 21 37	3551.0	-44.87	194.62
40.98	5 5 46	4550.98	-27.76	216.26	257.44	40.74	6 21 37	3551.0	-44.87	194.62
40.98	5 5 46	4550.98	-27.76	216.26	257.44	40.74	6 21 37	3551.0	-44.87	194.62
40.98	5 5 46	4550.98	-27.76	216.26	257.44	40.74	6 21 37	3551.0	-44.87	194.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0085	TRA	-.4904	TC3	-1.7464	BAU	1.2863	SGT	2298.3	SGR	5062.5	SG3	1117.6	ST	62.7	SR	173.5	SS	129.7
RDE	2.8789	RRA	-.0013	RC3	-3.8770	FAU	.24692	RRT	.8890	RRF	.9985	RTF	.8938	CRT	.9696	CRS	-.9999	CST	-.9721
FDE	7.7179	FRA	-.1618	FC3	-9.4473	BSP	9370	SGB	5559.8	R23	.0609	R13	.9968	LSA	225.0	MSA	14.6	SSA	.3
BDE	3.0504	BRA	.4904	BC3	4.2522	FSP	1951	SG1	5473.9	SG2	973.5	THA	67.26	EL1	183.9	EL2	14.5	ALF	70.56

LAUNCH DATE JUL 28 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 25 1974

HELIOCENTRIC CONIC DISTANCE 546.327 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.842	GAL	-.45	AZL	83.66	HCA	165.22	SMA	198.48	ECC	.23475	INC	6.3389
RP	241.78	LAP	1.61	LOP	110.09	VP	20.716	GAP	5.10	AZP	96.13	TAL	357.64	TAP	162.86	RCA	151.89	APO	245.07
RC	246.330	GL	47.58	GP	-49.20	ZAL	90.79	ZAP	93.89	ETS	187.15	ZAE	115.00	ETE	216.95	ZAC	39.02	ETC	292.27

V1 29.328
V2 22.706
LVI 27.22

PLANETOCENTRIC CONIC

C3	24.130	VHL	4.912	DLA	56.60	RAL	7.28	RAD	6644.6	VEL	12.004	PTH	7.00	VHP	3.339	DPA	-35.54	RAP	45.69

ECC 1.3971

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.69	4 51 26	4579.83	-27.60	219.41	257.12	38.41	6 7 46	3579.8	-45.51	198.66
38.69	4 51 26	4579.83	-27.60	219.41	257.12	38.41	6 7 46	3579.8	-45.51	198.66
38.69	4 51 26	4579.83	-27.60	219.41	257.12	38.41	6 7 46	3579.8	-45.51	198.66
38.69	4 51 26	4579.83	-27.60	219.41	257.12	38.41	6 7 46	3579.8	-45.51	198.66
38.69	4 51 26	4579.83	-27.60	219.41	257.12	38.41	6 7 46	3579.8	-45.51	198.66
38.69	4 51 26	4579.83	-27.60	219.41	257.12	38.41	6 7 46	3579.8	-45.51	198.66
38.69	4 51 26	4579.83	-27.60	219.41	257.12	38.41	6 7 46	3579.8	-45.51	198.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.1709	TRA	-.5198	TC3	-1.7715	BAU	1.3425	SGT	2471.2	SGR	5214.3	SG3	1030.5	ST	70.3	SR	183.6	SS	126.4
RDE	3.1466	RRA	-.0838	RC3	-3.7658	FAU	.22892	RRT	.9039	RRF	.9987	RTF	.9083	CRT	.9753	CRS	-1.0000	CST	-.9773
FDE	7.5057	FRA	-.3305	FC3	-8.2132	BSP	9696	SGB	5770.3	R23	.0621	R13	.9968	LSA	233.3	MSA	14.7	SSA	.3
BDE	3.3574	BRA	.5265	BC3	4.1617	FSP	1794	SG1	5688.3	SG2	969.2	THA	66.07	EL1	196.1	EL2	14.5	ALF	69.40

LAUNCH DATE JUL 28 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 27 1974

HELIOCENTRIC CONIC DISTANCE 550.100 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.842	GAL	-.47	AZL	83.19	HCA	166.14	SMA	198.47	ECC	.23471	INC	6.8125
RP	242.06	LAP	1.63	LOP	111.02	VP	20.685	GAP	4.87	AZP	96.62	TAL	357.53	TAP	163.67	RCA	151.89	APO	245.05
RC	249.167	GL	49.88	GP	-50.76	ZAL	90.90	ZAP	92.77	ETS	186.11	ZAE	113.19	ETE	215.91	ZAC	37.69	ETC	293.02

V1 29.328
V2 22.679
LVI 28.66

PLANETOCENTRIC CONIC

C3	25.950	VHL	5.094	DLA	58.53	RAL	4.91	RAD	6645.4	VEL	12.079	PTH	7.06	VHP	3.471	DPA	-37.11	RAP	46.17

ECC 1.4271

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.36	4 35 47	4610.01	-27.27	222.62	256.53	35.97	5 52 37	3610.0	-46.00	202.94
36.36	4 35 47	4610.01	-27.27	222.62	256.53	35.97	5 52 37	3610.0	-46.00	202.94
36.36	4 35 47	4610.01	-27.27	222.62	256.53	35.97	5 52 37	3610.0	-46.00	202.94
36.36	4 35 47	4610.01	-27.27	222.62	256.53	35.97	5 52 37	3610.0	-46.00	202.94
36.36	4 35 47	4610.01	-27.27	222.62	256.53	35.97	5 52 37	3610.0	-46.00	202.94
36.36	4 35 47	4610.01	-27.27	222.62	256.53	35.97	5 52 37	3610.0	-46.00	202.94
36.36	4 35 47	4610.01	-27.27	222.62	256.53	35.97	5 52 37	3610.0	-46.00	202.94

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.3439	TRA	-.5578	TC3	-1.7737	BAU	1.4046	SGT	2644.7	SGR	5373.0	SG3	940.6	ST	77.7	SR	193.6	SS	122.0
RDE	3.4390	RRA	-.1851	RC3	-3.6395	FAU	.21072	RRT	.9167	RRF	.9988	RTF	.9209	CRT	.9794	CRS	-1.0000	CST	-.9811
FDE	7.2268	FRA	-.4966	FC3	-7.0300	BSP	10009	SGB	5988.7	R23	.0622	R13	.9970	LSA	241.2	MSA	14.7	SSA	.3
BDE	3.6922	BRA	.5878	BC3	4.0487	FSP	1630	SG1	5911.1	SG2	960.6	THA	65.01	EL1	208.1	EL2	14.6	ALF	68.42

LAUNCH DATE JUL 28 1973 FLIGHT TIME 244.00 ARRIVAL DATE MAR 29 1974

HELIOCENTRIC CONIC DISTANCE 553.870 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.841	GAL	-.49	AZL	82.65	HCA	167.06	SMA	198.46	ECC	.23470	INC	7.3508	V1	29.328
RP	242.33	LAP	1.64	LOP	111.94	VP	20.655	GAP	4.64	AZP	97.17	TAL	357.42	TAP	164.47	RCA	151.88	APO	245.04	V2	22.652
RC	251.989	GL	52.33	GP	-52.36	ZAL	91.00	ZAP	91.73	ETS	185.05	ZAE	111.43	ETE	214.89	ZAC	36.34	ETC	293.85	LVI	30.14

PLANETOCENTRIC CONIC

C3	28.179	VHL	5.308	DLA	60.52	RAL	2.09	RAD	6646.3	VEL	12.171	PTH	7.13	VHP	3.626	DPA	-38.69	RAP	46.74	ECC	1.4638

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.98	4 18 27	4641.81	-26.72	225.86	255.56	33.44	5 35 49	3641.8	-46.26	207.43
33.98	4 18 27	4641.81	-26.72	225.86	255.56	33.44	5 35 49	3641.8	-46.26	207.43
33.98	4 18 27	4641.81	-26.72	225.86	255.56	33.44	5 35 49	3641.8	-46.26	207.43
33.98	4 18 27	4641.81	-26.72	225.86	255.56	33.44	5 35 49	3641.8	-46.26	207.43
33.98	4 18 27	4641.81	-26.72	225.86	255.56	33.44	5 35 49	3641.8	-46.26	207.43
33.98	4 18 27	4641.81	-26.72	225.86	255.56	33.44	5 35 49	3641.8	-46.26	207.43
33.98	4 18 27	4641.81	-26.72	225.86	255.56	33.44	5 35 49	3641.8	-46.26	207.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.5275	TRA	-.6036	TC3	-1.7514	BAU	1.4620	SGT	2815.7	SGR	5509.9	SG3	843.9	ST	84.8	SR	202.9	SS	116.3
RDE	3.7535	RRA	-.2980	RC3	-3.4632	FAU	.19027	RRT	.9270	RRF	.9989	RTF	.9310	CRT	.9824	CRS	-1.0000	CST	-.9838
FDE	6.8674	FRA	-.6341	FC3	-5.8456	BSP	10487	SGB	6187.7	R23	.0625	R13	.9971	LSA	248.3	MSA	14.8	SSA	.2
BDE	4.0524	BRA	.6731	BC3	3.9809	FSP	1486	SG1	6114.0	SG2	951.8	THA	63.97	EL1	219.4	EL2	14.7	ALF	67.56

LAUNCH DATE JUL 28 1973 FLIGHT TIME 246.00 ARRIVAL DATE MAR 31 1974

HELIOCENTRIC CONIC DISTANCE 557.637 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.841	GAL	-.51	AZL	82.03	HCA	167.97	SMA	198.46	ECC	.23471	INC	7.9679	V1	29.328
RP	242.60	LAP	1.66	LOP	112.86	VP	20.625	GAP	4.41	AZP	97.80	TAL	357.30	TAP	165.27	RCA	151.88	APO	245.04	V2	22.625
RC	254.795	GL	54.92	GP	-53.97	ZAL	91.08	ZAP	90.79	ETS	183.99	ZAE	109.73	ETE	213.89	ZAC	34.96	ETC	294.76	LVI	31.65

PLANETOCENTRIC CONIC

C3	30.945	VHL	5.563	DLA	62.54	RAL	358.67	RAD	6647.4	VEL	12.283	PTH	7.22	VHP	3.811	DPA	-40.26	RAP	47.41	ECC	1.5093

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.58	3 58 57	4675.59	-25.91	229.10	254.06	30.84	5 16 53	3675.6	-46.25	212.10
31.58	3 58 57	4675.59	-25.91	229.10	254.06	30.84	5 16 53	3675.6	-46.25	212.10
31.58	3 58 57	4675.59	-25.91	229.10	254.06	30.84	5 16 53	3675.6	-46.25	212.10
31.58	3 58 57	4675.59	-25.91	229.10	254.06	30.84	5 16 53	3675.6	-46.25	212.10
31.58	3 58 57	4675.59	-25.91	229.10	254.06	30.84	5 16 53	3675.6	-46.25	212.10
31.58	3 58 57	4675.59	-25.91	229.10	254.06	30.84	5 16 53	3675.6	-46.25	212.10
31.58	3 58 57	4675.59	-25.91	229.10	254.06	30.84	5 16 53	3675.6	-46.25	212.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.7103	TRA	-.6628	TC3	-1.7073	BAU	1.5273	SGT	2983.6	SGR	5655.9	SG3	746.9	ST	90.9	SR	211.2	SS	109.3
RDE	4.0897	RRA	-.4442	RC3	-3.2732	FAU	.16998	RRT	.9366	RRF	.9990	RTF	.9404	CRT	.9845	CRS	-1.0000	CST	-.9857
FDE	6.4226	FRA	-.7718	FC3	-4.7553	BSP	10813	SGB	6394.7	R23	.0614	R13	.9972	LSA	254.1	MSA	14.8	SSA	.2
BDE	4.4329	BRA	.7979	BC3	3.6917	FSP	1313	SG1	6326.0	SG2	934.4	THA	63.07	EL1	229.5	EL2	14.7	ALF	66.94

LAUNCH DATE JUL 28 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 2 1974

HELIOCENTRIC CONIC DISTANCE 561.401 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.841	GAL	-.54	AZL	81.32	HCA	168.88	SMA	198.47	ECC	.23474	INC	8.6828	V1	29.328
RP	242.86	LAP	1.67	LOP	113.78	VP	20.597	GAP	4.19	AZP	98.52	TAL	357.18	TAP	166.06	RCA	151.88	APO	245.05	V2	22.599
RC	257.584	GL	57.66	GP	-55.60	ZAL	91.15	ZAP	89.95	ETS	182.94	ZAE	108.10	ETE	212.92	ZAC	33.56	ETC	295.76	LVI	33.18

PLANETOCENTRIC CONIC

C3	34.430	VHL	5.868	DLA	64.56	RAL	354.49	RAD	6648.7	VEL	12.423	PTH	7.33	VHP	4.032	DPA	-41.81	RAP	48.19	ECC	1.5866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.19	3 36 40	4711.69	-24.80	232.30	251.81	28.24	4 55 11	3711.7	-45.90	216.85
29.19	3 36 40	4711.69	-24.80	232.30	251.81	28.24	4 55 11	3711.7	-45.90	216.85
29.19	3 36 40	4711.69	-24.80	232.30	251.81	28.24	4 55 11	3711.7	-45.90	216.85
29.19	3 36 40	4711.69	-24.80	232.30	251.81	28.24	4 55 11	3711.7	-45.90	216.85
29.19	3 36 40	4711.69	-24.80	232.30	251.81	28.24	4 55 11	3711.7	-45.90	216.85
29.19	3 36 40	4711.69	-24.80	232.30	251.81	28.24	4 55 11	3711.7	-45.90	216.85
29.19	3 36 40	4711.69	-24.80	232.30	251.81	28.24	4 55 11	3711.7	-45.90	216.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8777	TRA	-.7384	TC3	-1.6415	BAU	1.5992	SGT	3145.0	SGR	5798.7	SG3	648.6	ST	95.1	SR	217.4	SS	100.4
RDE	4.4309	RRA	-.6209	RC3	-3.0621	FAU	.14942	RRT	.9445	RRF	.9990	RTF	.9481	CRT	.9855	CRS	-1.0000	CST	-.9867
FDE	5.8705	FRA	-.8852	FC3	-3.7571	BSP	11131	SGB	6596.6	R23	.0599	R13	.9973	LSA	257.3	MSA	14.9	SSA	.2
BDE	4.8123	BRA	.9848	BC3	3.4743	FSP	1138	SG1	6532.6	SG2	916.9	THA	62.28	EL1	236.9	EL2	14.8	ALF	66.58

LAUNCH DATE JUL 28 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 4 1974

HELIOCENTRIC CONIC DISTANCE 565.161 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.842	GAL	-.56	AZL	80.48	HCA	169.78	SMA	198.48	ECC	.23480	INC	9.5212	V1	29.328
RP	243.12	LAP	1.68	LOP	114.70	VP	20.570	GAP	3.96	AZP	99.37	TAL	357.06	TAP	166.84	RCA	151.87	APO	245.08	V2	22.573
RC	260.356	GL	60.58	GP	-57.24	ZAL	91.21	ZAP	89.21	ETS	181.92	ZAE	106.55	ETE	211.99	ZAC	32.15	ETC	296.86	LVI	34.73

PLANETOCENTRIC CONIC

C3	38.895	VHL	6.237	DLA	66.85	RAL	349.31	RAD	6650.3	VEL	12.600	PTH	7.46	VHP	4.298	DPA	-43.32	RAP	49.09	ECC	1.6401

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.86	3 10 43	4750.58	-23.33	235.37	248.55	25.68	4 29 53	3750.6	-45.13	221.58
26.86	3 10 43	4750.58	-23.33	235.37	248.55	25.68	4 29 53	3750.6	-45.13	221.58
26.86	3 10 43	4750.58	-23.33	235.37	248.55	25.68	4 29 53	3750.6	-45.13	221.58
26.86	3 10 43	4750.58	-23.33	235.37	248.55	25.68	4 29 53	3750.6	-45.13	221.58
26.86	3 10 43	4750.58	-23.33	235.37	248.55	25.68	4 29 53	3750.6	-45.13	221.58
26.86	3 10 43	4750.58	-23.33	235.37	248.55	25.68	4 29 53	3750.6	-45.13	221.58
26.86	3 10 43	4750.58	-23.33	235.37	248.55	25.68	4 29 53	3750.6	-45.13	221.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.0095	TRA	-.8295	TC3	-1.5506	BAU	1.6761	SGT	3288.8	SGR	5941.2	SG3	550.7	ST	96.7	SR	220.9	SS	89.8
RDE	4.7672	RRA	-.8324	RC3	-2.8260	FAU	.12844	RRT	.9510	RRF	.9990	RTF	.9543	CRT	.9854	CRS	-1.0000	CST	-.9867
FDE	5.2144	FRA	-.9643	FC3	-2.8589	BSP	11511	SGB	6790.8	R23	.0578	R13	.9974	LSA	256.9	MSA	15.2	SSA	.2
BDE	5.1734	BRA	1.1752	BC3	3.2234	FSP	970	SG1	6731.2	SG2	897.3	THA	61.69	EL1	240.7	EL2	15.1	ALF	66.57

LAUNCH DATE JUL 28 1973 FLIGHT TIME 298.00 ARRIVAL DATE MAY 22 1974

HELIOCENTRIC CONIC DISTANCE 656.073 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.908	GAL	-1.59	AZL	99.20	HCA	191.63	SMA	199.77	ECC	.24106	INC	0.1983	V1	29.328
RP	247.78	LAP	1.85	LOP	136.27	VP	20.171	GAP	-1.10	AZP	80.99	TAL	351.82	TAP	183.45	RCA	151.61	APO	247.92	V2	22.113
RC	320.632	GL	-58.47	GP	51.85	ZAL	96.72	ZAP	73.41	ETS	204.81	ZAE	89.69	ETE	182.64	ZAC	136.40	ETC	291.63	LVI	-72.48

PLANETOCENTRIC CONIC

C3	38.062	VHL	6.169	DLA	-38.91	RAL	63.11	RAD	6650.0	VEL	12.568	PTH	7.44	VHP	3.973	DPA	51.65	RAP	346.81	ECC	1.6264

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 17 18	2436.99	-4.25	63.76	294.53	137.43	18 57 55	1437.0	14.08	47.87
60.00	20 34 58	2069.17	7.80	42.18	305.93	129.67	21 9 27	1069.2	22.97	22.74
62.08	21 55 56	1838.80	15.94	29.29	312.37	125.97	22 26 34	838.8	29.18	7.48
62.08	21 55 56	1838.80	15.94	29.29	312.37	125.97	22 26 34	838.8	29.18	7.48
62.08	21 55 56	1838.80	15.94	29.29	312.37	125.97	22 26 34	838.8	29.18	7.48
62.08	21 55 56	1838.80	15.94	29.29	312.37	125.97	22 26 34	838.8	29.18	7.48
62.08	21 55 56	1838.80	15.94	29.29	312.37	125.97	22 26 34	838.8	29.18	7.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-4.4580	TRA 3.6816	TC3-3.7871	BAU 2.2646	SGT 7634.3	SGR 5064.7	SG3 643.0	ST 217.4	SR 121.5	SS 55.1
RDE 2.3514	RRA-2.9702	RC3 2.3373	FAU .16223	RRT -.9852	RRF -.9976	RTF .9792	CRT -.9895	CRS .9986	CST -.9807
FDE-3.0228	FRA 4.3357	FC3-3.6900	BSP 15817	SGB 9161.5	R23 .1405	R13 -.9879	LSA 254.4	MSA 17.6	SSA .3
BDE 5.0401	BRA 4.7304	BC3 4.4503	FSP 1125	SG1 9132.7	SG2 726.1	THA 146.59	EL1 248.5	EL2 15.3	ALF 150.93

LAUNCH DATE JUL 28 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 24 1974

HELIOCENTRIC CONIC DISTANCE 659.809 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.912	GAL	-1.63	AZL	98.57	HCA	192.51	SMA	199.85	ECC	.24146	INC	0.5668	V1	29.328
RP	247.91	LAP	1.85	LOP	137.15	VP	20.165	GAP	-1.30	AZP	81.63	TAL	351.59	TAP	184.10	RCA	151.59	APO	248.11	V2	22.101
RC	322.829	GL	-56.12	GP	49.99	ZAL	97.29	ZAP	72.00	ETS	205.20	ZAE	88.68	ETE	183.69	ZAC	136.71	ETC	290.91	LVI	-70.91

PLANETOCENTRIC CONIC

C3	34.845	VHL	5.903	DLA	-36.66	RAL	62.25	RAD	6648.8	VEL	12.440	PTH	7.34	VHP	3.797	DPA	50.09	RAP	348.44	ECC	1.5735

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 55 14	2478.15	-6.31	65.49	290.91	137.26	18 36 32	1478.2	12.06	49.69
60.00	19 48 36	2176.03	3.13	47.34	299.91	130.20	20 24 52	1176.0	18.78	28.66
65.63	22 10 23	1764.41	15.97	23.22	309.62	123.45	22 39 47	764.4	28.25	.88
65.63	22 10 23	1764.41	15.97	23.22	309.62	123.45	22 39 47	764.4	28.25	.88
65.63	22 10 23	1764.41	15.97	23.22	309.62	123.45	22 39 47	764.4	28.25	.88
65.63	22 10 23	1764.41	15.97	23.22	309.62	123.45	22 39 47	764.4	28.25	.88
65.63	22 10 23	1764.41	15.97	23.22	309.62	123.45	22 39 47	764.4	28.25	.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-4.2624	TRA 3.6523	TC3-4.1738	BAU 2.2462	SGT 7805.5	SGR 4881.7	SG3 722.4	ST 217.3	SR 114.9	SS 57.7
RDE 2.1220	RRA-2.7983	RC3 2.4144	FAU .17843	RRT -.9849	RRF -.9975	RTF .9790	CRT -.9891	CRS .9984	CST -.9793
FDE-3.1520	FRA 4.7586	FC3-4.4331	BSP 16002	SGB 9206.3	R23 .1446	R13 -.9872	LSA 251.9	MSA 17.8	SSA .3
BDE 4.7614	BRA 4.6010	BC3 4.8218	FSP 1271	SG1 9178.3	SG2 718.4	THA 148.15	EL1 245.4	EL2 15.0	ALF 152.28

LAUNCH DATE JUL 28 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 26 1974

HELIOCENTRIC CONIC DISTANCE 663.547 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.916	GAL	-1.68	AZL	98.02	HCA	193.38	SMA	199.94	ECC	.24188	INC	0.8169	V1	29.328
RP	248.03	LAP	1.85	LOP	138.03	VP	20.159	GAP	-1.51	AZP	82.20	TAL	351.36	TAP	184.74	RCA	151.58	APO	248.30	V2	22.089
RC	324.997	GL	-53.91	GP	48.18	ZAL	97.86	ZAP	70.60	ETS	205.50	ZAE	87.64	ETE	184.63	ZAC	135.04	ETC	290.26	LVI	-69.32

PLANETOCENTRIC CONIC

C3	32.243	VHL	5.678	DLA	-34.52	RAL	61.54	RAD	6647.9	VEL	12.335	PTH	7.26	VHP	3.651	DPA	48.55	RAP	349.95	ECC	1.5306

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 36 49	2514.63	-8.14	67.05	288.00	137.04	18 18 44	1514.8	10.25	51.29
60.00	19 17 14	2247.42	-.01	50.75	295.76	130.30	19 54 42	1247.4	15.85	32.43
69.32	22 28 11	1683.06	15.83	16.66	307.18	121.09	22 56 14	683.1	27.21	353.90
69.32	22 28 11	1683.06	15.83	16.66	307.18	121.09	22 56 14	683.1	27.21	353.90
69.32	22 28 11	1683.06	15.83	16.66	307.18	121.09	22 56 14	683.1	27.21	353.90
69.32	22 28 11	1683.06	15.83	16.66	307.18	121.09	22 56 14	683.1	27.21	353.90
69.32	22 28 11	1683.06	15.83	16.66	307.18	121.09	22 56 14	683.1	27.21	353.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-4.0885	TRA 3.6241	TC3-4.5671	BAU 2.2399	SGT 7976.2	SGR 4703.3	SG3 797.6	ST 216.9	SR 108.5	SS 59.6
RDE 1.9218	RRA-2.6381	RC3 2.4783	FAU .19395	RRT -.9846	RRF -.9974	RTF .9788	CRT -.9886	CRS .9981	CST -.9776
FDE-3.2373	FRA 5.1369	FC3-5.2076	BSP 16061	SGB 9259.6	R23 .1484	R13 -.9865	LSA 249.1	MSA 18.0	SSA .3
BDE 4.5177	BRA 4.4826	BC3 5.1961	FSP 1401	SG1 9232.4	SG2 709.5	THA 149.66	EL1 242.1	EL2 14.6	ALF 153.59

LAUNCH DATE JUL 28 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 28 1974

HELIOCENTRIC CONIC DISTANCE 667.285 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.921	GAL	-1.73	AZL	97.53	HCA	194.28	SMA	200.02	ECC	.24231	INC	7.5338	V1	29.328
RP	248.14	LAP	1.85	LOP	138.91	VP	20.154	GAP	-1.71	AZP	82.70	TAL	351.12	TAP	185.37	RCA	151.56	APO	248.49	V2	22.078
RC	327.134	GL	-51.83	GP	46.42	ZAL	98.43	ZAP	69.23	ETS	205.73	ZAE	86.58	ETE	185.49	ZAC	133.40	ETC	289.68	LVI	-67.73

PLANETOCENTRIC CONIC

C3	30.113	VHL	5.488	DLA	-32.49	RAL	60.96	RAD	6647.0	VEL	12.249	PTH	7.20	VHP	3.529	DPA	47.07	RAP	351.37	ECC	1.4956

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 21 6	2548.43	-9.81	68.49	285.64	136.79	18 3 34	1548.4	8.58	52.73
60.00	18 52 51	2304.22	-2.51	53.47	292.60	130.24	19 31 15	1304.2	13.47	35.34
70.00	21 9 33	1901.59	7.29	28.21	299.93	123.46	21 41 14	901.6	20.25	7.39
73.29	22 50 31	1590.11	15.55	9.30	305.02	118.89	23 17 1	590.1	26.09	346.22
73.29	22 50 31	1590.11	15.55	9.30	305.02	118.89	23 17 1	590.1	26.09	346.22
73.29	22 50 31	1590.11	15.55	9.30	305.02	118.89	23 17 1	590.1	26.09	346.22
110.00	2 12 55	6236.45	7.29	295.04	299.93	123.46	3 56 52	5236.4	20.25	274.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.9222	TRA 3.6111	TC3-4.9483	BAU 2.2354	SGT 8139.1	SGR 4526.3	SG3 867.4	ST 215.6	SR 102.1	SS 60.7
RDE 1.7412	RRA-2.4949	RC3 2.5192	FAU .20796	RRT -.9844	RRF -.9972	RTF .9786	CRT -.9880	CRS .9978	CST -.9757
FDE-3.2723	FRA 5.4832	FC3-5.9787	BSP 16186	SGB 9313.1	R23 .1517	R13 -.9857	LSA 245.5	MSA 18.2	SSA .4
BDE 4.2913	BRA 4.3891	BC3 5.5526	FSP 1523	SG1 9286.9	SG2 697.9	THA 151.12	EL1 238.1	EL2 14.3	ALF 154.83

LAUNCH DATE JUL 28 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 30 1974

HELIOCENTRIC CONIC DISTANCE 671.023 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.925	GAL	-1.78	AZL	97.11	HCA	195.13	SMA	200.11	ECC	.24274	INC	7.1058
RP	248.28	LAP	1.85	LOP	139.79	VP	20.149	GAP	-1.92	AZP	83.14	TAL	350.87	TAP	186.00	RCA	151.54	APO	248.69
RC	329.241	GL	-49.87	GP	44.72	ZAL	99.00	ZAP	67.89	ETS	205.90	ZAE	85.50	ETE	186.26	ZAC	131.81	ETC	289.17

V1	29.328																		
V2	22.067																		
LVI	-66.18																		

PLANETOCENTRIC CONIC

C3	28.350	VHL	5.324	DLA	-30.56	RAL	60.48	RAD	6646.4	VEL	12.178	PTH	7.14	VHP	3.427	DPA	45.63	RAP	352.69
ECC	1.4666																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 7 28	2579.76	-11.36	69.85	283.72	136.52	17 50 28	1579.8	7.02	54.07
60.00	18 32 48	2352.74	-4.64	55.79	290.10	130.08	19 12 1	1352.7	11.41	37.78
70.00	20 30 21	2006.84	3.31	33.76	296.09	124.01	21 3 48	1006.8	16.76	13.55
77.90	23 20 35	1474.58	15.17	.35	303.13	116.85	23 45 10	474.6	24.92	337.03
77.90	23 20 35	1474.58	15.17	.35	303.13	116.85	23 45 10	474.6	24.92	337.03
77.90	23 20 35	1474.58	15.17	.35	303.13	116.85	23 45 10	474.6	24.92	337.03
110.00	1 33 44	1053.66	3.31	322.68	296.09	124.01	1 51 17	53.7	16.76	302.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.7681	TRA	3.6052	TC3	-5.3244	BAU	2.2367	SGT	8299.9	SGR	4354.9	SG3	932.1	ST	213.9	SR	96.0	SS	61.3
RDE	1.5807	RRA	-2.3641	RC3	2.5448	FAU	.22087	RRT	-.9842	RRF	-.9969	RTF	.9784	CRT	-.9875	CRS	.9973	CST	-.9733
FDE	-3.2679	FRA	5.7948	FC3	-6.7448	BSP	16307	SGB	9373.0	R23	.1547	R13	-.9850	LSA	241.6	MSA	18.4	SSA	.4
BDE	4.0862	BRA	4.3112	BC3	5.9013	FSP	1637	SG1	9347.9	SG2	685.5	THA	152.53	EL1	234.0	EL2	13.8	ALF	156.01

LAUNCH DATE JUL 28 1973 FLIGHT TIME 308.00 ARRIVAL DATE JUN 1 1974

HELIOCENTRIC CONIC DISTANCE 674.762 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.930	GAL	-1.83	AZL	96.72	HCA	196.00	SMA	200.20	ECC	.24319	INC	6.7238
RP	248.35	LAP	1.85	LOP	140.67	VP	20.146	GAP	-2.12	AZP	83.53	TAL	350.63	TAP	186.63	RCA	151.52	APO	248.89
RC	331.317	GL	-48.01	GP	43.08	ZAL	99.57	ZAP	66.59	ETS	206.01	ZAE	84.41	ETE	186.96	ZAC	130.26	ETC	288.71

V1	29.328																		
V2	22.057																		
LVI	-64.65																		

PLANETOCENTRIC CONIC

C3	26.878	VHL	5.184	DLA	-28.72	RAL	60.09	RAD	6645.8	VEL	12.118	PTH	7.09	VHP	3.341	DPA	44.25	RAP	353.93
ECC	1.4423																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 55 32	2609.33	-12.82	71.15	282.14	136.22	17 39 1	1609.3	5.54	55.32
60.00	18 15 48	2395.81	-6.53	57.87	288.09	129.86	18 55 43	1395.8	9.56	39.92
70.00	20 2 23	2082.34	.43	37.70	293.33	124.15	20 37 5	1082.3	14.12	17.82
80.00	22 25 38	1633.65	8.25	8.46	298.13	118.80	22 52 52	633.6	19.36	346.60
84.76	0 16 21	1290.23	14.70	346.46	301.46	114.95	0 37 51	290.2	23.73	322.97
100.00	1 12 26	1108.12	8.25	329.83	298.13	118.80	1 30 54	108.1	19.36	307.97
110.00	1 5 45	1129.15	.43	326.62	293.33	124.15	1 24 34	129.2	14.12	306.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.6240	TRA	3.6072	TC3	-5.6903	BAU	2.2410	SGT	8456.8	SGR	4187.3	SG3	991.0	ST	211.7	SR	90.2	SS	61.3
RDE	1.4377	RRA	-2.2449	RC3	2.5527	FAU	.23235	RRT	-.9839	RRF	-.9966	RTF	.9781	CRT	-.9869	CRS	.9967	CST	-.9705
FDE	-3.2294	FRA	6.0751	FC3	-7.4841	BSP	16437	SGB	9436.7	R23	.1573	R13	-.9843	LSA	237.4	MSA	18.6	SSA	.4
BDE	3.8988	BRA	4.2487	BC3	6.2367	FSP	1740	SG1	9412.7	SG2	672.7	THA	153.88	EL1	229.7	EL2	13.4	ALF	157.13

LAUNCH DATE JUL 28 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 3 1974

HELIOCENTRIC CONIC DISTANCE 678.500 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.934	GAL	-1.88	AZL	96.38	HCA	196.87	SMA	200.29	ECC	.24364	INC	6.3807
RP	248.45	LAP	1.85	LOP	141.55	VP	20.143	GAP	-2.32	AZP	83.89	TAL	350.38	TAP	187.25	RCA	151.49	APO	249.09
RC	333.364	GL	-46.26	GP	41.51	ZAL	100.15	ZAP	65.32	ETS	206.07	ZAE	83.32	ETE	187.58	ZAC	128.77	ETC	288.29

V1	29.328																		
V2	22.048																		
LVI	-63.17																		

PLANETOCENTRIC CONIC

C3	25.638	VHL	5.063	DLA	-26.97	RAL	59.78	RAD	6645.3	VEL	12.067	PTH	7.05	VHP	3.268	DPA	42.92	RAP	355.09
ECC	1.4219																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 44 57	2637.43	-14.19	72.40	280.86	135.90	17 28 55	1637.4	4.13	58.50
60.00	18 1 4	2434.97	-8.23	59.77	286.47	129.59	18 41 39	1435.0	7.86	41.83
70.00	19 40 5	2143.82	-1.92	40.91	291.21	124.11	20 15 49	1143.8	11.91	21.21
80.00	21 43 34	1757.30	4.14	15.33	294.97	119.60	22 12 51	757.3	15.88	354.12
90.00	23 39 26	1383.66	7.45	349.65	296.78	117.36	24 2 29	383.7	18.06	327.65
100.00	0 30 22	1231.77	4.14	336.70	294.97	119.60	0 50 54	231.8	15.88	315.49
110.00	0 43 27	1190.64	-1.92	329.83	291.21	124.11	1 3 18	190.6	11.91	310.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.4874	TRA	3.6159	TC3	-6.0454	BAU	2.2484	SGT	8609.8	SGR	4023.8	SG3	1044.0	ST	209.2	SR	84.6	SS	61.0
RDE	1.3095	RRA	-2.1345	RC3	2.5466	FAU	.24258	RRT	-.9836	RRF	-.9963	RTF	.9779	CRT	-.9863	CRS	.9958	CST	-.9672
FDE	-3.1595	FRA	6.3211	FC3	-8.1916	BSP	16589	SGB	9503.7	R23	.1593	R13	-.9835	LSA	233.0	MSA	18.8	SSA	.5
BDE	3.7252	BRA	4.1989	BC3	6.5599	FSP	1836	SG1	9480.9	SG2	658.3	THA	155.18	EL1	225.3	EL2	13.0	ALF	158.18

LAUNCH DATE JUL 28 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 5 1974

HELIOCENTRIC CONIC DISTANCE 682.238 EARTH TO MARS

RL	151.91	LAL	-.00	LOL	304.78	VL	32.939	GAL	-1.93	AZL	96.07	HCA	197.75	SMA	200.38	ECC	.24410	INC	6.0706
RP	248.54	LAP	1.85	LOP	142.43	VP	20.140	GAP	-2.52	AZP	84.22	TAL	350.12	TAP	187.86	RCA	151.47	APO	249.30
RC	335.380	GL	-44.60	GP	40.01	ZAL	100.72	ZAP	64.09	ETS	206.09	ZAE	82.22	ETE	188.15	ZAC	127.33	ETC	287.93

V1	29.328																		
V2	22.039																		
LVI	-61.74																		

PLANETOCENTRIC CONIC

C3	24.587	VHL	4.959	DLA	-25.30	RAL	59.53	RAD	6644.8	VEL	12.023	PTH	7.01	VHP	3.208	DPA	41.66	RAP	356.18
ECC	1.4046																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 35 32	2664.29	-15.50	73.60	279.81	135.57	17 19 56	1664.3	2.78	57.63
60.00	17 48 9	2471.16	-9.80	61.55	285.16	129.29	18 29 20	1471.2	6.29	43.59
70.00	19 21 27	2196.84	-3.94	43.68	289.53	123.95	19 58 4	1196.8	9.97	24.09
80.00	21 14 41	1842.46	1.26	20.02	292.77	119.83	21 45 23	842.5	13.31	359.14
90.00	23 0 14	1502.03	3.70	356.33	294.12	118.06	23 25 16	502.0	14.88	334.88
100.00	0 1 28	1316.93	1.26	341.38	292.77	119.83	0 23 25	316.9	13.31	320.51
110.00	0 24 49	1243.66	-3.94	332.60	289.53	123.95	0 45 33	243.7	9.97	313.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.3611	TRA	3.6290	TC3	-6.3913	BAU	2.2593	SGT	8761.9	SGR	3866.5	SG3	1091.5	ST	206.5	SR	79.5	SS	60.3
RDE	1.1967	RRA	-2.0329	RC3	2.5284	FAU	.25160	RRT	-.9834	RRF	-.9959	RTF	.9777	CRT	-.9857	CRS	.9947	CST	-.9635
FDE	-3.0705	FRA	6.5381	FC3	-8.8590	BSP	16719	SGB	9577.1	R23	.1609	R13	-.9829	LSA	228.5	MSA	19.1	SSA	.5
BDE	3.5678	BRA	4.1596	BC3	6.8732	FSP	1918	SG1	9555.5	SG2	644.1	THA	156.43	EL1	220.9	EL2	12.5	ALF	159.16

LAUNCH DATE JUL 28 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 7 1974

HELIOCENTRIC CONIC DISTANCE 685.977 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 32.943 GAL -1.99 AZL 95.78 HCA 198.62 SMA 200.48 ECC .24458 INC 5.7889 V1 29.328
RP 248.63 LAP 1.85 LOP 143.31 VP 20.139 GAP -2.72 AZP 84.51 TAL 349.86 TAP 188.48 RCA 151.45 APO 249.51 V2 22.030
RC 337.366 GL -43.02 GP 38.58 ZAL 101.30 ZAP 62.90 ETS 206.08 ZAE 81.12 ETE 188.66 ZAC 125.94 ETC 287.60 LVI -60.36

PLANETOCENTRIC CONIC

C3 23.691 VHL 4.867 DLA -23.71 RAL 59.35 RAD 6644.4 VEL 11.986 PTH 6.98 VHP 3.157 DPA 40.45 RAP 357.22 ECC 1.3899

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 27 5	2690.06	-16.75	74.78	278.98	135.21	17 11 55	1690.1	1.49	58.70
60.00	17 36 40	2504.97	-11.25	63.22	284.10	128.96	18 18 25	1505.0	4.81	45.22
70.00	19 5 25	2244.05	-5.73	46.16	288.20	123.73	19 42 49	1244.0	8.22	26.62
80.00	20 51 53	1910.87	-1.06	23.77	291.10	119.84	21 23 44	910.9	11.16	3.08
90.00	22 32 29	1586.40	.98	1.04	292.23	118.26	22 58 55	586.4	12.46	339.89
100.00	23 34 45	1385.34	-1.06	345.14	291.10	119.84	23 57 50	385.3	11.16	324.45
110.00	0 8 46	1290.87	-5.73	335.08	288.20	123.73	0 30 19	290.9	8.22	315.53

DIFFERENTIAL CORRECTIONS
TDE-3.2422 TRA 3.6484 TC3-6.7257 BAU 2.2727
RDE 1.0972 RRA-1.9389 RC3 2.5005 FAU .25953
FDE-2.9659 FRA 6.7275 FC3-9.4838 BSP 16862
BDE 3.4228 BRA 4.1316 BC3 7.1754 FSP 1989

MID-COURSE EXECUTION ACCURACY
SGT 8912.6 SGR 3715.8 SG3 1133.9
RRT -.9831 RRF -.9954 RTF .9775
SGB 9656.1 R23 .1616 R13 -.9822
SG1 9635.7 SG2 628.6 THA 157.61

ORBIT DETERMINATION ACCURACY
ST 203.6 SR 74.7 SS 59.4
CRT -.9853 CRS .9934 CST -.9594
LSA 224.1 MSA 19.3 SSA .5
EL1 216.6 EL2 12.0 ALF 160.06

LAUNCH DATE JUL 28 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 9 1974

HELIOCENTRIC CONIC DISTANCE 689.714 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 32.948 GAL -2.04 AZL 95.53 HCA 199.49 SMA 200.57 ECC .24506 INC 5.5318 V1 29.328
RP 248.71 LAP 1.84 LOP 144.19 VP 20.138 GAP -2.92 AZP 84.78 TAL 349.60 TAP 189.09 RCA 151.42 APO 249.72 V2 22.023
RC 339.321 GL -41.52 GP 37.20 ZAL 101.87 ZAP 61.74 ETS 206.04 ZAE 80.02 ETE 189.12 ZAC 124.61 ETC 287.30 LVI -59.02

PLANETOCENTRIC CONIC

C3 22.925 VHL 4.788 DLA -22.19 RAL 59.22 RAD 6644.1 VEL 11.955 PTH 6.96 VHP 3.114 DPA 39.31 RAP 358.20 ECC 1.3773

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 19 27	2714.85	-17.95	75.92	278.32	134.84	17 4 42	1714.9	.24	59.74
60.00	17 26 24	2536.81	-12.61	64.82	283.25	128.60	18 8 41	1536.8	3.41	46.75
70.00	18 51 23	2286.98	-7.35	48.44	287.13	123.45	19 29 30	1287.0	6.61	28.90
80.00	20 32 52	1969.39	-3.04	26.99	289.79	119.72	21 5 41	969.4	9.28	6.41
90.00	22 10 20	1654.98	-1.23	4.87	290.79	118.26	22 37 55	655.0	10.41	343.88
100.00	23 15 44	1443.87	-3.04	348.35	289.79	119.72	23 39 48	443.9	9.28	327.77
110.00	23 50 50	1333.80	-7.35	337.35	287.13	123.45	24 13 3	333.8	6.61	317.81

DIFFERENTIAL CORRECTIONS
TDE-3.1276 TRA 3.6730 TC3-7.0445 BAU 2.2869
RDE 1.0071 RRA-1.8518 RC3 2.4605 FAU .26604
FDE-2.8408 FRA 6.8905 FC-10.0467 BSP 17043
BDE 3.2857 BRA 4.1134 BC3 7.4618 FSP 2057

MID-COURSE EXECUTION ACCURACY
SGT 9057.9 SGR 3568.0 SG3 1170.1
RRT -.9828 RRF -.9949 RTF .9774
SGB 9735.3 R23 .1620 R13 -.9816
SG1 9715.9 SG2 613.6 THA 158.75

ORBIT DETERMINATION ACCURACY
ST 200.5 SR 70.2 SS 58.3
CRT -.9850 CRS .9916 CST -.9546
LSA 219.4 MSA 19.5 SSA .6
EL1 212.1 EL2 11.5 ALF 160.91

LAUNCH DATE JUL 28 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 11 1974

HELIOCENTRIC CONIC DISTANCE 693.451 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 32.953 GAL -2.10 AZL 95.30 HCA 200.36 SMA 200.67 ECC .24555 INC 5.2960 V1 29.328
RP 248.78 LAP 1.84 LOP 145.06 VP 20.138 GAP -3.12 AZP 85.03 TAL 349.33 TAP 189.70 RCA 151.39 APO 249.94 V2 22.015
RC 341.246 GL -40.10 GP 35.90 ZAL 102.45 ZAP 60.62 ETS 205.97 ZAE 78.92 ETE 189.54 ZAC 123.34 ETC 287.03 LVI -57.75

PLANETOCENTRIC CONIC

C3 22.266 VHL 4.719 DLA -20.73 RAL 59.13 RAD 6643.8 VEL 11.927 PTH 6.93 VHP 3.079 DPA 38.22 RAP 359.13 ECC 1.3664

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 12 33	2738.77	-19.09	77.05	277.61	134.45	16 58 12	1738.8	-.96	60.74
60.00	17 17 9	2567.00	-13.88	66.35	282.58	128.22	17 59 56	1567.0	2.09	48.19
70.00	18 38 56	2326.59	-8.83	50.55	286.28	123.13	19 17 42	1326.6	5.11	30.99
80.00	20 16 30	2021.23	-4.78	29.84	288.76	119.51	20 50 11	1021.2	7.58	9.32
90.00	21 51 44	1714.01	-3.13	8.16	289.67	118.12	22 20 18	714.0	8.60	347.27
100.00	22 59 22	1495.70	-4.78	351.21	288.76	119.51	23 24 17	495.7	7.58	330.69
110.00	23 38 22	1373.40	-8.83	339.46	286.28	123.13	24 1 16	373.4	5.11	319.90

DIFFERENTIAL CORRECTIONS
TDE-3.0211 TRA 3.7007 TC3-7.3543 BAU 2.3041
RDE .9284 RRA-1.7707 RC3 2.4142 FAU .27161
FDE-2.7108 FRA 7.0297 FC-10.5606 BSP 17189
BDE 3.1605 BRA 4.1025 BC3 7.7404 FSP 2110

MID-COURSE EXECUTION ACCURACY
SGT 9203.9 SGR 3427.4 SG3 1201.7
RRT -.9825 RRF -.9943 RTF .9772
SGB 9821.3 R23 .1617 R13 -.9811
SG1 9803.0 SG2 598.9 THA 159.82

ORBIT DETERMINATION ACCURACY
ST 197.3 SR 66.2 SS 57.1
CRT -.9848 CRS .9894 CST -.9495
LSA 214.9 MSA 19.7 SSA .6
EL1 207.9 EL2 10.9 ALF 161.67

LAUNCH DATE JUL 28 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 13 1974

HELIOCENTRIC CONIC DISTANCE 697.188 EARTH TO MARS

RL 151.91 LAL -.00 LOL 304.78 VL 32.958 GAL -2.15 AZL 95.08 HCA 201.24 SMA 200.76 ECC .24604 INC 5.0789 V1 29.328
RP 248.85 LAP 1.84 LOP 145.94 VP 20.139 GAP -3.32 AZP 85.26 TAL 349.06 TAP 190.30 RCA 151.37 APO 250.16 V2 22.009
RC 343.139 GL -38.75 GP 34.68 ZAL 103.02 ZAP 59.53 ETS 205.89 ZAE 77.83 ETE 189.92 ZAC 122.11 ETC 286.79 LVI -56.82

PLANETOCENTRIC CONIC

C3 21.698 VHL 4.658 DLA -19.34 RAL 59.09 RAD 6643.6 VEL 11.904 PTH 6.91 VHP 3.050 DPA 37.19 RAP .03 ECC 1.3871

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 6 17	2761.89	-20.19	78.15	277.43	134.05	16 52 19	1761.9	-2.12	61.70
60.00	17 8 46	2595.75	-15.09	67.82	282.07	127.82	17 52 1	1595.7	.82	49.57
70.00	18 27 46	2363.51	-10.20	52.53	285.62	122.77	19 7 9	1363.5	3.71	32.92
80.00	20 2 8	2068.16	-6.35	32.45	287.96	119.24	20 36 36	1068.2	6.02	11.93
90.00	21 35 39	1766.48	-4.80	11.11	288.80	117.90	22 5 6	766.5	6.96	350.26
100.00	22 45 0	1542.63	-6.35	353.81	287.96	119.24	23 10 42	542.6	6.02	333.30
110.00	23 27 12	1410.33	-10.20	341.45	285.62	122.77	23 50 42	410.3	3.71	321.84

DIFFERENTIAL CORRECTIONS
TDE-2.9199 TRA 3.7309 TC3-7.6543 BAU 2.3238
RDE .8582 RRA-1.6941 RC3 2.3637 FAU .27641
FDE-2.5711 FRA 7.1418 FC-11.0288 BSP 17337
BDE 3.0434 BRA 4.0975 BC3 8.0109 FSP 2152

MID-COURSE EXECUTION ACCURACY
SGT 9349.0 SGR 3292.5 SG3 1228.7
RRT -.9822 RRF -.9936 RTF .9771
SGB 9911.8 R23 .1606 R13 -.9806
SG1 9894.6 SG2 583.6 THA 160.85

ORBIT DETERMINATION ACCURACY
ST 194.1 SR 62.4 SS 55.7
CRT -.9848 CRS .9866 CST -.9436
LSA 210.4 MSA 19.9 SSA .7
EL1 203.6 EL2 10.3 ALF 162.39

LAUNCH DATE JUL 29 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 313.818 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	35.478	GAL	-2.29	AZL	90.20	HCA	97.32	SMA	271.41	ECC	.44181	INC	.2038	V1	29.331
RP	218.16	LAP	-.20	LOP	43.06	VP	26.975	GAP	23.81	AZP	89.97	TAL	352.52	TAP	89.84	RCA	151.50	APO	391.33	V2	25,188
RC	74.953	GL	-1.16	GP	-5.06	ZAL	101.29	ZAP	174.21	ETS	242.66	ZAE	165.11	ETE	341.81	ZAC	78.78	ETC	283.04	LVI	-12.71

PLANETOCENTRIC CONIC

C3	38,913	VHL	6.238	DLA	15.81	RAL	44.91	RAD	6650.3	VEL	12.601	PTH	7.46	VHP	8.845	DPA	9.85	RAP	39.69	ECC	1.6404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 51 19	3617.12	-47.43	139.16	294.13	94.26	13 51 36	2617.1	-40.26	106.89
60.00	13 12 55	3559.61	-40.30	134.40	294.55	90.55	14 12 15	2559.6	-35.67	104.31
70.00	13 44 34	3466.49	-34.08	126.74	294.43	87.65	14 42 20	2466.5	-31.48	98.31
80.00	14 33 21	3313.58	-29.57	114.83	294.12	85.65	15 28 35	2313.6	-28.37	87.47
90.00	15 46 0	3079.09	-27.85	97.44	293.95	84.90	16 37 19	2079.1	-27.17	70.45
100.00	17 16 13	2788.06	-29.57	76.20	294.12	85.65	18 2 41	1788.1	-28.37	48.84
110.00	18 44 0	2513.31	-34.08	55.66	294.43	87.65	19 25 53	1513.3	-31.48	27.23

DIFFERENTIAL CORRECTIONS

TDE	-.3560	TRA	-1.1964	TC3	.1920	BAU	.1065
RDE	-.6186	RRA	.2394	RC3	-.0710	FAU	.05175
FDE	.3132	FRA	.8483	FC3	-1.1513	BSP	1788
BDE	.7137	BRA	1.2201	BC3	.2047	FSP	177

MID-COURSE EXECUTION ACCURACY

SGT	1211.8	SGR	618.8	SG3	144.6
RRT	-.1287	RRF	.1438	RTF	-.6719
SGB	1360.7	R23	-.0279	R13	.6738
SG1	1215.4	SG2	611.9	THA	174.96

ORBIT DETERMINATION ACCURACY

ST	23.7	SR	28.6	SS	14.5
CRT	.5986	CRS	.6762	CST	.9894
LSA	35.9	MSA	17.4	SSA	1.3
EL1	33.4	EL2	16.3	ALF	53.82

LAUNCH DATE JUL 29 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 315.944 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	35.329	GAL	-2.20	AZL	90.17	HCA	98.46	SMA	285.80	ECC	.42994	INC	.1676	V1	29.331
RP	218.53	LAP	-.17	LOP	44.19	VP	26.746	GAP	23.44	AZP	89.98	TAL	352.68	TAP	91.13	RCA	151.52	APO	380.08	V2	25,148
RC	76.362	GL	-.98	GP	-5.20	ZAL	100.99	ZAP	173.69	ETS	237.29	ZAE	164.39	ETE	341.80	ZAC	78.57	ETC	283.01	LVI	-12.46

PLANETOCENTRIC CONIC

C3	37.028	VHL	6.085	DLA	15.90	RAL	44.55	RAD	6649.6	VEL	12.527	PTH	7.41	VHP	8.583	DPA	9.85	RAP	40.10	ECC	1.6094

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 49 31	3606.50	-47.37	138.14	292.62	95.04	13 49 38	2606.5	-39.92	106.11
60.00	13 11 0	3549.32	-40.29	133.53	293.15	91.15	14 10 9	2549.3	-35.42	103.55
70.00	13 42 29	3456.64	-34.11	125.97	293.10	88.10	14 40 6	2456.6	-31.32	97.59
80.00	14 31 8	3304.21	-29.61	114.14	292.83	86.01	15 26 12	2304.2	-28.26	86.80
90.00	15 43 42	3069.96	-27.91	96.78	292.68	85.23	16 34 52	2070.0	-27.08	69.80
100.00	17 13 59	2778.69	-29.61	75.51	292.83	86.01	18 0 18	1778.7	-28.26	48.17
110.00	18 41 55	2503.46	-34.11	54.89	293.10	88.10	19 23 39	1503.5	-31.32	26.51

DIFFERENTIAL CORRECTIONS

TDE	-.3602	TRA	-1.1840	TC3	.2188	BAU	.1153
RDE	-.6034	RRA	.2364	RC3	-.0796	FAU	.05382
FDE	.3302	FRA	.8749	FC3	-1.2583	BSP	1877
BDE	.7027	BRA	1.2078	BC3	.2329	FSP	191

MID-COURSE EXECUTION ACCURACY

SGT	1236.9	SGR	621.8	SG3	154.0
RRT	-.1348	RRF	.1549	RTF	-.6834
SGB	1384.4	R23	-.0328	R13	.6856
SG1	1240.6	SG2	614.3	THA	174.86

ORBIT DETERMINATION ACCURACY

ST	24.3	SR	28.6	SS	15.1
CRT	.6052	CRS	.6821	CST	.9896
LSA	36.5	MSA	17.5	SSA	1.3
EL1	33.8	EL2	16.4	ALF	52.61

LAUNCH DATE JUL 29 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 318.232 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	35.191	GAL	-2.11	AZL	90.13	HCA	99.59	SMA	260.72	ECC	.41874	INC	.1310	V1	29.331
RP	218.89	LAP	-.13	LOP	45.33	VP	26.525	GAP	23.07	AZP	89.98	TAL	352.84	TAP	92.43	RCA	151.55	APO	369.89	V2	25.107
RC	77.855	GL	-.78	GP	-5.35	ZAL	100.67	ZAP	173.12	ETS	232.76	ZAE	163.72	ETE	341.72	ZAC	78.36	ETC	282.98	LVI	-12.22

PLANETOCENTRIC CONIC

C3	35.284	VHL	5.940	DLA	16.00	RAL	44.17	RAD	6649.0	VEL	12.457	PTH	7.35	VHP	8.331	DPA	9.84	RAP	40.51	ECC	1.5807

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 47 37	3596.32	-47.31	137.17	291.12	95.79	13 47 34	2596.3	-39.58	105.36
60.00	13 8 59	3539.48	-40.27	132.69	291.76	91.71	14 7 58	2539.5	-35.18	102.82
70.00	13 40 18	3447.26	-34.13	125.24	291.78	88.54	14 37 46	2447.3	-31.16	96.91
80.00	14 28 47	3295.34	-29.65	113.48	291.55	86.35	15 23 42	2295.3	-28.15	86.16
90.00	15 41 17	3061.33	-27.96	96.15	291.41	85.54	16 32 18	2061.3	-26.99	69.19
100.00	17 11 39	2769.81	-29.65	74.85	291.55	86.35	17 57 49	1769.8	-28.15	47.53
110.00	18 39 45	2494.08	-34.13	54.16	291.78	88.54	19 21 19	1494.1	-31.16	25.83

DIFFERENTIAL CORRECTIONS

TDE	-.3612	TRA	-1.1773	TC3	.2469	BAU	.1238
RDE	-.5885	RRA	.2378	RC3	-.0889	FAU	.05597
FDE	.3478	FRA	.9011	FC3	-1.3733	BSP	1941
BDE	.6906	BRA	1.2010	BC3	.2624	FSP	206

MID-COURSE EXECUTION ACCURACY

SGT	1266.1	SGR	624.7	SG3	163.7
RRT	-.1451	RRF	.1668	RTF	-.6833
SGB	1411.9	R23	-.0353	R13	.6856
SG1	1270.4	SG2	616.0	THA	174.64

ORBIT DETERMINATION ACCURACY

ST	24.9	SR	28.6	SS	15.6
CRT	.6062	CRS	.6878	CST	.9890
LSA	37.0	MSA	17.6	SSA	1.3
EL1	34.1	EL2	16.6	ALF	51.55

LAUNCH DATE JUL 29 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 320.663 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	35.060	GAL	-2.02	AZL	90.10	HCA	100.72	SMA	256.10	ECC	.40816	INC	.0938	V1	29.331
RP	219.26	LAP	-.09	LOP	46.46	VP	26.313	GAP	22.71	AZP	89.98	TAL	353.01	TAP	93.73	RCA	151.57	APO	360.63	V2	25.067
RC	79.428	GL	-.57	GP	-5.50	ZAL	100.34	ZAP	172.51	ETS	228.94	ZAE	163.10	ETE	341.57	ZAC	78.14	ETC	282.95	LVI	-11.97

PLANETOCENTRIC CONIC

C3	33.670	VHL	5.803	DLA	16.10	RAL	43.78	RAD	6648.4	VEL	12.393	PTH	7.31	VHP	8.087	DPA	9.82	RAP	40.91	ECC	1.5541

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 45 38	3586.60	-47.24	136.24	289.66	96.50	13 45 25	2586.6	-39.26	104.65
60.00	13 6 51	3530.11	-40.25	131.89	290.40	92.25	14 5 42	2530.1	-34.95	102.14
70.00	13 38 1	3438.37	-34.14	124.54	290.48	88.95	14 35 20	2438.4	-31.00	96.26
80.00	14 26 20	3286.98	-29.69	112.87	290.28	86.68	15 21 7	2287.0	-28.05	85.56
90.00	15 38 45	3053.23	-28.00	95.56	290.15	85.83	16 29 38	2053.2	-26.91	68.61
100.00	17 9 12	2761.45	-29.69	74.23	290.28	86.68	17 55 13	1761.4	-28.05	46.93
110.00	18 37 28	2485.19	-34.14	53.46	290.48	88.95	19 18 53	1485.2	-31.00	25.18

DIFFERENTIAL CORRECTIONS

TDE	-.3620	TRA	-1.1697	TC3	.2767	BAU	.1323
RDE	-.5739	RRA	.2369	RC3	-.0992	FAU	.05826
FDE	.3665	FRA	.9288	FC3	-1.4980	BSP	2002
BDE	.6786	BRA	1.1934	BC3	.2940	FSP	222

MID-COURSE EXECUTION ACCURACY

SGT	1294.6	SGR	627.5	SG3	174.2
RRT	-.1565	RRF	.1799	RTF	-.7031
SGB	1438.7	R23	-.0379	R13	.7056
SG1	1299.4	SG2	617.5	THA	174.39

ORBIT DETERMINATION ACCURACY

ST	25.4	SR	28.6	SS	16.2
CRT	.6072	CRS	.6933	CST	.9884
LSA	37.5	MSA	17.8	SSA	1.3
EL1	34.3	EL2	16.8	ALF	50.51

LAUNCH DATE JUL 29 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 323.221 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	34.937	GAL	-1.94	AZL	90.06	HCA	101.85	SMA	251.09	ECC	.39818	INC	.0568	V1	29.331
RP	219.63	LAP	-.06	LOP	47.58	VP	26.108	GAP	22.34	AZP	89.99	TAL	353.19	TAP	95.04	RCA	151.59	APO	352.18	V2	25.026
RC	81.081	GL	-.36	GP	-5.66	ZAL	99.99	ZAP	171.86	ETS	225.71	ZAE	162.55	ETE	341.35	ZAC	77.91	ETC	282.91	LVI	-11.72

PLANETOCENTRIC CONIC

C3	32.176	VHL	5.672	DLA	16.21	RAL	43.37	RAD	6647.8	VEL	12.333	PTH	7.26	VHP	7.652	DPA	9.79	RAP	41.31	ECC	1.5295

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 43 34	3577.34	-47.16	135.35	288.22	97.18	13 43 12	2577.3	-38.95	103.98
60.00	13 4 39	3521.23	-40.22	131.14	289.05	92.76	14 3 20	2521.2	-34.73	101.49
70.00	13 35 38	3430.00	-34.15	123.89	289.19	89.33	14 32 48	2430.0	-30.85	95.66
80.00	14 23 46	3279.15	-29.72	112.29	289.02	86.98	15 18 26	2279.2	-27.95	85.00
90.00	15 36 6	3045.69	-28.03	95.01	288.91	86.11	16 26 52	2045.7	-26.83	68.07
100.00	17 6 38	2753.63	-29.72	73.65	289.02	86.98	17 52 32	1753.6	-27.95	46.37
110.00	18 35 5	2476.82	-34.15	52.81	289.19	89.33	19 16 22	1476.8	-30.85	24.57

DIFFERENTIAL CORRECTIONS

TDE	-.3635	TRA	-1.1616	TC3	.3084	BAU	.1409												
RDE	-.5596	RRA	.2364	RC3	-.1104	FAU	.06068												
FDE	.3866	FRA	.9559	FC3	-1.6326	BSP	2057												
BDE	.6673	BRA	1.1854	BC3	.3275	FSP	239												

MID-COURSE EXECUTION ACCURACY

SGT	1322.9	SGR	630.1	SG3	185.2						
RRT	-.1681	RRF	.1935	RTF	-.7124						
SGB	1465.3	R23	-.0408	R13	.7151						
SG1	1328.4	SG2	618.6	THA	174.15						

ORBIT DETERMINATION ACCURACY

ST	25.9	SR	28.5	SS	16.8						
CRT	.6089	CRS	.6994	CST	.9878						
LSA	38.0	MSA	17.9	SSA	1.4						
EL1	34.6	EL2	16.9	ALF	49.40						

LAUNCH DATE JUL 29 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 325.893 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	34.819	GAL	-1.85	AZL	90.02	HCA	102.97	SMA	248.03	ECC	.38875	INC	.0156	V1	29.331
RP	220.00	LAP	-.02	LOP	48.70	VP	25.912	GAP	21.98	AZP	90.00	TAL	353.38	TAP	96.35	RCA	151.61	APO	344.46	V2	24.985
RC	82.809	GL	-.13	GP	-5.82	ZAL	99.63	ZAP	171.18	ETS	222.96	ZAE	162.06	ETE	341.07	ZAC	77.69	ETC	282.88	LVI	-11.46

PLANETOCENTRIC CONIC

C3	30.791	VHL	5.549	DLA	16.32	RAL	42.95	RAD	6647.3	VEL	12.277	PTH	7.22	VHP	7.625	DPA	9.75	RAP	41.69	ECC	1.5067

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 41 25	3568.57	-47.08	134.52	286.81	97.82	13 40 54	2568.6	-38.65	103.35
60.00	13 2 21	3512.84	-40.19	130.43	287.73	93.25	14 0 54	2512.8	-34.51	100.88
70.00	13 33 9	3422.15	-34.15	123.28	287.92	89.69	14 30 12	2422.1	-30.71	95.09
80.00	14 21 6	3271.89	-29.74	111.75	287.79	87.26	15 15 38	2271.9	-27.85	84.48
90.00	15 33 21	3038.72	-28.06	94.51	287.68	86.36	16 23 59	2038.7	-26.75	67.58
100.00	17 3 58	2746.36	-29.74	73.12	287.79	87.26	17 49 45	1746.4	-27.85	45.85
110.00	18 32 36	2468.97	-34.15	52.20	287.92	89.69	19 13 45	1469.0	-30.71	24.01

DIFFERENTIAL CORRECTIONS

TDE	-.3651	TRA	-1.1535	TC3	.3421	BAU	.1496												
RDE	-.5455	RRA	.2361	RC3	-.1226	FAU	.06322												
FDE	.4080	FRA	.9841	FC3	-1.7775	BSP	2115												
BDE	.6564	BRA	1.1774	BC3	.3634	FSP	257												

MID-COURSE EXECUTION ACCURACY

SGT	1351.5	SGR	632.7	SG3	196.8						
RRT	-.1808	RRF	.2083	RTF	-.7216						
SGB	1492.2	R23	-.0438	R13	.7246						
SG1	1357.6	SG2	619.5	THA	173.88						

ORBIT DETERMINATION ACCURACY

ST	26.5	SR	28.4	SS	17.5						
CRT	.6106	CRS	.7052	CST	.9872						
LSA	38.6	MSA	18.0	SSA	1.4						
EL1	34.9	EL2	17.1	ALF	48.27						

LAUNCH DATE JUL 29 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 328.666 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	34.708	GAL	-1.77	AZL	89.98	HCA	104.08	SMA	244.50	ECC	.37983	INC	.0000	V1	29.331
RP	220.38	LAP	.02	LOP	49.82	VP	25.722	GAP	21.63	AZP	90.00	TAL	353.57	TAP	97.66	RCA	151.63	APO	337.37	V2	24.944
RC	84.610	GL	.10	GP	-5.99	ZAL	99.26	ZAP	170.48	ETS	220.61	ZAE	161.63	ETE	340.73	ZAC	77.45	ETC	282.86	LVI	-11.20

PLANETOCENTRIC CONIC

C3	29.507	VHL	5.432	DLA	16.43	RAL	42.50	RAD	6646.8	VEL	12.225	PTH	7.18	VHP	7.405	DPA	9.70	RAP	42.07	ECC	1.4856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 39 11	3560.29	-47.00	133.74	285.43	98.42	13 38 31	2560.3	-38.37	102.77
60.00	12 59 57	3504.98	-40.16	129.76	286.43	93.70	13 58 22	2505.0	-34.31	100.31
70.00	13 30 35	3414.84	-34.15	122.71	286.68	90.03	14 27 30	2414.8	-30.57	94.56
80.00	14 18 20	3265.20	-29.76	111.25	286.57	87.52	15 12 45	2265.2	-27.76	84.01
90.00	15 30 28	3032.34	-28.09	94.04	286.47	86.59	16 21 1	2032.3	-26.67	67.12
100.00	17 1 12	2739.68	-29.76	72.62	286.57	87.52	17 46 51	1739.7	-27.76	45.38
110.00	18 30 1	2461.66	-34.15	51.63	286.68	90.03	19 11 3	1461.7	-30.57	23.48

DIFFERENTIAL CORRECTIONS

TDE	-.3668	TRA	-1.1447	TC3	.3764	BAU	.1579												
RDE	-.5316	RRA	.2360	RC3	-.1359	FAU	.06591												
FDE	.4312	FRA	1.0122	FC3	-1.9338	BSP	2177												
BDE	.6459	BRA	1.1688	BC3	.4002	FSP	276												

MID-COURSE EXECUTION ACCURACY

SGT	1379.0	SGR	635.3	SG3	209.1						
RRT	-.1942	RRF	.2238	RTF	-.[illegible]99						
SGB	1518.3	R23	-.0469	R13	.7331						
SG1	1385.9	SG2	620.1	THA	173.60						

ORBIT DETERMINATION ACCURACY

ST	27.0	SR	28.3	SS	18.2						
CRT	.6124	CRS	.7117	CST	.9864						
LSA	39.2	MSA	18.0	SSA	1.4						
EL1	35.2	EL2	17.2	ALF	47.14						

LAUNCH DATE JUL 29 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 331.530 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	34.603	GAL	-1.69	AZL	89.95	HCA	105.20	SMA	241.25	ECC	.37140	INC	.0509	V1	29.331
RP	220.76	LAP	.05	LOP	50.94	VP	25.539	GAP	21.28	AZP	90.01	TAL	353.77	TAP	98.97	RCA	151.65	APO	330.86	V2	24.902
RC	86.480	GL	.34	GP	-6.18	ZAL	98.88	ZAP	169.75	ETS	218.59	ZAE	161.25	ETE	340.32	ZAC	77.21	ETC	282.83	LVI	-10.93

PLANETOCENTRIC CONIC

C3	28.315	VHL	5.321	DLA	16.56	RAL	42.05	RAD	6646.3	VEL	12.176	PTH	7.14	VHP	7.193	DPA	9.63	RAP	42.44	ECC	1.4660

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 36 52	3552.49	-46.92	133.00	284.08	98.98	13 36 4	2552.5	-38.09	102.22
60.00	12 57 29	3497.61	-40.13	129.14	285.15	94.12	13 55 46	2497.6	-34.12	99.78
70.00	13 27 54	3408.06	-34.15	122.18	285.45	90.35	14 24 42	2408.1	-30.44	94.08
80.00	14 15 26	3259.07	-29.78	110.80	285.36	87.76	15 9 45	2259.1	-27.68	83.57
90.00	15 27 29	3026.54	-28.11	93.62	285.27	86.80	16 17 55	2026.5	-26.61	66.71
100.00	16 58 18	2733.54	-29.78	72.17	285.36	87.76	17 43 52	1733.5	-27.68	44.94
110.00	18 27 20	2454.88	-34.15	51.10	285.45	90.35	19 8 15	1454.9	-30.44	23.00

DIFFERENTIAL CORRECTIONS

TDE	-.3571	TRA	-1.1246	TC3	.4285	BAU	.1719												
RDE	-.5177	RRA	.2363	RC3	-.1501	FAU	.06858												
FDE	.4589	FRA	1.0453	FC3	-2.0969	BSP	2095												
BDE	.6289	BRA	1.1492	BC3	.4540	FSP	301												

MID-COURSE EXECUTION ACCURACY

SGT	1397.0	SGR	637.7	SG3	222.0						
RRT	-.2176	RRF	.2396	RTF	-.7496						
SGB	1535.7	R23	-.0376	R13	.7528						
SG1	1405.6	SG2	618.7	THA	172.96						

ORBIT DETERMINATION ACCURACY

ST	27.0	SR	28.2	SS	19.0						
CRT	.6053	CRS	.7187	CST	.9839						
LSA	39.4	MSA	18.1	SSA	1.4						
EL1	35.0	EL2	17.3	ALF	46.97						

LAUNCH DATE JUL 29 1973 FLIGHT TIME 124.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 334.476 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	34.503	GAL	-1.61	AZL	89.91	HCA	106.31	SMA	238.27	ECC	.36344	INC	.0896	V1	29.331
RP	221.14	LAP	.09	LOP	52.05	VP	25.363	GAP	20.93	AZP	90.03	TAL	353.97	TAP	100.28	RCA	151.67	APO	324.87	V2	24.861
RC	88.416	GL	.60	GP	-6.36	ZAL	98.49	ZAP	169.00	ETS	216.85	ZAE	160.93	ETE	339.85	ZAC	76.97	ETC	282.80	LVI	-10.66

PLANETOCENTRIC CONIC

C3	27.211	VHL	5.216	DLA	16.68	RAL	41.58	RAD	6645.9	VEL	12.131	PTH	7.10	VHP	6.988	DPA	9.56	RAP	42.81	ECC	1.4478

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 34 29	3545.24	-46.84	132.32	282.77	99.50	13 33 34	2545.2	-37.84	101.71
60.00	12 54 55	3490.82	-40.09	128.56	283.91	94.51	13 53 6	2490.8	-33.94	99.30
70.00	13 25 8	3401.90	-34.15	121.70	284.24	90.63	14 21 50	2401.9	-30.32	93.64
80.00	14 12 27	3253.60	-29.80	110.39	284.18	87.97	15 6 41	2253.6	-27.60	83.18
90.00	15 24 23	3021.42	-28.13	93.25	284.10	86.99	16 14 44	2021.4	-26.55	66.35
100.00	16 55 19	2728.08	-29.80	71.76	284.18	87.97	17 40 47	1728.1	-27.60	44.55
110.00	18 24 34	2448.72	-34.15	50.61	284.24	90.63	19 5 23	1448.7	-30.32	22.56

DIFFERENTIAL CORRECTIONS

TDE	-.3630	TRA	-1.1199	TC3	.4606	BAU	.1781
RDE	-.5043	RRA	.2364	RC3	-.1659	FAU	.07164
FDE	.4832	FRA	1.0730	FC3	-2.2793	BSP	2210
BDE	.6214	BRA	1.1446	BC3	.4896	FSP	322

MID-COURSE EXECUTION ACCURACY

SGT	1427.9	SGR	640.5	SG3	235.8
RRT	-.2300	RRF	.2579	RTF	-.7529
SGB	1565.0	R23	-.0458	R13	.7565
SG1	1437.2	SG2	619.3	THA	172.76

ORBIT DETERMINATION ACCURACY

ST	27.7	SR	28.0	SS	19.6
CRT	.6101	CRS	.7239	CST	.9837
LSA	40.1	MSA	18.1	SSA	1.5
EL1	35.4	EL2	17.4	ALF	45.45

LAUNCH DATE JUL 29 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 337.496 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	34.408	GAL	-1.53	AZL	89.87	HCA	107.41	SMA	235.51	ECC	.35592	INC	.1272	V1	29.331
RP	221.52	LAP	.12	LOP	53.15	VP	25.194	GAP	20.58	AZP	90.04	TAL	354.17	TAP	101.59	RCA	151.69	APO	319.34	V2	24.819
RC	90.414	GL	.86	GP	-6.56	ZAL	98.10	ZAP	168.23	ETS	215.33	ZAE	160.67	ETE	339.31	ZAC	76.72	ETC	282.78	LVI	-10.39

PLANETOCENTRIC CONIC

C3	26.187	VHL	5.117	DLA	16.82	RAL	41.11	RAD	6645.5	VEL	12.089	PTH	7.07	VHP	6.789	DPA	9.47	RAP	43.16	ECC	1.4310

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 2	3538.51	-46.77	131.69	281.49	99.98	13 31 0	2538.5	-37.60	101.25
60.00	12 52 17	3484.58	-40.06	128.04	282.70	94.86	13 50 22	2484.6	-33.77	98.86
70.00	13 22 16	3396.32	-34.14	121.26	283.07	90.89	14 18 52	2396.3	-30.22	93.24
80.00	14 9 21	3248.76	-29.81	110.03	283.03	88.16	15 3 30	2248.8	-27.53	82.84
90.00	15 21 10	3016.94	-28.15	92.92	282.95	87.15	16 11 27	2016.9	-26.49	66.03
100.00	16 52 13	2723.23	-29.81	71.40	283.03	88.16	17 37 36	1723.2	-27.53	44.21
110.00	18 21 42	2443.14	-34.14	50.18	283.07	90.89	19 2 25	1443.1	-30.22	22.16

DIFFERENTIAL CORRECTIONS

TDE	-.3678	TRA	-1.1133	TC3	.4959	BAU	.1851
RDE	-.4911	RRA	.2367	RC3	-.1829	FAU	.07484
FDE	.5101	FRA	1.1017	FC3	-2.4741	BSP	2296
BDE	.6136	BRA	1.1382	BC3	.5286	FSP	343

MID-COURSE EXECUTION ACCURACY

SGT	1457.1	SGR	643.5	SG3	250.4
RRT	-.2443	RRF	.2771	RTF	-.7575
SGB	1592.8	R23	-.0527	R13	.7616
SG1	1467.4	SG2	619.6	THA	172.50

ORBIT DETERMINATION ACCURACY

ST	28.4	SR	27.8	SS	20.3
CRT	.6141	CRS	.7295	CST	.9832
LSA	40.8	MSA	18.1	SSA	1.5
EL1	35.7	EL2	17.5	ALF	44.03

LAUNCH DATE JUL 29 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 340.583 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	34.319	GAL	-1.45	AZL	89.83	HCA	108.52	SMA	232.97	ECC	.34880	INC	.1662	V1	29.331
RP	221.90	LAP	.16	LOP	54.25	VP	25.030	GAP	20.24	AZP	90.05	TAL	354.38	TAP	102.90	RCA	151.71	APO	314.22	V2	24.778
RC	92.473	GL	1.14	GP	-6.76	ZAL	97.70	ZAP	167.44	ETS	214.01	ZAE	160.47	ETE	338.70	ZAC	76.47	ETC	282.76	LVI	-10.11

PLANETOCENTRIC CONIC

C3	25.235	VHL	5.023	DLA	16.96	RAL	40.62	RAD	6645.1	VEL	12.050	PTH	7.04	VHP	6.598	DPA	9.37	RAP	43.50	ECC	1.4153

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 30	3532.30	-46.69	131.11	280.25	100.42	13 28 23	2532.3	-37.38	100.82
60.00	12 49 34	3478.89	-40.02	127.56	281.51	95.19	13 47 33	2478.9	-33.61	98.45
70.00	13 19 19	3391.33	-34.14	120.87	281.92	91.12	14 15 50	2391.3	-30.12	92.88
80.00	14 6 9	3244.55	-29.82	109.72	281.89	88.33	15 0 13	2244.6	-27.47	82.54
90.00	15 17 50	3013.13	-28.16	92.64	281.82	87.29	16 8 4	2013.1	-26.45	65.76
100.00	16 49 1	2719.02	-29.82	71.09	281.89	88.33	17 34 20	1719.0	-27.47	43.91
110.00	18 18 45	2438.15	-34.14	49.79	281.92	91.12	18 59 23	1438.1	-30.12	21.80

DIFFERENTIAL CORRECTIONS

TDE	-.3719	TRA	-1.1053	TC3	.5326	BAU	.1921
RDE	-.4779	RRA	.2372	RC3	-.2013	FAU	.07817
FDE	.5397	FRA	1.1320	FC3	-2.6817	BSP	2379
BDE	.6036	BRA	1.1305	BC3	.5693	FSP	367

MID-COURSE EXECUTION ACCURACY

SGT	1484.4	SGR	646.6	SG3	265.7
RRT	-.2602	RRF	.2973	RTF	-.[illegible]26
SGB	1619.1	R23	-.0589	R13	.7672
SG1	1495.9	SG2	619.5	THA	172.18

ORBIT DETERMINATION ACCURACY

ST	29.0	SR	27.6	SS	21.1
CRT	.6173	CRS	.7353	CST	.9826
LSA	41.5	MSA	18.0	SSA	1.6
EL1	36.0	EL2	17.5	ALF	42.67

LAUNCH DATE JUL 29 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 343.730 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	34.234	GAL	-1.38	AZL	89.79	HCA	109.62	SMA	230.61	ECC	.34207	INC	.2050	V1	29.331
RP	222.28	LAP	.19	LOP	55.35	VP	24.872	GAP	19.90	AZP	90.07	TAL	354.59	TAP	104.21	RCA	151.72	APO	309.49	V2	24.736
RC	94.587	GL	1.43	GP	-6.98	ZAL	97.29	ZAP	166.63	ETS	212.84	ZAE	160.31	ETE	338.02	ZAC	76.20	ETC	282.73	LVI	-9.82

PLANETOCENTRIC CONIC

C3	24.351	VHL	4.935	DLA	17.11	RAL	40.13	RAD	6644.7	VEL	12.014	PTH	7.01	VHP	6.413	DPA	9.25	RAP	43.83	ECC	1.4008

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 55	3526.63	-46.62	130.58	279.05	100.82	13 25 42	2526.6	-37.17	100.43
60.00	12 46 47	3473.76	-39.99	127.12	280.36	95.48	13 44 40	2473.8	-33.47	98.09
70.00	13 16 16	3386.94	-34.13	120.53	280.79	91.32	14 12 43	2386.9	-30.03	92.57
80.00	14 2 50	3241.00	-29.82	109.46	280.78	88.47	14 56 51	2241.0	-27.42	82.29
90.00	15 14 24	3010.00	-28.17	92.41	280.72	87.40	16 4 34	2010.0	-26.41	65.54
100.00	16 45 42	2715.47	-29.82	70.82	280.78	88.47	17 30 57	1715.5	-27.42	43.66
110.00	18 15 42	2433.76	-34.13	49.45	280.79	91.32	18 56 16	1433.8	-30.03	21.49

DIFFERENTIAL CORRECTIONS

TDE	-.3756	TRA	-1.0961	TC3	.5718	BAU	.1996
RDE	-.4649	RRA	.2378	RC3	-.2212	FAU	.08168
FDE	.5712	FRA	1.1617	FC3	-2.9041	BSP	2441
BDE	.5977	BRA	1.1216	BC3	.6131	FSP	393

MID-COURSE EXECUTION ACCURACY

SGT	1510.6	SGR	650.0	SG3	281.9
RRT	-.2775	RRF	.3184	RTF	-.7681
SGB	1644.5	R23	-.0647	R13	.7732
SG1	1523.5	SG2	619.2	THA	171.83

ORBIT DETERMINATION ACCURACY

ST	29.6	SR	27.3	SS	21.9
CRT	.6204	CRS	.7412	CST	.9819
LSA	42.2	MSA	18.0	SSA	1.6
EL1	36.3	EL2	17.5	ALF	41.37

LAUNCH DATE JUL 29 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 346.932 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	34.153	GAL	-1.31	AZL	89.76	HCA	110.71	SMA	228.42	ECC	.33570	INC	.2440	V1	29.331
RP	222.67	LAP	.23	LOP	56.45	VP	24.719	GAP	19.56	AZP	90.09	TAL	354.80	TAP	105.51	RCA	151.74	APO	305.10	V2	24.694
RC	96.756	GL	1.72	GP	-7.20	ZAL	96.89	ZAP	165.80	ETS	211.81	ZAE	160.21	ETE	337.27	ZAC	75.94	ETC	282.72	LVI	-9.53

PLANETOCENTRIC CONIC

C3	23.530	VHL	4.851	DLA	17.27	RAL	39.63	RAD	6644.4	VEL	11.980	PTH	6.98	VHP	6.233	DPA	9.12	RAP	44.16	ECC	1.3872

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 24 16	3521.50	-46.55	130.10	277.89	101.19	13 22 57	2521.5	-36.99	100.09
60.00	12 43 55	3469.20	-39.96	126.74	279.24	95.74	13 41 44	2469.2	-33.34	97.77
70.00	13 13 8	3383.17	-34.13	120.23	279.70	91.49	14 9 31	2383.2	-29.95	92.30
80.00	13 59 25	3238.11	-29.83	109.24	279.70	88.58	14 53 23	2238.1	-27.38	82.08
90.00	15 10 50	3007.57	-28.18	92.24	279.64	87.49	16 0 58	2007.6	-26.38	65.37
100.00	16 42 17	2712.59	-29.83	70.61	279.70	88.58	17 27 29	1712.6	-27.38	43.45
110.00	18 12 34	2429.99	-34.13	49.15	279.70	91.49	18 53 4	1430.0	-29.95	21.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3793	TRA	-1.0867	TC3	.6124	BAU	.2072	SGT	1536.4	SGR	653.8	SG3	299.1	ST	30.2	SR	27.1	SS	22.8
RDE	-.4519	RRA	.2386	RC3	-.2427	FAU	.08542	RRT	-.2961	RRF	.3409	RTF	-.7738	CRT	.6231	CRS	.7469	CST	.9811
FDE	.6058	FRA	1.1931	FC3	-3.1429	BSP	2509	SGB	1669.8	R23	-.0704	R13	.7794	LSA	42.9	MSA	17.9	SSA	1.6
BDE	.5900	BRA	1.1126	BC3	.6588	FSP	421	SG1	1550.9	SG2	618.7	THA	171.45	EL1	36.6	EL2	17.5	ALF	40.06

LAUNCH DATE JUL 29 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 350.185 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	34.077	GAL	-1.24	AZL	89.72	HCA	111.80	SMA	226.39	ECC	.32968	INC	.2833	V1	29.331
RP	223.06	LAP	.26	LOP	57.54	VP	24.571	GAP	19.23	AZP	90.11	TAL	355.01	TAP	106.81	RCA	151.75	APO	301.02	V2	24.652
RC	98.976	GL	2.03	GP	-7.43	ZAL	96.48	ZAP	164.96	ETS	210.90	ZAE	160.15	ETE	336.43	ZAC	75.66	ETC	282.70	LVI	-9.24

PLANETOCENTRIC CONIC

C3	22.767	VHL	4.771	DLA	17.43	RAL	39.13	RAD	6644.0	VEL	11.948	PTH	6.95	VHP	6.060	DPA	8.98	RAP	44.47	ECC	1.3747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 21 33	3516.90	-46.49	129.67	276.76	101.51	13 20 10	2516.9	-36.82	99.78
60.00	12 40 58	3465.21	-39.93	126.40	278.15	95.96	13 38 43	2465.2	-33.23	97.49
70.00	13 9 54	3380.02	-34.12	119.99	278.63	91.64	14 6 14	2380.0	-29.89	92.08
80.00	13 55 53	3235.91	-29.83	109.08	278.64	88.66	14 49 49	2235.9	-27.35	81.93
90.00	15 7 10	3005.85	-28.18	92.11	278.58	87.55	15 57 15	2005.9	-26.36	65.25
100.00	16 38 45	2710.38	-29.83	70.45	278.64	88.66	17 23 56	1710.4	-27.35	43.30
110.00	18 9 21	2426.84	-34.12	48.91	278.63	91.64	18 49 48	1426.8	-29.89	21.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3821	TRA	-1.0758	TC3	.6534	BAU	.2147	SGT	1559.7	SGR	658.1	SG3	317.1	ST	30.7	SR	26.7	SS	23.7
RDE	-.4390	RRA	.2395	RC3	-.2658	FAU	.08929	RRT	-.3161	RRF	.3641	RTF	-.7792	CRT	.6251	CRS	.7527	CST	.9800
FDE	.6427	FRA	1.2239	FC3	-3.3954	BSP	2570	SGB	1692.8	R23	-.0757	R13	.7854	LSA	43.6	MSA	17.8	SSA	1.7
BDE	.5820	BRA	1.1021	BC3	.7053	FSP	450	SG1	1576.1	SG2	617.9	THA	171.01	EL1	36.8	EL2	17.4	ALF	38.83

LAUNCH DATE JUL 29 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 353.482 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	34.004	GAL	-1.17	AZL	89.68	HCA	112.89	SMA	224.50	ECC	.32398	INC	.3232	V1	29.331
RP	223.44	LAP	.30	LOP	58.63	VP	24.429	GAP	18.90	AZP	90.13	TAL	355.23	TAP	108.11	RCA	151.77	APO	297.23	V2	24.611
RC	101.244	GL	2.34	GP	-7.68	ZAL	96.07	ZAP	164.10	ETS	210.09	ZAE	160.14	ETE	335.51	ZAC	75.38	ETC	282.68	LVI	-8.94

PLANETOCENTRIC CONIC

C3	22.058	VHL	4.697	DLA	17.61	RAL	38.61	RAD	6643.7	VEL	11.919	PTH	6.93	VHP	5.893	DPA	8.82	RAP	44.76	ECC	1.3630

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 18 47	3512.86	-46.44	129.30	275.68	101.79	13 17 20	2512.9	-36.67	99.50
60.00	12 37 57	3461.81	-39.91	126.12	277.09	96.16	13 35 39	2461.8	-33.14	97.25
70.00	13 6 36	3377.51	-34.11	119.79	277.59	91.76	14 2 53	2377.5	-29.84	91.90
80.00	13 52 15	3234.41	-29.83	108.97	277.61	88.72	14 46 10	2234.4	-27.32	81.82
90.00	15 3 22	3004.87	-28.19	92.04	277.55	87.59	15 53 27	2004.9	-26.34	65.18
100.00	16 35 7	2708.88	-29.83	70.33	277.61	88.72	17 20 16	1708.9	-27.32	43.19
110.00	18 6 2	2424.33	-34.11	48.71	277.59	91.76	18 46 26	1424.3	-29.84	20.82

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3848	TRA	-1.0655	TC3	.6951	BAU	.2222	SGT	1583.3	SGR	663.1	SG3	336.0	ST	31.2	SR	26.4	SS	24.6
RDE	-.4261	RRA	.2407	RC3	-.2906	FAU	.09338	RRT	-.3375	RRF	.3888	RTF	-.7945	CRT	.6263	CRS	.7576	CST	.9791
FDE	.6813	FRA	1.2562	FC3	-3.6649	BSP	2619	SGB	1716.5	R23	-.0813	R13	.7913	LSA	44.3	MSA	17.6	SSA	1.7
BDE	.5742	BRA	1.0924	BC3	.7534	FSP	481	SG1	1601.8	SG2	616.9	THA	170.54	EL1	37.0	EL2	17.3	ALF	37.58

LAUNCH DATE JUL 29 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 356.822 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.936	GAL	-1.10	AZL	89.64	HCA	113.97	SMA	222.74	ECC	.31859	INC	.3638	V1	29.331
RP	223.83	LAP	.33	LOP	59.71	VP	24.291	GAP	18.58	AZP	90.15	TAL	355.44	TAP	109.41	RCA	151.78	APO	293.71	V2	24.569
RC	103.560	GL	2.67	GP	-7.93	ZAL	95.66	ZAP	163.22	ETS	209.37	ZAE	160.17	ETE	334.49	ZAC	75.09	ETC	282.67	LVI	-8.63

PLANETOCENTRIC CONIC

C3	21.399	VHL	4.626	DLA	17.79	RAL	38.10	RAD	6643.5	VEL	11.891	PTH	6.90	VHP	5.731	DPA	8.65	RAP	45.05	ECC	1.3522

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 15 58	3509.36	-46.39	128.97	274.63	102.04	13 14 27	2509.4	-36.54	99.27
60.00	12 34 53	3459.00	-39.89	125.88	276.07	96.32	13 32 32	2459.0	-33.06	97.06
70.00	13 3 11	3375.64	-34.11	119.65	276.59	91.84	13 59 27	2375.6	-29.80	91.77
80.00	13 48 30	3233.61	-29.83	108.91	276.61	88.75	14 42 24	2233.6	-27.31	81.77
90.00	14 59 27	3004.63	-28.19	92.02	276.55	87.60	15 49 31	2004.6	-26.34	65.16
100.00	16 31 22	2708.09	-29.83	70.28	276.61	88.75	17 16 30	1708.1	-27.31	43.13
110.00	18 2 38	2422.46	-34.11	48.57	276.59	91.84	18 43 0	1422.5	-29.80	20.69

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3880	TRA	-1.0538	TC3	.7365	BAU	.2294	SGT	1604.5	SGR	668.7	SG3	356.0	ST	31.6	SR	26.0	SS	25.6
RDE	-.4132	RRA	.2419	RC3	-.3172	FAU	.09767	RRT	-.3592	RRF	.4143	RTF	-.7894	CRT	.6283	CRS	.7627	CST	.9781
FDE	.7236	FRA	1.2883	FC3	-3.9516	BSP	2673	SGB	1738.2	R23	-.0874	R13	.7970	LSA	45.0	MSA	17.5	SSA	1.7
BDE	.5668	BRA	1.0812	BC3	.8019	FSP	514	SG1	1625.4	SG2	616.0	THA	170.04	EL1	37.2	EL2	17.2	ALF	36.31

LAUNCH DATE JUL 29 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 360.200 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.871	GAL	-1.04	AZL	89.59	HCA	115.05	SMA	221.11	ECC	.31349	INC	.4046	V1	29.331
RP	224.22	LAP	.37	LOP	60.79	VP	24.157	GAP	18.25	AZP	90.17	TAL	355.65	TAP	110.70	RCA	151.79	APO	290.42	V2	24.527
RC	108.921	GL	3.01	GP	-8.19	ZAL	95.28	ZAP	162.32	ETS	208.72	ZAE	160.25	ETE	333.37	ZAC	74.79	ETC	282.66	LVI	-8.32

PLANETOCENTRIC CONIC

C3	20.786	VHL	4.559	DLA	17.99	RAL	37.58	RAD	6643.2	VEL	11.865	PTH	6.88	VHP	5.574	DPA	8.46	RAP	45.32	ECC	1.3421

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 13 5	3506.42	-46.35	128.70	273.63	102.24	13 11 32	2506.4	-36.43	99.07
60.00	12 31 44	3456.78	-39.87	125.70	275.09	96.44	13 29 21	2456.8	-33.00	96.90
70.00	12 59 42	3374.43	-34.11	119.55	275.61	91.90	13 55 57	2374.4	-29.78	91.69
80.00	13 44 39	3233.55	-29.83	108.90	275.64	88.76	14 38 33	2233.5	-27.31	81.76
90.00	14 55 24	3005.16	-28.18	92.06	275.58	87.58	15 45 29	2005.2	-26.35	65.20
100.00	16 27 31	2708.02	-29.83	70.27	275.64	88.76	17 12 39	1708.0	-27.31	43.13
110.00	17 59 8	2421.24	-34.11	48.47	275.61	91.90	18 39 30	1421.2	-29.78	20.60

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3917	TRA	-1.0424	TC3	.7787	BAU	.2368	SGT	1625.9	SGR	675.1	SG3	377.0	ST	32.2	SR	25.6	SS	26.6
RDE	-.4002	RRA	.2433	RC3	-.3459	FAU	.10221	RRT	-.3818	RRF	.4407	RTF	-.7941	CRT	.6301	CRS	.7679	CST	.9771
FDE	.7698	FRA	1.3198	FC3	-4.2568	BSP	2722	SGB	1760.5	R23	-.0938	R13	.8024	LSA	45.8	MSA	17.3	SSA	1.8
BDE	.5600	BRA	1.0704	BC3	.8520	FSP	548	SG1	1643.6	SG2	615.0	THA	169.52	EL1	37.4	EL2	17.1	ALF	34.99

LAUNCH DATE JUL 29 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 363.612 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.809	GAL	-.98	AZL	89.55	HCA	116.13	SMA	219.58	ECC	.30866	INC	.4464	V1	29.331
RP	224.61	LAP	.40	LOP	61.86	VP	24.028	GAP	17.93	AZP	90.20	TAL	355.86	TAP	111.98	RCA	151.80	APO	287.35	V2	24.485
RC	108.326	GL	3.36	GP	-8.47	ZAL	94.85	ZAP	161.40	ETS	208.14	ZAE	160.35	ETE	332.15	ZAC	74.49	ETC	282.66	LVI	-8.00

PLANETOCENTRIC CONIC

C3	20.217	VHL	4.496	DLA	18.19	RAL	37.07	RAD	6642.9	VEL	11.842	PTH	6.86	VHP	5.423	DPA	8.25	RAP	45.58	ECC	1.3327

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 9	3504.03	-46.31	128.48	272.66	102.41	13 8 33	2504.0	-36.34	98.91
60.00	12 28 31	3455.15	-39.86	125.56	274.14	96.53	13 26 6	2455.2	-32.95	96.79
70.00	12 56 7	3373.87	-34.11	119.51	274.67	91.92	13 52 21	2373.9	-29.77	91.65
80.00	13 40 41	3234.22	-29.83	108.95	274.70	88.73	14 34 35	2234.2	-27.32	81.81
90.00	14 51 14	3006.47	-28.18	92.15	274.64	87.53	15 41 20	2006.5	-26.36	65.29
100.00	16 23 33	2708.69	-29.83	70.32	274.70	88.73	17 8 41	1708.7	-27.32	43.18
110.00	17 55 34	2420.69	-34.11	48.43	274.67	91.92	18 35 54	1420.7	-29.77	20.56

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3944	TRA	-1.0306	TC3	.8193	BAU	.2437	SGT	1645.0	SGR	682.7	SG3	399.2	ST	32.6	SR	25.2	SS	27.7
RDE	-.3872	RRA	.2449	RC3	-.3766	FAU	.10695	RRT	-.4057	RRF	.4682	RTF	-.7984	CRT	.6306	CRS	.7719	CST	.9760
FDE	.8179	FRA	1.3537	FC3	-4.5796	BSP	2782	SGB	1781.1	R23	-.1003	R13	.8077	LSA	46.6	MSA	17.1	SSA	1.8
BDE	.5527	BRA	1.0593	BC3	.9017	FSP	587	SG1	1671.9	SG2	614.0	THA	168.93	EL1	37.5	EL2	17.0	ALF	33.73

LAUNCH DATE JUL 29 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 367.056 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.750	GAL	-.92	AZL	89.51	HCA	117.20	SMA	218.15	ECC	.30410	INC	.4885	V1	29.331
RP	225.00	LAP	.43	LOP	62.94	VP	23.902	GAP	17.62	AZP	90.22	TAL	356.06	TAP	113.26	RCA	151.81	APO	284.49	V2	24.443
RC	110.773	GL	3.72	GP	-8.76	ZAL	94.45	ZAP	160.47	ETS	207.61	ZAE	160.49	ETE	330.80	ZAC	74.17	ETC	282.66	LVI	-7.68

PLANETOCENTRIC CONIC

C3	19.688	VHL	4.437	DLA	18.40	RAL	36.55	RAD	6642.7	VEL	11.820	PTH	6.84	VHP	5.276	DPA	8.03	RAP	45.83	ECC	1.3240

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 7 11	3502.20	-46.28	128.31	271.74	102.54	13 5 33	2502.2	-36.27	98.79
60.00	12 25 14	3454.13	-39.85	125.47	273.22	96.59	13 22 48	2454.1	-32.92	96.72
70.00	12 52 27	3373.99	-34.11	119.52	273.76	91.92	13 48 41	2374.0	-29.77	91.66
80.00	13 36 35	3235.65	-29.83	109.06	273.78	88.67	14 30 31	2235.7	-27.34	81.91
90.00	14 46 56	3008.59	-28.17	92.31	273.72	87.45	15 37 4	2008.6	-26.39	65.44
100.00	16 19 27	2710.12	-29.83	70.43	273.78	88.67	17 4 37	1710.1	-27.34	43.28
110.00	17 51 54	2420.81	-34.11	48.44	273.76	91.92	18 32 14	1420.8	-29.77	20.57

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3979	TRA	-1.0187	TC3	.8596	BAU	.2506	SGT	1663.7	SGR	691.3	SG3	422.3	ST	33.1	SR	24.7	SS	28.9
RDE	-.3740	RRA	.2467	RC3	-.4093	FAU	.11186	RRT	-.4298	RRF	.4962	RTF	-.8126	CRT	.6311	CRS	.7757	CST	.9750
FDE	.8707	FRA	1.3880	FC3	-4.9189	BSP	2813	SGB	1801.6	R23	-.1072	R13	.8129	LSA	47.4	MSA	16.9	SSA	1.9
BDE	.5461	BRA	1.0482	BC3	.9520	FSP	622	SG1	1694.1	SG2	613.0	THA	168.32	EL1	37.7	EL2	16.8	ALF	32.40

LAUNCH DATE JUL 29 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 370.530 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.695	GAL	-.86	AZL	89.47	HCA	118.27	SMA	216.82	ECC	.29978	INC	.5314	V1	29.331
RP	225.39	LAP	.47	LOP	64.01	VP	23.781	GAP	17.30	AZP	90.25	TAL	356.27	TAP	114.53	RCA	151.82	APO	281.82	V2	24.401
RC	113.259	GL	4.09	GP	-9.06	ZAL	94.05	ZAP	159.51	ETS	207.14	ZAE	160.66	ETE	329.33	ZAC	73.85	ETC	282.66	LVI	-7.35

PLANETOCENTRIC CONIC

C3	19.197	VHL	4.381	DLA	18.63	RAL	36.03	RAD	6642.5	VEL	11.799	PTH	6.82	VHP	5.135	DPA	7.78	RAP	46.06	ECC	1.3159

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 9	3500.93	-46.26	128.20	270.86	102.63	13 2 30	2500.9	-36.23	98.71
60.00	12 21 53	3453.72	-39.85	125.44	272.35	96.61	13 19 27	2453.7	-32.91	96.69
70.00	12 48 42	3374.78	-34.11	119.58	272.88	91.88	13 44 56	2374.8	-29.78	91.71
80.00	13 32 23	3237.85	-29.83	109.22	272.90	88.59	14 26 21	2237.9	-27.38	82.07
90.00	14 42 29	3011.53	-28.17	92.52	272.83	87.35	15 32 41	2011.5	-26.43	65.65
100.00	16 15 15	2712.33	-29.83	70.59	272.90	88.59	17 0 27	1712.3	-27.38	43.43
110.00	17 48 8	2421.60	-34.11	48.50	272.88	91.88	18 28 30	1421.6	-29.78	20.63

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4010	TRA	-1.0063	TC3	.8996	BAU	.2575	SGT	1680.7	SGR	701.4	SG3	446.8	ST	33.5	SR	24.1	SS	30.0
RDE	-.3608	RRA	.2484	RC3	-.4447	FAU	.11717	RRT	-.4546	RRF	.5252	RTF	-.8061	CRT	.6311	CRS	.7790	CST	.9739
FDE	.9258	FRA	1.4203	FC3	-5.2840	BSP	2858	SGB	1821.2	R23	-.1150	R13	.8175	LSA	48.2	MSA	16.6	SSA	1.9
BDE	.5394	BRA	1.0365	BC3	1.0035	FSP	664	SG1	1715.3	SG2	612.2	THA	167.66	EL1	37.8	EL2	16.6	ALF	31.08

LAUNCH DATE JUL 29 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 374,030 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 33.642 GAL -.81 AZL 89.42 HCA 119.33 SMA 215.57 ECC .29569 INC .5750 V1 29.331
RP 225.78 LAP .50 LOP 65.07 VP 23.664 GAP 16.99 AZP 90.28 TAL 356.47 TAP 115.80 RCA 151.83 APO 279.32 V2 24,359
RC 115.782 GL 4.47 GP -9.38 ZAL 93.66 ZAP 156.54 ETS 206.71 ZAE 160.85 ETE 327.71 ZAC 73.52 ETC 282.66 LVI -7.01

PLANETOCENTRIC CONIC

C3 18.741 VHL 4.329 DLA 18.87 RAL 35.51 RAD 6642.3 VEL 11.780 PTH 6.80 VHP 4.998 DPA 7.52 RAP 46.27 ECC 1.3084

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 1 5	3500.22	-46.25	128.13	270.02	102.68	12 59 25	2500.2	-36.20	98.66
60.00	12 18 28	3453.92	-39.85	125.46	271.51	96.60	13 16 2	2453.9	-32.92	96.70
70.00	12 44 50	3376.27	-34.11	119.70	272.04	91.81	13 41 7	2376.3	-29.81	91.82
80.00	13 28 3	3240.85	-29.82	109.44	272.05	88.47	14 22 3	2240.9	-27.42	82.28
90.00	14 37 54	3015.33	-28.15	92.80	271.98	87.21	15 28 10	2015.3	-26.47	65.92
100.00	16 10 54	2715.32	-29.82	70.81	272.05	88.47	16 56 10	1715.3	-27.42	43.65
110.00	17 44 17	2423.09	-34.11	48.61	272.04	91.81	18 24 40	1423.1	-29.81	20.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4053 TRA -.9929 TC3 .9380 BAU .2643 SGT 1695.9 SGR 712.8 SG3 472.4 ST 34.0 SR 23.6 SS 31.3
RDE -.3471 RRA .2504 RC3 -.4822 FAU .12263 RRT -.4790 RRF .5541 RTF -.8096 CRT .6316 CRS .7819 CST .9731
FDE .9869 FRA 1.4534 FC3-5.6646 BSP 2909 SGB 1839.6 R23 -.1230 R13 .8224 LSA 49.2 MSA 16.4 SSA 1.9
BDE .5336 BRA 1.0240 BC3 1.0547 FSP 708 SG1 1734.9 SG2 611.6 THA 166.97 EL1 38.0 EL2 16.3 ALF 29.69

LAUNCH DATE JUL 29 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 377,555 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 33.593 GAL -.75 AZL 89.38 HCA 120.39 SMA 214.41 ECC .29183 INC .6192 V1 29.331
RP 226.17 LAP .53 LOP 66.13 VP 23.550 GAP 16.68 AZP 90.31 TAL 356.66 TAP 117.06 RCA 151.84 APO 276.98 V2 24,318
RC 118.341 GL 4.87 GP -9.71 ZAL 93.28 ZAP 157.54 ETS 206.32 ZAE 161.06 ETE 325.94 ZAC 73.18 ETC 282.67 LVI -6.67

PLANETOCENTRIC CONIC

C3 18.318 VHL 4.280 DLA 19.12 RAL 35.00 RAD 6642.1 VEL 11.762 PTH 6.79 VHP 4.866 DPA 7.24 RAP 46.47 ECC 1.3015

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 57 58	3500.07	-46.25	128.12	269.23	102.69	12 56 18	2500.1	-36.19	98.65
60.00	12 14 59	3454.74	-39.85	125.52	270.71	96.56	13 12 34	2454.7	-32.94	96.76
70.00	12 40 53	3378.46	-34.12	119.87	271.23	91.71	13 37 12	2378.5	-29.86	91.97
80.00	13 23 35	3244.66	-29.81	109.73	271.23	88.32	14 17 39	2244.7	-27.47	82.55
90.00	14 33 10	3020.00	-28.14	93.14	271.15	87.04	15 23 30	2020.0	-26.53	66.25
100.00	16 6 26	2719.13	-29.81	71.10	271.23	88.32	16 51 46	1719.1	-27.47	43.92
110.00	17 40 20	2425.28	-34.12	48.79	271.23	91.71	18 20 45	1425.3	-29.86	20.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4085 TRA -.9799 TC3 .9739 BAU .2706 SGT 1709.3 SGR 726.1 SG3 499.4 ST 34.4 SR 23.0 SS 32.6
RDE -.3334 RRA .2526 RC3 -.5225 FAU .12839 RRT -.5041 RRF .5837 RTF -.8125 CRT .6300 CRS .7835 CST .9721
FDE 1.0510 FRA 1.4883 FC3-6.0660 BSP 2942 SGB 1857.2 R23 -.1316 R13 .8268 LSA 50.1 MSA 16.1 SSA 2.0
BDE .5273 BRA 1.0120 BC3 1.1052 FSP 752 SG1 1753.7 SG2 611.3 THA 166.20 EL1 38.1 EL2 16.1 ALF 28.31

LAUNCH DATE JUL 29 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 381,103 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 33.545 GAL -.70 AZL 89.34 HCA 121.45 SMA 213.32 ECC .28817 INC .6644 V1 29.331
RP 226.56 LAP .57 LOP 67.19 VP 23.439 GAP 16.38 AZP 90.35 TAL 356.86 TAP 118.31 RCA 151.84 APO 274.79 V2 24,276
RC 120.933 GL 5.27 GP -10.05 ZAL 92.91 ZAP 156.52 ETS 205.96 ZAE 161.29 ETE 324.00 ZAC 72.82 ETC 282.68 LVI -6.31

PLANETOCENTRIC CONIC

C3 17.924 VHL 4.234 DLA 19.38 RAL 34.48 RAD 6641.9 VEL 11.745 PTH 6.77 VHP 4.739 DPA 6.94 RAP 46.66 ECC 1.2950

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 47	3500.45	-46.26	128.15	268.47	102.66	12 53 8	2500.5	-36.21	98.67
60.00	12 11 25	3456.14	-39.86	125.64	269.94	96.48	13 9 2	2456.1	-32.98	96.86
70.00	12 36 50	3381.32	-34.12	120.09	270.45	91.58	13 33 11	2381.3	-29.92	92.17
80.00	13 18 58	3249.25	-29.81	110.07	270.43	88.14	14 13 7	2249.2	-27.54	82.87
90.00	14 28 16	3025.52	-28.12	93.54	270.35	86.84	15 18 42	2025.5	-26.60	66.64
100.00	16 1 50	2723.72	-29.81	71.44	270.43	88.14	16 47 14	1723.7	-27.54	44.24
110.00	17 36 16	2428.14	-34.12	49.01	270.45	91.58	18 16 45	1428.1	-29.92	21.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3963 TRA -.9512 TC3 1.0416 BAU .2840 SGT 1711.1 SGR 741.4 SG3 527.3 ST 33.8 SR 22.3 SS 33.9
RDE -.3195 RRA .2546 RC3 -.5655 FAU .13441 RRT -.5430 RRF .6131 RTF -.8266 CRT .6194 CRS .7847 CST .9687
FDE 1.1173 FRA 1.5188 FC3-6.4922 BSP 2801 SGB 1864.8 R23 -.1191 R13 .8410 LSA 50.3 MSA 15.9 SSA 2.0
BDE .5091 BRA .9847 BC3 1.1852 FSP 798 SG1 1764.3 SG2 603.7 THA 164.96 EL1 37.2 EL2 15.9 ALF 27.74

LAUNCH DATE JUL 29 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 384,672 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 33.501 GAL -.65 AZL 89.29 HCA 122.80 SMA 212.29 ECC .28472 INC .7104 V1 29.331
RP 226.95 LAP .60 LOP 68.24 VP 23.332 GAP 16.07 AZP 90.38 TAL 357.05 TAP 119.55 RCA 151.85 APO 272.74 V2 24,234
RC 123.556 GL 5.69 GP -10.41 ZAL 92.55 ZAP 155.48 ETS 205.64 ZAE 161.52 ETE 321.89 ZAC 72.46 ETC 282.69 LVI -5.95

PLANETOCENTRIC CONIC

C3 17.560 VHL 4.190 DLA 19.65 RAL 33.98 RAD 6641.7 VEL 11.730 PTH 6.76 VHP 4.616 DPA 6.62 RAP 46.83 ECC 1.2890

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 35	3501.46	-46.27	128.25	267.76	102.59	12 49 56	2501.5	-36.25	98.74
60.00	12 7 48	3458.24	-39.88	125.82	269.22	96.36	13 5 27	2458.2	-33.04	97.00
70.00	12 32 41	3384.97	-34.13	120.36	269.71	91.41	13 29 6	2385.0	-29.99	92.43
80.00	13 14 13	3254.77	-29.79	110.48	269.68	87.93	14 8 28	2254.8	-27.62	83.26
90.00	14 23 13	3032.06	-28.09	94.02	269.58	86.60	15 13 45	2032.1	-26.67	67.10
100.00	15 57 5	2729.24	-29.79	71.65	269.68	87.93	16 42 34	1729.2	-27.62	44.63
110.00	17 32 7	2431.79	-34.13	49.29	269.71	91.41	18 12 39	1431.8	-29.99	21.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4057 TRA -.9445 TC3 1.0620 BAU .2877 SGT 1726.3 SGR 758.8 SG3 556.9 ST 34.6 SR 21.6 SS 35.4
RDE -.3049 RRA .2572 RC3 -.6112 FAU .14071 RRT -.5625 RRF .6424 RTF -.8244 CRT .6189 CRS .7843 CST .9687
FDE 1.1916 FRA 1.5550 FC3-6.9371 BSP 2921 SGB 1885.7 R23 -.1365 R13 .8413 LSA 51.6 MSA 15.6 SSA 2.0
BDE .5076 BRA .9789 BC3 1.2254 FSP 852 SG1 1785.5 SG2 606.6 THA 164.25 EL1 37.7 EL2 15.6 ALF 25.89

LAUNCH DATE JUL 29 1973 FLIGHT TIME 156.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 388.260 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.459	GAL	-.61	AZL	89.24	HCA	123.55	SMA	211.34	ECC	.28145	INC	.7573
RP	227.34	LAP	.63	LOP	69.29	VP	23.228	GAP	15.77	AZP	90.42	TAL	357.23	TAP	120.78	RCA	151.86	APO	270.82
RC	126.208	GL	6.12	GP	-10.79	ZAL	92.19	ZAP	154.42	ETS	205.34	ZAE	161.76	ETE	319.59	ZAC	72.08	ETC	282.71

V1	29.331
V2	24.193
LVI	-5.58

PLANETOCENTRIC CONIC

C3	17.223	VHL	4.150	DLA	19.94	RAL	33.48	RAD	6641.6	VEL	11.716	PTH	6.75	VHP	4.497	DPA	6.27	RAP	46.98	ECC	1.2834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 48 19	3503.03	-46.30	128.39	267.09	102.48	12 46 42	2503.0	-36.30	98.65
60.00	12 4 7	3460.96	-39.90	126.05	268.53	96.21	13 1 48	2461.0	-33.11	97.19
70.00	12 28 26	3389.36	-34.14	120.72	269.00	91.21	13 24 55	2389.4	-30.08	92.74
80.00	13 9 19	3261.18	-29.78	110.95	268.95	87.68	14 3 40	2261.2	-27.71	83.72
90.00	14 17 58	3039.57	-28.06	94.57	268.85	86.33	15 8 37	2039.6	-26.76	67.64
100.00	15 52 11	2735.65	-29.78	72.32	268.95	87.68	16 37 47	1735.7	-27.71	45.09
110.00	17 27 52	2436.16	-34.13	49.64	269.00	91.21	18 8 28	1436.2	-30.08	21.66

DIFFERENTIAL CORRECTIONS

TDE	-.4132	TRA	-.9340	TC3	1.0801	BAU	.2914
RDE	-.2899	RRA	.2597	RC3	-.6594	FAU	.14714
FDE	1.2718	FRA	1.5874	FC3	-7.3961	BSP	2994
BDE	.5048	BRA	.9695	BC3	1.2655	FSP	903

MID-COURSE EXECUTION ACCURACY

SGT	1735.2	SGR	778.0	SG3	587.3
RRT	-.5819	RRF	.6706	RTF	-.8227
SGB	1901.6	R23	-.1523	R13	.8422
SG1	1801.3	SG2	609.5	THA	163.43

ORBIT DETERMINATION ACCURACY

ST	35.2	SR	20.8	SS	36.9
CRT	.6165	CRS	.7833	CST	.9684
LSA	52.9	MSA	15.3	SSA	2.1
EL1	38.0	EL2	15.2	ALF	24.16

LAUNCH DATE JUL 29 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 391.865 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.419	GAL	-.57	AZL	89.19	HCA	124.60	SMA	210.44	ECC	.27836	INC	.8051
RP	227.73	LAP	.66	LOP	70.34	VP	23.127	GAP	15.48	AZP	90.46	TAL	357.40	TAP	122.01	RCA	151.86	APO	269.02
RC	128.887	GL	6.56	GP	-11.18	ZAL	91.85	ZAP	153.34	ETS	205.06	ZAE	161.99	ETE	317.09	ZAC	71.69	ETC	282.74

V1	29.331
V2	24.152
LVI	-5.21

PLANETOCENTRIC CONIC

C3	16.911	VHL	4.112	DLA	20.24	RAL	32.98	RAD	6641.4	VEL	11.702	PTH	6.74	VHP	4.383	DPA	5.90	RAP	47.12	ECC	1.2783

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 45 1	3505.18	-46.33	128.59	266.47	102.33	12 43 26	2505.2	-36.38	98.99
60.00	12 0 21	3464.33	-39.93	126.33	267.88	96.01	12 58 5	2464.3	-33.21	97.43
70.00	12 24 3	3394.51	-34.14	121.12	268.33	90.97	13 20 38	2394.5	-30.18	93.11
80.00	13 4 15	3268.50	-29.75	111.50	268.25	87.39	13 58 44	2268.5	-27.80	84.24
90.00	14 12 31	3046.09	-28.02	95.19	268.14	86.02	15 3 19	2048.1	-26.85	68.24
100.00	15 47 7	2742.97	-29.75	72.86	268.25	87.39	16 32 50	1743.0	-27.80	45.61
110.00	17 23 30	2441.33	-34.14	50.04	268.33	90.97	18 4 11	1441.3	-30.18	22.03

DIFFERENTIAL CORRECTIONS

TDE	-.4188	TRA	-.9226	TC3	1.1006	BAU	.2962
RDE	-.2743	RRA	.2627	RC3	-.7110	FAU	.15395
FDE	1.3582	FRA	1.6237	FC3	-7.8811	BSP	3064
BDE	.5006	BRA	.9593	BC3	1.3103	FSP	961

MID-COURSE EXECUTION ACCURACY

SGT	1742.7	SGR	800.1	SG3	619.5
RRT	-.6030	RRF	.6986	RTF	-.8223
SGB	1917.6	R23	-.1657	R13	.8446
SG1	1817.2	SG2	612.1	THA	162.47

ORBIT DETERMINATION ACCURACY

ST	35.7	SR	20.0	SS	38.5
CRT	.6104	CRS	.7801	CST	.9678
LSA	54.1	MSA	15.0	SSA	2.1
EL1	38.2	EL2	14.8	ALF	22.45

LAUNCH DATE JUL 29 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 395.487 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.381	GAL	-.52	AZL	89.15	HCA	125.64	SMA	209.60	ECC	.27545	INC	.8541
RP	228.12	LAP	.69	LOP	71.38	VP	23.030	GAP	15.18	AZP	90.50	TAL	357.58	TAP	123.22	RCA	151.87	APO	267.33
RC	131.592	GL	7.01	GP	-11.59	ZAL	91.52	ZAP	152.23	ETS	204.80	ZAE	162.21	ETE	314.37	ZAC	71.29	ETC	282.77

V1	29.331
V2	24.110
LVI	-4.82

PLANETOCENTRIC CONIC

C3	16.623	VHL	4.077	DLA	20.55	RAL	32.48	RAD	6641.3	VEL	11.690	PTH	6.72	VHP	4.272	DPA	5.51	RAP	47.24	ECC	1.2736

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 41 39	3507.91	-46.37	128.84	265.89	102.14	12 40 7	2507.9	-36.49	99.17
60.00	11 56 30	3468.36	-39.95	126.67	267.28	95.79	12 54 18	2468.4	-33.32	97.71
70.00	12 19 34	3400.43	-34.15	121.58	267.69	90.70	13 16 14	2400.4	-30.30	93.53
80.00	12 59 0	3276.77	-29.73	112.11	267.59	87.07	13 53 37	2276.8	-27.91	84.83
90.00	14 6 52	3057.68	-27.97	95.89	267.46	85.67	14 57 50	2057.7	-26.95	68.93
100.00	15 41 52	2751.24	-29.73	73.48	267.59	87.07	16 27 43	1751.2	-27.91	46.20
110.00	17 19 0	2447.25	-34.15	50.50	267.69	90.70	17 59 47	1447.3	-30.30	22.45

DIFFERENTIAL CORRECTIONS

TDE	-.4239	TRA	-.9096	TC3	1.1190	BAU	.3013
RDE	-.2582	RRA	.2656	RC3	-.7654	FAU	.16091
FDE	1.4489	FRA	1.6570	FC3	-8.3805	BSP	3102
BDE	.4963	BRA	.9476	BC3	1.3557	FSP	1017

MID-COURSE EXECUTION ACCURACY

SGT	1746.8	SGR	824.6	SG3	652.5
RRT	-.6230	RRF	.7253	RTF	-.8420
SGB	1931.6	R23	-.1786	R13	.8474
SG1	1831.0	SG2	615.4	THA	161.44

ORBIT DETERMINATION ACCURACY

ST	36.2	SR	19.1	SS	40.2
CRT	.6023	CRS	.7752	CST	.9672
LSA	55.4	MSA	14.7	SSA	2.2
EL1	38.3	EL2	14.4	ALF	20.74

LAUNCH DATE JUL 29 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 399.123 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.345	GAL	-.48	AZL	89.10	HCA	126.68	SMA	208.81	ECC	.27269	INC	.9042
RP	228.51	LAP	.73	LOP	72.42	VP	22.934	GAP	14.89	AZP	90.54	TAL	357.74	TAP	124.42	RCA	151.87	APO	265.75
RC	134.321	GL	7.48	GP	-12.01	ZAL	91.20	ZAP	151.10	ETS	204.56	ZAE	162.40	ETE	311.45	ZAC	70.88	ETC	282.80

V1	29.331
V2	24.069
LVI	-4.42

PLANETOCENTRIC CONIC

C3	16.357	VHL	4.044	DLA	20.89	RAL	32.00	RAD	6641.2	VEL	11.679	PTH	6.71	VHP	4.166	DPA	5.10	RAP	47.34	ECC	1.2692

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 38 14	3511.22	-46.41	129.15	265.35	101.91	12 36 45	2511.2	-36.61	99.39
60.00	11 52 34	3473.05	-39.99	127.06	266.71	95.52	12 50 27	2473.0	-33.45	98.04
70.00	12 14 57	3407.16	-34.15	122.11	267.08	90.39	13 11 44	2407.2	-30.43	94.01
80.00	12 53 34	3286.04	-29.69	112.80	266.95	86.71	13 48 20	2286.0	-28.03	85.49
90.00	14 0 59	3068.40	-27.92	96.66	266.81	85.29	14 52 8	2068.4	-27.06	69.69
100.00	15 36 26	2760.51	-29.69	74.16	266.95	86.71	16 22 27	1760.5	-28.03	46.86
110.00	17 14 23	2453.97	-34.15	51.03	267.08	90.39	17 55 17	1454.0	-30.43	22.93

DIFFERENTIAL CORRECTIONS

TDE	-.4263	TRA	-.8958	TC3	1.1365	BAU	.3069
RDE	-.2417	RRA	.2687	RC3	-.8235	FAU	.16825
FDE	1.5452	FRA	1.6911	FC3	-8.9053	BSP	3136
BDE	.4900	BRA	.9353	BC3	1.4035	FSP	1076

MID-COURSE EXECUTION ACCURACY

SGT	1747.8	SGR	852.6	SG3	687.2
RRT	-.6435	RRF	.7512	RTF	-.8220
SGB	1944.7	R23	-.1899	R13	.8508
SG1	1843.7	SG2	618.7	THA	160.26

ORBIT DETERMINATION ACCURACY

ST	36.5	SR	18.2	SS	41.9
CRT	.5892	CRS	.7674	CST	.9661
LSA	56.6	MSA	14.4	SSA	2.2
EL1	38.3	EL2	14.0	ALF	19.05

LAUNCH DATE JUL 29 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 402.774 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.311	GAL	-.45	AZL	89.04	HCA	127.72	SMA	208.07	ECC	.27009	INC	.9554	V1	29.331
RP	228.90	LAP	.76	LOP	73.46	VP	22.842	GAP	14.60	AZP	90.58	TAL	357.90	TAP	125.62	RCA	151.87	APO	264.27	V2	24.028
RC	137.073	GL	7.96	GP	-12.46	ZAL	90.90	ZAP	149.94	ETS	204.34	ZAE	162.56	ETE	308.30	ZAC	70.45	ETC	282.84	LVI	-4.01

PLANETOCENTRIC CONIC

C3	16.112	VHL	4.014	DLA	21.23	RAL	31.51	RAD	6641.1	VEL	11.669	PTH	6.70	VHP	4.064	DPA	4.66	RAP	47.43	ECC	1.2652

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 34 46	3515.13	-46.47	129.51	264.86	101.63	12 33 21	2515.1	-36.75	99.66
60.00	11 48 33	3478.42	-40.02	127.52	266.17	95.21	12 46 31	2478.4	-33.60	98.42
70.00	12 10 11	3414.70	-34.15	122.70	266.51	90.04	13 7 6	2414.7	-30.57	94.55
80.00	12 47 56	3296.36	-29.65	113.56	266.34	86.31	13 42 52	2296.4	-28.16	86.23
90.00	13 54 51	3080.31	-27.85	97.53	266.18	84.86	14 46 11	2080.3	-27.18	70.54
100.00	15 30 48	2770.83	-29.65	74.93	266.34	86.31	16 16 58	1770.8	-28.16	47.60
110.00	17 9 37	2461.52	-34.15	51.61	266.51	90.04	17 50 39	1461.5	-30.57	23.47

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4312	TRA	-.8814	TC3	1.1513	BAU	.3128	SGT	1747.8	SGR	883.1	SG3	723.2	ST	36.9	SR	17.2	SS	43.9
RDE	-.2237	RRA	.2718	RC3	-.8850	FAU	.17583	RRT	-.6620	RRF	.7754	RTF	-.8219	CRT	.5740	CRS	.7571	CST	.9655
FDE	1.6551	FRA	1.7229	FC3	-9.4476	BSP	3177	SGB	1958.3	R23	-.2012	R13	.8546	LSA	58.1	MSA	14.1	SSA	2.2
BDE	.4857	BRA	.9224	BC3	1.4521	FSP	1141	SG1	1856.5	SG2	623.1	THA	159.03	EL1	38.4	EL2	13.5	ALF	17.17

LAUNCH DATE JUL 29 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 406.437 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.279	GAL	-.41	AZL	88.99	HCA	128.75	SMA	207.38	ECC	.26763	INC	1.0080	V1	29.331
RP	229.28	LAP	.79	LOP	74.49	VP	22.752	GAP	14.32	AZP	90.63	TAL	358.05	TAP	126.80	RCA	151.88	APO	262.88	V2	23.988
RC	139.847	GL	8.45	GP	-12.92	ZAL	90.60	ZAP	148.76	ETS	204.13	ZAE	162.68	ETE	304.95	ZAC	70.01	ETC	282.89	LVI	-3.59

PLANETOCENTRIC CONIC

C3	15.887	VHL	3.986	DLA	21.59	RAL	31.04	RAD	6640.9	VEL	11.659	PTH	6.70	VHP	3.965	DPA	4.19	RAP	47.50	ECC	1.2615

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 31 14	3519.65	-46.53	129.93	264.42	101.32	12 29 54	2519.6	-36.92	99.96
60.00	11 44 26	3484.49	-40.06	128.03	265.68	94.87	12 42 31	2484.5	-33.76	98.85
70.00	12 5 17	3423.11	-34.15	123.35	265.97	89.65	13 2 20	2423.1	-30.73	95.16
80.00	12 42 4	3307.78	-29.60	114.40	265.76	85.87	13 37 11	2307.8	-28.30	87.06
90.00	13 48 26	3093.49	-27.76	98.48	265.58	84.39	14 39 59	2093.5	-27.31	71.49
100.00	15 24 55	2782.25	-29.60	75.77	265.76	85.87	16 11 18	1782.2	-28.30	48.42
110.00	17 4 43	2469.93	-34.15	52.27	265.97	89.65	17 45 53	1469.9	-30.73	24.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4343	TRA	-.8669	TC3	1.1574	BAU	.3180	SGT	1742.7	SGR	917.4	SG3	760.4	ST	37.2	SR	16.1	SS	45.9
RDE	-.2052	RRA	.2755	RC3	-.9497	FAU	.18360	RRT	-.6787	RRF	.7984	RTF	-.8208	CRT	.5519	CRS	.7412	CST	.9648
FDE	1.7684	FRA	1.7588	FC3	-10.0047	BSP	3218	SGB	1969.4	R23	-.2129	R13	.8581	LSA	59.6	MSA	13.8	SSA	2.3
BDE	.4804	BRA	.9096	BC3	1.4972	FSP	1211	SG1	1866.3	SG2	629.1	THA	157.67	EL1	38.3	EL2	13.0	ALF	15.26

LAUNCH DATE JUL 29 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 410.112 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.249	GAL	-.38	AZL	88.94	HCA	129.78	SMA	206.72	ECC	.26530	INC	1.0619	V1	29.331
RP	229.67	LAP	.82	LOP	75.52	VP	22.665	GAP	14.03	AZP	90.68	TAL	358.20	TAP	127.98	RCA	151.88	APO	261.57	V2	23.947
RC	142.641	GL	8.95	GP	-13.41	ZAL	90.33	ZAP	147.55	ETS	203.93	ZAE	162.74	ETE	301.40	ZAC	69.55	ETC	282.94	LVI	-3.16

PLANETOCENTRIC CONIC

C3	15.681	VHL	3.960	DLA	21.97	RAL	30.57	RAD	6640.9	VEL	11.650	PTH	6.69	VHP	3.871	DPA	3.70	RAP	47.55	ECC	1.2581

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 27 39	3524.78	-46.60	130.40	264.02	100.96	12 26 24	2524.8	-37.10	100.31
60.00	11 40 14	3491.28	-40.09	128.60	265.23	94.48	12 38 25	2491.3	-33.95	99.33
70.00	12 0 13	3432.40	-34.15	124.08	265.47	89.22	12 57 25	2432.4	-30.89	95.83
80.00	12 35 57	3320.36	-29.53	115.33	265.21	85.39	13 31 17	2320.4	-28.44	87.96
90.00	13 41 42	3108.05	-27.66	99.54	265.01	83.87	14 33 30	2108.1	-27.43	72.53
100.00	15 18 48	2794.84	-29.53	76.70	265.21	85.39	16 5 23	1794.8	-28.44	49.33
110.00	16 59 39	2479.22	-34.15	53.00	265.47	89.22	17 40 58	1479.2	-30.89	24.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4336	TRA	-.8525	TC3	1.1653	BAU	.3245	SGT	1736.2	SGR	956.1	SG3	799.0	ST	37.2	SR	15.1	SS	47.7
RDE	-.1869	RRA	.2791	RC3	-1.0190	FAU	.19179	RRT	-.6954	RRF	.8202	RTF	-.8297	CRT	.5212	CRS	.7196	CST	.9634
FDE	1.8769	FRA	1.7917	FC3	-10.3882	BSP	3204	SGB	1982.1	R23	-.2229	R13	.8622	LSA	60.8	MSA	13.6	SSA	2.3
BDE	.4722	BRA	.8970	BC3	1.5480	FSP	1269	SG1	1877.5	SG2	635.3	THA	156.15	EL1	38.1	EL2	12.5	ALF	13.39

LAUNCH DATE JUL 29 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 413.798 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.220	GAL	-.35	AZL	88.88	HCA	130.81	SMA	206.11	ECC	.26311	INC	1.1172	V1	29.331
RP	230.05	LAP	.85	LOP	76.55	VP	22.581	GAP	13.75	AZP	90.73	TAL	358.34	TAP	129.14	RCA	151.88	APO	260.34	V2	23.907
RC	145.456	GL	9.47	GP	-13.92	ZAL	90.06	ZAP	146.32	ETS	203.73	ZAE	162.75	ETE	297.66	ZAC	69.08	ETC	283.00	LVI	-2.71

PLANETOCENTRIC CONIC

C3	15.494	VHL	3.936	DLA	22.37	RAL	30.11	RAD	6640.8	VEL	11.642	PTH	6.68	VHP	3.780	DPA	3.17	RAP	47.58	ECC	1.2590

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 23 59	3530.53	-46.67	130.94	263.66	100.55	12 22 50	2530.5	-37.31	100.70
60.00	11 35 54	3498.79	-40.13	129.24	264.81	94.05	12 34 13	2498.8	-34.15	99.87
70.00	11 54 59	3442.61	-34.13	124.88	264.99	88.75	12 52 21	2442.6	-31.08	96.57
80.00	12 29 33	3334.20	-29.45	116.36	264.69	84.86	13 25 7	2334.2	-28.59	88.96
90.00	13 34 37	3124.10	-27.54	100.69	264.46	83.30	14 26 41	2124.1	-27.56	73.69
100.00	15 12 25	2808.67	-29.45	77.72	264.69	84.86	15 59 13	1808.7	-28.59	50.33
110.00	16 54 25	2489.43	-34.13	53.79	264.99	88.75	17 35 54	1489.4	-31.08	25.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4363	TRA	-.8344	TC3	1.1656	BAU	.3309	SGT	1723.5	SGR	997.5	SG3	838.9	ST	37.4	SR	13.9	SS	49.9
RDE	-.1663	RRA	.2821	RC3	-1.0922	FAU	.20023	RRT	-.7087	RRF	.8399	RTF	-.8180	CRT	.4844	CRS	.6912	CST	.9627
FDE	2.0065	FRA	1.8145	FC3	-11.1881	BSP	3285	SGB	1991.4	R23	-.2325	R13	.8666	LSA	62.4	MSA	13.3	SSA	2.3
BDE	.4669	BRA	.8808	BC3	1.5974	FSP	1357	SG1	1884.5	SG2	643.6	THA	154.51	EL1	38.1	EL2	11.9	ALF	11.31

LAUNCH DATE JUL 29 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 417.494 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.193	GAL	-.32	AZL	88.63	HCA	131.83	SMA	205.54	ECC	.26105	INC	1.1742	V1	29.331
RP	230.44	LAP	.87	LOP	77.57	VP	22.498	GAP	13.47	AZP	90.78	TAL	358.47	TAP	130.30	RCA	151.88	APO	259.20	V2	23.867
RC	148.289	GL	10.01	GP	-14.44	ZAL	89.81	ZAP	145.06	ETS	203.54	ZAE	162.67	ETE	293.78	ZAC	68.59	ETC	283.06	LVI	-2.26

PLANETOCENTRIC CONIC

C3	15.323	VHL	3.914	DLA	22.78	RAL	29.65	RAD	6640.7	VEL	11.635	PTH	6.67	VHP	3.693	DPA	2.62	RAP	47.60	ECC	1.2522

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 20 16	3536.93	-46.75	131.54	263.35	100.09	12 19 12	2536.9	-37.54	101.14
60.00	11 31 28	3507.06	-40.17	129.94	264.43	93.58	12 29 55	2507.1	-34.36	100.46
70.00	11 49 33	3453.80	-34.11	125.75	264.55	88.23	12 47 7	2453.8	-31.27	97.38
80.00	12 22 51	3349.38	-29.35	117.47	264.19	84.28	13 18 40	2349.4	-28.75	90.06
90.00	13 27 8	3141.78	-27.39	101.97	263.93	82.68	14 19 30	2141.8	-27.70	74.96
100.00	15 5 42	2823.85	-29.35	78.84	264.19	84.28	15 52 46	1823.9	-28.75	51.43
110.00	16 48 59	2500.61	-34.11	54.67	264.55	88.23	17 30 40	1500.6	-31.27	28.30

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4374	TRA	-.8233	TC3	1.1642	BAU	.3381	SGT	1717.2	SGR	1044.8	SG3	881.1	ST	37.6	SR	12.7	SS	52.2
RDE	-.1446	RRA	.2873	RC3	-1.1699	FAU	.20898	RRT	-.7219	RRF	.8586	RTF	-.8161	CRT	.4260	CRS	.6454	CST	.9616
FDE	2.1433	FRA	1.8595	FC	-11.8068	BSP	3287	SGB	2010.1	R23	-.2416	R13	.8713	LSA	64.2	MSA	13.1	SSA	2.3
BDE	.4607	BRA	.8720	BC3	1.6504	FSP	1424	SG1	1901.1	SG2	653.1	THA	152.82	EL1	38.0	EL2	11.3	ALF	8.99

LAUNCH DATE JUL 29 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 421.199 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.167	GAL	-.29	AZL	88.77	HCA	132.85	SMA	205.00	ECC	.25910	INC	1.2326	V1	29.331
RP	230.82	LAP	.90	LOP	78.59	VP	22.418	GAP	13.19	AZP	90.84	TAL	358.59	TAP	131.44	RCA	151.89	APO	258.12	V2	23.827
RC	151.140	GL	10.56	GP	-14.99	ZAL	89.57	ZAP	143.77	ETS	203.35	ZAE	162.52	ETE	289.77	ZAC	68.09	ETC	283.13	LVI	-1.78

PLANETOCENTRIC CONIC

C3	15.169	VHL	3.895	DLA	23.21	RAL	29.20	RAD	6640.6	VEL	11.628	PTH	6.67	VHP	3.610	DPA	2.04	RAP	47.59	ECC	1.2496

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 16 27	3543.96	-46.83	132.20	263.08	99.59	12 15 31	2544.0	-37.79	101.63
60.00	11 26 54	3516.09	-40.20	130.70	264.09	93.06	12 25 30	2516.1	-34.60	101.12
70.00	11 43 55	3465.97	-34.08	126.70	264.14	87.67	12 41 41	2466.0	-31.47	98.27
80.00	12 15 48	3365.98	-29.24	118.69	263.71	83.65	13 11 53	2366.0	-28.91	91.27
90.00	13 19 12	3161.24	-27.22	103.36	263.42	82.00	14 11 53	2161.2	-27.83	76.37
100.00	14 58 39	2840.46	-29.24	80.06	263.71	83.65	15 46 0	1840.5	-28.91	52.64
110.00	16 43 21	2512.79	-34.08	55.62	264.14	87.67	17 25 14	1512.8	-31.47	27.19

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4332	TRA	-.7972	TC3	1.1638	BAU	.3464	SGT	1690.0	SGR	1093.4	SG3	922.1	ST	37.2	SR	11.4	SS	54.4
RDE	-.1221	RRA	.2892	RC3	-1.2506	FAU	.21772	RRT	-.7357	RRF	.8748	RTF	-.8165	CRT	.3552	CRS	.5891	CST	.9600
FDE	2.2850	FRA	1.8659	FC	-12.4259	BSP	3195	SGB	2012.9	R23	-.2417	R13	.8786	LSA	65.6	MSA	12.8	SSA	2.3
BDE	.4501	BRA	.8480	BC3	1.7083	FSP	1482	SG1	1902.3	SG2	658.0	THA	150.71	EL1	37.4	EL2	10.6	ALF	8.79

LAUNCH DATE JUL 29 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 424.911 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.143	GAL	-.26	AZL	88.71	HCA	133.86	SMA	204.50	ECC	.25726	INC	1.2929	V1	29.331
RP	231.20	LAP	.93	LOP	79.60	VP	22.340	GAP	12.92	AZP	90.90	TAL	358.71	TAP	132.57	RCA	151.89	APO	257.11	V2	23.787
RC	154.008	GL	11.12	GP	-15.57	ZAL	89.35	ZAP	142.45	ETS	203.17	ZAE	162.27	ETE	285.70	ZAC	67.57	ETC	283.21	LVI	-1.30

PLANETOCENTRIC CONIC

C3	15.031	VHL	3.877	DLA	23.66	RAL	28.75	RAD	6640.5	VEL	11.623	PTH	6.66	VHP	3.531	DPA	1.43	RAP	47.57	ECC	1.2474

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 12 33	3551.69	-46.91	132.92	262.86	99.04	12 11 45	2551.7	-38.07	102.16
60.00	11 22 12	3525.96	-40.24	131.54	263.79	92.49	12 20 58	2526.0	-34.85	101.63
70.00	11 38 3	3479.27	-34.04	127.73	263.76	87.06	12 36 2	2479.3	-31.69	99.25
80.00	12 8 21	3384.24	-29.09	120.03	263.26	82.96	13 4 45	2384.2	-29.07	92.60
90.00	13 10 43	3182.81	-27.00	104.91	262.93	81.26	14 3 46	2182.8	-27.95	77.94
100.00	14 51 13	2858.71	-29.09	81.40	263.26	82.96	15 38 51	1858.7	-29.07	53.97
110.00	16 37 29	2526.08	-34.04	56.65	263.76	87.06	17 19 36	1526.1	-31.69	28.17

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4377	TRA	-.7881	TC3	1.1312	BAU	.3514	SGT	1674.7	SGR	1146.8	SG3	964.1	ST	37.6	SR	10.3	SS	56.8
RDE	-.0981	RRA	.2940	RC3	-1.3335	FAU	.22632	RRT	-.7375	RRF	.8896	RTF	-.8176	CRT	.2504	CRS	.4980	CST	.9594
FDE	2.4348	FRA	1.9003	FC	-13.0349	BSP	3314	SGB	2029.7	R23	-.2566	R13	.8808	LSA	67.7	MSA	12.7	SSA	2.3
BDE	.4485	BRA	.8412	BC3	1.7486	FSP	1570	SG1	1913.1	SG2	678.0	THA	148.87	EL1	37.7	EL2	9.9	ALF	4.21

LAUNCH DATE JUL 29 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 428.632 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.120	GAL	-.24	AZL	88.64	HCA	134.87	SMA	204.02	ECC	.25553	INC	1.3552	V1	29.331
RP	231.58	LAP	.96	LOP	80.62	VP	22.264	GAP	12.65	AZP	90.96	TAL	358.82	TAP	133.69	RCA	151.89	APO	256.16	V2	23.748
RC	156.890	GL	11.70	GP	-16.16	ZAL	89.15	ZAP	141.11	ETS	202.98	ZAE	161.93	ETE	281.60	ZAC	67.03	ETC	283.29	LVI	-.80

PLANETOCENTRIC CONIC

C3	14.909	VHL	3.861	DLA	24.13	RAL	28.31	RAD	6640.5	VEL	11.617	PTH	6.66	VHP	3.455	DPA	.79	RAP	47.53	ECC	1.2454

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 8 33	3560.09	-47.00	133.72	262.69	98.43	12 7 53	2560.1	-38.36	102.75
60.00	11 17 21	3536.66	-40.26	132.45	263.53	91.88	12 16 18	2536.7	-35.11	102.62
70.00	11 31 56	3493.69	-33.99	128.86	263.41	86.40	12 30 10	2493.7	-31.91	100.32
80.00	12 0 27	3404.24	-28.91	121.49	262.82	82.21	12 57 11	2404.2	-29.23	94.07
90.00	13 1 37	3206.70	-26.74	106.61	262.44	80.45	13 55 4	2206.7	-28.07	79.68
100.00	14 43 19	2878.71	-28.91	82.86	262.82	82.21	15 31 17	1878.7	-29.23	55.44
110.00	16 31 22	2540.51	-33.99	57.77	263.41	86.40	17 13 43	1540.5	-31.91	29.23

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4375	TRA	-.7730	TC3	1.0928	BAU	.3569	SGT	1647.3	SGR	1202.4	SG3	1005.2	ST	37.6	SR	9.2	SS	59.4
RDE	-.0722	RRA	.2980	RC3	-1.4182	FAU	.23465	RRT	-.7390	RRF	.9026	RTF	-.7990	CRT	.1008	CRS	.3645	CST	.9580
FDE	2.5981	FRA	1.9227	FC	-13.6260	BSP	3342	SGB	2039.4	R23	-.2653	R13	.8846	LSA	69.7	MSA	12.5	SSA	2.3
BDE	.4434	BRA	.8285	BC3	1.7904	FSP	1649	SG1	1916.9	SG2	696.0	THA	146.71	EL1	37.6	EL2	9.1	ALF	1.50

LAUNCH DATE JUL 29 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 432.360 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.099	GAL	-.22	AZL	88.58	HCA	135.88	SMA	203.58	ECC	.25390	INC	1.4193
RP	231.95	LAP	.99	LOP	81.63	VP	22.191	GAP	12.38	AZP	91.02	TAL	358.92	TAP	134.80	RCA	151.89	APO	255.27
RC	159.785	GL	12.30	GP	-16.79	ZAL	88.96	ZAP	139.74	ETS	202.79	ZAE	161.48	ETE	277.52	ZAC	66.47	ETC	283.38

V1 29.331 V2 23.708 LVI -.28

PLANETOCENTRIC CONIC

C3	14.801	VHL	3.847	DLA	24.62	RAL	27.88	RAD	6640.4	VEL	11.613	PTH	6.65	VHP	3.382	DPA	.12	RAP	47.48

ECC 1.2436

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 4 27	3569.19	-47.09	134.58	262.56	97.77	12 3 56	2569.2	-38.67	103.40
60.00	11 12 20	3548.21	-40.29	133.43	263.30	91.21	12 11 28	2548.2	-35.40	103.47
70.00	11 25 32	3509.31	-33.91	130.07	263.08	85.69	12 24 1	2509.3	-32.14	101.47
80.00	11 52 1	3426.19	-28.70	123.09	262.39	81.40	12 49 7	2426.2	-29.39	95.68
90.00	12 51 45	3233.29	-26.43	108.49	261.96	79.56	13 45 38	2233.3	-28.16	81.61
100.00	14 34 53	2900.66	-28.70	84.45	262.39	81.40	15 23 14	1900.7	-29.39	57.05
110.00	16 24 58	2556.12	-33.91	58.99	263.08	85.69	17 7 34	1556.1	-32.14	30.39

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.4299	TRA	-.7502	TC3	1.0904	BAU	.3699	SGT 1620.0 SGR 1270.2 SG3 1053.5	ST	37.0	SR	8.3 SS 61.9
RDE	-.0454	RRA	.3016	RC3	-1.5183	FAU	.24508	RRT -.7504 RRF .9153 RTF -.7994	CRT	-.0996	CRS	.1774 CST .9560
FDE	2.7625	FRA	1.9384	FC	-14.3349	BSP	3337	SGB 2058.6 R23 -.2579 R13 .8946	LSA	71.5	MSA	12.3 SSA 2.3
BDE	.4323	BRA	.8086	BC3	1.8693	FSP	1735	SG1 1934.9 SG2 703.0 THA 144.06	EL1	37.0	EL2	8.3 ALF 178.65

LAUNCH DATE JUL 29 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 436.094 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.079	GAL	-.20	AZL	88.51	HCA	136.89	SMA	203.16	ECC	.25237	INC	1.4857
RP	232.33	LAP	1.02	LOP	82.63	VP	22.119	GAP	12.11	AZP	91.08	TAL	359.01	TAP	135.90	RCA	151.89	APO	254.44
RC	162.693	GL	12.92	GP	-17.43	ZAL	88.78	ZAP	138.34	ETS	202.60	ZAE	160.93	ETE	273.52	ZAC	65.90	ETC	283.48

V1 29.331 V2 23.670 LVI .25

PLANETOCENTRIC CONIC

C3	14.708	VHL	3.835	DLA	25.13	RAL	27.45	RAD	6640.4	VEL	11.609	PTH	6.65	VHP	3.314	DPA	-.58	RAP	47.41

ECC 1.2421

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 0 15	3579.06	-47.18	135.52	262.49	97.06	11 59 54	2579.1	-39.01	104.10
60.00	11 7 7	3560.72	-40.30	134.50	263.11	90.49	12 6 28	2560.7	-35.69	104.40
70.00	11 18 49	3526.28	-33.82	131.39	262.79	84.91	12 17 35	2526.3	-32.38	102.74
80.00	11 42 58	3450.46	-28.44	124.84	261.98	80.51	12 40 29	2450.5	-29.53	97.47
90.00	12 40 56	3263.26	-26.04	110.60	261.49	78.57	13 35 19	2263.3	-28.24	83.80
100.00	14 25 50	2924.93	-28.44	86.21	261.98	80.51	15 14 35	1924.9	-29.53	58.84
110.00	16 18 15	2573.10	-33.82	60.30	262.79	84.91	17 1 8	1573.1	-32.38	31.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.4332	TRA	-.7394	TC3	1.0408	BAU	.3779	SGT 1595.3 SGR 1338.3 SG3 1098.7	ST	37.2	SR	7.9 SS 64.8
RDE	-.0153	RRA	.3063	RC3	-1.6153	FAU	.25430	RRT -.7452 RRF .9260 RTF -.7871	CRT	-.3543	CRS	-.0829 CST .9551
FDE	2.9500	FRA	1.9612	FC	-14.9680	BSP	3406	SGB 2082.3 R23 -.2648 R13 .8992	LSA	74.1	MSA	12.2 SSA 2.2
BDE	.4335	BRA	.8003	BC3	1.9216	FSP	1813	SG1 1950.2 SG2 730.1 THA 141.67	EL1	37.3	EL2	7.4 ALF 175.53

LAUNCH DATE JUL 29 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 439.834 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.060	GAL	-.18	AZL	88.45	HCA	137.89	SMA	202.78	ECC	.25093	INC	1.5543
RP	232.70	LAP	1.04	LOP	83.63	VP	22.049	GAP	11.84	AZP	91.15	TAL	359.10	TAP	136.98	RCA	151.89	APO	253.66
RC	165.610	GL	13.56	GP	-18.10	ZAL	88.62	ZAP	136.91	ETS	202.40	ZAE	160.26	ETE	269.62	ZAC	65.30	ETC	283.59

V1 29.331 V2 23.631 LVI .80

PLANETOCENTRIC CONIC

C3	14.630	VHL	3.825	DLA	25.67	RAL	27.03	RAD	6640.3	VEL	11.605	PTH	6.65	VHP	3.249	DPA	-1.32	RAP	47.32

ECC 1.2408

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 55 54	3589.66	-47.26	136.53	262.45	96.28	11 55 44	2589.7	-39.36	104.87
60.00	11 1 43	3574.17	-40.30	135.64	262.96	89.71	12 1 17	2574.2	-36.00	105.40
70.00	11 11 43	3544.66	-33.70	132.81	262.51	84.08	12 10 48	2544.7	-32.62	104.12
80.00	11 33 11	3477.33	-28.12	126.78	261.57	79.54	12 31 8	2477.3	-29.66	99.46
90.00	12 28 54	3297.33	-25.56	112.97	260.99	77.47	13 23 51	2297.3	-28.28	86.29
100.00	14 16 3	2951.80	-28.12	88.14	261.57	79.54	15 5 14	1951.8	-29.66	60.82
110.00	16 11 10	2591.48	-33.70	61.72	262.51	84.08	16 54 21	1591.5	-32.62	33.04

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.4292	TRA	-.7218	TC3	.9929	BAU	.3872	SGT 1556.6 SGR 1408.5 SG3 1141.8	ST	36.9	SR	8.1 SS 67.7
RDE	.0164	RRA	.3108	RC3	-1.7126	FAU	.26291	RRT -.7427 RRF .9352 RTF -.7974	CRT	-.6076	CRS	-.3622 CST .9535
FDE	3.1428	FRA	1.9795	FC	-15.5577	BSP	3389	SGB 2100.7 R23 -.2613 R13 .9065	LSA	76.5	MSA	12.1 SSA 2.2
BDE	.4295	BRA	.7859	BC3	1.9796	FSP	1882	SG1 1962.7 SG2 748.9 THA 138.89	EL1	37.2	EL2	6.4 ALF 172.18

LAUNCH DATE JUL 29 1973 FLIGHT TIME 186.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 443.579 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	33.042	GAL	-.17	AZL	88.37	HCA	138.89	SMA	202.41	ECC	.24958	INC	1.6255
RP	233.07	LAP	1.07	LOP	84.63	VP	21.981	GAP	11.58	AZP	91.22	TAL	359.17	TAP	138.06	RCA	151.89	APO	252.93
RC	168.837	GL	14.22	GP	-18.80	ZAL	88.48	ZAP	135.46	ETS	202.19	ZAE	159.49	ETE	285.88	ZAC	64.69	ETC	283.70

V1 29.331 V2 23.593 LVI 1.37

PLANETOCENTRIC CONIC

C3	14.566	VHL	3.817	DLA	26.23	RAL	26.61	RAD	6640.3	VEL	11.603	PTH	6.64	VHP	3.188	DPA	-2.09	RAP	47.22

ECC 1.2397

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 51 25	3601.08	-47.34	137.62	262.47	95.44	11 51 26	2601.1	-39.74	105.71
60.00	10 56 5	3588.66	-40.29	136.87	262.84	88.87	11 55 53	2588.7	-36.33	106.50
70.00	11 4 14	3564.63	-33.55	134.35	262.25	83.18	12 3 38	2564.6	-32.87	105.63
80.00	11 22 28	3507.39	-27.73	128.92	261.16	78.47	12 20 55	2507.4	-29.77	101.68
90.00	12 15 13	3336.97	-24.95	115.71	260.46	76.23	13 10 50	2337.0	-28.26	89.19
100.00	14 5 20	2981.86	-27.73	90.29	261.16	78.47	14 55 2	1981.9	-29.77	63.05
110.00	16 3 40	2611.45	-33.55	63.26	262.25	83.18	16 47 12	1611.5	-32.87	34.54

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.4276	TRA	-.7086	TC3	.9328	BAU	.3977	SGT 1524.9 SGR 1485.5 SG3 1186.6	ST	36.7	SR	9.0 SS 70.8
RDE	.0507	RRA	.3152	RC3	-1.8167	FAU	.27196	RRT -.7335 RRF .9435 RTF -.7624	CRT	-.8006	CRS	-.6002 CST .9517
FDE	3.3487	FRA	1.9923	FC	-16.1646	BSP	3485	SGB 2128.9 R23 -.2593 R13 .9131	LSA	79.3	MSA	12.0 SSA 2.2
BDE	.4306	BRA	.7755	BC3	2.0422	FSP	1979	SG1 1982.1 SG2 776.7 THA 136.02	EL1	37.4	EL2	5.3 ALF 168.64

LAUNCH DATE JUL 29 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 447.329 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 33.025 GAL -.15 AZL 88.30 HCA 139.88 SMA 202.07 ECC .24831 INC 1.6993 V1 29.331
RP 233.44 LAP 1.09 LOP 85.63 VP 21.915 GAP 11.31 AZP 91.30 TAL 359.24 TAP 139.12 RCA 151.89 APO 252.25 V2 23.554
RC 171.472 GL 14.89 GP -19.53 ZAL 88.35 ZAP 133.98 ETS 201.97 ZAE 158.81 ETE 262.30 ZAC 64.05 ETC 283.83 LVI 1.96

PLANETOCENTRIC CONIC

C3 14.516 VHL 3.810 DLA 26.81 RAL 26.19 RAD 6640.3 VEL 11.600 PTH 6.64 VHP 3.130 DPA -2.90 RAP 47.10 ECC 1.2389

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 46 47	3613.32	-47.41	138.80	262.53	94.54	11 47 0	2613.3	-40.14	106.61
60.00	10 50 11	3604.24	-40.26	138.20	262.75	87.98	11 50 16	2604.2	-36.66	107.68
70.00	10 56 16	3586.33	-33.36	136.01	262.01	82.21	11 56 2	2586.3	-33.11	107.27
80.00	11 10 35	3541.36	-27.25	131.33	260.73	77.30	12 9 36	2541.4	-29.84	104.21
90.00	11 59 6	3384.58	-24.14	118.97	259.88	74.80	12 55 31	2384.6	-28.15	92.67
100.00	13 53 27	3015.83	-27.25	92.70	260.73	77.30	14 43 43	2015.8	-29.84	65.57
110.00	15 55 42	2633.15	-33.36	64.93	262.01	82.21	16 39 35	1633.2	-33.11	36.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4212 TRA -.6909 TC3 .8850 BAU .4125 SGT 1487.1 SGR 1572.7 SG3 1234.9 ST 36.2 SR 10.6 SS 73.7
RDE .0864 RRA .3187 RC3-1.9324 FAU .28216 RRT -.7271 RRF .9512 RTF -.7501 CRT -.9108 CRS -.7574 CST .9493
FDE 3.5535 FRA 1.9936 FC-16.8284 BSP 3484 SGB 2164.4 R23 -.2479 R13 .9222 LSA 81.9 MSA 11.9 SSA 2.1
BDE .4300 BRA .7609 BC3 2.1254 FSP 2046 SG1 2011.9 SG2 798.1 THA 132.80 EL1 37.5 EL2 4.2 ALF 164.89

LAUNCH DATE JUL 29 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 451.084 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 33.010 GAL -.14 AZL 88.22 HCA 140.87 SMA 201.75 ECC .24712 INC 1.7759 V1 29.331
RP 233.80 LAP 1.12 LOP 86.62 VP 21.851 GAP 11.05 AZP 91.38 TAL 359.30 TAP 140.17 RCA 151.89 APO 251.61 V2 23.517
RC 174.413 GL 15.60 GP -20.28 ZAL 88.24 ZAP 132.47 ETS 201.74 ZAE 157.63 ETE 258.91 ZAC 63.40 ETC 283.96 LVI 2.57

PLANETOCENTRIC CONIC

C3 14.480 VHL 3.805 DLA 27.41 RAL 25.78 RAD 6640.3 VEL 11.599 PTH 6.64 VHP 3.076 DPA -3.74 RAP 46.96 ECC 1.2383

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 41 58	3626.44	-47.47	140.06	262.64	93.57	11 42 25	2626.4	-40.55	107.59
60.00	10 44 1	3620.97	-40.21	139.62	262.69	87.01	11 44 22	2621.0	-37.01	108.97
70.00	10 47 45	3609.99	-33.13	137.82	261.78	81.17	11 47 54	2610.0	-33.34	109.08
80.00	10 57 9	3580.45	-26.63	134.07	260.27	75.98	11 56 49	2580.5	-29.85	107.11
90.00	11 38 48	3445.78	-22.98	123.08	259.15	73.05	12 36 14	2445.8	-27.86	97.12
100.00	13 40 0	3054.93	-26.63	95.44	260.27	75.98	14 30 55	2054.9	-29.85	68.48
110.00	15 47 11	2656.81	-33.13	66.74	261.78	81.17	16 31 28	1656.8	-33.34	38.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4125 TRA -.6746 TC3 .8085 BAU .4246 SGT 1440.0 SGR 1656.2 SG3 1275.8 ST 35.5 SR 12.7 SS 76.8
RDE .1250 RRA .3225 RC3-2.0392 FAU .29022 RRT -.7119 RRF .9573 RTF -.7299 CRT -.9655 CRS -.8537 CST .9459
FDE 3.7697 FRA 1.9941 FC-17.3521 BSP 3607 SGB 2194.7 R23 -.2367 R13 .9301 LSA 84.7 MSA 11.9 SSA 2.1
BDE .4310 BRA .7477 BC3 2.1936 FSP 2157 SG1 2034.4 SG2 823.3 THA 129.42 EL1 37.6 EL2 3.1 ALF 160.80

LAUNCH DATE JUL 29 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 454.843 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.995 GAL -.13 AZL 88.14 HCA 141.86 SMA 201.45 ECC .24601 INC 1.8556 V1 29.331
RP 234.17 LAP 1.15 LOP 87.61 VP 21.788 GAP 10.79 AZP 91.46 TAL 359.35 TAP 141.22 RCA 151.89 APO 251.01 V2 23.479
RC 177.360 GL 16.32 GP -21.06 ZAL 88.14 ZAP 130.94 ETS 201.49 ZAE 156.55 ETE 255.72 ZAC 62.72 ETC 284.10 LVI 3.20

PLANETOCENTRIC CONIC

C3 14.458 VHL 3.802 DLA 28.05 RAL 25.36 RAD 6640.3 VEL 11.598 PTH 6.64 VHP 3.026 DPA -4.61 RAP 46.82 ECC 1.2379

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 36 58	3640.47	-47.52	141.41	262.80	92.53	11 37 38	2640.5	-40.99	108.66
60.00	10 37 31	3638.97	-40.13	141.14	262.67	85.98	11 38 10	2639.0	-37.36	110.37
70.00	10 38 34	3635.87	-32.84	139.78	261.56	80.04	11 39 10	2635.9	-33.57	111.07
80.00	10 41 28	3626.75	-25.83	137.28	259.74	74.48	11 41 55	2626.7	-29.78	110.55
90.00	11 7 35	3542.28	-20.93	129.40	258.06	70.53	12 6 37	2542.3	-27.08	104.07
100.00	13 24 20	3101.22	-25.83	98.64	259.74	74.48	14 16 2	2101.2	-29.78	71.92
110.00	15 38 1	2682.69	-32.84	68.70	261.56	80.04	16 22 43	1682.7	-33.57	39.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.4023 TRA -.6618 TC3 .7245 BAU .4389 SGT 1395.7 SGR 1748.6 SG3 1318.3 ST 34.7 SR 15.3 SS 79.9
RDE .1659 RRA .3298 RC3-2.1519 FAU .29849 RRT -.6923 RRF .9629 RTF -.7161 CRT -.9870 CRS -.9084 CST .9423
FDE 3.9893 FRA 2.0229 FC-17.8730 BSP 3767 SGB 2237.3 R23 -.2225 R13 .9384 LSA 87.6 MSA 12.0 SSA 2.0
BDE .4352 BRA .7395 BC3 2.2706 FSP 2278 SG1 2069.1 SG2 851.2 THA 125.91 EL1 37.9 EL2 2.2 ALF 156.44

LAUNCH DATE JUL 29 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 458.606 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.981 GAL -.12 AZL 88.06 HCA 142.85 SMA 201.18 ECC .24497 INC 1.9386 V1 29.331
RP 234.53 LAP 1.17 LOP 88.60 VP 21.727 GAP 10.54 AZP 91.55 TAL 359.40 TAP 142.25 RCA 151.89 APO 250.46 V2 23.442
RC 180.313 GL 17.07 GP -21.87 ZAL 88.06 ZAP 129.39 ETS 201.22 ZAE 155.38 ETE 252.73 ZAC 62.03 ETC 284.25 LVI 3.85

PLANETOCENTRIC CONIC

C3 14.451 VHL 3.801 DLA 28.71 RAL 24.95 RAD 6640.3 VEL 11.598 PTH 6.64 VHP 2.979 DPA -5.52 RAP 46.66 ECC 1.2378

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 31 44	3655.48	-47.56	142.86	263.00	91.41	11 32 39	2655.5	-41.44	109.81
60.00	10 30 40	3658.32	-40.03	142.78	262.66	84.88	11 31 38	2658.3	-37.72	111.88
70.00	10 28 38	3664.34	-32.48	141.93	261.33	78.82	11 29 42	2664.3	-33.77	113.26
80.00	10 22 11	3684.61	-24.72	141.21	259.08	72.69	11 23 36	2684.6	-29.55	114.83
84.84	9 51 6	3784.76	-18.71	146.27	256.76	67.82	10 54 11	2784.8	-26.22	121.66
100.00	13 5 3	3159.08	-24.72	102.58	259.08	72.69	13 57 42	2159.1	-29.55	76.20
110.00	15 28 4	2711.16	-32.48	70.84	261.33	78.82	16 13 15	1711.2	-33.77	42.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3921 TRA -.6387 TC3 .6585 BAU .4583 SGT 1343.3 SGR 1850.3 SG3 1363.9 ST 33.8 SR 18.3 SS 83.4
RDE .2120 RRA .3289 RC3-2.2790 FAU .30811 RRT -.6745 RRF .9679 RTF -.6848 CRT -.9925 CRS -.9437 CST .9385
FDE 4.2359 FRA 1.9744 FC-18.4581 BSP 3773 SGB 2286.5 R23 -.1993 R13 .9482 LSA 91.0 MSA 11.9 SSA 1.9
BDE .4457 BRA .7184 BC3 2.3722 FSP 2327 SG1 2115.7 SG2 867.3 THA 122.11 EL1 38.4 EL2 2.0 ALF 151.73

LAUNCH DATE JUL 29 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 462.372 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.968	GAL	-.11	AZL	87.97	HCA	143.83	SNA	200.92	ECC	.24399	INC	2.0252	V1	29.331
RP	234.89	LAP	1.20	LOP	89.59	VP	21.668	GAP	10.28	AZP	91.64	TAL	359.44	TAP	143.27	RCA	151.89	APO	249.94	V2	23.405
RC	183.270	GL	17.84	GP	-22.71	ZAL	88.00	ZAP	127.81	ETS	200.94	ZAE	154.12	ETE	249.94	ZAC	61.31	ETC	284.41	LVI	4.53

PLANETOCENTRIC CONIC

C3	14.459	VHL	3.803	DLA	29.40	RAL	24.54	RAD	6640.3	VEL	11.598	PTH	6.64	VHP	2.936	DPA	-6.46	RAP	46.49	ECC	1.2380

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 26 16	3671.51	-47.58	144.41	263.25	90.22	11 27 27	2671.5	-41.91	111.07
60.00	10 23 24	3679.15	-39.89	144.53	262.68	83.69	11 24 43	2679.2	-38.08	113.83
70.00	10 17 44	3695.89	-32.04	144.28	261.08	77.49	11 19 20	2695.9	-33.95	115.71
80.00	9 55 3	3767.36	-22.93	146.71	258.12	70.33	10 57 50	2767.4	-28.95	120.91
81.62	9 23 35	3868.20	-19.13	152.60	256.54	67.25	10 28 3	2868.2	-26.84	127.95
100.00	12 37 55	3241.84	-22.93	108.08	258.12	70.33	13 31 57	2241.8	-28.95	82.28
110.00	15 17 10	2742.70	-32.04	73.20	261.08	77.49	16 2 53	1742.7	-33.95	44.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3777	TRA	-.6260	TC3	.5748	BAU	.4778	SGT	1298.8	SGR	1957.3	SG3	1406.5	ST	32.8	SR	21.5	SS	86.6
RDE	.2591	RRA	.3351	RC3	-2.4041	FAU	.31664	RRT	-.6486	RRF	.9722	RTF	-.6551	CRT	-.9893	CRS	-.9628	CST	.9327
FDE	4.4697	FRA	1.9848	FC	-18.9585	BSP	3805	SGB	2349.1	R23	-.1794	R13	.9561	LSA	94.3	MSA	12.0	SSA	1.8
BDE	.4580	BRA	.7100	BC3	2.4719	FSP	2384	SG1	2173.9	SG2	890.1	THA	118.48	EL1	39.1	EL2	2.6	ALF	146.79

LAUNCH DATE JUL 29 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 466.140 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.956	GAL	-.10	AZL	87.88	HCA	144.81	SNA	200.68	ECC	.24308	INC	2.1157	V1	29.331
RP	235.24	LAP	1.22	LOP	90.57	VP	21.610	GAP	10.03	AZP	91.73	TAL	359.47	TAP	144.28	RCA	151.89	APO	249.46	V2	23.369
RC	186.232	GL	18.65	GP	-23.57	ZAL	87.94	ZAP	126.21	ETS	200.63	ZAE	152.77	ETE	247.33	ZAC	60.57	ETC	284.58	LVI	5.22

PLANETOCENTRIC CONIC

C3	14.483	VHL	3.806	DLA	30.12	RAL	24.12	RAD	6640.3	VEL	11.599	PTH	6.64	VHP	2.897	DPA	-7.44	RAP	46.32	ECC	1.2383

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 20 31	3688.65	-47.57	146.07	263.54	88.94	11 22 0	2688.7	-42.39	112.43
60.00	10 15 39	3701.62	-39.70	146.42	262.72	82.43	11 17 21	2701.6	-38.45	115.33
70.00	10 5 38	3731.21	-31.49	146.89	260.80	76.04	11 7 49	2731.2	-34.08	118.46
79.19	9 3 15	3928.24	-19.57	157.25	256.35	66.64	10 8 43	2928.2	-27.48	132.57
79.19	9 3 15	3928.24	-19.57	157.25	256.35	66.64	10 8 43	2928.2	-27.48	132.57
79.19	9 3 15	3928.24	-19.57	157.25	256.35	66.64	10 8 43	2928.2	-27.48	132.57
110.00	15 5 4	2778.03	-31.49	75.80	260.80	76.04	15 51 22	1778.0	-34.08	47.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3561	TRA	-.6078	TC3	.4989	BAU	.5015	SGT	1245.3	SGR	2074.7	SG3	1450.3	ST	31.2	SR	25.0	SS	89.5
RDE	.3077	RRA	.3384	RC3	-2.5419	FAU	.32610	RRT	-.6216	RRF	.9761	RTF	-.6239	CRT	-.9808	CRS	-.9746	CST	.9240
FDE	4.6929	FRA	1.9861	FC	-19.4933	BSP	3843	SGB	2419.8	R23	-.1556	R13	.9639	LSA	97.3	MSA	12.1	SSA	1.8
BDE	.4707	BRA	.6957	BC3	2.5904	FSP	2429	SG1	2245.7	SG2	901.2	THA	114.70	EL1	39.7	EL2	3.8	ALF	141.42

LAUNCH DATE JUL 29 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 469.911 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.945	GAL	-.10	AZL	87.79	HCA	145.79	SNA	200.45	ECC	.24224	INC	2.2105	V1	29.331
RP	235.59	LAP	1.24	LOP	91.54	VP	21.554	GAP	9.78	AZP	91.83	TAL	359.49	TAP	145.27	RCA	151.89	APO	249.01	V2	23.332
RC	189.197	GL	19.48	GP	-24.46	ZAL	87.91	ZAP	124.60	ETS	200.30	ZAE	151.35	ETE	244.90	ZAC	59.81	ETC	284.76	LVI	5.94

PLANETOCENTRIC CONIC

C3	14.522	VHL	3.811	DLA	30.87	RAL	23.70	RAD	6640.3	VEL	11.601	PTH	6.64	VHP	2.862	DPA	-8.46	RAP	46.13	ECC	1.2390

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 14 28	3707.00	-47.53	147.84	263.87	87.58	11 16 15	2707.0	-42.89	113.91
60.00	10 7 22	3725.94	-39.47	148.44	262.77	81.07	11 9 28	2725.9	-38.81	117.30
70.00	9 51 58	3771.45	-30.79	149.81	260.47	74.44	10 54 49	2771.4	-34.15	121.60
77.08	8 46 6	3977.94	-20.01	161.18	256.18	65.99	9 52 24	2977.9	-28.14	136.46
77.08	8 46 6	3977.94	-20.01	161.18	256.18	65.99	9 52 24	2977.9	-28.14	136.46
77.08	8 46 6	3977.94	-20.01	161.18	256.18	65.99	9 52 24	2977.9	-28.14	136.46
110.00	14 51 24	2818.27	-30.79	78.73	260.47	74.44	15 38 22	1818.3	-34.15	50.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3447	TRA	-.5913	TC3	.3699	BAU	.5200	SGT	1192.0	SGR	2177.8	SG3	1480.3	ST	30.2	SR	29.1	SS	93.5
RDE	.3671	RRA	.3382	RC3	-2.6527	FAU	.33108	RRT	-.5661	RRF	.9790	RTF	-.5577	CRT	-.9701	CRS	-.9634	CST	.9177
FDE	4.9764	FRA	1.9160	FC	-19.7374	BSP	4110	SGB	2482.7	R23	-.1318	R13	.9703	LSA	101.8	MSA	12.1	SSA	1.7
BDE	.5036	BRA	.6812	BC3	2.6783	FSP	2558	SG1	2302.1	SG2	929.6	THA	110.75	EL1	41.7	EL2	5.1	ALF	136.07

LAUNCH DATE JUL 29 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 473.684 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.935	GAL	-.10	AZL	87.69	HCA	146.76	SNA	200.24	ECC	.24145	INC	2.3097	V1	29.331
RP	238.94	LAP	1.27	LOP	92.52	VP	21.499	GAP	9.53	AZP	91.93	TAL	359.50	TAP	146.26	RCA	151.89	APO	248.59	V2	23.297
RC	192.165	GL	20.34	GP	-25.39	ZAL	87.89	ZAP	122.97	ETS	199.95	ZAE	149.85	ETE	242.64	ZAC	59.03	ETC	284.96	LVI	6.69

PLANETOCENTRIC CONIC

C3	14.579	VHL	3.818	DLA	31.65	RAL	23.27	RAD	6640.3	VEL	11.603	PTH	6.65	VHP	2.831	DPA	-9.50	RAP	45.94	ECC	1.2399

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 8 4	3726.61	-47.46	149.74	264.24	86.12	11 10 10	2726.6	-43.40	115.52
60.00	9 58 26	3752.30	-39.16	150.62	262.81	79.62	11 0 58	2752.3	-39.15	119.45
70.00	9 36 6	3818.34	-29.89	153.17	260.04	72.65	10 39 44	2818.3	-34.12	125.26
75.16	8 30 53	4021.34	-20.46	164.67	256.04	65.31	9 37 54	3021.3	-28.83	139.93
75.16	8 30 53	4021.34	-20.46	164.67	256.04	65.31	9 37 54	3021.3	-28.83	139.93
75.16	8 30 53	4021.34	-20.46	164.67	256.04	65.31	9 37 54	3021.3	-28.83	139.93
110.00	14 35 32	2865.16	-29.89	82.08	260.04	72.65	15 23 18	1865.2	-34.12	54.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3163	TRA	-.5780	TC3	.2606	BAU	.5448	SGT	1141.5	SGR	2296.8	SG3	1512.1	ST	28.2	SR	32.9	SS	95.9
RDE	.4192	RRA	.3420	RC3	-2.7828	FAU	.33791	RRT	-.5095	RRF	.9818	RTF	-.5076	CRT	-.9541	CRS	-.9879	CST	.9021
FDE	5.1753	FRA	1.8959	FC	-20.0656	BSP	4195	SGB	2564.8	R23	-.1095	R13	.9757	LSA	104.5	MSA	12.3	SSA	1.6
BDE	.5251	BRA	.6717	BC3	2.7949	FSP	2592	SG1	2383.8	SG2	946.4	THA	106.96	EL1	42.8	EL2	6.5	ALF	130.44

LAUNCH DATE JUL 29 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 477.459 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.925	GAL	-.10	AZL	87.59	HCA	147.73	SMA	200.08	ECC	.24072	INC	2.4140	V1	29.331
RP	236.29	LAP	1.29	LOP	93.49	VP	21.446	GAP	9.28	AZP	92.04	TAL	359.51	TAP	147.24	RCA	151.89	APO	248.21	V2	23.261
RC	195.134	GL	21.24	GP	-26.34	ZAL	87.88	ZAP	121.32	ETS	199.57	ZAE	148.29	ETE	240.53	ZAC	58.23	ETC	285.16	LVI	7.46

PLANETOCENTRIC CONIC

C3	14.654	VHL	3.828	DLA	32.47	RAL	22.83	RAD	6640.4	VEL	11.606	PTH	6.65	VHP	2.803	DPA	-10.59	RAP	45.75	ECC	1.2412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 1 15	3747.61	-47.34	151.75	264.64	84.57	11 3 43	2747.6	-43.91	117.27
60.00	9 48 45	3781.01	-38.79	152.96	262.85	78.07	10 51 46	2781.0	-39.48	121.82
70.00	9 16 50	3875.46	-28.66	157.16	259.44	70.58	10 21 26	2875.5	-33.92	129.71
73.34	8 16 56	4060.59	-20.92	167.89	255.93	64.59	9 24 37	3060.6	-29.54	143.12
73.34	8 16 56	4060.59	-20.92	167.89	255.93	64.59	9 24 37	3060.6	-29.54	143.12
73.34	8 16 56	4060.59	-20.92	167.89	255.93	64.59	9 24 37	3060.6	-29.54	143.12
110.00	14 16 17	2922.28	-28.66	86.08	259.44	70.58	15 4 59	1922.3	-33.92	58.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2981	TRA	-.5607	TC3	.1368	BAU	.5696	SGT	1095.4	SGR	2418.3	SG3	1542.0	ST	26.8	SR	38.0	SS	100.3
RDE	.4905	RRA	.3411	RC3	-2.9040	FAU	.34281	RRT	-.4401	RRF	.9842	RTF	-.4376	CRT	-.9372	CRS	-.9919	CST	.8900
FDE	5.4876	FRA	1.8365	FC	-20.2530	BSP	4409	SGB	2654.8	R23	-.0852	R13	.9805	LSA	109.9	MSA	12.3	SSA	1.5
BDE	.5739	BRA	.6563	BC3	2.9073	FSP	2681	SG1	2474.7	SG2	961.2	THA	103.32	EL1	45.8	EL2	7.7	ALF	124.67

LAUNCH DATE JUL 29 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 481.236 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.916	GAL	-.10	AZL	87.48	HCA	148.70	SMA	199.87	ECC	.24005	INC	2.5237	V1	29.331
RP	236.63	LAP	1.31	LOP	94.46	VP	21.394	GAP	9.03	AZP	92.16	TAL	359.50	TAP	148.20	RCA	151.89	APO	247.85	V2	23.226
RC	198.104	GL	22.17	GP	-27.32	ZAL	87.89	ZAP	119.66	ETS	199.16	ZAE	146.67	ETE	238.56	ZAC	57.40	ETC	285.38	LVI	8.25

PLANETOCENTRIC CONIC

C3	14.748	VHL	3.840	DLA	33.32	RAL	22.39	RAD	6640.4	VEL	11.610	PTH	6.65	VHP	2.780	DPA	-11.70	RAP	45.56	ECC	1.2427

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 54 0	3770.13	-47.17	153.90	265.06	82.92	10 56 50	2770.1	-44.43	119.19
60.00	9 38 9	3812.47	-38.31	155.50	262.86	76.41	10 41 41	2812.5	-39.78	124.45
70.00	8 51 3	3952.18	-26.81	162.36	258.50	68.01	9 56 55	2952.2	-33.37	135.63
71.59	8 3 56	4096.70	-21.39	170.91	255.84	63.82	9 12 13	3096.7	-30.28	146.11
71.59	8 3 56	4096.70	-21.39	170.91	255.84	63.82	9 12 13	3096.7	-30.28	146.11
71.59	8 3 56	4096.70	-21.39	170.91	255.84	63.82	9 12 13	3096.7	-30.28	146.11
110.00	13 50 29	2999.00	-26.81	91.28	258.50	68.01	14 40 28	1999.0	-33.37	64.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2698	TRA	-.5452	TC3	.0168	BAU	.5976	SGT	1053.4	SGR	2546.5	SG3	1567.8	ST	24.9	SR	42.9	SS	103.8
RDE	.5595	RRA	.3404	RC3	-3.0307	FAU	.34766	RRT	-.3570	RRF	.9862	RTF	-.3527	CRT	-.9131	CRS	-.9942	CST	.8680
FDE	5.7468	FRA	1.7771	FC	-20.4083	BSP	4485	SGB	2755.8	R23	-.0634	R13	.9842	LSA	114.3	MSA	12.5	SSA	1.4
BDE	.6211	BRA	.6427	BC3	3.0308	FSP	2682	SG1	2578.8	SG2	971.7	THA	99.81	EL1	48.7	EL2	8.9	ALF	118.97

LAUNCH DATE JUL 29 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 485.015 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.908	GAL	-.10	AZL	87.36	HCA	149.67	SMA	199.71	ECC	.23942	INC	2.6393	V1	29.331
RP	236.98	LAP	1.33	LOP	95.43	VP	21.343	GAP	8.78	AZP	92.28	TAL	359.49	TAP	149.16	RCA	151.89	APO	247.52	V2	23.191
RC	201.073	GL	23.15	GP	-28.33	ZAL	87.91	ZAP	118.00	ETS	198.72	ZAE	144.99	ETE	236.71	ZAC	56.55	ETC	285.60	LVI	9.08

PLANETOCENTRIC CONIC

C3	14.863	VHL	3.855	DLA	34.22	RAL	21.93	RAD	6640.5	VEL	11.615	PTH	6.66	VHP	2.761	DPA	-12.85	RAP	45.36	ECC	1.2446

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 46 12	3794.32	-46.94	156.20	265.50	81.17	10 49 27	2794.3	-44.95	121.29
60.00	9 26 25	3847.20	-37.72	158.26	262.83	74.62	10 30 32	2847.2	-40.03	127.37
69.88	7 51 39	4130.45	-21.87	173.79	255.78	63.00	9 0 30	3130.5	-31.04	148.97
69.88	7 51 39	4130.45	-21.87	173.79	255.78	63.00	9 0 30	3130.5	-31.04	148.97
69.88	7 51 39	4130.45	-21.87	173.79	255.78	63.00	9 0 30	3130.5	-31.04	148.97
69.88	7 51 39	4130.45	-21.87	173.79	255.78	63.00	9 0 30	3130.5	-31.04	148.97
69.88	7 51 39	4130.45	-21.87	173.79	255.78	63.00	9 0 30	3130.5	-31.04	148.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2388	TRA	-.5302	TC3	-.1206	BAU	.6258	SGT	1021.2	SGR	2673.7	SG3	1586.2	ST	22.8	SR	46.1	SS	107.2
RDE	.6339	RRA	.3396	RC3	-3.1472	FAU	.35054	RRT	-.2528	RRF	.9880	RTF	-.2477	CRT	-.8811	CRS	-.9958	CST	.8378
FDE	6.0055	FRA	1.7160	FC	-20.4180	BSP	4736	SGB	2862.1	R23	-.0425	R13	.9871	LSA	119.0	MSA	12.6	SSA	1.3
BDE	.6774	BRA	.6297	BC3	3.1495	FSP	2755	SG1	2688.1	SG2	982.7	THA	96.37	EL1	52.3	EL2	9.9	ALF	113.59

LAUNCH DATE JUL 29 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 488.795 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.900	GAL	-.10	AZL	87.24	HCA	150.63	SMA	199.56	ECC	.23884	INC	2.7614	V1	29.331
RP	237.31	LAP	1.35	LOP	96.39	VP	21.294	GAP	8.54	AZP	92.41	TAL	359.48	TAP	150.11	RCA	151.89	APO	247.22	V2	23.157
RC	204.040	GL	24.16	GP	-29.37	ZAL	87.95	ZAP	116.32	ETS	198.25	ZAE	143.27	ETE	234.97	ZAC	55.68	ETC	285.85	LVI	9.93

PLANETOCENTRIC CONIC

C3	15.001	VHL	3.873	DLA	35.15	RAL	21.45	RAD	6640.5	VEL	11.621	PTH	6.66	VHP	2.746	DPA	-14.04	RAP	45.17	ECC	1.2469

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 37 49	3820.36	-46.64	158.64	265.95	79.31	10 41 29	2820.4	-45.46	123.59
60.00	9 13 17	3885.96	-36.98	161.29	262.72	72.69	10 18 3	2886.0	-40.21	130.65
68.20	7 39 54	4162.33	-22.35	176.56	255.75	62.13	8 49 17	3162.3	-31.82	151.73
68.20	7 39 54	4162.33	-22.35	176.56	255.75	62.13	8 49 17	3162.3	-31.82	151.73
68.20	7 39 54	4162.33	-22.35	176.56	255.75	62.13	8 49 17	3162.3	-31.82	151.73
68.20	7 39 54	4162.33	-22.35	176.56	255.75	62.13	8 49 17	3162.3	-31.82	151.73
68.20	7 39 54	4162.33	-22.35	176.56	255.75	62.13	8 49 17	3162.3	-31.82	151.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2012	TRA	-.5190	TC3	-.2250	BAU	.6629	SGT	1000.3	SGR	2832.6	SG3	1614.4	ST	20.5	SR	53.7	SS	110.4
RDE	.7127	RRA	.3441	RC3	-3.2977	FAU	.35688	RRT	-.1599	RRF	.9897	RTF	-.1522	CRT	-.8319	CRS	-.9969	CST	.7886
FDE	6.2530	FRA	1.6892	FC	-20.5840	BSP	4862	SGB	3004.2	R23	-.0283	R13	.9893	LSA	123.8	MSA	12.8	SSA	1.3
BDE	.7405	BRA	.6227	BC3	3.3054	FSP	2747	SG1	2837.9	SG2	985.6	THA	93.68	EL1	56.4	EL2	10.8	ALF	108.32

LAUNCH DATE JUL 29 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 492.575 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.893	GAL	-.11	AZL	87.11	HCA	151.59	SMA	199.42	ECC	.23831	INC	2.8906	V1	29.331
RP	237.65	LAP	1.38	LOP	97.35	VP	21.246	GAP	8.29	AZP	92.54	TAL	359.45	TAP	151.04	RCA	151.89	APO	246.94	V2	23.123
RC	207.005	GL	25.21	GP	-30.44	ZAL	87.99	ZAP	114.65	ETS	197.74	ZAE	141.50	ETE	233.33	ZAC	54.79	ETC	286.10	LVI	10.81

PLANETOCENTRIC CONIC

C3	15.165	VHL	3.894	DLA	36.13	RAL	20.96	RAD	6640.6	VEL	11.628	PTH	6.87	VHP	2.736	DPA	-15.25	RAP	44.99	ECC	1.2496

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 28 42	3848.51	-46.26	161.25	266.39	77.34	10 32 51	2848.5	-45.96	126.12
60.00	8 58 16	3929.94	-36.03	164.64	262.50	70.58	10 3 46	2929.9	-40.30	134.39
66.52	7 28 36	4192.69	-22.84	179.26	255.74	61.21	8 38 29	3192.7	-32.64	154.42
66.52	7 28 36	4192.69	-22.84	179.26	255.74	61.21	8 38 29	3192.7	-32.64	154.42
66.52	7 28 36	4192.69	-22.84	179.26	255.74	61.21	8 38 29	3192.7	-32.64	154.42
66.52	7 28 36	4192.69	-22.84	179.26	255.74	61.21	8 38 29	3192.7	-32.64	154.42
66.52	7 28 36	4192.69	-22.84	179.26	255.74	61.21	8 38 29	3192.7	-32.64	154.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1600	TRA	-.5022	TC3	-.3716	BAU	.6952	SGT	988.0	SGR	2963.1	SG3	1619.8	ST	18.1	SR	59.3	SS	113.2
RDE	.7946	RRA	.3314	RC3	-3.4088	FAU	.35751	RRT	-.0202	RRF	.9910	RTF	-.0121	CRT	-.7561	CRS	-.9977	CST	.7134
FDE	6.4772	FRA	1.5488	FC	-20.4101	BSP	5127	SGB	3123.4	R23	-.0104	R13	.9909	LSA	128.4	NSA	12.9	SSA	1.2
BDE	.8106	BRA	.6017	BC3	3.4290	FSP	2788	SG1	2963.1	SG2	987.8	THA	90.43	EL1	60.9	EL2	11.5	ALF	103.48

LAUNCH DATE JUL 29 1973 FLIGHT TIME 214.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 496.357 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.886	GAL	-.11	AZL	86.97	HCA	152.54	SMA	199.29	ECC	.23783	INC	3.0277	V1	29.331
RP	237.98	LAP	1.40	LOP	98.31	VP	21.200	GAP	8.05	AZP	92.69	TAL	359.42	TAP	151.97	RCA	151.89	APO	246.69	V2	23.090
RC	209.964	GL	26.31	GP	-31.54	ZAL	88.05	ZAP	112.98	ETS	197.20	ZAE	139.69	ETE	231.78	ZAC	53.87	ETC	286.37	LVI	11.72

PLANETOCENTRIC CONIC

C3	15.355	VHL	3.919	DLA	37.15	RAL	20.44	RAD	6640.7	VEL	11.636	PTH	6.68	VHP	2.731	DPA	-16.49	RAP	44.82	ECC	1.2527

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 18 45	3879.01	-45.76	164.02	266.80	75.25	10 23 24	2879.0	-46.42	128.92
60.00	8 40 39	3981.07	-34.61	168.43	262.08	68.26	9 47 0	2981.1	-40.23	138.73
64.84	7 17 36	4221.88	-23.33	181.92	255.76	60.23	8 27 58	3221.9	-33.48	157.08
64.84	7 17 36	4221.88	-23.33	181.92	255.76	60.23	8 27 58	3221.9	-33.48	157.08
64.84	7 17 36	4221.88	-23.33	181.92	255.76	60.23	8 27 58	3221.9	-33.48	157.08
64.84	7 17 36	4221.88	-23.33	181.92	255.76	60.23	8 27 58	3221.9	-33.48	157.08
64.84	7 17 36	4221.88	-23.33	181.92	255.76	60.23	8 27 58	3221.9	-33.48	157.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1149	TRA	-.4904	TC3	-.5163	BAU	.7286	SGT	1000.6	SGR	3101.4	SG3	1622.1	ST	15.9	SR	65.7	SS	116.5
RDE	.8879	RRA	.3273	RC3	-3.5112	FAU	.35682	RRT	.1145	RRF	.9921	RTF	.1229	CRT	-.6359	CRS	-.9983	CST	.5931
FDE	6.7236	FRA	1.4665	FC	-20.1171	BSP	5483	SGB	3258.8	R23	.0037	R13	.9921	LSA	134.0	NSA	13.0	SSA	1.1
BDE	.8953	BRA	.5896	BC3	3.5490	FSP	2858	SG1	3103.7	SG2	993.2	THA	87.64	EL1	66.5	EL2	12.1	ALF	99.06

LAUNCH DATE JUL 29 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 500.139 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.881	GAL	-.12	AZL	86.83	HCA	153.50	SMA	199.18	ECC	.23739	INC	3.1734	V1	29.331
RP	238.30	LAP	1.42	LOP	99.27	VP	21.155	GAP	7.81	AZP	92.84	TAL	359.39	TAP	152.88	RCA	151.89	APO	246.46	V2	23.056
RC	212.919	GL	27.46	GP	-32.66	ZAL	88.13	ZAP	111.32	ETS	196.83	ZAE	137.85	ETE	230.31	ZAC	52.93	ETC	286.66	LVI	12.66

PLANETOCENTRIC CONIC

C3	15.578	VHL	3.947	DLA	38.22	RAL	19.89	RAD	6640.8	VEL	11.646	PTH	6.68	VHP	2.730	DPA	-17.77	RAP	44.66	ECC	1.2564

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 7 48	3912.25	-45.15	166.99	267.16	73.03	10 13 0	2912.2	-46.84	132.02
60.00	8 18 57	4043.31	-33.15	172.87	261.34	65.63	9 26 20	3043.3	-39.91	144.00
63.15	7 6 52	4250.04	-23.82	184.54	255.80	59.19	8 17 42	3250.0	-34.34	159.71
63.15	7 6 52	4250.04	-23.82	184.54	255.80	59.19	8 17 42	3250.0	-34.34	159.71
63.15	7 6 52	4250.04	-23.82	184.54	255.80	59.19	8 17 42	3250.0	-34.34	159.71
63.15	7 6 52	4250.04	-23.82	184.54	255.80	59.19	8 17 42	3250.0	-34.34	159.71
63.15	7 6 52	4250.04	-23.82	184.54	255.80	59.19	8 17 42	3250.0	-34.34	159.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0686	TRA	-.4788	TC3	-.6326	BAU	.7720	SGT	1020.7	SGR	3276.7	SG3	1634.9	ST	14.2	SR	72.7	SS	120.0
RDE	.9923	RRA	.3196	RC3	-3.6526	FAU	.35967	RRT	.2314	RRF	.9932	RTF	.2403	CRT	-.4585	CRS	-.9988	CST	.4166
FDE	6.9821	FRA	1.3637	FC	-19.9889	BSP	5663	SGB	3432.0	R23	.0130	R13	.9932	LSA	140.4	NSA	13.1	SSA	1.0
BDE	.9947	BRA	.5756	BC3	3.7069	FSP	2819	SG1	3286.0	SG2	990.1	THA	85.46	EL1	73.0	EL2	12.6	ALF	95.27

LAUNCH DATE JUL 29 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 503.922 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.875	GAL	-.13	AZL	86.67	HCA	154.45	SMA	199.07	ECC	.23699	INC	3.3289	V1	29.331
RP	238.63	LAP	1.44	LOP	100.22	VP	21.111	GAP	7.57	AZP	93.00	TAL	359.34	TAP	153.79	RCA	151.89	APO	246.25	V2	23.024
RC	215.868	GL	28.67	GP	-33.82	ZAL	88.21	ZAP	109.66	ETS	196.01	ZAE	135.97	ETE	228.91	ZAC	51.97	ETC	286.98	LVI	13.62

PLANETOCENTRIC CONIC

C3	15.834	VHL	3.979	DLA	39.33	RAL	19.31	RAD	6640.9	VEL	11.657	PTH	6.69	VHP	2.735	DPA	-19.07	RAP	44.51	ECC	1.2606

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 55 36	3948.70	-44.37	170.16	267.42	70.70	10 1 25	2948.7	-47.20	135.47
60.00	7 49 11	4127.46	-30.64	178.58	259.95	62.43	8 57 59	3127.5	-39.07	150.99
61.44	6 56 18	4277.43	-24.31	187.14	255.87	58.07	8 7 36	3277.4	-35.22	162.35
61.44	6 56 18	4277.43	-24.31	187.14	255.87	58.07	8 7 36	3277.4	-35.22	162.35
61.44	6 56 18	4277.43	-24.31	187.14	255.87	58.07	8 7 36	3277.4	-35.22	162.35
61.44	6 56 18	4277.43	-24.31	187.14	255.87	58.07	8 7 36	3277.4	-35.22	162.35
61.44	6 56 18	4277.43	-24.31	187.14	255.87	58.07	8 7 36	3277.4	-35.22	162.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0084	TRA	-.4717	TC3	-.7793	BAU	.8095	SGT	1075.2	SGR	3420.0	SG3	1622.9	ST	13.2	SR	79.3	SS	122.2
RDE	1.0927	RRA	.3156	RC3	-3.7435	FAU	.35663	RRT	.3570	RRF	.9941	RTF	.3664	CRT	-.1522	CRS	-.9991	CST	.1116
FDE	7.1608	FRA	1.2850	FC	-19.4987	BSP	5994	SGB	3585.1	R23	.0230	R13	.9939	LSA	145.7	NSA	13.4	SSA	1.0
BDE	1.0927	BRA	.5676	BC3	3.8238	FSP	2835	SG1	3443.5	SG2	997.5	THA	83.01	EL1	79.3	EL2	13.1	ALF	91.49

LAUNCH DATE JUL 29 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 507.704 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.870	GAL	-.14	AZL	86.50	HCA	155.40	SMA	198.98	ECC	.23662	INC	3.4950	V1	29.331
RP	238.95	LAP	1.45	LOP	101.17	VP	21.068	GAP	7.33	AZP	93.18	TAL	359.29	TAP	154.69	RCA	151.89	APO	246.06	V2	22.991
RC	218.810	GL	29.93	GP	-35.01	ZAL	88.31	ZAP	108.03	ETS	195.36	ZAE	134.08	ETE	227.57	ZAC	50.98	ETC	287.28	LVI	14.63

PLANETOCENTRIC CONIC

C3	16.131	VHL	4.016	DLA	40.50	RAL	18.69	RAD	6641.1	VEL	11.669	PTH	6.71	VHP	2.745	DPA	-20.40	RAP	44.39	ECC	1.2655

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 41 52	3989.04	-43.41	173.56	267.55	68.22	9 48 21	2989.0	-47.45	139.33
59.71	6 45 52	4304.14	-24.79	189.74	255.96	56.89	7 57 36	3304.1	-36.13	165.00
59.71	6 45 52	4304.14	-24.79	189.74	255.96	56.89	7 57 36	3304.1	-36.13	165.00
59.71	6 45 52	4304.14	-24.79	189.74	255.96	56.89	7 57 36	3304.1	-36.13	165.00
59.71	6 45 52	4304.14	-24.79	189.74	255.96	56.89	7 57 36	3304.1	-36.13	165.00
59.71	6 45 52	4304.14	-24.79	189.74	255.96	56.89	7 57 36	3304.1	-36.13	165.00
59.71	6 45 52	4304.14	-24.79	189.74	255.96	56.89	7 57 36	3304.1	-36.13	165.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0537	TRA	-.4608	TC3	-.9200	BAU	.8489	SGT	1140.0	SGR	3567.1	SG3	1605.7	ST	13.8	SR	86.5	SS	124.8
RDE	1.2053	RRA	.2593	RC3	-3.8278	FAU	.35250	RRT	.4718	RRF	.9948	RTF	.4805	CRT	.1916	CRS	-.9993	CST	-.2264
FDE	7.3465	FRA	1.1427	FC	-18.9185	BSP	6249	SGB	3744.8	R23	.0320	R13	.9944	LSA	151.7	MSA	13.5	SSA	.9
BDE	1.2065	BRA	.5495	BC3	5.9365	FSP	2795	SG1	3610.8	SG2	993.0	THA	80.72	EL1	86.5	EL2	13.5	ALF	88.24

LAUNCH DATE JUL 29 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 511.487 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.866	GAL	-.15	AZL	86.33	HCA	156.34	SMA	198.89	ECC	.23630	INC	3.6731	V1	29.331
RP	239.26	LAP	1.47	LOP	102.12	VP	21.026	GAP	7.10	AZP	93.37	TAL	359.23	TAP	155.57	RCA	151.89	APO	245.89	V2	22.960
RC	221.744	GL	31.25	GP	-36.22	ZAL	88.41	ZAP	106.41	ETS	194.67	ZAE	132.17	ETE	226.28	ZAC	49.97	ETC	287.61	LVI	15.66

PLANETOCENTRIC CONIC

C3	16.473	VHL	4.059	DLA	41.73	RAL	18.02	RAD	6641.2	VEL	11.684	PTH	6.72	VHP	2.761	DPA	-21.76	RAP	44.29	ECC	1.2711

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 26 9	4034.25	-42.20	177.23	267.47	65.60	9 33 23	3034.2	-47.57	143.75
57.94	6 35 28	4330.35	-25.27	192.34	256.08	55.62	7 47 39	3330.4	-37.06	167.68
57.94	6 35 28	4330.35	-25.27	192.34	256.08	55.62	7 47 39	3330.4	-37.06	167.68
57.94	6 35 28	4330.35	-25.27	192.34	256.08	55.62	7 47 39	3330.4	-37.06	167.68
57.94	6 35 28	4330.35	-25.27	192.34	256.08	55.62	7 47 39	3330.4	-37.06	167.68
57.94	6 35 28	4330.35	-25.27	192.34	256.08	55.62	7 47 39	3330.4	-37.06	167.68
57.94	6 35 28	4330.35	-25.27	192.34	256.08	55.62	7 47 39	3330.4	-37.06	167.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1232	TRA	-.4555	TC3	-1.0527	BAU	.8931	SGT	1225.9	SGR	3729.7	SG3	1586.9	ST	15.6	SR	94.1	SS	126.8
RDE	1.3271	RRA	.2862	RC3	-3.9166	FAU	.34851	RRT	.5634	RRF	.9955	RTF	.5720	CRT	.4864	CRS	-.9995	CST	-.5132
FDE	7.5146	FRA	1.0246	FC	-18.3160	BSP	6572	SGB	3926.0	R23	.0384	R13	.9948	LSA	158.1	MSA	13.7	SSA	.8
BDE	1.3328	BRA	.5380	BC3	4.0556	FSP	2767	SG1	3797.9	SG2	994.6	THA	78.73	EL1	94.5	EL2	13.6	ALF	85.29

LAUNCH DATE JUL 29 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 515.270 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.862	GAL	-.16	AZL	86.14	HCA	157.28	SMA	199.81	ECC	.23601	INC	3.8646	V1	29.331
RP	239.57	LAP	1.49	LOP	103.07	VP	20.986	GAP	6.86	AZP	93.57	TAL	359.17	TAP	156.45	RCA	151.89	APO	245.74	V2	22.928
RC	224.672	GL	32.64	GP	-37.47	ZAL	88.53	ZAP	104.81	ETS	193.93	ZAE	130.25	ETE	225.03	ZAC	48.94	ETC	287.97	LVI	16.73

PLANETOCENTRIC CONIC

C3	16.867	VHL	4.107	DLA	43.01	RAL	17.29	RAD	6641.4	VEL	11.701	PTH	6.73	VHP	2.783	DPA	-23.14	RAP	44.22	ECC	1.2776

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 7 43	4085.91	-40.67	181.24	267.07	62.80	9 15 49	3085.9	-47.49	148.69
56.14	6 25 4	4356.20	-25.73	194.97	256.21	54.26	7 37 40	3356.2	-38.01	170.42
56.14	6 25 4	4356.20	-25.73	194.97	256.21	54.26	7 37 40	3356.2	-38.01	170.42
56.14	6 25 4	4356.20	-25.73	194.97	256.21	54.26	7 37 40	3356.2	-38.01	170.42
56.14	6 25 4	4356.20	-25.73	194.97	256.21	54.26	7 37 40	3356.2	-38.01	170.42
56.14	6 25 4	4356.20	-25.73	194.97	256.21	54.26	7 37 40	3356.2	-38.01	170.42
56.14	6 25 4	4356.20	-25.73	194.97	256.21	54.26	7 37 40	3356.2	-38.01	170.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2001	TRA	-.4512	TC3	-1.1832	BAU	.9372	SGT	1327.9	SGR	3887.1	SG3	1557.9	ST	19.1	SR	102.1	SS	128.7
RDE	1.4578	RRA	.2687	RC3	-3.9843	FAU	.34219	RRT	.6407	RRF	.9960	RTF	.6489	CRT	.6817	CRS	-.9996	CST	-.7013
FDE	7.6565	FRA	.8928	FC	-17.5637	BSP	6788	SGB	4107.7	R23	.0442	R13	.9952	LSA	164.8	MSA	13.9	SSA	.7
BDE	1.4715	BRA	.5251	BC3	4.1563	FSP	2676	SG1	3985.5	SG2	994.4	THA	76.82	EL1	102.9	EL2	13.8	ALF	82.61

LAUNCH DATE JUL 29 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 12 1974

HELIOCENTRIC CONIC DISTANCE 519.052 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.859	GAL	-.17	AZL	85.93	HCA	158.23	SMA	198.75	ECC	.23575	INC	4.0712	V1	29.331
RP	239.88	LAP	1.51	LOP	104.01	VP	20.946	GAP	6.63	AZP	93.78	TAL	359.10	TAP	157.32	RCA	151.89	APO	245.60	V2	22.897
RC	227.591	GL	34.09	GP	-38.74	ZAL	88.66	ZAP	103.25	ETS	193.16	ZAE	128.32	ETE	223.83	ZAC	47.87	ETC	288.36	LVI	17.83

PLANETOCENTRIC CONIC

C3	17.321	VHL	4.162	DLA	44.35	RAL	16.50	RAD	6641.6	VEL	11.720	PTH	6.75	VHP	2.812	DPA	-24.55	RAP	44.18	ECC	1.2851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 45 19	4146.93	-38.67	185.71	266.19	59.78	8 54 26	3146.9	-47.09	154.53
54.29	6 14 36	4381.78	-26.16	197.63	256.35	52.82	7 27 38	3381.8	-38.97	173.23
54.29	6 14 36	4381.78	-26.16	197.63	256.35	52.82	7 27 38	3381.8	-38.97	173.23
54.29	6 14 36	4381.78	-26.16	197.63	256.35	52.82	7 27 38	3381.8	-38.97	173.23
54.29	6 14 36	4381.78	-26.16	197.63	256.35	52.82	7 27 38	3381.8	-38.97	173.23
54.29	6 14 36	4381.78	-26.16	197.63	256.35	52.82	7 27 38	3381.8	-38.97	173.23
54.29	6 14 36	4381.78	-26.16	197.63	256.35	52.82	7 27 38	3381.8	-38.97	173.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2825	TRA	-.4482	TC3	-1.3107	BAU	.9814	SGT	1444.4	SGR	4046.3	SG3	1522.1	ST	23.4	SR	111.0	SS	130.8
RDE	1.6077	RRA	.2437	RC3	-4.0303	FAU	.33372	RRT	.7042	RRF	.9965	RTF	.7114	CRT	.7960	CRS	-.9997	CST	-.8099
FDE	7.8090	FRA	.7376	FC	-16.6798	BSP	7138	SGB	4296.4	R23	.0496	R13	.9954	LSA	172.6	MSA	14.0	SSA	.7
BDE	1.6323	BRA	.5102	BC3	4.2381	FSP	2625	SG1	4180.1	SG2	992.6	THA	75.03	EL1	112.6	EL2	14.0	ALF	80.32

LAUNCH DATE JUL 29 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC — DISTANCE 522.834 — EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.856 GAL -.19 AZL 85.70 HCA 159.16 SMA 198.69 ECC .23553 INC 4.2949 V1 29.331
RP 240.18 LAP 1.53 LOP 104.95 VP 20.908 GAP 6.39 AZP 94.02 TAL 359.02 TAP 158.18 RCA 151.89 APO 245.49 V2 22.866
RC 230.502 GL 35.62 GP -40.05 ZAL 88.79 ZAP 101.72 ETS 192.35 ZAE 126.38 ETE 222.65 ZAC 46.78 ETC 288.77 LVI 18.97

PLANETOCENTRIC CONIC

C3 17.847 VHL 4.225 DLA 45.75 RAL 15.63 RAD 6641.9 VEL 11.742 PTH 6.77 VHP 2.848 DPA -25.98 RAP 44.18 ECC 1.2937

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 16 3	4224.04	-35.89	190.99	264.45	56.38	8 26 27	3224.0	-46.13	161.73
52.40	6 3 59	4407.29	-26.57	200.34	256.50	51.27	7 17 26	3407.3	-39.93	176.13
52.40	6 3 59	4407.29	-26.57	200.34	256.50	51.27	7 17 26	3407.3	-39.93	176.13
52.40	6 3 59	4407.29	-26.57	200.34	256.50	51.27	7 17 26	3407.3	-39.93	176.13
52.40	6 3 59	4407.29	-26.57	200.34	256.50	51.27	7 17 26	3407.3	-39.93	176.13
52.40	6 3 59	4407.29	-26.57	200.34	256.50	51.27	7 17 26	3407.3	-39.93	176.13
52.40	6 3 59	4407.29	-26.57	200.34	256.50	51.27	7 17 26	3407.3	-39.93	176.13

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .3767 TRA -.4481 TC3-1.4325 BAU 1.0265 — SGT 1576.2 SGR 4193.4 SG3 1473.9 — ST 28.7 SR 119.3 SS 131.5
RDE 1.7550 RRA .2129 RC3-4.0567 FAU .32354 — RRT .7571 RRF .9969 RTF .7637 — CRT .8656 CRS -.9998 CST -.8756
FDE 7.8707 FRA .5716 FC-15.6943 BSP .7519 — SGB 4479.9 R23 .0541 R13 .9956 — LSA 179.3 MSA 14.1 SSA .6
BDE 1.7950 BRA .4961 BC3 4.3022 FSP .2568 — SG1 4369.5 SG2 988.3 THA 73.23 — EL1 121.9 EL2 14.1 ALF 78.08

LAUNCH DATE JUL 29 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 16 1974

HELIOCENTRIC CONIC — DISTANCE 526.615 — EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.853 GAL -.20 AZL 85.46 HCA 160.10 SMA 198.64 ECC .23534 INC 4.5381 V1 29.331
RP 240.48 LAP 1.54 LOP 105.89 VP 20.871 GAP 6.16 AZP 94.27 TAL 358.94 TAP 159.03 RCA 151.89 APO 245.39 V2 22.836
RC 233.405 GL 37.23 GP -41.38 ZAL 88.93 ZAP 100.24 ETS 191.50 ZAE 124.45 ETE 221.51 ZAC 45.67 ETC 289.20 LVI 20.14

PLANETOCENTRIC CONIC

C3 18.456 VHL 4.296 DLA 47.23 RAL 14.66 RAD 6642.1 VEL 11.768 PTH 6.79 VHP 2.893 DPA -27.43 RAP 44.23 ECC 1.3037

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 27 13	4347.78	-30.95	198.65	260.39	51.87	7 39 41	3347.8	-43.62	172.57
50.46	5 53 8	4432.86	-26.93	203.09	256.64	49.62	7 7 1	3432.9	-40.89	179.15
50.46	5 53 8	4432.86	-26.93	203.09	256.64	49.62	7 7 1	3432.9	-40.89	179.15
50.46	5 53 8	4432.86	-26.93	203.09	256.64	49.62	7 7 1	3432.9	-40.89	179.15
50.46	5 53 8	4432.86	-26.93	203.09	256.64	49.62	7 7 1	3432.9	-40.89	179.15
50.46	5 53 8	4432.86	-26.93	203.09	256.64	49.62	7 7 1	3432.9	-40.89	179.15
50.46	5 53 8	4432.86	-26.93	203.09	256.64	49.62	7 7 1	3432.9	-40.89	179.15

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .4779 TRA -.4517 TC3-1.5373 BAU 1.0764 — SGT 1714.0 SGR 4364.4 SG3 1426.8 — ST 34.6 SR 128.9 SS 132.7
RDE 1.9291 RRA .1802 RC3-4.0824 FAU .31336 — RRT .7966 RRF .9973 RTF .8027 — CRT .9062 CRS -.9998 CST -.9136
FDE 7.9542 FRA .4155 FC-14.6987 BSP .7871 — SGB 4688.9 R23 .0571 R13 .9958 — LSA 187.6 MSA 14.2 SSA .6
BDE 1.9874 BRA .4863 BC3 4.3622 FSP .2483 — SG1 4584.0 SG2 986.4 THA 71.75 — EL1 132.7 EL2 14.2 ALF 76.17

LAUNCH DATE JUL 29 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 18 1974

HELIOCENTRIC CONIC — DISTANCE 530.395 — EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.851 GAL -.22 AZL 85.20 HCA 161.03 SMA 198.59 ECC .23518 INC 4.8036 V1 29.331
RP 240.78 LAP 1.56 LOP 106.83 VP 20.835 GAP 5.93 AZP 94.54 TAL 358.85 TAP 159.88 RCA 151.89 APO 245.30 V2 22.807
RC 236.297 GL 38.93 GP -42.75 ZAL 89.07 ZAP 98.80 ETS 190.61 ZAE 122.53 ETE 220.39 ZAC 44.52 ETC 289.67 LVI 21.35

PLANETOCENTRIC CONIC

C3 19.166 VHL 4.378 DLA 48.76 RAL 13.58 RAD 6642.5 VEL 11.798 PTH 6.82 VHP 2.946 DPA -28.91 RAP 44.32 ECC 1.3154

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.46	5 41 58	4458.61	-27.24	205.91	256.77	47.85	6 56 16	3458.6	-41.83	182.30
48.46	5 41 58	4458.61	-27.24	205.91	256.77	47.85	6 56 16	3458.6	-41.83	182.30
48.46	5 41 58	4458.61	-27.24	205.91	256.77	47.85	6 56 16	3458.6	-41.83	182.30
48.46	5 41 58	4458.61	-27.24	205.91	256.77	47.85	6 56 16	3458.6	-41.83	182.30
48.46	5 41 58	4458.61	-27.24	205.91	256.77	47.85	6 56 16	3458.6	-41.83	182.30
48.46	5 41 58	4458.61	-27.24	205.91	256.77	47.85	6 56 16	3458.6	-41.83	182.30
48.46	5 41 58	4458.61	-27.24	205.91	256.77	47.85	6 56 16	3458.6	-41.83	182.30

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .5912 TRA -.4589 TC3-1.6307 BAU 1.1263 — SGT 1862.1 SGR 4521.3 SG3 1367.5 — ST 41.1 SR 137.9 SS 132.6
RDE 2.1048 RRA .1422 RC3-4.0819 FAU .30120 — RRT .8287 RRF .9977 RTF .8345 — CRT .9323 CRS -.9999 CST -.9378
FDE 7.9525 FRA .2586 FC-13.6054 BSP .8260 — SGB 4889.7 R23 .0595 R13 .9960 — LSA 195.1 MSA 14.4 SSA .5
BDE 2.1863 BRA .4804 BC3 4.3956 FSP .2394 — SG1 4789.7 SG2 983.7 THA 70.29 — EL1 143.2 EL2 14.3 ALF 74.32

LAUNCH DATE JUL 29 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 20 1974

HELIOCENTRIC CONIC — DISTANCE 534.175 — EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.849 GAL -.24 AZL 84.91 HCA 161.96 SMA 198.56 ECC .23504 INC 5.0946 V1 29.331
RP 241.07 LAP 1.58 LOP 107.76 VP 20.800 GAP 5.70 AZP 94.85 TAL 358.75 TAP 160.71 RCA 151.89 APO 245.23 V2 22.777
RC 239.179 GL 40.72 GP -44.15 ZAL 89.22 ZAP 97.41 ETS 189.69 ZAE 120.63 ETE 219.30 ZAC 43.34 ETC 290.18 LVI 22.60

PLANETOCENTRIC CONIC

C3 19.995 VHL 4.472 DLA 50.37 RAL 12.35 RAD 6642.8 VEL 11.832 PTH 6.85 VHP 3.010 DPA -30.40 RAP 44.47 ECC 1.3291

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.41	5 30 23	4484.65	-27.48	208.79	256.85	45.97	6 45 8	3484.7	-42.75	185.60
46.41	5 30 23	4484.65	-27.48	208.79	256.85	45.97	6 45 8	3484.7	-42.75	185.60
46.41	5 30 23	4484.65	-27.48	208.79	256.85	45.97	6 45 8	3484.7	-42.75	185.60
46.41	5 30 23	4484.65	-27.48	208.79	256.85	45.97	6 45 8	3484.7	-42.75	185.60
46.41	5 30 23	4484.65	-27.48	208.79	256.85	45.97	6 45 8	3484.7	-42.75	185.60
46.41	5 30 23	4484.65	-27.48	208.79	256.85	45.97	6 45 8	3484.7	-42.75	185.60
46.41	5 30 23	4484.65	-27.48	208.79	256.85	45.97	6 45 8	3484.7	-42.75	185.60

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .7133 TRA -.4702 TC3-1.7142 BAU 1.1766 — SGT 2019.4 SGR 4680.3 SG3 1302.3 — ST 47.9 SR 147.8 SS 132.4
RDE 2.3085 RRA .0937 RC3-4.0538 FAU .28717 — RRT .8549 RRF .9980 RTF .8600 — CRT .9493 CRS -.9999 CST -.9535
FDE 7.9407 FRA .0880 FC-12.4335 BSP .8536 — SGB 5097.4 R23 .0619 R13 .9961 — LSA 203.6 MSA 14.5 SSA .5
BDE 2.4133 BRA .4795 BC3 4.4014 FSP .2257 — SG1 5002.3 SG2 980.3 THA 68.90 — EL1 154.7 EL2 14.4 ALF 72.75

LAUNCH DATE JUL 29 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 22 1974

HELIOCENTRIC CONIC DISTANCE 537.953 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.848	GAL	-.26	AZL	84.58	HCA	162.89	SMA	198.53	ECC	.23494	INC	5.4154	V1	29.331
RP	241.36	LAP	1.59	LOP	108.69	VP	20.786	GAP	5.47	AZP	95.18	TAL	358.65	TAP	161.54	RCA	151.89	APO	245.17	V2	22.749
RC	242.049	GL	42.61	GP	-45.59	ZAL	89.38	ZAP	96.08	ETS	188.73	ZAE	118.74	ETE	218.22	ZAC	42.14	ETC	290.73	LVI	25.89

PLANETOCENTRIC CONIC

C3	20.971	VHL	4.579	DLA	52.05	RAL	10.96	RAD	6643.3	VEL	11.873	PTH	6.89	VHP	3.085	DPA	-31.91	RAP	44.68	ECC	1.3451

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.29	5 18 15	4511.24	-27.64	211.74	256.88	43.96	6 33 27	3511.2	-43.62	189.09
44.29	5 18 15	4511.24	-27.64	211.74	256.88	43.96	6 33 27	3511.2	-43.62	189.09
44.29	5 18 15	4511.24	-27.64	211.74	256.88	43.96	6 33 27	3511.2	-43.62	189.09
44.29	5 18 15	4511.24	-27.64	211.74	256.88	43.96	6 33 27	3511.2	-43.62	189.09
44.29	5 18 15	4511.24	-27.64	211.74	256.88	43.96	6 33 27	3511.2	-43.62	189.09
44.29	5 18 15	4511.24	-27.64	211.74	256.88	43.96	6 33 27	3511.2	-43.62	189.09
44.29	5 18 15	4511.24	-27.64	211.74	256.88	43.96	6 33 27	3511.2	-43.62	189.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8474	TRA	-.4863	TC3	-1.7815	BAU	1.2277	SGT	2183.0	SGR	4832.1	SG3	1228.9	ST	55.1	SR	157.6	SS	131.2
RDE	2.5175	RRA	.0351	RC3	-4.0003	FAU	.27167	RRT	.8766	RRF	.9982	RTF	.8813	CRT	.9611	CRS	-.9999	CST	-.9644
FDE	7.8625	FRA	-.0866	FC	-11.2152	BSP	8913	SGB	5302.3	R23	.0637	R13	.9962	LSA	211.8	MSA	14.5	SSA	.4
BDE	2.6563	BRA	.4876	BC3	4.3790	FSP	2139	SG1	5212.1	SG2	973.9	THA	67.57	EL1	166.3	EL2	14.4	ALF	71.28

LAUNCH DATE JUL 29 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 24 1974

HELIOCENTRIC CONIC DISTANCE 541.729 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.846	GAL	-.28	AZL	84.23	HCA	163.81	SMA	198.51	ECC	.23486	INC	5.7707	V1	29.331
RP	241.64	LAP	1.61	LOP	109.62	VP	20.734	GAP	5.24	AZP	95.54	TAL	358.55	TAP	162.36	RCA	151.89	APO	245.13	V2	22.720
RC	244.907	GL	44.60	GP	-47.05	ZAL	89.53	ZAP	94.82	ETS	187.74	ZAE	116.88	ETE	217.16	ZAC	40.90	ETC	291.32	LVI	25.22

PLANETOCENTRIC CONIC

C3	22.126	VHL	4.704	DLA	53.80	RAL	9.36	RAD	6643.8	VEL	11.921	PTH	6.93	VHP	3.174	DPA	-33.43	RAP	44.96	ECC	1.3641

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.12	5 5 26	4538.49	-27.69	214.77	256.80	41.83	6 21 5	3538.5	-44.42	192.78
42.12	5 5 26	4538.49	-27.69	214.77	256.80	41.83	6 21 5	3538.5	-44.42	192.78
42.12	5 5 26	4538.49	-27.69	214.77	256.80	41.83	6 21 5	3538.5	-44.42	192.78
42.12	5 5 26	4538.49	-27.69	214.77	256.80	41.83	6 21 5	3538.5	-44.42	192.78
42.12	5 5 26	4538.49	-27.69	214.77	256.80	41.83	6 21 5	3538.5	-44.42	192.78
42.12	5 5 26	4538.49	-27.69	214.77	256.80	41.83	6 21 5	3538.5	-44.42	192.78
42.12	5 5 26	4538.49	-27.69	214.77	256.80	41.83	6 21 5	3538.5	-44.42	192.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9925	TRA	-.5097	TC3	-1.8289	BAU	1.2854	SGT	2350.9	SGR	4994.6	SG3	1152.4	ST	62.5	SR	167.4	SS	129.1
RDE	2.7464	RRA	-.0281	RC3	-3.9418	FAU	.25635	RRT	.8930	RRF	.9984	RTF	.8975	CRT	.9689	CRS	-.9999	CST	-.9715
FDE	7.7276	FRA	-.2426	FC	-10.0301	BSP	9256	SGB	5520.2	R23	.0648	R13	.9964	LSA	220.0	MSA	14.7	SSA	.4
BDE	2.9203	BRA	.5104	BC3	4.3454	FSP	2001	SG1	5433.9	SG2	972.5	THA	66.40	EL1	178.1	EL2	14.5	ALF	69.96

LAUNCH DATE JUL 29 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 26 1974

HELIOCENTRIC CONIC DISTANCE 545.904 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.846	GAL	-.30	AZL	83.83	HCA	164.73	SMA	198.49	ECC	.23481	INC	6.1670	V1	29.331
RP	241.92	LAP	1.62	LOP	110.55	VP	20.702	GAP	5.01	AZP	95.95	TAL	358.44	TAP	163.17	RCA	151.89	APO	245.10	V2	22.692
RC	247.751	GL	46.70	GP	-48.55	ZAL	89.68	ZAP	93.63	ETS	186.72	ZAE	115.06	ETE	216.11	ZAC	39.63	ETC	291.97	LVI	26.58

PLANETOCENTRIC CONIC

C3	23.505	VHL	4.848	DLA	55.62	RAL	7.51	RAD	6644.4	VEL	11.979	PTH	6.98	VHP	3.278	DPA	-34.97	RAP	45.31	ECC	1.3868

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.88	4 51 42	4566.71	-27.60	217.86	256.56	39.58	6 7 48	3566.7	-45.12	196.68
39.88	4 51 42	4566.71	-27.60	217.86	256.56	39.58	6 7 48	3566.7	-45.12	196.68
39.88	4 51 42	4566.71	-27.60	217.86	256.56	39.58	6 7 48	3566.7	-45.12	196.68
39.88	4 51 42	4566.71	-27.60	217.86	256.56	39.58	6 7 48	3566.7	-45.12	196.68
39.88	4 51 42	4566.71	-27.60	217.86	256.56	39.58	6 7 48	3566.7	-45.12	196.68
39.88	4 51 42	4566.71	-27.60	217.86	256.56	39.58	6 7 48	3566.7	-45.12	196.68
39.88	4 51 42	4566.71	-27.60	217.86	256.56	39.58	6 7 48	3566.7	-45.12	196.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1507	TRA	-.5380	TC3	-1.8558	BAU	1.3418	SGT	2520.9	SGR	5148.6	SG3	1068.7	ST	70.1	SR	177.3	SS	126.3
RDE	2.9984	RRA	-.1027	RC3	-3.8458	FAU	.23902	RRT	.9069	RRF	.9986	RTF	.9111	CRT	.9747	CRS	-1.0000	CST	-.9768
FDE	7.5419	FRA	-.3937	FC3	-8.8037	BSP	9668	SGB	5732.6	R23	.0653	R13	.9965	LSA	228.2	MSA	14.8	SSA	.3
BDE	3.2116	BRA	.5477	BC3	4.2702	FSP	1868	SG1	5650.3	SG2	967.8	THA	65.28	EL1	190.1	EL2	14.6	ALF	68.79

LAUNCH DATE JUL 29 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 28 1974

HELIOCENTRIC CONIC DISTANCE 549.278 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.845	GAL	-.32	AZL	83.39	HCA	165.65	SMA	198.48	ECC	.23478	INC	6.6117	V1	29.331
RP	242.19	LAP	1.64	LOP	111.48	VP	20.671	GAP	4.78	AZP	96.41	TAL	358.33	TAP	163.98	RCA	151.88	APO	245.08	V2	22.665
RC	250.580	GL	48.93	GP	-50.08	ZAL	89.84	ZAP	92.51	ETS	185.68	ZAE	113.27	ETE	215.08	ZAC	38.34	ETC	292.68	LVI	27.99

PLANETOCENTRIC CONIC

C3	25.164	VHL	5.016	DLA	57.50	RAL	5.34	RAD	6645.1	VEL	12.047	PTH	7.03	VHP	3.400	DPA	-36.51	RAP	45.75	ECC	1.4141

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.60	4 36 50	4596.04	-27.35	221.01	256.11	37.22	5 53 26	3596.0	-45.67	200.80
37.60	4 36 50	4596.04	-27.35	221.01	256.11	37.22	5 53 26	3596.0	-45.67	200.80
37.60	4 36 50	4596.04	-27.35	221.01	256.11	37.22	5 53 26	3596.0	-45.67	200.80
37.60	4 36 50	4596.04	-27.35	221.01	256.11	37.22	5 53 26	3596.0	-45.67	200.80
37.60	4 36 50	4596.04	-27.35	221.01	256.11	37.22	5 53 26	3596.0	-45.67	200.80
37.60	4 36 50	4596.04	-27.35	221.01	256.11	37.22	5 53 26	3596.0	-45.67	200.80
37.60	4 36 50	4596.04	-27.35	221.01	256.11	37.22	5 53 26	3596.0	-45.67	200.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.3182	TRA	-.5757	TC3	-1.8651	BAU	1.3990	SGT	2695.6	SGR	5293.2	SG3	978.9	ST	77.5	SR	186.9	SS	122.4
RDE	3.2693	RRA	-.1945	RC3	-3.7166	FAU	.22023	RRT	.9185	RRF	.9987	RTF	.9224	CRT	.9789	CRS	-1.0000	CST	-.9806
FDE	7.2859	FRA	-.5450	FC3	-7.5766	BSP	10016	SGB	5940.1	R23	.0664	R13	.9966	LSA	236.0	MSA	14.9	SSA	.3
BDE	3.5251	BRA	.6077	BC3	4.1583	FSP	1713	SG1	5861.6	SG2	962.5	THA	64.19	EL1	201.8	EL2	14.7	ALF	67.77

LAUNCH DATE JUL 29 1973 FLIGHT TIME 244.00 ARRIVAL DATE MAR 30 1974

HELIOCENTRIC CONIC DISTANCE 553.048 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.845 GAL -.34 AZL 82.89 HCA 166.56 SMA 198.48 ECC .23477 INC 7.1147 V1 29.331
RP 242.46 LAP 1.65 LOP 112.40 VP 20.641 GAP 4.56 AZP 96.92 TAL 358.21 TAP 164.78 RCA 151.88 APO 245.07 V2 22.638
RC 253.394 GL 51.28 GP -51.63 ZAL 89.98 ZAP 91.48 ETS 184.63 ZAE 111.53 ETE 214.07 ZAC 37.01 ETC 293.45 LVI 29.43

PLANETOCENTRIC CONIC

C3 27.183 VHL 5.214 DLA 59.44 RAL 2.76 RAD 6645.9 VEL 12.130 PTH 7.10 VHP 3.544 DPA -38.05 RAP 46.29 ECC 1.4474

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.27	4 20 30	4626.83	-26.91	224.21	255.34	34.77	5 37 36	3626.8	-46.04	205.15
35.27	4 20 30	4626.83	-26.91	224.21	255.34	34.77	5 37 36	3626.8	-46.04	205.15
35.27	4 20 30	4626.83	-26.91	224.21	255.34	34.77	5 37 36	3626.8	-46.04	205.15
35.27	4 20 30	4626.83	-26.91	224.21	255.34	34.77	5 37 36	3626.8	-46.04	205.15
35.27	4 20 30	4626.83	-26.91	224.21	255.34	34.77	5 37 36	3626.8	-46.04	205.15
35.27	4 20 30	4626.83	-26.91	224.21	255.34	34.77	5 37 36	3626.8	-46.04	205.15
35.27	4 20 30	4626.83	-26.91	224.21	255.34	34.77	5 37 36	3626.8	-46.04	205.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.4958 TRA -.6209 TC3-1.8490 BAU 1.4562 SGT 2867.1 SGR 5434.5 SG3 885.4 ST 84.7 SR 196.3 SS 117.4
RDE 3.5666 RRA -.3034 RC3-3.5550 FAU .20025 RRT .9287 RRF .9988 RTF .9322 CRT .9820 CRS-1.0000 CST -.9834
FDE 6.9666 FRA -.6843 FC3-6.3774 BSP 10389 SGB 6144.4 R23 .0665 R13 .9967 LSA 243.5 MSA 14.9 SSA .3
BDE 3.8676 BRA .6911 BC3 4.0071 FSP 1555 SG1 6070.3 SG2 951.9 THA 63.18 EL1 213.3 EL2 14.7 ALF 66.93

LAUNCH DATE JUL 29 1973 FLIGHT TIME 246.00 ARRIVAL DATE APR 1 1974

HELIOCENTRIC CONIC DISTANCE 556.817 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.845 GAL -.36 AZL 82.31 HCA 167.48 SMA 198.48 ECC .23478 INC 7.6884 V1 29.331
RP 242.73 LAP 1.66 LOP 113.32 VP 20.612 GAP 4.33 AZP 97.51 TAL 358.09 TAP 165.57 RCA 151.88 APO 245.08 V2 22.612
RC 256.191 GL 53.78 GP -53.21 ZAL 90.12 ZAP 90.54 ETS 183.57 ZAE 109.84 ETE 213.08 ZAC 35.66 ETC 294.31 LVI 30.91

PLANETOCENTRIC CONIC

C3 29.668 VHL 5.447 DLA 61.42 RAL 359.67 RAD 6646.9 VEL 12.231 PTH 7.18 VHP 3.713 DPA -39.60 RAP 46.92 ECC 1.4883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.91	4 2 16	4659.42	-26.23	227.42	254.11	32.23	5 19 55	3659.4	-46.16	209.68
32.91	4 2 16	4659.42	-26.23	227.42	254.11	32.23	5 19 55	3659.4	-46.16	209.68
32.91	4 2 16	4659.42	-26.23	227.42	254.11	32.23	5 19 55	3659.4	-46.16	209.68
32.91	4 2 16	4659.42	-26.23	227.42	254.11	32.23	5 19 55	3659.4	-46.16	209.68
32.91	4 2 16	4659.42	-26.23	227.42	254.11	32.23	5 19 55	3659.4	-46.16	209.68
32.91	4 2 16	4659.42	-26.23	227.42	254.11	32.23	5 19 55	3659.4	-46.16	209.68
32.91	4 2 16	4659.42	-26.23	227.42	254.11	32.23	5 19 55	3659.4	-46.16	209.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.6742 TRA -.6783 TC3-1.8101 BAU 1.5222 SGT 3035.5 SGR 5576.3 SG3 789.7 ST 90.9 SR 204.2 SS 110.8
RDE 3.8723 RRA -.4349 RC3-3.3839 FAU .18060 RRT .9375 RRF .9989 RTF .9409 CRT .9841 CRS-1.0000 CST -.9853
FDE 6.5458 FRA -.8105 FC3-5.2700 BSP 10744 SGB 6348.9 R23 .0655 R13 .9968 LSA 249.1 MSA 14.9 SSA .2
BDE 4.2187 BRA .8057 BC3 3.8377 FSP 1389 SG1 6279.2 SG2 938.1 THA 62.29 EL1 223.1 EL2 14.8 ALF 66.24

LAUNCH DATE JUL 29 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 3 1974

HELIOCENTRIC CONIC DISTANCE 560.581 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.845 GAL -.39 AZL 81.65 HCA 168.39 SMA 198.49 ECC .23482 INC 8.3489 V1 29.331
RP 242.99 LAP 1.68 LOP 114.24 VP 20.584 GAP 4.11 AZP 98.18 TAL 357.97 TAP 166.35 RCA 151.88 APO 245.10 V2 22.586
RC 258.972 GL 56.42 GP -54.82 ZAL 90.25 ZAP 89.70 ETS 182.53 ZAE 108.23 ETE 212.12 ZAC 34.28 ETC 295.25 LVI 32.42

PLANETOCENTRIC CONIC

C3 32.770 VHL 5.725 DLA 63.42 RAL 355.92 RAD 6648.1 VEL 12.357 PTH 7.28 VHP 3.915 DPA -41.13 RAP 47.66 ECC 1.5393

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.54	3 41 36	4694.13	-25.28	230.60	252.27	29.66	4 59 50	3694.1	-45.98	214.34
30.54	3 41 36	4694.13	-25.28	230.60	252.27	29.66	4 59 50	3694.1	-45.98	214.34
30.54	3 41 36	4694.13	-25.28	230.60	252.27	29.66	4 59 50	3694.1	-45.98	214.34
30.54	3 41 36	4694.13	-25.28	230.60	252.27	29.66	4 59 50	3694.1	-45.98	214.34
30.54	3 41 36	4694.13	-25.28	230.60	252.27	29.66	4 59 50	3694.1	-45.98	214.34
30.54	3 41 36	4694.13	-25.28	230.60	252.27	29.66	4 59 50	3694.1	-45.98	214.34
30.54	3 41 36	4694.13	-25.28	230.60	252.27	29.66	4 59 50	3694.1	-45.98	214.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.6458 TRA -.7494 TC3-1.7486 BAU 1.5882 SGT 3198.5 SGR 5714.0 SG3 692.2 ST 95.6 SR 211.3 SS 103.0
RDE 4.2027 RRA -.3895 RC3-3.1755 FAU .15970 RRT .9444 RRF .9990 RTF .9475 CRT .9852 CRS-1.0000 CST -.9864
FDE 6.0530 FRA -.9117 FC3-4.2189 BSP 11066 SGB 6548.3 R23 .0650 R13 .9969 LSA 253.4 MSA 15.1 SSA .2
BDE 4.5902 BRA .9535 BC3 3.6251 FSP 1217 SG1 6482.3 SG2 927.3 THA 61.50 EL1 231.5 EL2 15.0 ALF 65.83

LAUNCH DATE JUL 29 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 5 1974

HELIOCENTRIC CONIC DISTANCE 564.343 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.846 GAL -.41 AZL 80.88 HCA 169.29 SMA 198.50 ECC .23488 INC 9.1182 V1 29.331
RP 243.24 LAP 1.69 LOP 115.16 VP 20.557 GAP 3.88 AZP 98.96 TAL 357.84 TAP 167.13 RCA 151.88 APO 245.12 V2 22.560
RC 261.736 GL 59.22 GP -56.43 ZAL 90.37 ZAP 88.96 ETS 181.50 ZAE 106.68 ETE 211.19 ZAC 32.89 ETC 296.29 LVI 33.94

PLANETOCENTRIC CONIC

C3 36.703 VHL 6.056 DLA 65.40 RAL 351.32 RAD 6649.5 VEL 12.514 PTH 7.40 VHP 4.156 DPA -42.63 RAP 48.51 ECC 1.6040

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.21	3 17 48	4731.36	-24.00	233.71	249.56	27.11	4 36 39	3731.4	-45.42	219.04
28.21	3 17 48	4731.36	-24.00	233.71	249.56	27.11	4 36 39	3731.4	-45.42	219.04
28.21	3 17 48	4731.36	-24.00	233.71	249.56	27.11	4 36 39	3731.4	-45.42	219.04
28.21	3 17 48	4731.36	-24.00	233.71	249.56	27.11	4 36 39	3731.4	-45.42	219.04
28.21	3 17 48	4731.36	-24.00	233.71	249.56	27.11	4 36 39	3731.4	-45.42	219.04
28.21	3 17 48	4731.36	-24.00	233.71	249.56	27.11	4 36 39	3731.4	-45.42	219.04
28.21	3 17 48	4731.36	-24.00	233.71	249.56	27.11	4 36 39	3731.4	-45.42	219.04

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.9906 TRA -.8351 TC3-1.6619 BAU 1.6623 SGT 3346.3 SGR 5856.1 SG3 595.2 ST 98.4 SR 215.8 SS 93.4
RDE 4.5264 RRA -.7844 RC3-2.9520 FAU .13891 RRT .9513 RRF .9990 RTF .9541 CRT .9857 CRS-1.0000 CST -.9868
FDE 5.4493 FRA -.9971 FC3-3.2765 BSP 11405 SGB 6744.8 R23 .0627 R13 .9971 LSA 254.4 MSA 15.2 SSA .2
BDE 4.9448 BRA 1.1457 BC3 3.3877 FSP 1045 SG1 6684.0 SG2 903.9 THA 60.89 EL1 236.7 EL2 15.1 ALF 65.69

LAUNCH DATE JUL 29 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 25 1974

HELIOCENTRIC CONIC DISTANCE 658.991 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.918	GAL	-1.49	AZL	98.93	HCA	192.00	SMA	199.91	ECC	.24151	INC	8.9299	V1	29.331
RP	247.97	LAP	1.85	LOP	137.59	VP	20.163	GAP	-1.37	AZP	81.26	TAL	352.32	TAP	184.32	RCA	151.63	APO	248.19	V2	22.095
RC	323.917	GL	-57.57	GP	51.04	ZAL	96.27	ZAP	72.42	ETS	205.55	ZAE	88.60	ETE	183.88	ZAC	137.61	ETC	291.28	LVI	-71.72

PLANETOCENTRIC CONIC

C3	36.624	VHL	6.052	DLA	-38.11	RAL	62.57	RAD	6649.5	VEL	12.511	PTH	7.39	VHP	3.912	DPA	51.09	RAP	347.75	ECC	1.6027

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 4 17	2450.42	-4.92	64.32	292.66	137.38	18 45 8	1450.4	13.42	48.47
60.00	20 11 2	2112.17	5.93	44.27	303.18	129.94	20 46 15	1112.2	21.31	25.17
63.31	21 55 52	1811.73	16.04	27.12	311.06	125.04	22 26 3	811.7	28.92	5.09
63.31	21 55 52	1811.73	16.04	27.12	311.06	125.04	22 26 3	811.7	28.92	5.09
63.31	21 55 52	1811.73	16.04	27.12	311.06	125.04	22 26 3	811.7	28.92	5.09
63.31	21 55 52	1811.73	16.04	27.12	311.06	125.04	22 26 3	811.7	28.92	5.09
63.31	21 55 52	1811.73	16.04	27.12	311.06	125.04	22 26 3	811.7	28.92	5.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.5203	TRA	3.6190	TC3	-4.0210	BAU	2.2847	SGT	7807.9	SGR	4950.3	SG3	663.9	ST	223.8	SR	120.3	SS	56.6
RDE	2.3012	RRA	-2.8245	RC3	2.3672	FAU	.16675	RRT	-.9849	RRF	-.9975	RTF	.9786	CRT	-.9900	CRS	.9986	CST	-.9811
FDE	-3.1141	FRA	4.3657	FC3	-3.9416	BSP	16007	SGB	9244.9	R23	.1461	R13	-.9870	LSA	259.8	MSA	17.4	SSA	.3
BDE	5.0723	BRA	4.5908	BC3	4.6661	FSP	1161	SG1	9216.4	SG2	726.5	THA	147.79	EL1	253.7	EL2	15.0	ALF	151.87

LAUNCH DATE JUL 29 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 27 1974

HELIOCENTRIC CONIC DISTANCE 662.727 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.922	GAL	-1.54	AZL	98.33	HCA	192.87	SMA	200.00	ECC	.24192	INC	8.3327	V1	29.331
RP	248.09	LAP	1.85	LOP	138.47	VP	20.158	GAP	-1.58	AZP	81.87	TAL	352.08	TAP	184.95	RCA	151.61	APO	248.38	V2	22.084
RC	326.069	GL	-55.28	GP	49.20	ZAL	96.81	ZAP	71.00	ETS	205.89	ZAE	87.56	ETE	184.85	ZAC	135.92	ETC	290.59	LVI	-70.14

PLANETOCENTRIC CONIC

C3	33.669	VHL	5.803	DLA	-35.90	RAL	61.79	RAD	6648.4	VEL	12.393	PTH	7.31	VHP	3.749	DPA	49.54	RAP	349.34	ECC	1.5541

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 43 43	2489.83	-6.89	65.99	289.55	137.19	18 25 13	1489.8	11.48	50.20
60.00	19 31 50	2201.76	2.00	48.57	298.03	130.26	20 8 32	1201.8	17.73	30.03
66.90	22 11 27	1735.40	16.00	20.91	308.44	122.58	22 40 22	735.4	27.94	358.39
66.90	22 11 27	1735.40	16.00	20.91	308.44	122.58	22 40 22	735.4	27.94	358.39
66.90	22 11 27	1735.40	16.00	20.91	308.44	122.58	22 40 22	735.4	27.94	358.39
66.90	22 11 27	1735.40	16.00	20.91	308.44	122.58	22 40 22	735.4	27.94	358.39
66.90	22 11 27	1735.40	16.00	20.91	308.44	122.58	22 40 22	735.4	27.94	358.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.3254	TRA	3.5875	TC3	-4.4192	BAU	2.2726	SGT	7979.2	SGR	4770.3	SG3	740.6	ST	223.5	SR	113.6	SS	58.8
RDE	2.0779	RRA	-2.6606	RC3	2.4413	FAU	.18267	RRT	-.9846	RRF	-.9974	RTF	.9783	CRT	-.9895	CRS	.9983	CST	-.9797
FDE	-3.2253	FRA	4.7561	FC3	-4.6970	BSP	16144	SGB	9296.4	R23	.1500	R13	-.9863	LSA	257.0	MSA	17.6	SSA	.3
BDE	4.7986	BRA	4.4664	BC3	5.0487	FSP	1298	SG1	9268.6	SG2	718.2	THA	149.31	EL1	250.3	EL2	14.6	ALF	153.20

LAUNCH DATE JUL 29 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 29 1974

HELIOCENTRIC CONIC DISTANCE 666.465 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.927	GAL	-1.59	AZL	97.81	HCA	193.74	SMA	200.09	ECC	.24234	INC	7.8105	V1	29.331
RP	248.20	LAP	1.85	LOP	139.35	VP	20.153	GAP	-1.78	AZP	82.41	TAL	351.84	TAP	185.59	RCA	151.60	APO	248.57	V2	22.073
RC	328.191	GL	-53.12	GP	47.41	ZAL	97.36	ZAP	69.61	ETS	206.15	ZAE	86.49	ETE	185.73	ZAC	134.26	ETC	289.98	LVI	-68.55

PLANETOCENTRIC CONIC

C3	31.266	VHL	5.592	DLA	-33.80	RAL	61.14	RAD	6647.5	VEL	12.296	PTH	7.23	VHP	3.614	DPA	48.03	RAP	350.83	ECC	1.5146

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 26 23	2525.35	-8.66	67.50	286.87	136.97	18 8 29	1525.3	9.73	51.74
60.00	19 3 27	2266.95	-.87	51.68	294.30	130.29	19 41 14	1267.0	15.04	33.44
70.00	21 49 40	1776.12	11.93	21.46	303.70	122.24	22 19 16	776.1	24.08	359.67
70.66	22 30 41	1650.82	15.80	14.13	306.12	120.28	22 58 11	650.8	26.86	351.23
70.66	22 30 41	1650.82	15.80	14.13	306.12	120.28	22 58 11	650.8	26.86	351.23
70.66	22 30 41	1650.82	15.80	14.13	306.12	120.28	22 58 11	650.8	26.86	351.23
110.00	2 53 2	6110.98	11.93	288.29	303.70	122.24	4 34 53	5111.0	24.08	266.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.1470	TRA	3.5635	TC3	-4.8143	BAU	2.2667	SGT	8145.8	SGR	4592.7	SG3	812.4	ST	222.6	SR	107.1	SS	60.4
RDE	1.8817	RRA	-2.5110	RC3	2.4954	FAU	.19738	RRT	-.9843	RRF	-.9972	RTF	.9782	CRT	-.9891	CRS	.9981	CST	-.9780
FDE	-3.2917	FRA	5.1084	FC3	-5.4653	BSP	16247	SGB	9351.3	R23	.1534	R13	-.9855	LSA	253.7	MSA	17.8	SSA	.3
BDE	4.5540	BRA	4.3593	BC3	5.4226	FSP	1423	SG1	9324.5	SG2	707.8	THA	150.79	EL1	246.6	EL2	14.3	ALF	154.46

LAUNCH DATE JUL 29 1973 FLIGHT TIME 306.00 ARRIVAL DATE MAY 31 1974

HELIOCENTRIC CONIC DISTANCE 670.203 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.931	GAL	-1.64	AZL	97.35	HCA	194.61	SMA	200.17	ECC	.24277	INC	7.3499	V1	29.331
RP	248.30	LAP	1.85	LOP	140.23	VP	20.149	GAP	-1.98	AZP	82.89	TAL	351.60	TAP	186.21	RCA	151.58	APO	248.77	V2	22.062
RC	330.283	GL	-51.09	GP	45.68	ZAL	97.91	ZAP	68.26	ETS	206.33	ZAE	85.41	ETE	186.52	ZAC	132.64	ETC	289.43	LVI	-66.98

PLANETOCENTRIC CONIC

C3	29.289	VHL	5.412	DLA	-31.81	RAL	60.61	RAD	6646.7	VEL	12.216	PTH	7.17	VHP	3.500	DPA	46.57	RAP	352.21	ECC	1.4820

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 11 31	2558.13	-10.29	68.91	284.68	136.71	17 54 9	1558.1	8.10	53.15
60.00	18 40 50	2320.44	-3.22	54.24	291.41	130.19	19 19 30	1320.4	12.79	36.16
70.00	20 49 14	1942.41	5.75	30.37	298.15	123.72	21 21 36	942.4	18.92	9.81
74.80	22 55 13	1551.85	15.48	6.34	304.07	118.14	23 21 5	551.9	25.72	343.16
74.80	22 55 13	1551.85	15.48	6.34	304.07	118.14	23 21 5	551.9	25.72	343.16
74.80	22 55 13	1551.85	15.48	6.34	304.07	118.14	23 21 5	551.9	25.72	343.16
110.00	1 52 36	6277.27	5.75	297.20	298.15	123.72	3 37 14	5277.3	18.92	276.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.9803	TRA	3.5496	TC3	-5.2033	BAU	2.2658	SGT	8308.5	SGR	4419.1	SG3	879.2	ST	221.1	SR	100.7	SS	61.3
RDE	1.7055	RRA	-2.3756	RC3	2.5317	FAU	.21090	RRT	-.9840	RRF	-.9970	RTF	.9779	CRT	-.9885	CRS	.9977	CST	-.9760
FDE	-3.3108	FRA	5.4278	FC3	-6.2339	BSP	16352	SGB	9410.6	R23	.1567	R13	-.9848	LSA	249.9	MSA	18.0	SSA	.4
BDE	4.3303	BRA	4.2712	BC3	5.7865	FSP	1538	SG1	9384.8	SG2	696.6	THA	152.21	EL1	242.5	EL2	13.9	ALF	155.68

LAUNCH DATE JUL 29 1973 FLIGHT TIME 308.00 ARRIVAL DATE JUN 2 1974

HELIOCENTRIC CONIC DISTANCE 673.941 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.936 GAL -1.69 AZL 96.94 HCA 195.49 SMA 200.26 ECC .24321 INC 6.9405 V1 29.331
RP 248.40 LAP 1.85 LOP 141.11 VP 20.146 GAP -2.19 AZP 83.31 TAL 351.35 TAP 186.84 RCA 151.56 APO 248.97 V2 22.052
RC 332.344 GL -49.17 GP 44.00 ZAL 98.46 ZAP 66.93 ETS 206.45 ZAE 84.32 ETE 187.24 ZAC 131.07 ETC 288.94 LVI -65.44

PLANETOCENTRIC CONIC

C3 27.645 VHL 5.258 DLA -29.91 RAL 60.17 RAD 6646.1 VEL 12.149 PTH 7.12 VHP 3.405 DPA 45.17 RAP 353.51 ECC 1.4550

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 58 33	2588.84	-11.81	70.25	282.90	136.43	17 41 42	1588.8	6.56	54.45
60.00	18 21 59	2366.87	-5.26	56.47	289.11	130.01	19 1 26	1366.9	10.81	38.49
70.00	20 15 9	2033.96	2.28	35.18	294.80	124.09	20 49 3	1034.0	15.82	15.10
79.84	23 29 52	1422.37	15.06	356.39	302.27	116.15	23 53 35	422.4	24.54	333.00
79.84	23 29 52	1422.37	15.06	356.39	302.27	116.15	23 53 35	422.4	24.54	333.00
79.84	23 29 52	1422.37	15.06	356.39	302.27	116.15	23 53 35	422.4	24.54	333.00
110.00	1 18 31	1080.78	2.28	324.09	294.80	124.09	1 36 32	80.8	15.82	304.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.8246 TRA 3.5436 TC3-5.5830 BAU 2.2686 SGT 8466.6 SGR 4249.1 SG3 940.3 ST 219.0 SR 94.6 SS 61.6
RDE 1.5491 RRA-2.2515 RC3 2.5506 FAU .22311 RRT -.9838 RRF -.9967 RTF .9777 CRT -.9879 CRS .9972 CST -.9736
FDE-3.2931 FRA 5.7125 FC3-6.9866 BSP 16472 SGB 9473.0 R23 .1593 R13 -.9840 LSA 245.7 MSA 18.2 SSA .4
BDE 4.1264 BRA 4.1984 BC3 6.1380 FSP 1644 SG1 9448.3 SG2 683.4 THA 153.57 EL1 238.2 EL2 13.5 ALF 156.82

LAUNCH DATE JUL 29 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 4 1974

HELIOCENTRIC CONIC DISTANCE 677.679 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.940 GAL -1.74 AZL 96.57 HCA 196.36 SMA 200.36 ECC .24366 INC 6.5740 V1 29.331
RP 248.50 LAP 1.85 LOP 141.99 VP 20.143 GAP -2.39 AZP 83.69 TAL 351.10 TAP 187.46 RCA 151.54 APO 249.18 V2 22.043
RC 334.376 GL -47.35 GP 42.40 ZAL 99.02 ZAP 65.64 ETS 206.53 ZAE 83.22 ETE 187.88 ZAC 129.54 ETC 288.50 LVI -63.93

PLANETOCENTRIC CONIC

C3 26.267 VHL 5.125 DLA -28.10 RAL 59.82 RAD 6645.5 VEL 12.093 PTH 7.07 VHP 3.325 DPA 43.81 RAP 354.73 ECC 1.4323

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 47 10	2617.90	-13.24	71.53	281.44	136.13	17 30 47	1617.9	5.11	55.68
60.00	18 5 53	2408.49	-7.08	58.48	287.26	129.78	18 46 1	1408.5	9.01	40.54
70.00	19 49 32	2103.67	-.39	38.81	292.30	124.15	20 24 36	1103.7	13.36	19.00
80.00	22 3 49	1683.21	6.61	11.23	296.62	119.18	22 31 52	683.2	18.00	349.65
90.00	0 27 1	1234.07	12.02	341.04	299.47	115.79	0 47 35	234.1	21.63	318.13
100.00	0 50 37	1157.68	6.61	332.60	296.62	119.18	1 9 55	157.7	18.00	311.02
110.00	0 52 54	1150.49	-.39	327.73	292.30	124.15	1 12 5	150.5	13.36	307.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.6784 TRA 3.5463 TC3-5.9521 BAU 2.2743 SGT 8621.6 SGR 4084.2 SG3 995.8 ST 216.6 SR 88.7 SS 61.5
RDE 1.4091 RRA-2.1398 RC3 2.5527 FAU .23391 RRT -.9834 RRF -.9964 RTF .9774 CRT -.9873 CRS .9965 CST -.9706
FDE-3.2405 FRA 5.9712 FC3-7.7093 BSP 16619 SGB 9540.0 R23 .1620 R13 -.9833 LSA 241.3 MSA 18.4 SSA .4
BDE 3.9390 BRA 4.1417 BC3 6.4764 FSP 1744 SG1 9516.4 SG2 671.0 THA 154.89 EL1 233.7 EL2 13.1 ALF 157.90

LAUNCH DATE JUL 29 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 6 1974

HELIOCENTRIC CONIC DISTANCE 681.417 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.945 GAL -1.79 AZL 96.24 HCA 197.23 SMA 200.45 ECC .24412 INC 6.2440 V1 29.331
RP 248.59 LAP 1.85 LOP 142.87 VP 20.141 GAP -2.59 AZP 84.03 TAL 350.84 TAP 188.07 RCA 151.52 APO 249.38 V2 22.034
RC 336.377 GL -45.63 GP 40.86 ZAL 99.58 ZAP 64.39 ETS 206.56 ZAE 82.12 ETE 188.45 ZAC 128.07 ETC 288.11 LVI -62.47

PLANETOCENTRIC CONIC

C3 25.103 VHL 5.010 DLA -26.37 RAL 59.55 RAD 6645.0 VEL 12.045 PTH 7.03 VHP 3.257 DPA 42.52 RAP 355.87 ECC 1.4131

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 37 3	2645.58	-14.59	72.76	280.26	135.81	17 21 8	1645.6	3.72	56.84
60.00	17 51 52	2446.58	-8.73	60.34	285.76	129.50	18 32 38	1446.6	7.36	42.40
70.00	19 28 42	2161.84	-2.61	41.85	290.36	124.07	20 4 44	1161.8	11.26	22.19
80.00	21 27 59	1788.49	3.09	17.05	293.90	119.71	21 57 48	788.5	14.95	355.98
90.00	23 19 3	1430.32	5.98	352.30	295.49	117.69	23 42 53	430.3	16.84	330.53
100.00	0 14 47	1262.96	3.09	338.42	293.90	119.71	0 35 50	263.0	14.95	317.34
110.00	0 32 4	1208.66	-2.61	330.77	290.36	124.07	0 52 13	208.7	11.26	311.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.5423 TRA 3.5544 TC3-6.3112 BAU 2.2836 SGT 8774.3 SGR 3925.3 SG3 1046.0 ST 213.9 SR 83.3 SS 61.0
RDE 1.2863 RRA-2.0354 RC3 2.5432 FAU .24363 RRT -.9832 RRF -.9960 RTF .9772 CRT -.9868 CRS .9956 CST -.9675
FDE-3.1675 FRA 6.1960 FC3-8.4021 BSP 16748 SGB 9612.3 R23 .1635 R13 -.9826 LSA 236.8 MSA 18.6 SSA .5
BDE 3.7686 BRA 4.0959 BC3 6.8044 FSP 1829 SG1 9589.9 SG2 656.0 THA 156.14 EL1 229.2 EL2 12.6 ALF 158.91

LAUNCH DATE JUL 29 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 8 1974

HELIOCENTRIC CONIC DISTANCE 685.155 EARTH TO MARS

RL 151.90 LAL .00 LOL 305.74 VL 32.950 GAL -1.85 AZL 95.95 HCA 198.10 SMA 200.54 ECC .24459 INC 5.9451 V1 29.331
RP 248.67 LAP 1.84 LOP 143.75 VP 20.140 GAP -2.79 AZP 84.35 TAL 350.58 TAP 188.69 RCA 151.49 APO 249.59 V2 22.026
RC 338.347 GL -44.00 GP 39.39 ZAL 100.15 ZAP 63.17 ETS 206.55 ZAE 81.01 ETE 188.97 ZAC 126.65 ETC 287.76 LVI -61.06

PLANETOCENTRIC CONIC

C3 24.114 VHL 4.911 DLA -24.73 RAL 59.34 RAD 6644.6 VEL 12.004 PTH 7.00 VHP 3.201 DPA 41.29 RAP 356.96 ECC 1.3969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 28 0	2672.09	-15.88	73.96	279.30	135.46	17 12 32	1672.1	2.39	57.95
60.00	17 39 30	2481.93	-10.26	62.08	284.55	129.19	18 20 52	1481.9	5.82	44.11
70.00	19 11 5	2212.66	-4.54	44.51	288.82	123.89	19 47 58	1212.7	9.39	24.94
80.00	21 1 39	1866.64	.44	21.34	291.92	119.85	21 32 46	866.6	12.55	.54
90.00	22 45 8	1532.88	2.71	358.05	293.18	118.16	23 10 41	532.9	14.01	336.72
100.00	23 44 31	1341.11	.44	342.71	291.92	119.85	24 6 52	341.1	12.55	321.91
110.00	0 14 28	1259.48	-4.54	333.43	288.82	123.89	0 35 27	259.5	9.39	313.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.4130 TRA 3.5683 TC3-6.6575 BAU 2.2949 SGT 8923.0 SGR 3770.2 SG3 1090.1 ST 210.9 SR 78.2 SS 60.2
RDE 1.1757 RRA-1.9392 RC3 2.5203 FAU .25199 RRT -.9829 RRF -.9956 RTF .9770 CRT -.9862 CRS .9945 CST -.9637
FDE-3.0679 FRA 6.3928 FC3-9.0468 BSP 16904 SGB 9686.9 R23 .1648 R13 -.9819 LSA 232.1 MSA 18.9 SSA .5
BDE 3.6098 BRA 4.0612 BC3 7.1186 FSP 1907 SG1 9665.6 SG2 641.2 THA 157.34 EL1 224.6 EL2 12.1 ALF 159.85

LAUNCH DATE JUL 29 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 10 1974

HELIOCENTRIC CONIC DISTANCE 688.892 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.954	GAL	-1.90	AZL	95.67	HCA	198.98	SMA	200.64	ECC	.24506	INC	5.6730	V1	29.331
RP	248.78	LAP	1.84	LOP	144.63	VP	20.140	GAP	-2.99	AZP	84.63	TAL	350.32	TAP	189.29	RCA	151.47	APO	249.81	V2	22.019
RC	340.287	GL	-42.45	GP	37.98	ZAL	100.71	ZAP	62.00	ETS	206.51	ZAE	79.91	ETE	189.44	ZAC	125.29	ETC	287.44	LVI	-59.70

PLANETOCENTRIC CONIC

C3	23.269	VHL	4.824	DLA	-23.16	RAL	59.18	RAD	6644.3	VEL	11.969	PTH	6.97	VHP	3.153	DPA	40.11	RAP	357.98	ECC	1.3829

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 19 53	2697.55	-17.11	75.12	278.54	135.10	17 4 51	1697.5	1.11	59.02
60.00	17 28 30	2515.06	-11.68	63.73	283.58	128.85	18 10 25	1515.1	4.37	45.71
70.00	18 55 50	2258.31	-6.27	46.92	287.59	123.64	19 33 28	1258.3	7.69	27.38
80.00	20 40 22	1931.17	-1.74	24.88	290.39	119.81	21 12 33	931.2	10.51	4.24
90.00	22 19 43	1610.72	.20	2.40	291.47	118.28	22 46 34	610.7	11.74	341.31
100.00	23 23 14	1405.64	-1.74	346.25	290.39	119.81	23 46 39	405.6	10.51	325.61
110.00	23 55 16	1305.13	-6.27	335.84	287.59	123.64	24 17 2	305.1	7.69	316.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.2899	TRA	3.5896	TC3	-6.9896	BAU	2.3078	SGT	9069.0	SGR	3621.1	SG3	1129.1	ST	207.6	SR	73.4	SS	59.1
RDE	1.0772	RRA	-1.8517	RC3	2.4862	FAU	.25907	RRT	-.9826	RRF	-.9951	RTF	.9767	CRT	-.9858	CRS	.9931	CST	-.9593
FDE	-2.9509	FRA	6.5689	FC3	-9.6391	BSP	17085	SGB	9765.3	R23	.1656	R13	-.9812	LSA	227.2	MSA	19.1	SSA	.6
BDE	3.4617	BRA	4.0391	BC3	7.4186	FSP	1978	SG1	9745.1	SG2	626.7	THA	158.49	EL1	219.9	EL2	11.7	ALF	160.72

LAUNCH DATE JUL 29 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 12 1974

HELIOCENTRIC CONIC DISTANCE 692.630 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.959	GAL	-1.96	AZL	95.42	HCA	199.85	SMA	200.74	ECC	.24555	INC	5.4240	V1	29.331
RP	248.82	LAP	1.84	LOP	145.50	VP	20.140	GAP	-3.19	AZP	84.90	TAL	350.05	TAP	189.90	RCA	151.45	APO	250.03	V2	22.012
RC	342.196	GL	-40.98	GP	36.64	ZAL	101.28	ZAP	60.86	ETS	206.44	ZAE	78.81	ETE	189.86	ZAC	123.98	ETC	287.16	LVI	-58.39

PLANETOCENTRIC CONIC

C3	22.543	VHL	4.748	DLA	-21.66	RAL	59.07	RAD	6644.0	VEL	11.939	PTH	6.94	VHP	3.113	DPA	39.00	RAP	358.95	ECC	1.3710

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 12 33	2722.07	-18.29	76.26	277.94	134.72	16 57 55	1722.1	-.12	60.04
60.00	17 18 37	2546.36	-13.01	65.30	282.81	128.49	18 1 4	1546.4	2.99	47.21
70.00	18 42 24	2300.06	-7.84	49.13	286.61	123.35	19 20 44	1300.1	6.12	29.59
80.00	20 22 23	1987.16	-3.63	27.96	289.20	119.66	20 55 30	987.2	8.70	7.41
90.00	21 58 59	1675.58	-1.89	6.02	290.17	118.22	22 26 54	675.6	9.78	345.07
100.00	23 5 15	1461.63	-3.63	349.33	289.20	119.66	23 29 36	461.6	8.70	328.78
110.00	23 41 51	1346.88	-7.84	338.05	286.61	123.35	24 4 18	346.9	6.12	318.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.1756	TRA	3.6128	TC3	-7.3135	BAU	2.3241	SGT	9215.3	SGR	3478.4	SG3	1163.2	ST	204.4	SR	69.1	SS	57.9
RDE	.9904	RRA	-1.7693	RC3	2.4456	FAU	.26526	RRT	-.9822	RRF	-.9945	RTF	.9765	CRT	-.9854	CRS	.9912	CST	-.9545
FDE	-2.8237	FRA	6.7165	FC3	-10.1869	BSP	17235	SGB	9849.9	R23	.1658	R13	-.9806	LSA	222.5	MSA	19.3	SSA	.6
BDE	3.3264	BRA	4.0228	BC3	7.7116	FSP	2035	SG1	9830.9	SG2	611.9	THA	159.58	EL1	215.4	EL2	11.1	ALF	161.53

LAUNCH DATE JUL 29 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 14 1974

HELIOCENTRIC CONIC DISTANCE 696.367 EARTH TO MARS

RL	151.90	LAL	.00	LOL	305.74	VL	32.964	GAL	-2.01	AZL	95.20	HCA	200.72	SMA	200.83	ECC	.24604	INC	5.1954	V1	29.331
RP	248.68	LAP	1.84	LOP	146.38	VP	20.141	GAP	-3.38	AZP	85.14	TAL	349.78	TAP	190.80	RCA	151.42	APO	250.25	V2	22.006
RC	344.074	GL	-39.58	GP	35.36	ZAL	101.84	ZAP	59.76	ETS	206.36	ZAE	77.72	ETE	190.24	ZAC	122.72	ETC	286.91	LVI	-57.13

PLANETOCENTRIC CONIC

C3	21.919	VHL	4.682	DLA	-20.22	RAL	59.01	RAD	6643.7	VEL	11.913	PTH	6.92	VHP	3.081	DPA	37.94	RAP	359.88	ECC	1.3807

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 5 54	2745.75	-19.42	77.38	277.49	134.33	16 51 40	1745.7	-1.31	61.03
60.00	17 9 42	2576.07	-14.26	66.81	282.20	128.10	17 52 38	1576.1	1.69	48.63
70.00	18 30 26	2338.74	-9.28	51.20	285.84	123.02	19 9 25	1338.7	4.65	31.63
80.00	20 6 47	2037.20	-5.31	30.73	288.26	119.42	20 40 44	1037.2	7.05	10.21
90.00	21 41 22	1732.14	-3.71	9.18	289.15	118.06	22 10 14	732.1	8.03	348.31
100.00	22 49 39	1511.67	-5.31	352.10	288.26	119.42	23 14 51	511.7	7.05	331.58
110.00	23 29 53	1385.55	-9.28	340.12	285.84	123.02	23 52 58	385.6	4.65	320.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.0667	TRA	3.6407	TC3	-7.6232	BAU	2.3417	SGT	9358.6	SGR	3340.8	SG3	1192.2	ST	201.0	SR	65.0	SS	56.6
RDE	.9133	RRA	-1.6927	RC3	2.3971	FAU	.27034	RRT	-.9819	RRF	-.9939	RTF	.9763	CRT	-.9853	CRS	.9889	CST	-.9492
FDE	-2.6876	FRA	6.8420	FC3	-10.6778	BSP	17398	SGB	9937.0	R23	.1652	R13	-.9801	LSA	217.8	MSA	19.5	SSA	.6
BDE	3.1998	BRA	4.0150	BC3	7.9912	FSP	2085	SG1	9919.0	SG2	597.1	THA	160.61	EL1	211.0	EL2	10.6	ALF	162.27

LAUNCH DATE JUL 30 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 312.437 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	35.440	GAL	-2.05	AZL	90.19	HCA	98.93	SMA	269.98	ECC	.43852	INC	.1853	V1	29.334
RP	218.35	LAP	-.18	LOP	43.63	VP	26.907	GAP	23.71	AZP	89.98	TAL	353.26	TAP	90.20	RCA	151.56	APO	388.29	V2	25.168
RC	75.847	GL	-1.07	GP	-5.11	ZAL	99.93	ZAP	174.07	ETS	241.41	ZAE	164.56	ETE	342.14	ZAC	78.66	ETC	283.01	LVI	-12.55

PLANETOCENTRIC CONIC

C3	38.152	VHL	6.177	DLA	15.79	RAL	44.46	RAD	6650.0	VEL	12.571	PTH	7.44	VHP	8.767	DPA	9.94	RAP	40.08	ECC	1.6279

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 45 46	3611.68	-47.40	138.64	293.18	94.66	13 45 57	2611.7	-40.08	106.49
60.00	13 7 24	3554.09	-40.29	133.93	293.66	90.87	14 6 38	2554.1	-35.54	103.90
70.00	13 39 4	3460.87	-34.10	126.30	293.57	87.91	14 38 45	2460.9	-31.39	97.90
80.00	14 27 34	3307.85	-29.60	114.41	293.29	85.87	15 23 2	2307.8	-28.30	87.06
90.00	15 40 34	3073.29	-27.89	97.02	293.13	85.11	16 31 47	2073.3	-27.11	70.04
100.00	17 10 46	2782.32	-29.60	75.78	293.29	85.87	17 57 8	1782.3	-28.30	48.43
110.00	18 38 30	2507.69	-34.10	55.22	293.57	87.91	19 20 16	1507.7	-31.39	26.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3563	TRA	-1.1694	TC3	.2122	BAU	.1147	SGT	1203.6	SGR	620.5	SG3	146.3	ST	23.6	SR	28.7	SS	14.2
RDE	-.6137	RRA	.2379	RC3	-.0743	FAU	.05235	RRT	-.1264	RRF	.1455	RTF	-.6746	CRT	.6080	CRS	.6832	CST	.9894
FDE	.3104	FRA	.8235	FC3	-1.1879	BSP	1828	SGB	1354.2	R23	-.0304	R13	.6767	LSA	35.9	MSA	17.1	SSA	1.3
BDE	.7096	BRA	1.1933	BC3	.2248	FSP	180	SG1	1207.1	SG2	613.8	THA	174.97	EL1	33.5	EL2	16.1	ALF	53.84

LAUNCH DATE JUL 30 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 314.613 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	35.296	GAL	-1.96	AZL	90.15	HCA	98.07	SMA	264.44	ECC	.42680	INC	.1487	V1	29.334
RP	218.71	LAP	-.15	LOP	44.76	VP	26.679	GAP	23.34	AZP	89.98	TAL	353.43	TAP	91.50	RCA	151.58	APO	377.31	V2	25.127
RC	77.098	GL	-.87	GP	-5.26	ZAL	99.61	ZAP	173.54	ETS	236.23	ZAE	163.87	ETE	342.08	ZAC	78.45	ETC	282.97	LVI	-12.31

PLANETOCENTRIC CONIC

C3	36.317	VHL	6.026	DLA	15.88	RAL	44.10	RAD	6649.4	VEL	12.498	PTH	7.39	VHP	8.508	DPA	9.93	RAP	40.49	ECC	1.5977

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 43 53	3601.10	-47.34	137.62	291.65	95.44	13 43 54	2601.1	-39.74	105.71
60.00	13 5 24	3543.82	-40.28	133.06	292.24	91.46	14 4 28	2543.8	-35.29	103.14
70.00	13 36 55	3451.03	-34.12	125.53	292.23	88.36	14 34 26	2451.0	-31.22	97.18
80.00	14 25 36	3298.48	-29.64	113.72	291.98	86.23	15 20 35	2298.5	-28.19	86.39
90.00	15 38 12	3064.16	-27.94	96.36	291.84	85.44	16 29 16	2064.2	-27.02	69.39
100.00	17 8 28	2772.95	-29.64	75.09	291.98	86.23	17 54 41	1772.9	-28.19	47.75
110.00	18 36 22	2497.85	-34.12	54.45	292.23	88.36	19 17 59	1497.9	-31.22	26.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3565	TRA	-1.1612	TC3	.2341	BAU	.1206	SGT	1229.7	SGR	623.7	SG3	155.7	ST	24.2	SR	28.7	SS	14.8
RDE	-.5988	RRA	.2369	RC3	-.0832	FAU	.05445	RRT	-.1357	RRF	.1569	RTF	-.6812	CRT	.6087	CRS	.6888	CST	.9888
FDE	.3268	FRA	.8485	FC3	-1.2981	BSP	1870	SGB	1378.8	R23	-.0338	R13	.6834	LSA	36.4	MSA	17.3	SSA	1.3
BDE	.6969	BRA	1.1851	BC3	.2485	FSP	194	SG1	1233.5	SG2	616.0	THA	174.75	EL1	33.8	EL2	16.3	ALF	52.90

LAUNCH DATE JUL 30 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 316.946 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	35.159	GAL	-1.88	AZL	90.11	HCA	99.20	SMA	259.47	ECC	.41574	INC	.1121	V1	29.334
RP	219.08	LAP	-.11	LOP	45.89	VP	26.460	GAP	22.97	AZP	89.98	TAL	353.60	TAP	92.80	RCA	151.60	APO	367.35	V2	25.087
RC	78.631	GL	-.67	GP	-5.40	ZAL	99.27	ZAP	172.96	ETS	231.86	ZAE	163.23	ETE	341.96	ZAC	78.23	ETC	282.94	LVI	-12.06

PLANETOCENTRIC CONIC

C3	34.620	VHL	5.884	DLA	15.97	RAL	43.70	RAD	6648.8	VEL	12.431	PTH	7.33	VHP	8.257	DPA	9.92	RAP	40.89	ECC	1.5698

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 41 55	3590.96	-47.27	136.65	290.14	96.19	13 41 46	2591.0	-39.41	104.97
60.00	13 3 18	3534.02	-40.26	132.23	290.84	92.03	14 2 12	2534.0	-35.05	102.42
70.00	13 34 41	3441.68	-34.14	124.80	290.90	88.79	14 32 2	2441.7	-31.06	96.50
80.00	14 23 12	3289.61	-29.68	113.06	290.68	86.58	15 18 2	2289.6	-28.08	85.75
90.00	15 35 43	3055.53	-27.99	95.73	290.55	85.75	16 26 39	2055.5	-26.93	68.77
100.00	17 6 4	2764.08	-29.68	74.43	290.68	86.58	17 52 8	1764.1	-28.08	47.12
110.00	18 34 7	2488.50	-34.14	53.72	290.90	88.79	19 15 35	1488.5	-31.06	25.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3570	TRA	-1.1538	TC3	.2638	BAU	.1294	SGT	1258.1	SGR	626.7	SG3	165.6	ST	24.7	SR	28.7	SS	15.4
RDE	-.5842	RRA	.2360	RC3	-.0929	FAU	.05664	RRT	-.1465	RRF	.1686	RTF	-.6815	CRT	.6096	CRS	.6956	CST	.9880
FDE	.3447	FRA	.8728	FC3	-1.4165	BSP	1922	SGB	1405.6	R23	-.0355	R13	.6939	LSA	36.9	MSA	17.5	SSA	1.3
BDE	.6846	BRA	1.1776	BC3	.2797	FSP	209	SG1	1262.5	SG2	617.7	THA	174.51	EL1	34.1	EL2	16.5	ALF	51.91

LAUNCH DATE JUL 30 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 319.418 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	35.030	GAL	-1.79	AZL	90.08	HCA	100.33	SMA	254.96	ECC	.40530	INC	.0747	V1	29.334
RP	219.45	LAP	-.08	LOP	47.02	VP	26.249	GAP	22.60	AZP	89.99	TAL	353.78	TAP	94.11	RCA	151.62	APO	358.29	V2	25.046
RC	80.245	GL	-.47	GP	-5.55	ZAL	98.92	ZAP	172.34	ETS	228.17	ZAE	162.65	ETE	341.77	ZAC	78.01	ETC	282.91	LVI	-11.81

PLANETOCENTRIC CONIC

C3	33.080	VHL	5.749	DLA	16.07	RAL	43.29	RAD	6648.2	VEL	12.368	PTH	7.29	VHP	8.015	DPA	9.89	RAP	41.29	ECC	1.5439

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 39 52	3581.29	-47.19	135.73	288.67	96.89	13 39 33	2581.3	-39.08	104.27
60.00	13 1 7	3524.70	-40.23	131.43	289.46	92.56	13 59 52	2524.7	-34.82	101.74
70.00	13 32 20	3432.82	-34.15	124.11	289.58	89.20	14 29 33	2432.8	-30.90	95.86
80.00	14 20 42	3281.27	-29.71	112.44	289.40	86.90	15 15 23	2281.3	-27.97	85.15
90.00	15 33 8	3047.45	-28.02	95.14	289.28	86.04	16 23 55	2047.4	-26.84	68.20
100.00	17 3 33	2755.74	-29.71	73.81	289.40	86.90	17 49 29	1755.7	-27.97	46.52
110.00	18 31 46	2479.64	-34.15	53.03	289.58	89.20	19 13 6	1479.6	-30.90	24.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3584	TRA	-1.1461	TC3	.2951	BAU	.1382	SGT	1286.8	SGR	629.5	SG3	176.2	ST	25.2	SR	28.6	SS	16.0
RDE	-.5699	RRA	.2353	RC3	-.1035	FAU	.05901	RRT	-.1576	RRF	.1817	RTF	-.7013	CRT	.6112	CRS	.7016	CST	.9874
FDE	.3635	FRA	.8986	FC3	-1.5457	BSP	1980	SGB	1432.5	R23	-.0383	R13	.7040	LSA	37.4	MSA	17.6	SSA	1.4
BDE	.6732	BRA	1.1700	BC3	.3127	FSP	225	SG1	1291.7	SG2	619.3	THA	174.27	EL1	34.3	EL2	16.7	ALF	50.84

LAUNCH DATE JUL 30 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 322.013 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	34.808	GAL	-1.71	AZL	90.04	HCA	101.45	SMA	250.83	ECC	.39545	INC	.0357	V1	29.334
RP	219.82	LAP	-.04	LOP	48.14	VP	26.046	GAP	22.24	AZP	89.99	TAL	353.97	TAP	95.42	RCA	151.64	APO	350.03	V2	25.005
RC	81.936	GL	-.25	GP	-5.71	ZAL	98.55	ZAP	171.68	ETS	225.05	ZAE	162.13	ETE	341.52	ZAC	77.79	ETC	282.88	LVI	-11.56

PLANETOCENTRIC CONIC

C3	31.597	VHL	5.621	DLA	16.17	RAL	42.86	RAD	6647.6	VEL	12.309	PTH	7.24	VHP	7.782	DPA	9.86	RAP	41.67	ECC	1.9200

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 37 43	3572.10	-47.11	134.86	287.22	97.56	13 37 15	2572.1	-38.77	103.61
60.00	12 58 50	3515.87	-40.20	130.69	288.10	93.07	13 57 26	2515.9	-34.59	101.10
70.00	13 29 53	3424.49	-34.15	123.46	288.28	89.59	14 26 58	2424.5	-30.75	95.26
80.00	14 18 5	3273.47	-29.74	111.87	288.14	87.20	15 12 38	2273.5	-27.87	84.60
90.00	15 30 26	3039.92	-28.06	94.59	288.03	86.32	16 21 6	2039.9	-26.76	67.66
100.00	17 0 56	2747.94	-29.74	73.23	288.14	87.20	17 46 44	1747.9	-27.87	45.96
110.00	18 29 20	2471.30	-34.15	52.38	288.28	89.59	19 10 31	1471.3	-30.75	24.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3596	TRA	-1.1379	TC3	.3276	BAU	.1467	SGT	1314.7	SGR	632.3	SG3	187.3	ST	25.8	SR	28.6	SS	16.6
RDE	-.5558	RRA	.2348	RC3	-.1151	FAU	.06146	RRT	-.1696	RRF	.1954	RTF	-.7108	CRT	.6129	CRS	.7079	CST	.9866
FDE	.3838	FRA	.9248	FC3	-1.6840	BSP	2039	SGB	1458.9	R23	-.0409	R13	.7137	LSA	37.9	NSA	17.7	SSA	1.4
BDE	.6620	BRA	1.1619	BC3	.3473	FSP	242	SG1	1320.4	SG2	620.5	THA	174.01	EL1	34.6	EL2	16.8	ALF	49.78

LAUNCH DATE JUL 30 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 324.717 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	34.792	GAL	-1.62	AZL	90.00	HCA	102.57	SMA	247.06	ECC	.38615	INC	.0000	V1	29.334
RP	220.19	LAP	-.00	LOP	49.26	VP	25.851	GAP	21.88	AZP	90.00	TAL	354.16	TAP	98.73	RCA	151.66	APO	342.46	V2	24.964
RC	83.701	GL	-.02	GP	-5.88	ZAL	98.18	ZAP	171.00	ETS	222.39	ZAE	161.67	ETE	341.21	ZAC	77.56	ETC	282.85	LVI	-11.30

PLANETOCENTRIC CONIC

C3	30.251	VHL	5.500	DLA	16.28	RAL	42.41	RAD	6647.1	VEL	12.255	PTH	7.20	VHP	7.557	DPA	9.81	RAP	42.06	ECC	1.4979

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 35 30	3563.39	-47.03	134.03	285.80	98.19	13 34 53	2563.4	-38.47	102.99
60.00	12 56 29	3507.55	-40.17	129.98	286.77	93.55	13 54 56	2507.5	-34.38	100.50
70.00	13 27 21	3416.68	-34.15	122.85	287.00	89.95	14 24 17	2416.7	-30.61	94.70
80.00	14 15 21	3266.24	-29.76	111.33	286.89	87.48	15 9 47	2266.2	-27.77	84.08
90.00	15 27 37	3032.97	-28.09	94.09	286.79	86.57	16 18 10	2033.0	-26.68	67.17
100.00	16 58 13	2740.71	-29.76	72.70	286.89	87.48	17 43 54	1740.7	-27.77	45.45
110.00	18 26 47	2463.50	-34.15	51.77	287.00	89.95	19 7 51	1463.5	-30.61	23.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3612	TRA	-1.1294	TC3	.3618	BAU	.1552	SGT	1342.5	SGR	635.0	SG3	199.1	ST	26.3	SR	28.5	SS	17.2
RDE	-.5420	RRA	.2344	RC3	-.1277	FAU	.06408	RRT	-.1822	RRF	.2102	RTF	-.7194	CRT	.6147	CRS	.7142	CST	.9859
FDE	.4049	FRA	.9504	FC3	-1.8339	BSP	2100	SGB	1485.1	R23	-.0441	R13	.7225	LSA	38.5	NSA	17.8	SSA	1.4
BDE	.6513	BRA	1.1535	BC3	.3837	FSP	260	SG1	1348.9	SG2	621.5	THA	173.74	EL1	34.9	EL2	17.0	ALF	48.69

LAUNCH DATE JUL 30 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 327.520 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	34.682	GAL	-1.54	AZL	89.97	HCA	103.69	SMA	243.60	ECC	.37736	INC	.0297	V1	29.334
RP	220.57	LAP	.03	LOP	50.36	VP	25.663	GAP	21.53	AZP	90.01	TAL	354.36	TAP	98.05	RCA	151.68	APO	335.53	V2	24.923
RC	85.536	GL	.22	GP	-6.05	ZAL	97.79	ZAP	170.28	ETS	220.11	ZAE	161.27	ETE	340.84	ZAC	77.33	ETC	282.82	LVI	-11.04

PLANETOCENTRIC CONIC

C3	29.004	VHL	5.385	DLA	16.40	RAL	41.95	RAD	6646.6	VEL	12.204	PTH	7.16	VHP	7.339	DPA	9.76	RAP	42.43	ECC	1.4773

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 33 12	3555.19	-46.95	133.26	284.41	98.78	13 32 27	2555.2	-38.19	102.41
60.00	12 54 2	3499.75	-40.14	129.32	285.46	94.00	13 52 21	2499.7	-34.17	99.94
70.00	13 24 43	3409.43	-34.15	122.28	285.74	90.28	14 21 32	2409.4	-30.47	94.18
80.00	14 12 31	3259.59	-29.78	110.84	285.66	87.74	15 6 51	2259.6	-27.68	83.61
90.00	15 24 42	3026.62	-28.11	93.63	285.57	86.80	16 15 9	2026.6	-26.61	66.72
100.00	16 55 23	2734.06	-29.78	72.20	285.66	87.74	17 40 57	1734.1	-27.68	44.98
110.00	18 24 9	2456.25	-34.15	51.20	285.74	90.28	19 5 5	1456.2	-30.47	23.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3630	TRA	-1.1205	TC3	.3974	BAU	.1635	SGT	1369.8	SGR	637.7	SG3	211.6	ST	26.8	SR	28.4	SS	17.9
RDE	-.5283	RRA	.2343	RC3	-.1414	FAU	.06681	RRT	-.1937	RRF	.2259	RTF	-.7281	CRT	.6168	CRS	.7207	CST	.9851
FDE	.4282	FRA	.9775	FC3	-1.9942	BSP	2152	SGB	1511.0	R23	-.0472	R13	.7315	LSA	39.0	NSA	17.9	SSA	1.5
BDE	.6410	BRA	1.1447	BC3	.4218	FSP	280	SG1	1377.0	SG2	622.1	THA	173.45	EL1	35.1	EL2	17.1	ALF	47.57

LAUNCH DATE JUL 30 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 330.411 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	34.578	GAL	-1.46	AZL	89.93	HCA	104.80	SMA	240.42	ECC	.36904	INC	.0703	V1	29.334
RP	220.95	LAP	.07	LOP	51.49	VP	25.482	GAP	21.18	AZP	90.02	TAL	354.57	TAP	99.37	RCA	151.69	APO	329.14	V2	24.882
RC	87.440	GL	.47	GP	-6.23	ZAL	97.39	ZAP	169.55	ETS	218.15	ZAE	160.92	ETE	340.40	ZAC	77.09	ETC	282.79	LVI	-10.78

PLANETOCENTRIC CONIC

C3	27.846	VHL	5.277	DLA	16.52	RAL	41.48	RAD	6646.2	VEL	12.157	PTH	7.12	VHP	7.128	DPA	9.69	RAP	42.79	ECC	1.4583

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 30 49	3547.47	-46.87	132.53	283.06	99.34	13 29 57	2547.5	-37.92	101.87
60.00	12 51 29	3492.45	-40.10	128.70	284.18	94.41	13 49 42	2492.5	-33.98	99.42
70.00	13 21 59	3402.70	-34.15	121.76	284.51	90.59	14 18 41	2402.7	-30.34	93.69
80.00	14 9 35	3253.50	-29.80	110.38	284.44	87.98	15 3 49	2253.5	-27.60	83.17
90.00	15 21 40	3020.85	-28.13	93.20	284.36	87.01	16 12 1	2020.8	-26.54	66.31
100.00	16 52 27	2727.97	-29.80	71.75	284.44	87.98	17 37 55	1728.0	-27.60	44.54
110.00	18 21 25	2449.52	-34.15	50.68	284.51	90.59	19 2 14	1449.5	-30.34	22.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3544	TRA	-1.1014	TC3	.4493	BAU	.1771	SGT	1388.8	SGR	640.3	SG3	224.6	ST	26.8	SR	28.2	SS	18.6
RDE	-.5147	RRA	.2345	RC3	-.1560	FAU	.06955	RRT	-.2185	RRF	.2417	RTF	-.7470	CRT	.6108	CRS	.7280	CST	.9826
FDE	.4596	FRA	1.0078	FC3	-2.1623	BSP	2091	SGB	1529.3	R23	-.0387	R13	.7503	LSA	39.3	NSA	17.9	SSA	1.5
BDE	.6249	BRA	1.1260	BC3	.4756	FSP	305	SG1	1397.5	SG2	620.9	THA	172.83	EL1	35.0	EL2	17.2	ALF	47.35

LAUNCH DATE JUL 30 1973 FLIGHT TIME 124.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 333.382 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	34.479	GAL	-1.39	AZL	89.89	HCA	105.91	SMA	237.49	ECC	.36119	INC	.1081	V1	29.334
RP	221.33	LAP	.10	LOP	52.60	VP	25.307	GAP	20.83	AZP	90.03	TAL	354.78	TAP	100.68	RCA	151.71	APO	323.27	V2	24.840
RC	89.407	GL	.73	GP	-6.42	ZAL	96.99	ZAP	168.79	ETS	216.46	ZAE	160.64	ETE	339.90	ZAC	76.85	ETC	282.77	LVI	-10.51

PLANETOCENTRIC CONIC

C3	26.774	VHL	5.174	DLA	16.64	RAL	41.00	RAD	6645.7	VEL	12.113	PTH	7.09	VHP	6.925	DPA	9.61	RAP	43.15	ECC	1.4406

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 28 23	3540.31	-46.79	131.86	281.74	99.85	13 27 23	2540.3	-37.66	101.37
60.00	12 48 53	3485.74	-40.06	128.13	282.93	94.80	13 46 58	2485.7	-33.80	98.94
70.00	13 19 10	3396.60	-34.14	121.28	283.30	90.87	14 15 46	2396.6	-30.22	93.26
80.00	14 6 33	3248.07	-29.81	109.98	283.26	88.19	15 0 41	2248.1	-27.52	82.79
90.00	15 18 31	3015.76	-28.15	92.83	283.18	87.19	16 8 47	2015.8	-26.48	65.95
100.00	16 49 25	2722.54	-29.81	71.35	283.26	88.19	17 34 48	1722.5	-27.52	44.16
110.00	18 18 36	2443.42	-34.14	50.20	283.30	90.87	18 59 19	1443.4	-30.22	22.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3605	TRA	-1.0957	TC3	.4827	BAU	.1834	SGT	1418.6	SGR	643.2	SG3	238.6	ST	27.6	SR	26.1	SS	19.3
RDE	-.5016	RRA	.2345	RC3	-.1723	FAU	.07268	RRT	-.2307	RRF	.2598	RTF	-.7505	CRT	.6164	CRS	.7343	CST	.9823
FDE	.4811	FRA	1.0335	FC3	-2.3500	BSP	2195	SGB	1557.6	R23	-.0467	R13	.7543	LSA	40.0	MSA	17.9	SSA	1.5
BDE	.6177	BRA	1.1205	BC3	.5125	FSP	326	SG1	1428.2	SG2	621.6	THA	172.62	EL1	35.4	EL2	17.2	ALF	45.84

LAUNCH DATE JUL 30 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 336.424 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	34.386	GAL	-1.31	AZL	89.85	HCA	107.01	SMA	234.79	ECC	.35378	INC	.1462	V1	29.334
RP	221.71	LAP	.14	LOP	53.70	VP	25.139	GAP	20.48	AZP	90.04	TAL	354.99	TAP	102.00	RCA	151.73	APO	317.85	V2	24.799
RC	91.436	GL	.99	GP	-6.62	ZAL	96.58	ZAP	168.01	ETS	214.98	ZAE	160.41	ETE	339.34	ZAC	76.60	ETC	282.74	LVI	-10.23

PLANETOCENTRIC CONIC

C3	25.780	VHL	5.077	DLA	16.77	RAL	40.50	RAD	6645.3	VEL	12.072	PTH	7.05	VHP	6.728	DPA	9.52	RAP	43.50	ECC	1.4243

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 25 52	3533.67	-46.71	131.23	280.46	100.33	13 24 46	2533.7	-37.43	100.92
60.00	12 46 11	3479.57	-40.03	127.61	281.71	95.15	13 44 11	2479.6	-33.63	98.50
70.00	13 16 15	3391.08	-34.14	120.85	282.11	91.13	14 12 46	2391.1	-30.11	92.87
80.00	14 3 25	3243.26	-29.82	109.62	282.09	88.38	14 57 28	2243.3	-27.45	82.45
90.00	15 15 16	3011.32	-28.17	92.51	282.02	87.35	16 5 28	2011.3	-26.42	65.64
100.00	16 46 17	2717.74	-29.82	70.99	282.09	88.38	17 31 35	1717.7	-27.45	43.82
110.00	18 15 41	2437.90	-34.14	49.77	282.11	91.13	18 56 19	1437.9	-30.11	21.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3649	TRA	-1.0882	TC3	.5160	BAU	.1901	SGT	1446.1	SGR	646.2	SG3	253.2	ST	28.2	SR	27.9	SS	20.0
RDE	-.4886	RRA	.2346	RC3	-.1898	FAU	.07592	RRT	-.2450	RRF	.2769	RTF	-.7547	CRT	.6203	CRS	.7403	CST	.9816
FDE	.5076	FRA	1.0592	FC3	-2.5496	BSP	2284	SGB	1583.9	R23	-.0536	R13	.7591	LSA	40.6	MSA	17.9	SSA	1.6
BDE	.6098	BRA	1.1132	BC3	.5517	FSP	348	SG1	1456.7	SG2	621.9	THA	172.35	EL1	35.7	EL2	17.3	ALF	44.49

LAUNCH DATE JUL 30 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 339.531 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	34.298	GAL	-1.24	AZL	89.81	HCA	108.11	SMA	232.29	ECC	.34676	INC	.1845	V1	29.334
RP	222.09	LAP	.18	LOP	54.80	VP	24.976	GAP	20.14	AZP	90.06	TAL	355.20	TAP	103.31	RCA	151.74	APO	312.84	V2	24.757
RC	93.523	GL	1.27	GP	-6.83	ZAL	96.16	ZAP	167.21	ETS	213.69	ZAE	160.23	ETE	338.71	ZAC	76.34	ETC	282.72	LVI	-9.95

PLANETOCENTRIC CONIC

C3	24.857	VHL	4.986	DLA	16.91	RAL	40.00	RAD	6644.9	VEL	12.034	PTH	7.02	VHP	6.538	DPA	9.41	RAP	43.83	ECC	1.4091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 23 18	3527.55	-46.63	130.66	279.22	100.76	13 22 5	2527.6	-37.21	100.50
60.00	12 43 26	3473.95	-39.99	127.14	280.52	95.47	13 41 19	2474.0	-33.48	98.10
70.00	13 13 15	3386.15	-34.13	120.47	280.96	91.36	14 9 41	2386.1	-30.01	92.52
80.00	14 0 10	3239.10	-29.83	109.31	280.95	88.54	14 54 10	2239.1	-27.39	82.15
90.00	15 11 55	3007.54	-28.18	92.23	280.89	87.49	16 2 2	2007.5	-26.38	65.37
100.00	16 43 2	2713.57	-29.83	70.68	280.95	88.54	17 28 16	1713.6	-27.39	43.52
110.00	18 12 42	2432.97	-34.13	49.39	280.96	91.36	18 53 14	1433.0	-30.01	21.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3694	TRA	-1.0800	TC3	.5369	BAU	.1976	SGT	1473.6	SGR	649.5	SG3	268.9	ST	28.8	SR	27.7	SS	20.8
RDE	-.4797	RRA	.2350	RC3	-.2087	FAU	.07936	RRT	-.2609	RRF	.2992	RTF	-.7605	CRT	.6244	CRS	.7464	CST	.9811
FDE	.5374	FRA	1.0874	FC3	-2.7639	BSP	2356	SGB	1610.4	R23	-.0597	R13	.7653	LSA	41.3	MSA	17.8	SSA	1.6
BDE	.6023	BRA	1.1052	BC3	.5948	FSP	372	SG1	1485.4	SG2	622.0	THA	172.04	EL1	36.0	EL2	17.3	ALF	43.14

LAUNCH DATE JUL 30 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 342.697 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	34.214	GAL	-1.16	AZL	89.78	HCA	109.21	SMA	229.98	ECC	.34013	INC	.2229	V1	29.334
RP	222.48	LAP	.21	LOP	55.90	VP	24.819	GAP	19.80	AZP	90.07	TAL	355.42	TAP	104.62	RCA	151.76	APO	308.20	V2	24.715
RC	95.665	GL	1.56	GP	-7.04	ZAL	95.74	ZAP	166.40	ETS	212.55	ZAE	160.11	ETE	338.00	ZAC	76.08	ETC	282.70	LVI	-9.67

PLANETOCENTRIC CONIC

C3	24.000	VHL	4.899	DLA	17.08	RAL	39.49	RAD	6644.6	VEL	11.999	PTH	6.99	VHP	6.355	DPA	9.29	RAP	44.16	ECC	1.3950

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 39	3521.97	-46.56	130.14	278.02	101.15	13 19 21	2522.0	-37.00	100.12
60.00	12 40 35	3468.90	-39.96	126.71	279.36	95.76	13 38 24	2468.9	-33.34	97.75
70.00	13 10 10	3381.82	-34.12	120.13	279.83	91.56	14 6 32	2381.8	-29.93	92.21
80.00	13 56 50	3235.58	-29.83	109.05	279.84	88.68	14 50 45	2235.6	-27.34	81.91
90.00	15 8 26	3004.44	-28.19	92.01	279.78	87.61	15 58 31	2004.4	-26.34	65.15
100.00	16 39 42	2710.06	-29.83	70.42	279.84	88.68	17 24 52	1710.1	-27.34	43.27
110.00	18 9 36	2428.64	-34.12	49.05	279.83	91.56	18 50 5	1428.6	-29.93	21.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3722	TRA	-1.0704	TC3	.5966	BAU	.2051	SGT	1498.7	SGR	653.1	SG3	285.3	ST	29.3	SR	27.4	SS	21.6
RDE	-.4630	RRA	.2355	RC3	-.2292	FAU	.08297	RRT	-.2787	RRF	.3206	RTF	-.7657	CRT	.6268	CRS	.7522	CST	.9801
FDE	.5682	FRA	1.1143	FC3	-2.9931	BSP	2425	SGB	1634.8	R23	-.0653	R13	.7711	LSA	41.9	MSA	17.8	SSA	1.6
BDE	.5940	BRA	1.0960	BC3	.6391	FSP	398	SG1	1512.0	SG2	621.7	THA	171.65	EL1	36.2	EL2	17.3	ALF	41.93

LAUNCH DATE JUL 30 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 345.916 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	34.134	GAL	-1.09	AZL	89.74	HCA	110.30	SMA	227.83	ECC	.33386	INC	.2620
RP	222.86	LAP	.25	LOP	56.99	VP	24.668	GAP	19.48	AZP	90.09	TAL	355.63	TAP	105.93	RCA	151.77	APO	303.89
RC	97.860	GL	1.86	GP	-7.26	ZAL	95.32	ZAP	165.57	ETS	211.54	ZAE	160.03	ETE	337.22	ZAC	75.82	ETC	282.68

V1	29.334	V2	24.673	LVI	-9.38														

PLANETOCENTRIC CONIC

C3	23.204	VHL	4.817	DLA	17.21	RAL	38.98	RAD	6644.2	VEL	11.966	PTH	6.97	VHP	6.177	DPA	9.16	RAP	44.47

ECC	1.3819

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 17 58	3516.93	-46.49	129.67	278.85	101.51	13 16 35	2516.9	-36.82	99.78
60.00	12 37 41	3464.42	-39.93	126.34	278.24	96.01	13 35 25	2464.4	-33.21	97.43
70.00	13 7 0	3378.11	-34.12	119.84	278.73	91.73	14 3 18	2378.1	-29.85	91.95
80.00	13 53 23	3232.74	-29.84	108.84	278.75	88.79	14 47 16	2232.7	-27.30	81.70
90.00	15 4 51	3002.03	-28.19	91.83	278.69	87.69	15 54 53	2002.0	-26.31	64.98
100.00	16 36 15	2707.21	-29.84	70.21	278.75	88.79	17 21 22	1707.2	-27.30	43.07
110.00	18 6 26	2424.93	-34.12	48.76	278.73	91.73	18 46 51	1424.9	-29.85	20.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3757	TRA	-1.0604	TC3	.6367	BAU	.2123	SGT	1523.0	SGR	657.1	SG3	302.5	ST	29.9	SR	27.1	SS	22.4
RDE	-.4503	RRA	.2362	RC3	-.2511	FAU	.08672	RRT	-.2971	RRF	.3430	RTF	-.7712	CRT	.6298	CRS	.7579	C3T	.9793
FDE	.6021	FRA	1.1432	FC3	-3.2357	BSP	2488	SGB	1658.7	R23	-.0712	R13	.7771	LSA	42.6	MSA	17.7	SSA	1.7
BDE	.5864	BRA	1.0864	BC3	.6845	FSP	426	SG1	1537.9	SG2	621.4	THA	171.26	EL1	36.5	EL2	17.3	ALF	40.67

LAUNCH DATE JUL 30 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 349.184 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	34.059	GAL	-1.02	AZL	89.70	HCA	111.39	SMA	225.84	ECC	.32792	INC	.3013
RP	223.25	LAP	.28	LOP	58.08	VP	24.521	GAP	19.13	AZP	90.11	TAL	355.85	TAP	107.24	RCA	151.78	APO	299.89
RC	100.104	GL	2.17	GP	-7.50	ZAL	94.90	ZAP	164.71	ETS	210.65	ZAE	160.00	ETE	336.36	ZAC	75.54	ETC	282.67

V1	29.334	V2	24.631	LVI	-9.09														

PLANETOCENTRIC CONIC

C3	22.465	VHL	4.740	DLA	17.38	RAL	38.46	RAD	6643.9	VEL	11.935	PTH	6.94	VHP	6.005	DPA	9.01	RAP	44.77

ECC	1.3697

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 15 12	3512.43	-46.43	129.26	275.72	101.82	13 13 45	2512.4	-36.65	99.47
60.00	12 34 42	3460.51	-39.90	126.01	277.15	96.23	13 32 23	2460.5	-33.10	97.16
70.00	13 3 45	3375.02	-34.11	119.60	277.66	91.87	14 0 0	2375.0	-29.79	91.73
80.00	13 49 50	3230.57	-29.84	108.68	277.69	88.87	14 43 41	2230.6	-27.27	81.55
90.00	15 1 10	3000.34	-28.20	91.71	277.64	87.75	15 51 10	2000.3	-26.29	64.86
100.00	16 32 42	2705.04	-29.84	70.05	277.69	88.87	17 17 47	1705.0	-27.27	42.92
110.00	18 3 11	2421.84	-34.11	48.52	277.66	91.87	18 43 33	1421.8	-29.79	20.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3791	TRA	-1.0507	TC3	.6787	BAU	.2199	SGT	1547.6	SGR	661.6	SG3	320.7	ST	30.4	SR	26.8	SS	23.3
RDE	-.4376	RRA	.2370	RC3	-.2747	FAU	.09070	RRT	-.3170	RRF	.3663	RTF	-.7767	CRT	.6322	CRS	.7638	C3T	.9783
FDE	.6394	FRA	1.1724	FC3	-3.4952	BSP	2543	SGB	1683.1	R23	-.0767	R13	.7832	LSA	43.3	MSA	17.5	SSA	1.7
BDE	.5790	BRA	1.0771	BC3	.7322	FSP	456	SG1	1564.4	SG2	620.7	THA	170.83	EL1	36.7	EL2	17.2	ALF	39.39

LAUNCH DATE JUL 30 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 352.498 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.987	GAL	-.96	AZL	89.66	HCA	112.47	SMA	223.98	ECC	.32231	INC	.3413
RP	223.64	LAP	.32	LOP	59.17	VP	24.380	GAP	18.80	AZP	90.13	TAL	356.07	TAP	108.54	RCA	151.79	APO	296.18
RC	102.397	GL	2.49	GP	-7.74	ZAL	94.47	ZAP	163.85	ETS	209.86	ZAE	160.02	ETE	335.41	ZAC	75.26	ETC	282.65

V1	29.334	V2	24.590	LVI	-8.79														

PLANETOCENTRIC CONIC

C3	21.778	VHL	4.667	DLA	17.55	RAL	37.93	RAD	6643.6	VEL	11.907	PTH	6.92	VHP	5.839	DPA	8.85	RAP	45.06

ECC	1.3584

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 12 24	3508.47	-46.37	128.89	274.64	102.10	13 10 53	2508.5	-36.51	99.21
60.00	12 31 40	3457.19	-39.87	125.73	276.09	96.42	13 29 17	2457.2	-33.01	96.93
70.00	13 0 24	3372.57	-34.10	119.41	276.62	91.98	13 56 37	2372.6	-29.74	91.56
80.00	13 46 11	3229.10	-29.84	108.57	276.66	88.93	14 40 0	2229.1	-27.25	81.45
90.00	14 57 21	2999.37	-28.20	91.64	276.61	87.79	15 47 20	1999.4	-26.27	64.79
100.00	16 29 3	2703.57	-29.84	69.94	276.66	88.93	17 14 6	1703.6	-27.25	42.82
110.00	17 59 51	2419.39	-34.10	48.33	276.62	91.98	18 40 10	1419.4	-29.74	20.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3821	TRA	-1.0392	TC3	.7205	BAU	.2272	SGT	1569.4	SGR	666.6	SG3	339.9	ST	30.9	SR	26.5	SS	24.2
RDE	-.4249	RRA	.2379	RC3	-.3001	FAU	.09486	RRT	-.3379	RRF	.3906	RTF	-.7819	CRT	.6345	CRS	.7699	C3T	.9771
FDE	.6794	FRA	1.2006	FC3	-3.7710	BSP	2596	SGB	1705.1	R23	-.0822	R13	.7890	LSA	44.0	MSA	17.4	SSA	1.7
BDE	.5714	BRA	1.0661	BC3	.7804	FSP	487	SG1	1588.4	SG2	619.9	THA	170.35	EL1	36.9	EL2	17.1	ALF	38.17

LAUNCH DATE JUL 30 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 355.849 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.919	GAL	-.89	AZL	89.62	HCA	113.56	SMA	222.26	ECC	.31700	INC	.3816
RP	224.03	LAP	.35	LOP	60.25	VP	24.243	GAP	18.48	AZP	90.15	TAL	356.28	TAP	109.84	RCA	151.80	APO	292.71
RC	104.735	GL	2.82	GP	-8.00	ZAL	94.05	ZAP	162.96	ETS	209.15	ZAE	160.07	ETE	334.36	ZAC	74.97	ETC	282.64

V1	29.334	V2	24.548	LVI	-8.49														

PLANETOCENTRIC CONIC

C3	21.141	VHL	4.598	DLA	17.73	RAL	37.41	RAD	6643.3	VEL	11.880	PTH	6.89	VHP	5.679	DPA	8.67	RAP	45.34

ECC	1.3479

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 9 33	3505.06	-46.33	128.58	273.59	102.34	13 7 58	2505.1	-36.38	98.98
60.00	12 28 33	3454.45	-39.85	125.50	275.07	96.57	13 26 8	2454.4	-32.93	96.74
70.00	12 56 59	3370.75	-34.10	119.27	275.61	92.07	13 53 10	2370.7	-29.70	91.43
80.00	13 42 25	3228.33	-29.84	108.51	275.66	88.96	14 36 14	2228.3	-27.23	81.39
90.00	14 53 25	2999.14	-28.20	91.62	275.61	87.80	15 43 25	1999.1	-26.27	64.78
100.00	16 25 17	2702.80	-29.84	69.88	275.66	88.96	17 10 20	1702.8	-27.23	42.76
110.00	17 56 25	2417.57	-34.10	48.18	275.61	92.07	18 36 43	1417.6	-29.70	20.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3853	TRA	-1.0277	TC3	.7630	BAU	.2347	SGT	1590.7	SGR	672.4	SG3	360.1	ST	31.4	SR	26.1	SS	25.2
RDE	-.4122	RRA	.2390	RC3	-.3273	FAU	.09925	RRT	-.3599	RRF	.4161	RTF	-.7872	CRT	.6366	CRS	.7751	C3T	.9761
FDE	.7222	FRA	1.2308	FC3	-4.0644	BSP	2645	SGB	1727.0	R23	-.0879	R13	.7951	LSA	44.7	MSA	17.2	SSA	1.8
BDE	.5642	BRA	1.0551	BC3	.8303	FSP	520	SG1	1612.3	SG2	619.0	THA	169.84	EL1	37.1	EL2	17.0	ALF	36.92

LAUNCH DATE JUL 30 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 359.238 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.855	GAL	-.83	AZL	89.58	HCA	114.63	SMA	220.65	ECC	.31198	INC	.4224	V1	29.334
RP	224.42	LAP	.38	LOP	61.33	VP	24.110	GAP	18.15	AZP	90.18	TAL	356.50	TAP	111.13	RCA	151.81	APO	289.49	V2	24.506
RC	107.119	GL	3.16	GP	-8.26	ZAL	93.64	ZAP	162.05	ETS	208.51	ZAE	160.17	ETE	333.21	ZAC	74.68	ETC	282.63	LVI	-8.18

PLANETOCENTRIC CONIC

C3	20.548	VHL	4.533	DLA	17.92	RAL	36.88	RAD	6643.1	VEL	11.856	PTH	6.87	VHP	5.524	DPA	8.48	RAP	45.80	ECC	1.3382

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 6 38	3502.20	-46.28	128.31	272.59	102.54	13 5 0	2502.2	-36.27	98.79
60.00	12 25 23	3452.29	-39.83	125.32	274.09	96.70	13 22 55	2452.3	-32.87	96.59
70.00	12 53 29	3369.58	-34.10	119.17	274.64	92.12	13 49 38	2369.6	-29.68	91.34
80.00	13 38 34	3228.28	-29.84	108.51	274.69	88.96	14 32 22	2228.3	-27.23	81.39
90.00	14 49 23	2999.67	-28.20	91.66	274.63	87.78	15 39 23	1999.7	-26.28	64.81
100.00	16 21 25	2702.75	-29.84	69.88	274.69	88.96	17 6 28	1702.8	-27.23	42.76
110.00	17 52 55	2416.40	-34.10	48.09	274.64	92.12	18 33 11	1416.4	-29.68	20.26

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3885	TRA	-1.0161	TC3	.8038	BAU	.2415	SGT	1610.6	SGR	679.1	SG3	381.3	ST	31.8	SR	25.7	SS	26.2
RDE	-.3995	RRA	.2401	RC3	-.3565	FAU	.10385	RRT	-.3822	RRF	.4425	RTF	-.7914	CRT	.6385	CRS	.7801	CST	.9751
FDE	.7669	FRA	1.2595	FC3	-4.3754	BSP	2702	SGB	1747.9	R23	-.0947	R13	.8002	LSA	45.5	MSA	17.0	SSA	1.8
BDE	.5573	BRA	1.0440	BC3	.8793	FSP	557	SG1	1634.9	SG2	618.2	THA	169.30	EL1	37.3	EL2	16.9	ALF	35.66

LAUNCH DATE JUL 30 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 362.662 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.794	GAL	-.77	AZL	89.54	HCA	115.71	SMA	219.15	ECC	.30723	INC	.4635	V1	29.334
RP	224.81	LAP	.42	LOP	62.40	VP	23.982	GAP	17.83	AZP	90.20	TAL	356.71	TAP	112.42	RCA	151.82	APO	286.48	V2	24.464
RC	109.544	GL	3.51	GP	-8.54	ZAL	93.22	ZAP	161.13	ETS	207.93	ZAE	160.30	ETE	331.95	ZAC	74.37	ETC	282.63	LVI	-7.86

PLANETOCENTRIC CONIC

C3	19.998	VHL	4.472	DLA	18.12	RAL	36.35	RAD	6642.8	VEL	11.832	PTH	6.85	VHP	5.374	DPA	8.27	RAP	45.86	ECC	1.3291

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 3 41	3499.89	-46.25	128.10	271.63	102.70	13 2 1	2499.9	-36.19	98.64
60.00	12 22 9	3450.74	-39.82	125.19	273.14	96.78	13 19 40	2450.7	-32.82	96.48
70.00	12 49 53	3369.07	-34.09	119.13	273.70	92.14	13 46 2	2369.1	-29.67	91.31
80.00	13 34 35	3228.97	-29.84	108.56	273.74	88.94	14 28 24	2229.0	-27.24	81.44
90.00	14 45 13	3000.98	-28.20	91.75	273.69	87.73	15 35 14	2001.0	-26.29	64.91
100.00	16 17 27	2703.44	-29.84	69.93	273.74	88.94	17 2 30	1703.4	-27.24	42.81
110.00	17 49 20	2415.89	-34.09	48.05	273.70	92.14	18 29 35	1415.9	-29.67	20.23

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3914	TRA	-1.0044	TC3	.8472	BAU	.2492	SGT	1630.7	SGR	687.0	SG3	404.0	ST	32.3	SR	25.3	SS	27.3
RDE	-.3867	RRA	.2415	RC3	-.3881	FAU	.10882	RRT	-.4065	RRF	.4703	RTF	-.7962	CRT	.6394	CRS	.7844	CST	.9739
FDE	.8155	FRA	1.2899	FC3	-4.7108	BSP	2744	SGB	1769.5	R23	-.1011	R13	.8059	LSA	46.2	MSA	16.9	SSA	1.9
BDE	.5502	BRA	1.0331	BC3	.9319	FSP	592	SG1	1658.4	SG2	617.2	THA	168.70	EL1	37.4	EL2	16.8	ALF	34.39

LAUNCH DATE JUL 30 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 366.116 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.737	GAL	-.72	AZL	89.49	HCA	116.78	SMA	217.75	ECC	.30274	INC	.5056	V1	29.334
RP	225.20	LAP	.45	LOP	63.47	VP	23.858	GAP	17.52	AZP	90.23	TAL	356.92	TAP	113.70	RCA	151.83	APO	283.67	V2	24.422
RC	112.011	GL	3.87	GP	-8.83	ZAL	92.81	ZAP	160.19	ETS	207.42	ZAE	160.46	ETE	330.57	ZAC	74.06	ETC	282.63	LVI	-7.54

PLANETOCENTRIC CONIC

C3	19.487	VHL	4.414	DLA	18.33	RAL	35.82	RAD	6642.6	VEL	11.811	PTH	6.83	VHP	5.229	DPA	8.04	RAP	46.09	ECC	1.3207

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 0 41	3498.14	-46.22	127.94	270.71	102.82	12 58 59	2498.1	-36.12	98.52
60.00	12 18 51	3449.78	-39.81	125.11	272.23	96.84	13 16 21	2449.8	-32.80	96.42
70.00	12 46 13	3369.22	-34.09	119.15	272.79	92.14	13 42 22	2369.2	-29.67	91.32
80.00	13 30 30	3230.40	-29.84	108.67	272.83	88.88	14 24 20	2230.4	-27.27	81.54
90.00	14 40 55	3003.09	-28.19	91.91	272.78	87.65	15 30 58	2003.1	-26.32	65.06
100.00	16 13 22	2704.87	-29.84	70.04	272.83	88.88	16 58 27	1704.9	-27.27	42.91
110.00	17 45 39	2416.04	-34.09	48.06	272.79	92.14	18 25 55	1416.0	-29.67	20.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3948	TRA	-.9921	TC3	.8671	BAU	.2559	SGT	1648.0	SGR	695.8	SG3	427.3	ST	32.7	SR	24.8	SS	28.4
RDE	-.3738	RRA	.2429	RC3	-.4214	FAU	.11384	RRT	-.4302	RRF	.4983	RTF	-.8102	CRT	.6406	CRS	.7883	CST	.9730
FDE	.8668	FRA	1.3200	FC3	-5.0575	BSP	2799	SGB	1788.9	R23	-.1083	R13	.8110	LSA	47.0	MSA	16.6	SSA	1.9
BDE	.5437	BRA	1.0214	BC3	.9821	FSP	634	SG1	1679.3	SG2	616.5	THA	168.07	EL1	37.6	EL2	16.6	ALF	33.11

LAUNCH DATE JUL 30 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 369.599 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.682	GAL	-.66	AZL	89.45	HCA	117.84	SMA	218.44	ECC	.29849	INC	.5481	V1	29.334
RP	225.59	LAP	.48	LOP	64.54	VP	23.737	GAP	17.20	AZP	90.26	TAL	357.13	TAP	114.97	RCA	151.83	APO	281.05	V2	24.380
RC	114.516	GL	4.24	GP	-9.13	ZAL	92.41	ZAP	159.23	ETS	206.95	ZAE	160.65	ETE	329.05	ZAC	73.74	ETC	282.63	LVI	-7.21

PLANETOCENTRIC CONIC

C3	19.013	VHL	4.360	DLA	18.55	RAL	35.30	RAD	6642.4	VEL	11.791	PTH	6.81	VHP	5.088	DPA	7.79	RAP	46.31	ECC	1.3129

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 57 39	3496.94	-46.20	127.83	269.83	102.90	12 55 56	2496.9	-36.08	98.44
60.00	12 15 29	3449.42	-39.81	125.08	271.35	96.86	13 12 59	2449.4	-32.79	96.39
70.00	12 42 27	3370.04	-34.10	119.21	271.91	92.10	13 38 37	2370.0	-29.69	91.38
80.00	13 26 18	3232.60	-29.84	108.83	271.95	88.79	14 20 11	2232.6	-27.30	81.69
90.00	14 36 30	3006.00	-28.18	92.12	271.89	87.55	15 26 36	2006.0	-26.36	65.26
100.00	16 9 10	2707.07	-29.84	70.20	271.95	88.79	16 54 17	1707.1	-27.30	43.06
110.00	17 41 53	2416.86	-34.10	48.13	271.91	92.10	18 22 10	1416.9	-29.69	20.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3974	TRA	-.9793	TC3	.9230	BAU	.2618	SGT	1662.2	SGR	706.0	SG3	451.6	ST	33.1	SR	24.3	SS	29.5
RDE	-.3609	RRA	.2444	RC3	-.4569	FAU	.11908	RRT	-.4541	RRF	.5267	RTF	-.8029	CRT	.6407	CRS	.7917	CST	.9718
FDE	.9211	FRA	1.3490	FC3	-5.4222	BSP	2831	SGB	1805.9	R23	-.1164	R13	.8150	LSA	47.8	MSA	16.4	SSA	2.0
BDE	.5368	BRA	1.0093	BC3	1.0299	FSP	674	SG1	1697.6	SG2	615.8	THA	167.40	EL1	37.7	EL2	16.4	ALF	31.84

LAUNCH DATE JUL 30 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 373.108 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.630	GAL	-.61	AZL	89.41	HCA	118.91	SMA	215.22	ECC	.29448	INC	.5913
RP	225.98	LAP	.52	LOP	65.60	VP	23.621	GAP	16.89	AZP	90.29	TAL	357.33	TAP	116.24	RCA	151.84	APO	278.59
RC	117.087	GL	4.62	GP	-9.45	ZAL	92.02	ZAP	158.24	ETS	206.52	ZAE	160.86	ETE	327.39	ZAC	73.40	ETC	282.63

PLANETOCENTRIC CONIC																			
C3	18.572	VHL	4.310	DLA	18.78	RAL	34.77	RAD	6642.2	VEL	11.773	PTH	6.80	VHP	4.953	DPA	7.53	RAP	46.52

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 34	3496.29	-46.19	127.77	269.00	102.95	12 52 50	2496.3	-36.05	98.40
60.00	12 12 4	3449.66	-39.81	125.10	270.52	96.84	13 9 34	2449.7	-32.79	96.41
70.00	12 38 36	3371.55	-34.10	119.33	271.07	92.03	13 34 48	2371.5	-29.72	91.48
80.00	13 21 59	3235.57	-29.83	109.05	271.10	88.68	14 15 54	2235.6	-27.34	81.90
90.00	14 31 56	3009.76	-28.17	92.40	271.04	87.41	15 22 6	2009.8	-26.40	65.53
100.00	16 4 51	2710.05	-29.83	70.42	271.10	88.68	16 50 1	1710.0	-27.34	43.27
110.00	17 38 2	2418.37	-34.10	48.25	271.07	92.03	18 18 21	1418.4	-29.72	20.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4007	TRA	-.9667	TC3	.9618	BAU	.2686	SGT	1677.5	SGR	717.8	SG3	477.7	ST	33.5	SR	23.7	SS	30.7
RDE	-.3475	RRA	.2461	RC3	-.4953	FAU	.12472	RRT	-.4792	RRF	.5558	RTF	-.8064	CRT	.6405	CRS	.7948	CST	.9707
FDE	.9815	FRA	1.3792	FC3	-5.8139	BSP	2881	SGB	1824.6	R23	-.1242	R13	.8198	LSA	48.6	MSA	16.2	SSA	2.0
BDE	.5304	BRA	.9975	BC3	1.0818	FSP	718	SG1	1717.7	SG2	615.2	THA	166.67	EL1	37.8	EL2	16.2	ALF	30.49

LAUNCH DATE JUL 30 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 376.641 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.581	GAL	-.56	AZL	89.36	HCA	119.97	SMA	214.07	ECC	.29068	INC	.6354
RP	226.37	LAP	.55	LOP	66.66	VP	23.508	GAP	16.58	AZP	90.32	TAL	357.53	TAP	117.50	RCA	151.85	APO	276.30
RC	119.633	GL	5.01	GP	-9.78	ZAL	91.63	ZAP	157.24	ETS	206.13	ZAE	161.09	ETE	325.57	ZAC	73.06	ETC	282.64

PLANETOCENTRIC CONIC																			
C3	18.164	VHL	4.262	DLA	19.03	RAL	34.25	RAD	6642.0	VEL	11.755	PTH	6.78	VHP	4.822	DPA	7.24	RAP	46.71

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 26	3496.20	-46.19	127.76	268.20	102.95	12 49 42	2496.2	-36.05	98.39
60.00	12 8 35	3450.52	-39.82	125.17	269.72	96.80	13 6 6	2450.5	-32.82	96.47
70.00	12 34 40	3373.74	-34.11	119.50	270.26	91.93	13 30 53	2373.7	-29.76	91.64
80.00	13 17 32	3239.35	-29.82	109.33	270.28	88.53	14 11 32	2239.3	-27.40	82.17
90.00	14 27 14	3014.37	-28.16	92.73	270.21	87.24	15 17 28	2014.4	-26.46	65.85
100.00	16 0 24	2713.82	-29.82	70.70	270.28	88.53	16 45 38	1713.8	-27.40	43.54
110.00	17 34 6	2420.56	-34.11	48.42	270.26	91.93	18 14 27	1420.6	-29.76	20.56

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4060	TRA	-.9533	TC3	.9965	BAU	.2747	SGT	1690.3	SGR	730.7	SG3	504.7	ST	34.1	SR	23.0	SS	32.1
RDE	-.3336	RRA	.2478	RC3	-.5358	FAU	.13050	RRT	-.5027	RRF	.5843	RTF	-.8092	CRT	.6415	CRS	.7981	CST	.9698
FDE	1.0506	FRA	1.4084	FC3	-6.2202	BSP	2919	SGB	1841.5	R23	-.1330	R13	.8242	LSA	49.7	MSA	15.9	SSA	2.0
BDE	.5255	BRA	.9850	BC3	1.1314	FSP	764	SG1	1735.7	SG2	615.1	THA	165.94	EL1	37.9	EL2	15.9	ALF	29.01

LAUNCH DATE JUL 30 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 380.197 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.535	GAL	-.51	AZL	89.32	HCA	121.02	SMA	213.00	ECC	.28708	INC	.6802
RP	226.76	LAP	.58	LOP	67.72	VP	23.398	GAP	16.28	AZP	90.35	TAL	357.73	TAP	118.75	RCA	151.85	APO	274.15
RC	122.240	GL	5.42	GP	-10.12	ZAL	91.25	ZAP	156.21	ETS	205.78	ZAE	161.33	ETE	323.58	ZAC	72.71	ETC	282.66

PLANETOCENTRIC CONIC																			
C3	17.784	VHL	4.217	DLA	19.28	RAL	33.73	RAD	6641.8	VEL	11.739	PTH	6.77	VHP	4.696	DPA	6.94	RAP	46.89

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 48 15	3498.64	-46.20	127.80	267.45	102.92	12 46 32	2496.6	-36.07	98.42
60.00	12 5 2	3451.96	-39.83	125.29	268.95	96.71	13 2 34	2452.0	-32.86	96.57
70.00	12 30 37	3376.60	-34.11	119.72	269.49	91.80	13 26 54	2376.6	-29.82	91.84
80.00	13 12 58	3243.90	-29.82	109.67	269.49	88.35	14 7 1	2243.9	-27.46	82.49
90.00	14 22 22	3019.82	-28.14	93.13	269.42	87.05	15 12 42	2019.8	-26.53	66.24
100.00	15 55 49	2718.37	-29.82	71.04	269.49	88.35	16 41 8	1718.4	-27.46	43.86
110.00	17 30 4	2423.42	-34.11	48.64	269.49	91.80	18 10 27	1423.4	-29.82	20.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3945	TRA	-.9258	TC3	1.0634	BAU	.2880	SGT	1693.4	SGR	746.6	SG3	533.3	ST	33.5	SR	22.4	SS	33.4
RDE	-.3201	RRA	.2495	RC3	-.5799	FAU	.13678	RRT	-.5412	RRF	.6142	RTF	-.8230	CRT	.6321	CRS	.7992	CST	.9665
FDE	1.1148	FRA	1.4354	FC3	-6.6584	BSP	2792	SGB	1850.7	R23	-.1217	R13	.8383	LSA	49.9	MSA	15.7	SSA	2.0
BDE	.5080	BRA	.9589	BC3	1.2113	FSP	810	SG1	1747.9	SG2	608.2	THA	164.68	EL1	37.1	EL2	15.7	ALF	28.47

LAUNCH DATE JUL 30 1973 FLIGHT TIME 154.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 383.772 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.491	GAL	-.46	AZL	89.27	HCA	122.07	SMA	212.00	ECC	.28369	INC	.7259
RP	227.15	LAP	.62	LOP	68.77	VP	23.292	GAP	15.98	AZP	90.39	TAL	357.92	TAP	119.99	RCA	151.86	APO	272.14
RC	124.878	GL	5.83	GP	-10.48	ZAL	90.89	ZAP	155.17	ETS	205.45	ZAE	161.58	ETE	321.41	ZAC	72.35	ETC	282.67

PLANETOCENTRIC CONIC																			
C3	17.433	VHL	4.175	DLA	19.55	RAL	33.22	RAD	6641.7	VEL	11.725	PTH	6.76	VHP	4.574	DPA	6.61	RAP	47.05

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 45 3	3497.69	-46.22	127.90	266.74	102.85	12 43 20	2497.7	-36.11	98.49
60.00	12 1 25	3454.07	-39.85	125.47	268.24	96.59	12 58 59	2454.1	-32.92	96.71
70.00	12 26 30	3380.24	-34.12	120.01	268.75	91.63	13 22 50	2380.2	-29.90	92.10
80.00	13 8 15	3249.35	-29.81	110.08	268.74	88.14	14 2 24	2249.4	-27.54	82.88
90.00	14 17 21	3026.27	-28.11	93.60	268.66	86.81	15 7 48	2026.3	-26.60	66.69
100.00	15 51 7	2723.83	-29.81	71.44	268.74	88.14	16 36 31	1723.8	-27.54	44.25
110.00	17 25 56	2427.06	-34.12	48.92	268.75	91.63	18 6 23	1427.1	-29.90	21.02

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4020	TRA	-.9189	TC3	1.0797	BAU	.2909	SGT	1705.2	SGR	764.3	SG3	562.8	ST	34.1	SR	21.7	SS	34.7
RDE	-.3061	RRA	.2518	RC3	-.6259	FAU	.14311	RRT	-.5603	RRF	.6434	RTF	-.8200	CRT	.6308	CRS	.7985	CST	.9664
FDE	1.1845	FRA	1.4684	FC3	-7.1068	BSP	2915	SGB	1868.6	R23	-.1396	R13	.8380	LSA	51.0	MSA	15.4	SSA	2.1
BDE	.5053	BRA	.9528	BC3	1.2480	FSP	866	SG1	1765.8	SG2	611.3	THA	163.92	EL1	37.4	EL2	15.4	ALF	26.73

LAUNCH DATE JUL 30 1973 FLIGHT TIME 156.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 387.366 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.449	GAL	-.42	AZL	89.23	HCA	123.12	SMA	211.06	ECC	.28048	INC	.7725	V1	29.334
RP	227.54	LAP	.65	LOP	69.82	VP	23.189	GAP	15.68	AZP	90.42	TAL	358.10	TAP	121.23	RCA	151.86	APO	270.26	V2	24.172
RC	127.544	GL	6.26	GP	-10.86	ZAL	90.53	ZAP	154.10	ETS	205.15	ZAE	161.82	ETE	319.05	ZAC	71.97	ETC	282.69	LVI	-5.46

PLANETOCENTRIC CONIC

C3	17.109	VHL	4.136	DLA	19.83	RAL	32.71	RAD	6641.5	VEL	11.711	PTH	6.74	VHP	4.457	DPA	6.26	RAP	47.19	ECC	1.2816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 41 47	3499.29	-46.24	128.05	266.08	102.74	12 40 7	2499.3	-36.17	98.60
60.00	11 57 45	3456.81	-39.87	125.70	267.55	96.44	12 55 22	2456.8	-33.00	96.90
70.00	12 22 16	3384.60	-34.13	120.35	268.05	91.43	13 18 41	2384.6	-29.98	92.41
80.00	13 3 23	3255.68	-29.79	110.55	268.02	87.89	13 57 39	2255.7	-27.63	83.33
90.00	14 12 10	3033.66	-28.09	94.14	267.92	86.54	15 2 44	2033.7	-26.69	67.22
100.00	15 46 15	2730.15	-29.79	71.91	268.02	87.89	16 31 45	1730.1	-27.63	44.70
110.00	17 21 42	2431.42	-34.13	49.26	268.05	91.43	18 2 14	1431.4	-29.98	21.32

DIFFERENTIAL CORRECTIONS

TDE	-.4112	TRA	-.9087	TC3	1.0957	BAU	.2943
RDE	-.2907	RRA	.2541	RC3	-.6742	FAU	.14955
FDE	1.2723	FRA	1.4988	FC3	-7.5674	BSP	2973
BDE	.5036	BRA	.9436	BC3	1.2865	FSP	917

MID-COURSE EXECUTION ACCURACY

SGT	1713.7	SGR	783.1	SG3	593.4				
RRT	-.5789	RRF	.6708	RTF	-.8184				
SGB	1884.1	R23	-.1551	R13	.8391				
SG1	1781.1	SG2	614.3	THA	163.12				

ORBIT DETERMINATION ACCURACY

ST	34.9	SR	20.9	SS	36.4
CRT	.6301	CRS	.7987	CST	.9661
LSA	52.4	MSA	15.1	SSA	2.1
EL1	37.8	EL2	15.0	ALF	24.88

LAUNCH DATE JUL 30 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 390.977 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.410	GAL	-.37	AZL	89.18	HCA	124.17	SMA	210.18	ECC	.27745	INC	.8200	V1	29.334
RP	227.93	LAP	.68	LOP	70.86	VP	23.089	GAP	15.38	AZP	90.46	TAL	358.28	TAP	122.45	RCA	151.86	APO	268.49	V2	24.131
RC	130.237	GL	6.70	GP	-11.25	ZAL	90.19	ZAP	153.01	ETS	204.88	ZAE	162.06	ETE	316.48	ZAC	71.59	ETC	282.72	LVI	-5.08

PLANETOCENTRIC CONIC

C3	16.808	VHL	4.100	DLA	20.13	RAL	32.21	RAD	6641.4	VEL	11.698	PTH	6.73	VHP	4.343	DPA	5.89	RAP	47.32	ECC	1.2766

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 38 30	3501.46	-46.27	128.25	265.46	102.59	12 36 51	2501.5	-36.25	98.74
60.00	11 54 0	3460.17	-39.90	125.98	266.91	96.25	12 51 40	2460.2	-33.09	97.14
70.00	12 17 56	3389.70	-34.14	120.74	267.38	91.19	13 14 25	2389.7	-30.09	92.77
80.00	12 58 23	3262.89	-29.77	111.08	267.33	87.61	13 52 46	2262.9	-27.73	83.84
90.00	14 6 47	3042.04	-28.05	94.75	267.22	86.24	14 57 29	2042.0	-26.78	67.81
100.00	15 41 15	2737.36	-29.77	72.45	267.33	87.61	16 26 52	1737.4	-27.73	45.21
110.00	17 17 22	2436.52	-34.14	49.66	267.38	91.19	17 57 59	1436.5	-30.09	21.69

DIFFERENTIAL CORRECTIONS

TDE	-.4144	TRA	-.8965	TC3	1.1210	BAU	.3003
RDE	-.2759	RRA	.2561	RC3	-.7272	FAU	.15668
FDE	1.3520	FRA	1.5246	FC3	-8.0702	BSP	3023
BDE	.4978	BRA	.9323	BC3	1.3362	FSP	973

MID-COURSE EXECUTION ACCURACY

SGT	1720.7	SGR	805.9	SG3	626.1				
RRT	-.6010	RRF	.6990	RTF	-.8184				
SGB	1900.1	R23	-.1675	R13	.8420				
SG1	1797.2	SG2	616.7	THA	162.10				

ORBIT DETERMINATION ACCURACY

ST	35.2	SR	20.1	SS	37.9
CRT	.6241	CRS	.7965	CST	.9651
LSA	53.4	MSA	14.8	SSA	2.2
EL1	37.8	EL2	14.6	ALF	23.32

LAUNCH DATE JUL 30 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 394.604 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.372	GAL	-.33	AZL	89.13	HCA	125.21	SMA	209.35	ECC	.27458	INC	.8686	V1	29.334
RP	228.32	LAP	.71	LOP	71.90	VP	22.992	GAP	15.09	AZP	90.50	TAL	358.45	TAP	123.66	RCA	151.87	APO	266.84	V2	24.090
RC	132.954	GL	7.15	GP	-11.66	ZAL	89.85	ZAP	151.89	ETS	204.62	ZAE	162.29	ETE	313.70	ZAC	71.19	ETC	282.75	LVI	-4.69

PLANETOCENTRIC CONIC

C3	16.531	VHL	4.066	DLA	20.44	RAL	31.71	RAD	6641.3	VEL	11.686	PTH	6.72	VHP	4.234	DPA	5.50	RAP	47.43	ECC	1.2721

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 35 9	3504.21	-46.31	128.50	264.89	102.40	12 33 33	2504.2	-36.35	98.92
60.00	11 50 11	3464.19	-39.92	126.32	266.31	96.02	12 47 55	2464.2	-33.21	97.42
70.00	12 13 29	3395.57	-34.14	121.20	266.75	90.92	13 10 4	2395.6	-30.20	93.19
80.00	12 53 12	3271.04	-29.75	111.69	266.67	87.30	13 47 43	2271.0	-27.84	84.42
90.00	14 1 13	3051.47	-28.01	95.43	266.55	85.90	14 52 4	2051.5	-26.89	68.48
100.00	15 36 4	2745.51	-29.75	73.05	266.67	87.30	16 21 49	1745.5	-27.84	45.79
110.00	17 12 55	2442.38	-34.14	50.12	266.75	90.92	17 53 37	1442.4	-30.20	22.10

DIFFERENTIAL CORRECTIONS

TDE	-.4205	TRA	-.8857	TC3	1.1339	BAU	.3044
RDE	-.2595	RRA	.2591	RC3	-.7817	FAU	.16367
FDE	1.4492	FRA	1.5609	FC3	-8.5714	BSP	3105
BDE	.4941	BRA	.9228	BC3	1.3772	FSP	1039

MID-COURSE EXECUTION ACCURACY

SGT	1724.9	SGR	830.4	SG3	659.5				
RRT	-.6202	RRF	.7254	RTF	-.8475				
SGB	1914.4	R23	-.1811	R13	.8444				
SG1	1811.1	SG2	620.5	THA	161.07				

ORBIT DETERMINATION ACCURACY

ST	35.8	SR	19.2	SS	39.7
CRT	.6164	CRS	.7918	CST	.9648
LSA	54.8	MSA	14.5	SSA	2.2
EL1	38.0	EL2	14.2	ALF	21.49

LAUNCH DATE JUL 30 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 398.246 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.337	GAL	-.29	AZL	89.08	HCA	126.25	SMA	208.58	ECC	.27188	INC	.9182	V1	29.334
RP	228.70	LAP	.74	LOP	72.94	VP	22.897	GAP	14.80	AZP	90.54	TAL	358.62	TAP	124.87	RCA	151.87	APO	265.28	V2	24.049
RC	135.694	GL	7.61	GP	-12.09	ZAL	89.53	ZAP	150.76	ETS	204.38	ZAE	162.48	ETE	310.70	ZAC	70.78	ETC	282.79	LVI	-4.30

PLANETOCENTRIC CONIC

C3	16.275	VHL	4.034	DLA	20.76	RAL	31.22	RAD	6641.1	VEL	11.675	PTH	6.71	VHP	4.129	DPA	5.08	RAP	47.52	ECC	1.2678

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 31 45	3507.53	-46.36	128.81	264.36	102.17	12 30 13	2507.5	-36.47	99.15
60.00	11 46 17	3468.85	-39.96	126.71	265.74	95.76	12 44 5	2468.9	-33.34	97.75
70.00	12 8 54	3402.21	-34.15	121.72	266.15	90.62	13 5 36	2402.2	-30.33	93.66
80.00	12 47 50	3280.16	-29.72	112.36	266.04	86.94	13 42 30	2280.2	-27.96	85.07
90.00	13 55 25	3061.98	-27.95	96.20	265.90	85.52	14 46 27	2062.0	-27.00	69.23
100.00	15 30 42	2754.63	-29.72	73.73	266.04	86.94	16 16 37	1754.6	-27.96	46.44
110.00	17 8 21	2449.03	-34.15	50.64	266.15	90.62	17 49 10	1449.0	-30.33	22.58

DIFFERENTIAL CORRECTIONS

TDE	-.4215	TRA	-.8700	TC3	1.1472	BAU	.3093
RDE	-.2438	RRA	.2612	RC3	-.8396	FAU	.17097
FDE	1.5381	FRA	1.5842	FC3	-9.0943	BSP	3107
BDE	.4869	BRA	.9084	BC3	1.4216	FSP	1090

MID-COURSE EXECUTION ACCURACY

SGT	1720.9	SGR	858.0	SG3	693.4				
RRT	-.6394	RRF	.7507	RTF	-.8167				
SGB	1922.9	R23	-.1928	R13	.8475				
SG1	1818.8	SG2	624.2	THA	159.84				

ORBIT DETERMINATION ACCURACY

ST	35.9	SR	18.3	SS	41.2
CRT	.6055	CRS	.7858	CST	.9635
LSA	55.8	MSA	14.3	SSA	2.3
EL1	37.9	EL2	13.8	ALF	19.94

LAUNCH DATE JUL 30 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 401.901 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.304	GAL	-.26	AZL	89.03	HCA	127.28	SMA	207.85	ECC	.26932	INC	.9690	V1	29.334
RP	229.09	LAP	.77	LOP	73.98	VP	22.806	GAP	14.51	AZP	90.59	TAL	358.78	TAP	126.06	RCA	151.87	APO	263.83	V2	24.008
RC	138.457	GL	8.09	GP	-12.53	ZAL	89.23	ZAP	149.59	ETS	204.15	ZAE	162.64	ETE	307.48	ZAC	70.35	ETC	282.83	LVI	-3.90

PLANETOCENTRIC CONIC

C3	16.040	VHL	4.005	DLA	21.10	RAL	30.74	RAD	6641.0	VEL	11.665	FTH	6.70	VHP	4.028	DPA	4.63	RAP	47.60	ECC	1.2640

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 28 19	3511.43	-46.42	129.17	263.87	101.89	12 26 50	2511.4	-36.62	99.41
60.00	11 42 18	3474.18	-39.99	127.16	265.22	95.46	12 40 12	2474.2	-33.48	98.12
70.00	12 4 12	3409.66	-34.15	122.30	265.58	90.27	13 1 2	2409.7	-30.47	94.19
80.00	12 42 16	3290.29	-29.68	113.11	265.44	86.55	13 37 7	2290.3	-28.09	85.80
90.00	13 49 23	3073.65	-27.89	97.05	265.29	85.10	14 40 36	2073.7	-27.12	70.07
100.00	15 25 6	2764.76	-29.68	74.48	265.44	86.55	16 11 13	1764.8	-28.09	47.17
110.00	17 3 38	2456.48	-34.15	51.22	265.58	90.27	17 44 35	1456.5	-30.47	23.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4282	TRA	-.8575	TC3	1.1625	BAU	.3156	SGT	1723.8	SGR	889.2	SG3	730.8	ST	36.5	SR	17.3	SS	43.4
RDE	-.2255	RRA	.2643	RC3	-.9024	FAU	.17887	RRT	-.6578	RRF	.7752	RTF	-.8169	CRT	.5918	CRS	.7761	CST	.9631
FDE	1.6543	FRA	1.6172	FC3	-9.6541	BSP	3118	SGB	1939.7	R23	-.2043	R13	.8517	LSA	57.5	MSA	13.9	SSA	2.3
BDE	.4639	BRA	.8973	BC3	1.4717	FSP	1151	SG1	1834.8	SG2	629.3	THA	158.62	EL1	38.1	EL2	13.3	ALF	17.93

LAUNCH DATE JUL 30 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 405.568 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.272	GAL	-.22	AZL	88.98	HCA	128.31	SMA	207.17	ECC	.26691	INC	1.0210	V1	29.334
RP	229.48	LAP	.80	LOP	75.01	VP	22.717	GAP	14.22	AZP	90.63	TAL	358.93	TAP	127.24	RCA	151.87	APO	262.46	V2	23.967
RC	141.241	GL	8.57	GP	-13.00	ZAL	88.94	ZAP	148.40	ETS	203.93	ZAE	162.76	ETE	304.05	ZAC	69.91	ETC	282.87	LVI	-3.48

PLANETOCENTRIC CONIC

C3	15.824	VHL	3.978	DLA	21.46	RAL	30.26	RAD	6640.9	VEL	11.656	FTH	6.69	VHP	3.931	DPA	4.16	RAP	47.66	ECC	1.2604

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 24 49	3515.92	-46.48	129.58	263.43	101.58	12 23 25	2515.9	-36.78	99.71
60.00	11 38 14	3480.20	-40.03	127.67	264.73	95.11	12 36 14	2480.2	-33.65	98.55
70.00	11 59 22	3417.95	-34.15	122.95	265.05	89.89	12 56 20	2418.0	-30.63	94.79
80.00	12 36 30	3301.50	-29.63	113.94	264.86	86.12	13 31 31	2301.5	-28.22	86.60
90.00	13 43 5	3086.56	-27.81	97.98	264.70	84.64	14 34 31	2086.6	-27.24	70.99
100.00	15 19 22	2775.97	-29.63	75.31	264.86	86.12	16 5 38	1776.0	-28.22	47.97
110.00	16 58 48	2464.77	-34.15	51.87	265.05	89.89	17 39 53	1464.8	-30.63	23.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4319	TRA	-.8430	TC3	1.1759	BAU	.3225	SGT	1721.7	SGR	924.7	SG3	769.6	ST	36.8	SR	16.2	SS	45.3
RDE	-.2074	RRA	.2668	RC3	-.9698	FAU	.18723	RRT	-.6750	RRF	.7986	RTF	-.8164	CRT	.5733	CRS	.7631	CST	.9624
FDE	1.7657	FRA	1.6413	FC3	-10.2435	BSP	3200	SGB	1954.3	R23	-.2153	R13	.8560	LSA	58.9	MSA	13.7	SSA	2.3
BDE	.4791	BRA	.8842	BC3	1.5242	FSP	1230	SG1	1848.1	SG2	635.6	THA	157.23	EL1	38.1	EL2	12.8	ALF	16.05

LAUNCH DATE JUL 30 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 409.247 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.242	GAL	-.19	AZL	88.93	HCA	129.34	SMA	206.53	ECC	.26463	INC	1.0743	V1	29.334
RP	229.86	LAP	.83	LOP	76.04	VP	22.630	GAP	13.94	AZP	90.68	TAL	359.08	TAP	128.42	RCA	151.87	APO	261.18	V2	23.927
RC	144.046	GL	9.07	GP	-13.48	ZAL	88.66	ZAP	147.19	ETS	203.72	ZAE	162.82	ETE	300.42	ZAC	69.46	ETC	282.93	LVI	-3.05

PLANETOCENTRIC CONIC

C3	15.627	VHL	3.953	DLA	21.83	RAL	29.79	RAD	6640.8	VEL	11.648	FTH	6.69	VHP	3.837	DPA	3.67	RAP	47.69	ECC	1.2572

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 21 15	3521.02	-46.55	130.05	263.03	101.22	12 19 56	2521.0	-36.97	100.05
60.00	11 34 4	3486.91	-40.07	128.23	264.28	94.73	12 32 11	2486.9	-33.83	99.02
70.00	11 54 22	3427.10	-34.15	123.66	264.55	89.47	12 51 29	2427.1	-30.80	95.45
80.00	12 30 29	3313.84	-29.57	114.85	264.32	85.64	13 25 43	2313.8	-28.37	87.49
90.00	13 36 29	3100.79	-27.71	99.01	264.13	84.13	14 28 9	2100.8	-27.37	72.01
100.00	15 13 21	2788.31	-29.57	76.22	264.32	85.64	15 59 49	1788.3	-28.37	48.86
110.00	16 53 48	2473.92	-34.15	52.58	264.55	89.47	17 35 2	1473.9	-30.80	24.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4332	TRA	-.8272	TC3	1.1701	BAU	.3268	SGT	1708.2	SGR	961.6	SG3	807.5	ST	36.9	SR	15.1	SS	47.3
RDE	-.1881	RRA	.2695	RC3	-1.0379	FAU	.19521	RRT	-.6887	RRF	.8194	RTF	-.8134	CRT	.5463	CRS	.7445	CST	.9612
FDE	1.8874	FRA	1.6656	FC3	-10.8146	BSP	3188	SGB	1960.3	R23	-.2272	R13	.8590	LSA	60.4	MSA	13.4	SSA	2.4
BDE	.4723	BRA	.8700	BC3	1.5640	FSP	1290	SG1	1851.8	SG2	643.1	THA	155.69	EL1	37.9	EL2	12.3	ALF	14.08

LAUNCH DATE JUL 30 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 412.936 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.214	GAL	-.16	AZL	88.87	HCA	130.38	SMA	208.93	ECC	.26248	INC	1.1291	V1	29.334
RP	230.25	LAP	.86	LOP	77.06	VP	22.546	GAP	13.65	AZP	90.73	TAL	359.22	TAP	129.58	RCA	151.88	APO	259.98	V2	23.887
RC	146.870	GL	9.59	GP	-13.98	ZAL	88.40	ZAP	145.94	ETS	203.52	ZAE	162.82	ETE	296.61	ZAC	68.99	ETC	282.99	LVI	-2.61

PLANETOCENTRIC CONIC

C3	15.447	VHL	3.930	DLA	22.22	RAL	29.33	RAD	6640.7	VEL	11.640	FTH	6.68	VHP	3.748	DPA	3.15	RAP	47.72	ECC	1.2542

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 17 38	3526.73	-46.62	130.59	262.68	100.82	12 16 25	2526.7	-37.18	100.44
60.00	11 29 48	3494.33	-40.11	128.86	263.87	94.31	12 28 2	2494.3	-34.03	99.55
70.00	11 49 13	3437.15	-34.14	124.45	264.09	89.00	12 46 30	2437.1	-30.98	96.17
80.00	12 24 13	3327.38	-29.49	115.85	263.80	85.12	13 19 40	2327.4	-28.52	88.47
90.00	13 29 33	3116.45	-27.60	100.14	263.59	83.57	14 21 29	2116.4	-27.50	73.14
100.00	15 7 5	2801.85	-29.49	77.22	263.80	85.12	15 53 47	1801.9	-28.52	49.84
110.00	16 48 39	2483.97	-34.14	53.37	264.09	89.00	17 30 3	1484.0	-30.98	25.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4328	TRA	-.8145	TC3	1.1598	BAU	.3312	SGT	1695.4	SGR	1001.7	SG3	845.0	ST	37.0	SR	14.0	SS	49.2
RDE	-.1689	RRA	.2729	RC3	-1.1076	FAU	.20300	RRT	-.7005	RRF	.8386	RTF	-.8095	CRT	.5088	CRS	.7173	CST	.9599
FDE	2.0038	FRA	1.6964	FC3	-11.3774	BSP	3238	SGB	1969.2	R23	-.2389	R13	.8619	LSA	61.7	MSA	13.2	SSA	2.4
BDE	.4646	BRA	.8590	BC3	1.6037	FSP	1372	SG1	1858.1	SG2	652.3	THA	154.09	EL1	37.7	EL2	11.8	ALF	12.07

LAUNCH DATE JUL 30 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 416.635 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.188	GAL	-.13	AZL	88.81	HCA	131.38	SMA	205.37	ECC	.26046	INC	1.1854	V1	29.334
RP	230.63	LAP	.89	LOP	78.08	VP	22.465	GAP	13.38	AZP	90.78	TAL	359.35	TAP	130.73	RCA	151.88	APO	258.85	V2	23.847
RC	149.713	GL	10.12	GP	-14.51	ZAL	88.15	ZAP	144.67	ETS	203.33	ZAE	162.73	ETE	292.66	ZAC	68.51	ETC	283.05	LVI	-2.16

PLANETOCENTRIC CONIC

C3	15.284	VHL	3.909	DLA	22.63	RAL	28.88	RAD	6640.7	VEL	11.633	PTH	6.67	VHP	3.662	DPA	2.59	RAP	47.72	ECC	1.2515

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 13 57	3533.06	-46.70	131.18	262.37	100.37	12 12 50	2533.1	-37.40	100.87
60.00	11 25 26	3502.49	-40.15	129.55	263.50	93.84	12 23 48	2502.5	-34.24	100.13
70.00	11 43 53	3448.14	-34.12	125.31	263.65	88.50	12 41 21	2448.1	-31.17	96.97
80.00	12 17 39	3342.22	-29.40	116.95	263.31	84.55	13 13 21	2342.2	-28.68	89.54
90.00	13 22 14	3133.67	-27.46	101.38	263.07	82.97	14 14 28	2133.7	-27.64	74.38
100.00	15 0 31	2816.69	-29.40	78.31	263.31	84.55	15 47 28	1816.7	-28.68	50.91
110.00	16 43 19	2494.96	-34.12	54.22	263.65	88.50	17 24 54	1495.0	-31.17	25.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4361	TRA	-.7989	TC3	1.1601	BAU	.3390	SGT	1685.4	SGR	1047.9	SG3	887.6	ST	37.2	SR	12.7	SS	51.7
RDE	-.1466	RRA	.2761	RC3-1	1.1860	FAU	.21197	RRT	-.7133	RRF	.8570	RTF	-.8084	CRT	.4587	CRS	.6779	CST	.9593
FDE	2.1508	FRA	1.7209	FC-12	.0071	BSP	3259	SGB	1984.6	R23	-.2460	R13	.8676	LSA	63.6	MSA	13.0	SSA	2.4
BDE	.4601	BRA	.8453	BC3	1.6590	FSP	1443	SG1	1871.1	SG2	661.5	THA	152.33	EL1	37.7	EL2	11.1	ALF	9.73

LAUNCH DATE JUL 30 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 420.344 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.162	GAL	-.11	AZL	88.76	HCA	132.40	SMA	204.84	ECC	.25855	INC	1.2432	V1	29.334
RP	231.01	LAP	.92	LOP	79.10	VP	22.385	GAP	13.10	AZP	90.84	TAL	359.47	TAP	131.87	RCA	151.88	APO	257.80	V2	23.807
RC	152.572	GL	10.66	GP	-15.06	ZAL	87.91	ZAP	143.38	ETS	203.13	ZAE	162.56	ETE	288.59	ZAC	68.01	ETC	283.12	LVI	-1.70

PLANETOCENTRIC CONIC

C3	15.136	VHL	3.891	DLA	23.05	RAL	28.43	RAD	6640.6	VEL	11.627	PTH	6.67	VHP	3.579	DPA	2.01	RAP	47.70	ECC	1.2491

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 10 11	3540.01	-46.78	131.63	262.11	99.87	12 9 11	2540.0	-37.65	101.35
60.00	11 20 56	3511.39	-40.19	130.31	263.16	93.33	12 19 27	2511.4	-34.48	100.78
70.00	11 38 21	3460.09	-34.10	126.24	263.25	87.94	12 36 1	2460.1	-31.38	97.84
80.00	12 10 45	3358.42	-29.29	118.14	262.85	83.93	13 6 44	2358.4	-28.84	90.72
90.00	13 14 30	3152.59	-27.30	102.74	262.57	82.31	14 7 3	2152.6	-27.77	75.75
100.00	14 53 37	2832.90	-29.29	79.51	262.85	83.93	15 40 50	1832.9	-28.84	52.09
110.00	16 37 47	2506.91	-34.10	55.16	263.25	87.94	17 19 34	1506.9	-31.38	26.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4226	TRA	-.7789	TC3	1.1615	BAU	.3480	SGT	1660.7	SGR	1099.3	SG3	928.9	ST	36.3	SR	11.7	SS	53.1
RDE	-.1279	RRA	.2789	RC3-1	1.2682	FAU	.22110	RRT	-.7291	RRF	.8738	RTF	-.8081	CRT	.3919	CRS	.6303	CST	.9560
FDE	2.2531	FRA	1.7400	FC-12	.6463	BSP	3199	SGB	1991.6	R23	-.2461	R13	.8749	LSA	64.1	MSA	12.9	SSA	2.4
BDE	.4415	BRA	.8273	BC3	1.7197	FSP	1514	SG1	1877.1	SG2	665.7	THA	150.10	EL1	36.6	EL2	10.6	ALF	7.82

LAUNCH DATE JUL 30 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 424.059 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.139	GAL	-.08	AZL	88.70	HCA	133.41	SMA	204.34	ECC	.25675	INC	1.3027	V1	29.334
RP	231.39	LAP	.95	LOP	80.11	VP	22.308	GAP	12.82	AZP	90.90	TAL	359.59	TAP	133.00	RCA	151.88	APO	256.81	V2	23.767
RC	155.447	GL	11.22	GP	-15.63	ZAL	87.70	ZAP	142.06	ETS	202.94	ZAE	162.30	ETE	284.47	ZAC	67.49	ETC	283.20	LVI	-1.22

PLANETOCENTRIC CONIC

C3	15.005	VHL	3.874	DLA	23.49	RAL	27.99	RAD	6640.5	VEL	11.621	PTH	6.66	VHP	3.501	DPA	1.40	RAP	47.67	ECC	1.2469

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 6 21	3547.64	-46.87	132.54	261.90	99.33	12 5 29	2547.6	-37.92	101.88
60.00	11 16 18	3521.11	-40.22	131.13	262.87	92.77	12 15 0	2521.1	-34.73	101.48
70.00	11 32 36	3473.12	-34.06	127.25	262.88	87.34	12 30 29	2473.1	-31.59	98.80
80.00	12 3 30	3376.20	-29.16	119.44	262.40	83.26	12 59 46	2376.2	-29.00	92.02
90.00	13 6 16	3173.50	-27.10	104.24	262.09	81.58	13 59 10	2173.5	-27.90	77.26
100.00	14 46 21	2850.67	-29.16	80.81	262.40	83.26	15 33 52	1850.7	-29.00	53.39
110.00	16 32 2	2519.94	-34.06	56.17	262.88	87.34	17 14 2	1519.9	-31.59	27.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4403	TRA	-.7658	TC3	1.1002	BAU	.3485	SGT	1636.0	SGR	1145.4	SG3	968.6	ST	37.5	SR	10.1	SS	56.8
RDE	-.0983	RRA	.2816	RC3-1	1.3443	FAU	.22854	RRT	-.7226	RRF	.8873	RTF	-.8049	CRT	.2869	CRS	.5345	CST	.9576
FDE	2.4667	FRA	1.7542	FC-13	.1863	BSP	3375	SGB	1997.1	R23	-.2653	R13	.8755	LSA	67.6	MSA	12.5	SSA	2.4
BDE	.4511	BRA	.8160	BC3	1.7371	FSP	1625	SG1	1873.6	SG2	691.4	THA	148.37	EL1	37.6	EL2	9.6	ALF	4.72

LAUNCH DATE JUL 30 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 427.782 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.116	GAL	-.06	AZL	88.64	HCA	134.42	SMA	203.88	ECC	.25506	INC	1.3642	V1	29.334
RP	231.77	LAP	.97	LOP	81.12	VP	22.233	GAP	12.55	AZP	90.95	TAL	359.70	TAP	134.12	RCA	151.88	APO	255.88	V2	23.728
RC	158.336	GL	11.79	GP	-16.22	ZAL	87.50	ZAP	140.71	ETS	202.75	ZAE	161.94	ETE	280.33	ZAC	66.96	ETC	283.29	LVI	-.72

PLANETOCENTRIC CONIC

C3	14.888	VHL	3.858	DLA	23.95	RAL	27.55	RAD	6640.5	VEL	11.616	PTH	6.66	VHP	3.426	DPA	.76	RAP	47.62	ECC	1.2450

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 2 25	3555.93	-46.96	133.33	261.73	98.73	12 1 41	2555.9	-38.21	102.46
60.00	11 11 32	3531.63	-40.25	132.02	262.61	92.17	12 10 24	2531.6	-34.99	102.25
70.00	11 26 36	3487.24	-34.01	128.35	262.53	86.70	12 24 44	2487.2	-31.81	99.84
80.00	11 55 48	3395.64	-28.99	120.86	261.98	82.53	12 52 24	2395.6	-29.17	93.44
90.00	12 57 27	3196.59	-26.86	105.89	261.62	80.79	13 50 43	2196.6	-28.02	78.94
100.00	14 38 40	2870.12	-28.99	82.23	261.98	82.53	15 26 30	1870.1	-29.17	54.81
110.00	16 26 3	2534.06	-34.01	57.27	262.53	86.70	17 8 17	1534.1	-31.81	28.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4387	TRA	-.7542	TC3	1.0771	BAU	.3572	SGT	1617.8	SGR	1206.1	SG3	1013.9	ST	37.4	SR	9.0	SS	59.1
RDE	-.0739	RRA	.2856	RC3-1	1.4355	FAU	.23819	RRT	-.7268	RRF	.9014	RTF	-.7881	CRT	.1442	CRS	.4092	CST	.9562
FDE	2.6162	FRA	1.7810	FC-13	.8511	BSP	3417	SGB	2017.9	R23	-.2714	R13	.8811	LSA	69.4	MSA	12.4	SSA	2.4
BDE	.4449	BRA	.8065	BC3	1.7947	FSP	1705	SG1	1889.1	SG2	709.5	THA	146.15	EL1	37.4	EL2	8.9	ALF	2.11

LAUNCH DATE JUL 30 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 431.514 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.095	GAL	-.04	AZL	88.57	HCA	135.43	SMA	203.44	ECC	.25346	INC	1.4275
RP	232.14	LAP	1.00	LOP	82.13	VP	22.160	GAP	12.28	AZP	91.02	TAL	359.80	TAP	135.22	RCA	151.88	APO	255.01
RC	161.238	GL	12.38	GP	-16.84	ZAL	87.31	ZAP	139.33	ETS	202.35	ZAE	161.47	ETE	276.22	ZAC	66.41	ETC	283.38

V1	29.334																		
V2	23.689																		
LVI	-.21																		

PLANETOCENTRIC CONIC

C3	14.785	VHL	3.845	DLA	24.44	RAL	27.12	RAD	6640.4	VEL	11.612	PTH	6.65	VHP	3.355	DPA	.09	RAP	47.55

ECC	1.2433																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 58 23	3564.87	-47.05	134.17	261.60	98.09	11 57 48	2564.9	-38.52	103.09
60.00	11 6 36	3542.96	-40.28	132.99	262.38	91.51	12 5 39	2543.0	-35.27	103.08
70.00	11 20 21	3502.48	-33.95	129.54	262.21	86.00	12 18 43	2502.5	-32.04	100.97
80.00	11 47 37	3416.89	-28.79	122.41	261.56	81.74	12 44 34	2416.9	-29.32	95.00
90.00	12 47 55	3222.15	-26.56	107.70	261.16	79.93	13 41 38	2222.2	-28.13	80.80
100.00	14 30 29	2891.37	-28.79	83.78	261.56	81.74	15 18 40	1891.4	-29.32	56.37
110.00	16 19 47	2549.30	-33.95	58.46	262.21	86.00	17 2 16	1549.3	-32.04	29.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4273	TRA	-.7362	TC3	1.0812	BAU	.3705	SGT	1596.5	SGR	1273.2	SG3	1061.5	ST	36.6	SR	8.2	SS	61.7
RDE	-.0469	RRA	.2925	RC3	-1.5314	FAU	.24799	RRT	-.7437	RRF	.9141	RTF	-.7925	CRT	-.0697	CRS	.2133	CST	.9537
FDE	2.7856	FRA	1.8338	FC	-14.5211	BSP	3210	SGB	2042.0	R23	-.2590	R13	.8927	LSA	71.2	MSA	12.3	SSA	2.3
BDE	.4298	BRA	.7922	BC3	1.8746	FSP	1725	SG1	1914.7	SG2	709.7	THA	143.53	EL1	36.6	EL2	8.2	ALF	179.06

LAUNCH DATE JUL 30 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 435.247 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.076	GAL	-.02	AZL	88.51	HCA	136.43	SMA	203.04	ECC	.25196	INC	1.4929
RP	232.51	LAP	1.03	LOP	83.13	VP	22.089	GAP	12.01	AZP	91.08	TAL	359.89	TAP	136.32	RCA	151.88	APO	254.19
RC	164.150	GL	12.99	GP	-17.48	ZAL	87.14	ZAP	137.92	ETS	202.35	ZAE	160.89	ETE	272.21	ZAC	65.84	ETC	283.48

V1	29.334																		
V2	23.650																		
LVI	.31																		

PLANETOCENTRIC CONIC

C3	14.697	VHL	3.834	DLA	24.94	RAL	26.70	RAD	6640.4	VEL	11.608	PTH	6.65	VHP	3.287	DPA	-.61	RAP	47.47

ECC	1.2419																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 54 15	3574.60	-47.14	135.09	261.53	97.38	11 53 50	2574.6	-38.86	103.78
60.00	11 1 31	3555.25	-40.29	134.03	262.20	90.80	12 0 46	2555.3	-35.56	103.99
70.00	11 13 47	3519.09	-33.86	130.83	261.93	85.24	12 12 26	2519.1	-32.28	102.20
80.00	11 38 52	3440.40	-28.55	124.12	261.17	80.87	12 36 12	2440.4	-29.48	96.73
90.00	12 37 32	3250.92	-26.21	109.73	260.70	78.97	13 31 43	2250.9	-28.21	82.90
100.00	14 21 44	2914.87	-28.55	85.48	261.17	80.87	15 10 18	1914.9	-29.48	58.10
110.00	16 13 13	2565.91	-33.86	59.75	261.93	85.24	16 55 59	1565.9	-32.28	31.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4255	TRA	-.7204	TC3	1.0185	BAU	.3784	SGT	1556.9	SGR	1342.5	SG3	1107.5	ST	36.5	SR	7.6	SS	63.7
RDE	-.0209	RRA	.2911	RC3	-1.6347	FAU	.25847	RRT	-.7313	RRF	.9250	RTF	-.7729	CRT	-.2915	CRS	-.0064	CST	.9513
FDE	2.9349	FRA	1.7984	FC	-15.2252	BSP	3688	SGB	2055.8	R23	-.2692	R13	.8962	LSA	72.8	MSA	12.2	SSA	2.3
BDE	.4260	BRA	.7770	BC3	1.9260	FSP	1968	SG1	1916.5	SG2	743.8	THA	140.75	EL1	36.5	EL2	7.3	ALF	176.38

LAUNCH DATE JUL 30 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 438.981 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.057	GAL	-.01	AZL	88.44	HCA	137.43	SMA	202.65	ECC	.25056	INC	1.5605
RP	232.89	LAP	1.06	LOP	84.13	VP	22.020	GAP	11.75	AZP	91.15	TAL	359.97	TAP	137.40	RCA	151.88	APO	253.43
RC	167.073	GL	13.62	GP	-18.15	ZAL	86.99	ZAP	136.49	ETS	202.14	ZAE	160.21	ETE	268.31	ZAC	65.25	ETC	283.59

V1	29.334																		
V2	23.612																		
LVI	.86																		

PLANETOCENTRIC CONIC

C3	14.623	VHL	3.824	DLA	25.46	RAL	26.28	RAD	6640.3	VEL	11.605	PTH	6.65	VHP	3.223	DPA	-1.35	RAP	47.37

ECC	1.2406																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 50 0	3585.02	-47.22	136.09	261.50	96.62	11 49 45	2585.0	-39.21	104.53
60.00	10 56 13	3568.43	-40.30	135.15	262.05	90.04	11 55 42	2568.4	-35.87	104.97
70.00	11 6 53	3537.00	-33.75	132.22	261.66	84.43	12 5 50	2537.0	-32.52	103.54
80.00	11 29 25	3466.29	-28.26	125.98	260.78	79.93	12 27 11	2466.3	-29.61	98.64
90.00	12 26 3	3283.35	-25.76	112.00	260.23	77.92	13 20 46	2283.4	-28.27	85.27
100.00	14 12 17	2940.76	-28.26	87.35	260.78	79.93	15 1 17	1940.8	-29.61	60.01
110.00	16 6 19	2583.82	-33.75	61.13	261.66	84.43	16 49 23	1583.8	-32.52	32.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4501	TRA	-.7348	TC3	.8029	BAU	.3583	SGT	1522.8	SGR	1359.3	SG3	1109.5	ST	38.4	SR	8.0	SS	68.7
RDE	.0200	RRA	.3066	RC3	-1.6476	FAU	.25311	RRT	-.6833	RRF	.9290	RTF	-.7460	CRT	-.6246	CRS	-.3853	CST	.9543
FDE	3.2208	FRA	1.9296	FC	-14.9854	BSP	3921	SGB	2041.2	R23	-.3088	R13	.8650	LSA	78.1	MSA	12.2	SSA	2.2
BDE	.4506	BRA	.7962	BC3	1.8328	FSP	1988	SG1	1875.4	SG2	805.8	THA	139.73	EL1	38.7	EL2	6.2	ALF	172.38

LAUNCH DATE JUL 30 1973 FLIGHT TIME 186.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 442.739 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.040	GAL	.01	AZL	88.37	HCA	138.43	SMA	202.30	ECC	.24923	INC	1.6305
RP	233.25	LAP	1.08	LOP	85.13	VP	21.952	GAP	11.48	AZP	91.22	TAL	.05	TAP	138.47	RCA	151.88	APO	252.72
RC	170.003	GL	14.26	GP	-18.84	ZAL	86.85	ZAP	135.03	ETS	201.92	ZAE	159.41	ETE	264.58	ZAC	64.65	ETC	283.70

V1	29.334																		
V2	23.573																		
LVI	1.42																		

PLANETOCENTRIC CONIC

C3	14.562	VHL	3.816	DLA	26.01	RAL	25.86	RAD	6640.3	VEL	11.602	PTH	6.64	VHP	3.163	DPA	-2.12	RAP	47.26

ECC	1.2397																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 45 36	3596.24	-47.31	137.16	261.51	95.80	11 45 33	2596.2	-39.58	105.35
60.00	10 50 43	3582.62	-40.29	136.36	261.94	89.22	11 50 26	2582.6	-36.19	106.04
70.00	10 59 36	3556.44	-33.61	133.72	261.41	83.55	11 58 52	2556.4	-32.77	105.01
80.00	11 19 8	3495.13	-27.90	128.05	260.39	78.90	12 17 23	2495.1	-29.73	100.78
90.00	12 13 7	3320.71	-25.21	114.59	259.74	76.73	13 8 28	2320.7	-28.28	88.00
100.00	14 1 59	2969.60	-27.90	89.42	260.39	78.90	14 51 29	1969.6	-29.73	62.14
110.00	15 59 2	2603.26	-33.61	62.63	261.41	83.55	16 42 25	1603.3	-32.77	33.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2483	TRA	-.7293	TC3	1.2236	BAU	.4518	SGT	1579.7	SGR	1598.6	SG3	1245.9	ST	26.1	SR	9.2	SS	51.6
RDE	-.0519	RRA	.3190	RC3	-1.9721	FAU	.29848	RRT	-.8022	RRF	.9502	RTF	-.7951	CRT	-.3195	CRS	.1465	CST	.8758
FDE	2.4104	FRA	2.0222	FC	-17.7451	BSP	2730	SGB	2247.4	R23	-.2424	R13	.9204	LSA	56.7	MSA	14.5	SSA	2.5
BDE	.2536	BRA	.7960	BC3	2.3209	FSP	1752	SG1	2133.4	SG2	706.7	THA	134.57	EL1	26.3	EL2	8.6	ALF	172.83

LAUNCH DATE JUL 30 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 446.491 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.023	GAL	.02	AZL	88.30	HCA	139.42	SMA	201.96	ECC	.24799	INC	1.7031	V1	29.334
RP	233.62	LAP	1.11	LOP	86.13	VP	21.887	GAP	11.22	AZP	91.29	TAL	.11	TAP	139.53	RCA	151.88	APO	252.05	V2	23.536
RC	172.941	GL	14.93	GP	-19.56	ZAL	86.73	ZAP	133.55	ETS	201.69	ZAE	158.52	ETE	261.01	ZAC	64.02	ETC	283.83	LVI	2.00

PLANETOCENTRIC CONIC

C3	14.515	VHL	3.810	DLA	26.58	RAL	25.45	RAD	6640.3	VEL	11.600	PTH	6.64	VHP	3.106	DPA	-2.92	RAP	47.12	ECC	1.2389

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 41 4	3608.24	-47.38	138.31	261.58	94.91	11 41 12	2608.2	-39.97	106.23
60.00	10 44 58	3597.85	-40.27	137.66	261.86	88.34	11 44 56	2597.8	-36.53	107.19
70.00	10 51 52	3577.51	-33.44	135.34	261.18	82.61	11 51 29	2577.5	-33.01	106.60
80.00	11 7 47	3527.52	-27.45	130.35	259.98	77.77	12 6 35	2527.5	-29.82	103.18
90.00	11 58 8	3364.84	-24.48	117.62	259.19	75.38	12 54 13	2364.8	-28.21	91.23
100.00	13 50 39	3001.99	-27.45	91.72	259.98	77.77	14 40 41	2002.0	-29.82	64.55
110.00	15 51 18	2624.33	-33.44	64.25	261.18	82.61	16 35 3	1624.3	-33.01	35.52

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3486	TRA	-.5752	TC3	.8934	BAU	.4195	SGT	1293.8	SGR	1554.8	SG3	1222.2	ST	30.0	SR	7.1	SS	64.6
RDE	.0398	RRA	.2406	RC3	-1.9687	FAU	.28942	RRT	-.7178	RRF	.9487	RTF	-.7368	CRT	-.7895	CRS	-.5518	CST	.9301
FDE	3.1653	FRA	1.2500	FC	-17.2623	BSP	2999	SGB	2022.7	R23	-.2018	R13	.9305	LSA	70.7	MSA	11.4	SSA	2.3
BDE	.3509	BRA	.6235	BC3	2.1619	FSP	1873	SG1	1880.6	SG2	744.8	THA	127.78	EL1	30.5	EL2	4.3	ALF	169.15

LAUNCH DATE JUL 30 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 450.246 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	33.008	GAL	.03	AZL	88.22	HCA	140.41	SMA	201.65	ECC	.24683	INC	1.7784	V1	29.334
RP	233.99	LAP	1.13	LOP	87.12	VP	21.823	GAP	10.96	AZP	91.37	TAL	.17	TAP	140.58	RCA	151.88	APO	251.43	V2	23.498
RC	175.886	GL	15.62	GP	-20.30	ZAL	86.63	ZAP	132.04	ETS	201.44	ZAE	157.51	ETE	257.65	ZAC	63.38	ETC	283.96	LVI	2.59

PLANETOCENTRIC CONIC

C3	14.481	VHL	3.805	DLA	27.18	RAL	25.05	RAD	6640.3	VEL	11.599	PTH	6.64	VHP	3.053	DPA	-3.75	RAP	46.98	ECC	1.2383

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 36 22	3621.09	-47.45	139.54	261.69	93.97	11 36 43	2621.1	-40.38	107.19
60.00	10 38 57	3614.19	-40.23	139.04	261.81	87.40	11 39 11	2614.2	-36.87	108.45
70.00	10 43 37	3600.43	-33.22	137.09	260.97	81.59	11 43 38	2600.4	-33.25	108.35
80.00	10 55 4	3564.45	-26.89	132.95	259.55	76.51	11 54 29	2564.5	-29.86	105.92
90.00	11 39 52	3419.68	-23.49	121.33	258.55	73.78	12 36 52	2419.7	-28.00	95.22
100.00	13 37 56	3038.92	-26.89	94.32	259.55	76.51	14 28 35	2038.9	-29.86	67.29
110.00	15 43 4	2647.24	-33.22	66.01	260.97	81.59	16 27 11	1647.2	-33.25	37.27

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3665	TRA	-.6334	TC3	.8693	BAU	.4402	SGT	1375.3	SGR	1675.4	SG3	1293.6	ST	32.0	SR	10.4	SS	71.3
RDE	.0940	RRA	.2836	RC3	-2.1009	FAU	.30148	RRT	-.7163	RRF	.9572	RTF	-.7272	CRT	-.9452	CRS	-.7956	CST	.9303
FDE	3.5377	FRA	1.6312	FC	-18.0230	BSP	3370	SGB	2167.6	R23	-.2189	R13	.9338	LSA	77.9	MSA	12.1	SSA	2.2
BDE	.3784	BRA	.6940	BC3	2.2736	FSP	2116	SG1	2015.5	SG2	797.8	THA	127.25	EL1	33.4	EL2	3.2	ALF	162.77

LAUNCH DATE JUL 30 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 454.006 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.993	GAL	.04	AZL	88.14	HCA	141.40	SMA	201.36	ECC	.24574	INC	1.8569	V1	29.334
RP	234.35	LAP	1.16	LOP	88.11	VP	21.761	GAP	10.70	AZP	91.45	TAL	.22	TAP	141.62	RCA	151.88	APO	250.85	V2	23.461
RC	178.836	GL	16.33	GP	-21.07	ZAL	86.54	ZAP	130.51	ETS	201.19	ZAE	156.42	ETE	254.49	ZAC	62.71	ETC	284.10	LVI	3.21

PLANETOCENTRIC CONIC

C3	14.462	VHL	3.803	DLA	27.80	RAL	24.64	RAD	6640.3	VEL	11.598	PTH	6.64	VHP	3.003	DPA	-4.62	RAP	46.82	ECC	1.2380

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 31 29	3634.83	-47.51	140.87	261.84	92.95	11 32 4	2634.8	-40.81	108.23
60.00	10 32 38	3631.74	-40.17	140.53	261.79	86.40	11 33 10	2631.7	-37.22	109.80
70.00	10 34 47	3625.43	-32.96	138.99	260.75	80.49	11 35 12	2625.4	-33.48	110.26
80.00	10 40 28	3607.57	-26.17	135.95	259.07	75.09	11 40 35	2607.6	-29.82	109.13
90.00	11 14 48	3496.49	-21.94	126.43	257.68	71.69	12 13 5	2496.5	-27.50	100.79
100.00	13 23 19	3082.04	-26.17	97.32	259.07	75.09	14 14 41	2082.0	-29.82	70.49
110.00	15 34 13	2672.25	-32.96	67.91	260.75	80.49	16 18 45	1672.2	-33.48	39.18

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3784	TRA	-.6093	TC3	.7337	BAU	.4460	SGT	1309.0	SGR	1745.6	SG3	1325.2	ST	32.5	SR	13.4	SS	76.7
RDE	.1469	RRA	.2822	RC3	-2.1671	FAU	.30575	RRT	-.6798	RRF	.9619	RTF	-.6829	CRT	-.9841	CRS	-.9003	CST	.9346
FDE	3.8754	FRA	1.5921	FC	-18.3034	BSP	3460	SGB	2181.9	R23	-.2005	R13	.9423	LSA	83.5	MSA	11.8	SSA	2.1
BDE	.4059	BRA	.6715	BC3	2.3069	FSP	2198	SG1	2017.6	SG2	830.6	THA	123.38	EL1	35.1	EL2	2.2	ALF	157.75

LAUNCH DATE JUL 30 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 457.770 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.980	GAL	.05	AZL	88.06	HCA	142.38	SMA	201.09	ECC	.24473	INC	1.9383	V1	29.334
RP	234.71	LAP	1.18	LOP	89.09	VP	21.701	GAP	10.44	AZP	91.54	TAL	.27	TAP	142.65	RCA	151.88	APO	250.30	V2	23.424
RC	181.791	GL	17.06	GP	-21.87	ZAL	86.47	ZAP	128.95	ETS	200.91	ZAE	155.23	ETE	251.53	ZAC	62.03	ETC	284.25	LVI	3.85

PLANETOCENTRIC CONIC

C3	14.456	VHL	3.802	DLA	28.44	RAL	24.24	RAD	6640.3	VEL	11.598	PTH	6.64	VHP	2.957	DPA	-5.52	RAP	46.65	ECC	1.2379

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 26 23	3649.50	-47.55	142.28	262.05	91.86	11 27 13	2649.5	-41.26	109.35
60.00	10 25 59	3650.58	-40.07	142.13	261.79	85.32	11 26 49	2650.6	-37.58	111.27
70.00	10 25 13	3652.84	-32.63	141.06	260.54	79.31	11 26 6	2652.8	-33.69	112.37
80.00	10 22 56	3660.00	-25.20	139.55	258.49	73.44	11 23 56	2660.0	-29.67	113.01
86.81	10 0 37	3732.14	-18.55	142.34	255.98	68.04	11 2 49	2732.1	-25.98	117.74
100.00	13 5 48	3134.48	-25.20	100.92	258.49	73.44	13 58 3	2134.5	-29.67	74.38
110.00	15 24 39	2699.66	-32.63	69.98	260.54	79.31	16 9 39	1699.7	-33.69	41.29

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3755	TRA	-.6147	TC3	.6482	BAU	.4629	SGT	1293.5	SGR	1851.1	SG3	1373.7	ST	32.4	SR	16.9	SS	81.0
RDE	.1962	RRA	.3004	RC3	-2.3056	FAU	.31425	RRT	-.6574	RRF	.9672	RTF	-.6667	CRT	-.9907	CRS	-.9394	CST	.9319
FDE	4.1582	FRA	1.7232	FC	-18.8191	BSP	3488	SGB	2258.2	R23	-.1891	R13	.9494	LSA	88.1	MSA	11.9	SSA	2.0
BDE	.4237	BRA	.6842	BC3	2.3950	FSP	2236	SG1	2086.0	SG2	865.0	THA	120.44	EL1	36.5	EL2	2.0	ALF	152.61

LAUNCH DATE JUL 30 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 461.537 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.987	GAL	.06	AZL	87.98	HCA	143.37	SMA	200.84	ECC	.24378	INC	2.0233	V1	29.334
RP	233.06	LAP	1.21	LOP	90.08	VP	21.642	GAP	10.19	AZP	91.62	TAL	.30	TAP	143.67	RCA	151.88	APO	249.80	V2	23.387
RC	184.750	GL	17.82	GP	-22.69	ZAL	86.41	ZAP	127.37	ETS	200.61	ZAE	153.95	ETE	248.76	ZAC	61.33	ETC	284.41	LVI	4.51

PLANETOCENTRIC CONIC

C3	14.465	VHL	3.803	DLA	29.12	RAL	23.83	RAD	6640.3	VEL	11.598	PTH	6.64	VHP	2.915	DPA	-6.46	RAP	46.47	ECC	1.2381

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 21 4	3665.17	-47.57	143.80	262.29	90.69	11 22 9	2665.2	-41.72	110.57
60.00	10 18 56	3670.84	-39.95	143.83	261.82	84.18	11 20 7	2670.8	-37.94	112.87
70.00	10 14 47	3683.08	-32.23	143.33	260.32	78.03	11 16 10	2683.1	-33.88	114.71
80.00	10 0 0	3729.62	-23.77	144.22	257.70	71.38	11 2 10	2729.6	-29.26	118.15
82.75	9 25 49	3839.40	-18.96	150.40	255.77	67.48	10 29 49	2839.4	-26.59	125.77
100.00	12 42 52	3204.10	-23.77	105.59	257.70	71.38	13 36 16	2204.1	-29.26	79.52
110.00	15 14 14	2729.90	-32.23	72.25	260.32	78.03	15 59 44	1729.9	-33.88	43.63

DIFFERENTIAL CORRECTIONS

TDE	-.3567	TRA	-.5962	TC3	.6024	BAU	.4887
RDE	.2418	RRA	.3006	RC3	-2.4543	FAU	.32627
FDE	4.3867	FRA	1.6906	FC	-19.5275	BSP	3551
BDE	.4309	BRA	.6677	BC3	2.5272	FSP	2298

MID-COURSE EXECUTION ACCURACY

SGT	1247.2	SGR	1971.5	SG3	1427.1
RRT	-.6442	RRF	.9720	RTF	-.6483
SGB	2332.9	R23	-.1649	R13	.9583
SG1	2165.1	SG2	868.6	THA	116.83

ORBIT DETERMINATION ACCURACY

ST	31.0	SR	20.0	SS	84.1
CRT	-.9862	CRS	-.9610	CST	.9243
LSA	91.1	MSA	12.0	SSA	1.9
EL1	36.8	EL2	2.8	ALF	147.31

LAUNCH DATE JUL 30 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 465.306 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.956	GAL	.06	AZL	87.89	HCA	144.34	SMA	200.60	ECC	.24289	INC	2.1120	V1	29.334
RP	235.42	LAP	1.23	LOP	91.06	VP	21.585	GAP	9.94	AZP	91.72	TAL	.33	TAP	144.67	RCA	151.88	APO	249.33	V2	23.351
RC	187.714	GL	18.61	GP	-23.54	ZAL	86.37	ZAP	125.77	ETS	200.30	ZAE	152.59	ETE	246.19	ZAC	60.60	ETC	284.58	LVI	5.19

PLANETOCENTRIC CONIC

C3	14.489	VHL	3.806	DLA	29.82	RAL	23.42	RAD	6640.3	VEL	11.599	PTH	6.64	VHP	2.876	DPA	-7.43	RAP	46.28	ECC	1.2384

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 15 29	3681.89	-47.57	145.42	262.58	89.45	11 16 51	2681.9	-42.20	111.89
60.00	10 11 27	3692.64	-39.78	145.67	261.86	82.93	11 13 0	2692.6	-38.31	114.61
70.00	10 3 17	3716.75	-31.72	145.82	260.07	76.63	11 5 14	2716.8	-34.03	117.33
80.00	9 14 42	3870.33	-20.42	153.32	256.03	67.73	10 19 12	2870.3	-27.79	128.34
80.11	9 3 32	3906.03	-19.38	155.51	255.58	66.88	10 8 38	2906.0	-27.21	130.85
100.00	11 57 34	3344.81	-20.42	114.69	256.03	67.73	12 53 19	2344.8	-27.79	89.71
110.00	15 2 43	2763.57	-31.72	74.74	260.07	76.63	15 48 47	1763.6	-34.03	46.25

DIFFERENTIAL CORRECTIONS

TDE	-.3264	TRA	-.5797	TC3	.5151	BAU	.5114
RDE	.2801	RRA	.3009	RC3	-2.5893	FAU	.33543
FDE	4.5338	FRA	1.6578	FC	-20.0427	BSP	3690
BDE	.4301	BRA	.6532	BC3	2.6400	FSP	2394

MID-COURSE EXECUTION ACCURACY

SGT	1186.1	SGR	2082.3	SG3	1465.4
RRT	-.6095	RRF	.9756	RTF	-.6079
SGB	2396.4	R23	-.1435	R13	.9652
SG1	2229.7	SG2	878.2	THA	112.89

ORBIT DETERMINATION ACCURACY

ST	28.8	SR	22.7	SS	85.7
CRT	-.9751	CRS	-.9719	CST	.9102
LSA	92.4	MSA	12.1	SSA	1.8
EL1	36.5	EL2	4.0	ALF	141.97

LAUNCH DATE JUL 30 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 469.077 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.945	GAL	.07	AZL	87.80	HCA	145.32	SMA	200.38	ECC	.24207	INC	2.2048	V1	29.334
RP	235.77	LAP	1.25	LOP	92.03	VP	21.529	GAP	9.68	AZP	91.81	TAL	.35	TAP	145.67	RCA	151.88	APO	248.89	V2	23.315
RC	190.680	GL	19.42	GP	-24.42	ZAL	86.34	ZAP	124.16	ETS	199.96	ZAE	151.16	ETE	243.79	ZAC	59.86	ETC	284.76	LVI	5.89

PLANETOCENTRIC CONIC

C3	14.528	VHL	3.812	DLA	30.56	RAL	23.01	RAD	6640.3	VEL	11.601	PTH	6.64	VHP	2.841	DPA	-8.43	RAP	46.09	ECC	1.2391

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 9 37	3699.76	-47.55	147.15	262.91	88.12	11 11 16	2699.8	-42.69	113.32
60.00	10 3 27	3716.19	-39.57	147.63	261.92	81.61	11 5 23	2716.2	-38.67	116.51
70.00	9 50 23	3754.79	-31.09	148.61	259.78	75.10	10 52 58	2754.8	-34.13	120.30
77.91	8 45 26	3959.04	-19.82	159.67	255.41	66.25	9 51 25	2959.0	-27.86	134.97
77.91	8 45 26	3959.04	-19.82	159.67	255.41	66.25	9 51 25	2959.0	-27.86	134.97
77.91	8 45 26	3959.04	-19.82	159.67	255.41	66.25	9 51 25	2959.0	-27.86	134.97
110.00	14 49 49	2801.61	-31.09	77.53	259.78	75.10	15 36 31	1801.6	-34.13	49.22

DIFFERENTIAL CORRECTIONS

TDE	-.3222	TRA	-.5790	TC3	.3717	BAU	.5285
RDE	.3426	RRA	.3123	RC3	-2.6958	FAU	.33990
FDE	4.8542	FRA	1.7115	FC	-20.2549	BSP	3888
BDE	.4703	BRA	.6578	BC3	2.7213	FSP	2488

MID-COURSE EXECUTION ACCURACY

SGT	1156.0	SGR	2187.6	SG3	1497.9
RRT	-.5467	RRF	.9787	RTF	-.5453
SGB	2474.2	R23	-.1247	R13	.9708
SG1	2295.9	SG2	922.2	THA	109.36

ORBIT DETERMINATION ACCURACY

ST	28.6	SR	27.2	SS	90.4
CRT	-.9638	CRS	-.9817	CST	.9050
LSA	97.9	MSA	12.3	SSA	1.7
EL1	39.1	EL2	5.3	ALF	136.47

LAUNCH DATE JUL 30 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 472.851 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.934	GAL	.07	AZL	87.70	HCA	146.29	SMA	200.18	ECC	.24130	INC	2.3019	V1	29.334
RP	236.12	LAP	1.26	LOP	93.01	VP	21.475	GAP	9.43	AZP	91.92	TAL	.36	TAP	146.65	RCA	151.88	APO	248.48	V2	23.279
RC	193.649	GL	20.27	GP	-25.33	ZAL	86.33	ZAP	122.53	ETS	199.59	ZAE	149.65	ETE	241.55	ZAC	59.09	ETC	284.95	LVI	6.62

PLANETOCENTRIC CONIC

C3	14.584	VHL	3.819	DLA	31.32	RAL	22.60	RAD	6640.3	VEL	11.603	PTH	6.65	VHP	2.810	DPA	-9.46	RAP	45.88	ECC	1.2400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 3 25	3718.85	-47.49	148.99	263.28	86.70	11 5 23	2718.8	-43.20	114.88
60.00	9 54 52	3741.66	-39.29	149.74	261.98	80.21	10 57 13	2741.7	-39.02	118.58
70.00	9 35 37	3798.55	-30.28	151.76	259.41	73.40	10 38 55	2798.6	-34.15	123.71
75.93	8 29 37	4004.59	-20.26	163.30	255.28	65.58	9 36 22	3004.6	-28.54	138.58
75.93	8 29 37	4004.59	-20.26	163.30	255.28	65.58	9 36 22	3004.6	-28.54	138.58
75.93	8 29 37	4004.59	-20.26	163.30	255.28	65.58	9 36 22	3004.6	-28.54	138.58
110.00	14 35 3	2845.37	-30.28	80.68	259.41	73.40	15 22 29	1845.4	-34.15	52.63

DIFFERENTIAL CORRECTIONS

TDE	-.2968	TRA	-.5521	TC3	.2565	BAU	.5525
RDE	.3950	RRA	.2985	RC3	-2.8223	FAU	.34635
FDE	5.0658	FRA	1.5624	FC	-20.5606	BSP	4042
BDE	.4941	BRA	.6276	BC3	2.8339	FSP	2559

MID-COURSE EXECUTION ACCURACY

SGT	1085.0	SGR	2296.2	SG3	1525.9
RRT	-.4795	RRF	.9813	RTF	-.4761
SGB	2539.6	R23	-.0968	R13	.9765
SG1	2365.4	SG2	924.2	THA	105.13

ORBIT DETERMINATION ACCURACY

ST	26.6	SR	30.8	SS	93.0
CRT	-.9453	CRS	-.9877	CST	.8901
LSA	100.8	MSA	12.2	SSA	1.6
EL1	40.2	EL2	6.7	ALF	130.55

LAUNCH DATE JUL 30 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 476.627 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.925	GAL	.07	AZL	87.60	HCA	147.26	SMA	199.99	ECC	.24059	INC	2.4038	VI	29.334
RP	236.46	LAP	1.30	LOP	93.98	VP	21.422	GAP	9.18	AZP	92.02	TAL	.36	TAP	147.62	RCA	151.88	APO	248.11	V2	23.244
RC	196.619	GL	21.14	GP	-26.26	ZAL	86.34	ZAP	120.88	ETS	199.20	ZAE	148.09	ETE	239.47	ZAC	58.31	ETC	285.15	LVI	7.37

PLANETOCENTRIC CONIC

C3	14.656	VHL	3.828	DLA	32.13	RAL	22.17	RAD	6640.4	VEL	11.607	PTH	6.65	VHP	2.783	DPA	-10.53	RAP	45.68	ECC	1.2412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 56 50	3739.26	-47.39	150.95	263.68	85.19	10 59 9	2739.3	-43.71	116.57
60.00	9 45 34	3769.32	-38.95	152.01	262.04	78.70	10 48 24	2769.3	-39.35	120.66
70.00	9 18 5	3850.67	-29.21	155.44	258.91	71.46	10 22 15	2850.7	-34.03	127.78
74.09	8 15 18	4045.27	-20.71	166.61	255.16	64.88	9 22 43	3045.3	-29.23	141.86
74.09	8 15 18	4045.27	-20.71	166.61	255.16	64.88	9 22 43	3045.3	-29.23	141.86
74.09	8 15 18	4045.27	-20.71	166.61	255.16	64.88	9 22 43	3045.3	-29.23	141.86
110.00	14 17 31	2897.49	-29.21	84.35	258.91	71.46	15 5 49	1897.5	-34.03	56.70

DIFFERENTIAL CORRECTIONS

TDE	-.2758	TRA	-.5444	TC3	.1455	BAU	.5810												
RDE	.4604	RRA	.3042	RC3	-2.9614	FAU	.35364												
FDE	5.3476	FRA	1.5654	FC-2	0.8890	BSP	4012												
BDE	.5367	BRA	.6236	BC3	2.9650	FSP	2513												

MID-COURSE EXECUTION ACCURACY

SGT	1052.8	SGR	2430.1	SG3	1563.6						
RRT	-.4120	RRF	.9839	RTF	-.4066						
SGB	2648.3	R23	-.0771	R13	.9808						
SG1	2475.2	SG2	941.8	THA	101.86						

ORBIT DETERMINATION ACCURACY

ST	25.2	SR	35.5	SS	96.9						
CRT	-.9249	CRS	-.9914	CST	.8731						
LSA	105.5	MSA	12.4	SSA	1.6						
EL1	42.8	EL2	7.9	ALF	124.60						

LAUNCH DATE JUL 30 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 480.405 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.916	GAL	.07	AZL	87.49	HCA	148.23	SMA	199.82	ECC	.23993	INC	2.5110	VI	29.334
RP	236.81	LAP	1.32	LOP	94.95	VP	21.371	GAP	8.94	AZP	92.14	TAL	.36	TAP	148.58	RCA	151.88	APO	247.76	V2	23.209
RC	199.589	GL	22.06	GP	-27.23	ZAL	86.36	ZAP	119.23	ETS	198.78	ZAE	146.46	ETE	237.52	ZAC	57.50	ETC	285.37	LVI	8.15

PLANETOCENTRIC CONIC

C3	14.748	VHL	3.840	DLA	32.96	RAL	21.74	RAD	6640.4	VEL	11.610	PTH	6.65	VHP	2.760	DPA	-11.63	RAP	45.47	ECC	1.2427

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 49 50	3761.10	-47.25	153.04	264.11	83.58	10 52 31	2761.1	-44.23	118.42
60.00	9 35 27	3799.51	-38.52	154.46	262.08	77.09	10 38 46	2799.5	-39.66	123.36
70.00	8 55 49	3916.97	-27.69	159.99	258.17	69.16	10 1 6	2917.0	-33.66	132.92
72.32	8 2 2	4082.48	-21.17	169.70	255.08	64.13	9 10 5	3082.5	-29.95	144.92
72.32	8 2 2	4082.48	-21.17	169.70	255.08	64.13	9 10 5	3082.5	-29.95	144.92
72.32	8 2 2	4082.48	-21.17	169.70	255.08	64.13	9 10 5	3082.5	-29.95	144.92
110.00	13 55 15	2963.79	-27.69	88.91	258.17	69.16	14 44 39	1963.8	-33.66	61.84

DIFFERENTIAL CORRECTIONS

TDE	-.2535	TRA	-.5295	TC3	.0075	BAU	.6070												
RDE	.5316	RRA	.3005	RC3	-3.0785	FAU	.35734												
FDE	5.6367	FRA	1.4961	FC-2	0.9768	BSP	4158												
BDE	.5869	BRA	.6088	BC3	3.0786	FSP	2549												

MID-COURSE EXECUTION ACCURACY

SGT	1014.6	SGR	2550.6	SG3	1587.0						
RRT	-.3156	RRF	.9859	RTF	-.3100						
SGB	2745.0	R23	-.0544	R13	.9844						
SG1	2573.8	SG2	954.0	THA	98.30						

ORBIT DETERMINATION ACCURACY

ST	23.6	SR	40.6	SS	100.9						
CRT	-.9005	CRS	-.9941	CST	.8528						
LSA	110.6	MSA	12.4	SSA	1.5						
EL1	46.1	EL2	9.0	ALF	118.84						

LAUNCH DATE JUL 30 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 484.184 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.908	GAL	.07	AZL	87.38	HCA	149.19	SMA	199.66	ECC	.23932	INC	2.6236	VI	29.334
RP	237.14	LAP	1.34	LOP	95.91	VP	21.321	GAP	8.69	AZP	92.25	TAL	.35	TAP	149.54	RCA	151.88	APO	247.44	V2	23.174
RC	202.557	GL	23.00	GP	-28.22	ZAL	86.39	ZAP	117.57	ETS	198.33	ZAE	144.79	ETE	235.69	ZAC	56.68	ETC	285.59	LVI	8.95

PLANETOCENTRIC CONIC

C3	14.859	VHL	3.855	DLA	33.83	RAL	21.30	RAD	6640.5	VEL	11.615	PTH	6.66	VHP	2.741	DPA	-12.77	RAP	45.27	ECC	1.2445

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 42 21	3784.53	-47.04	155.27	264.55	81.88	10 45 25	2784.5	-44.75	120.43
60.00	9 24 19	3832.70	-37.98	157.12	262.08	75.36	10 28 11	2832.7	-39.93	126.15
70.00	8 21 17	4020.13	-25.00	166.81	256.75	65.94	9 28 17	3020.1	-32.63	140.79
70.60	7 49 33	4117.11	-21.64	172.62	255.02	63.34	8 58 10	3117.1	-30.70	147.82
70.60	7 49 33	4117.11	-21.64	172.62	255.02	63.34	8 58 10	3117.1	-30.70	147.82
70.60	7 49 33	4117.11	-21.64	172.62	255.02	63.34	8 58 10	3117.1	-30.70	147.82
110.00	13 20 44	3066.95	-25.00	95.72	256.75	65.94	14 11 50	2066.9	-32.63	69.70

DIFFERENTIAL CORRECTIONS

TDE	-.2149	TRA	-.5106	TC3	-.0951	BAU	.6426												
RDE	.5946	RRA	.2886	RC3	-3.2332	FAU	.36486												
FDE	5.8322	FRA	1.3692	FC-2	1.2502	BSP	4436												
BDE	.6323	BRA	.5865	BC3	3.2346	FSP	2638												

MID-COURSE EXECUTION ACCURACY

SGT	970.6	SGR	2694.6	SG3	1615.8						
RRT	-.2184	RRF	.9878	RTF	-.2096						
SGB	2864.1	R23	-.0372	R13	.9871						
SG1	2704.1	SG2	943.9	THA	95.12						

ORBIT DETERMINATION ACCURACY

ST	21.0	SR	45.0	SS	103.2						
CRT	-.8565	CRS	-.9957	CST	.8096						
LSA	113.8	MSA	12.5	SSA	1.4						
EL1	48.7	EL2	10.0	ALF	112.85						

LAUNCH DATE JUL 30 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 487.964 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.901	GAL	.06	AZL	87.26	HCA	150.15	SMA	199.51	ECC	.23876	INC	2.7426	VI	29.334
RP	237.48	LAP	1.36	LOP	96.87	VP	21.272	GAP	8.45	AZP	92.38	TAL	.33	TAP	150.48	RCA	151.88	APO	247.15	V2	23.140
RC	205.523	GL	23.99	GP	-29.23	ZAL	86.44	ZAP	115.90	ETS	197.85	ZAE	143.06	ETE	233.97	ZAC	55.83	ETC	285.83	LVI	9.78

PLANETOCENTRIC CONIC

C3	14.992	VHL	3.872	DLA	34.74	RAL	20.84	RAD	6640.5	VEL	11.621	PTH	6.66	VHP	2.727	DPA	-13.93	RAP	45.06	ECC	1.2467

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 34 17	3809.70	-46.77	157.64	265.01	80.07	10 37 47	2809.7	-45.26	122.64
60.00	9 11 55	3869.50	-37.30	160.01	262.02	73.50	10 16 24	2869.5	-40.15	129.25
68.92	7 37 41	4149.60	-22.12	175.43	254.98	62.49	8 46 51	3149.6	-31.47	150.61
68.92	7 37 41	4149.60	-22.12	175.43	254.98	62.49	8 46 51	3149.6	-31.47	150.61
68.92	7 37 41	4149.60	-22.12	175.43	254.98	62.49	8 46 51	3149.6	-31.47	150.61
68.92	7 37 41	4149.60	-22.12	175.43	254.98	62.49	8 46 51	3149.6	-31.47	150.61
68.92	7 37 41	4149.60	-22.12	175.43	254.98	62.49	8 46 51	3149.6	-31.47	150.61

DIFFERENTIAL CORRECTIONS

TDE	-.1808	TRA	-.5015	TC3	-.2453	BAU	.6700												
RDE	.6749	RRA	.2886	RC3	-3.3336	FAU	.36512												
FDE	6.1077	FRA	1.3279	FC-2	1.0846	BSP	4674												
BDE	.6987	BRA	.5787	BC3	3.3426	FSP	2689												

MID-COURSE EXECUTION ACCURACY

SGT	961.0	SGR	2816.3	SG3	1625.6						
RRT	-.0910	RRF	.9892	RTF	-.0817						
SGB	2975.7	R23	-.0202	R13	.9891						
SG1	2817.8	SG2	956.5	THA	92.01						

ORBIT DETERMINATION ACCURACY

ST	19.0	SR	50.7	SS	107.0						
CRT	-.8004	CRS	-.9969	CST	.7547						
LSA	119.2	MSA	12.7	SSA	1.3						
EL1	53.0	EL2	10.9	ALF	107.50						

LAUNCH DATE JUL 30 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC DISTANCE 491.745 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.894	GAL	.06	AZL	87.13	HCA	151.11	SMA	199.38	ECC	.23825	INC	2.8684
RP	237.81	LAP	1.39	LOP	97.83	VP	21.225	GAP	8.20	AZP	92.51	TAL	.30	TAP	151.41	RCA	151.88	APO	246.88
RC	208.485	GL	25.02	GP	-30.28	ZAL	86.50	ZAP	114.24	ETS	197.33	ZAE	141.29	ETE	232.35	ZAC	54.96	ETC	286.08

V1	29.334	V2	23.106	LVI	10.64														

PLANETOCENTRIC CONIC

C3	15.149	VHL	3.892	DLA	35.70	RAL	20.36	RAD	6640.6	VEL	11.628	PTH	6.67	VHP	2.716	DPA	-15.12	RAP	44.87

ECC	1.2493																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 25 34	3836.84	-46.43	160.17	265.47	78.15	10 29 31	2836.8	-45.76	125.07
60.00	8 57 53	3910.91	-36.46	163.20	261.87	71.48	10 3 4	2910.9	-40.28	132.77
67.25	7 26 17	4180.51	-22.60	178.15	254.98	61.60	8 35 57	3180.5	-32.26	153.32
67.25	7 26 17	4180.51	-22.60	178.15	254.98	61.60	8 35 57	3180.5	-32.26	153.32
67.25	7 26 17	4180.51	-22.60	178.15	254.98	61.60	8 35 57	3180.5	-32.26	153.32
67.25	7 26 17	4180.51	-22.60	178.15	254.98	61.60	8 35 57	3180.5	-32.26	153.32
67.25	7 26 17	4180.51	-22.60	178.15	254.98	61.60	8 35 57	3180.5	-32.26	153.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1417	TRA	-.4917	TC3	-.3729	BAU	.7073	SGT	960.3	SGR	2969.4	SG3	1644.9	ST	17.0	SR	56.4	SS	110.2
RDE	.7569	RRA	.2858	RC3	-3.4726	FAU	.36921	RRT	.0317	RRF	.9907	RTF	.0422	CRT	-.7142	CRS	-.9977	CST	.6689
FDE	6.3514	FRA	1.2664	FC	-21.1001	BSP	4870	SGB	3120.8	R23	-.0071	R13	.9907	LSA	124.3	MSA	12.8	SSA	1.2
BDE	.7701	BRA	.5687	BC3	3.4926	FSP	2696	SG1	2969.5	SG2	959.7	THA	89.34	EL1	57.7	EL2	11.6	ALF	102.64

LAUNCH DATE JUL 30 1973 FLIGHT TIME 214.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC DISTANCE 495.527 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.888	GAL	.05	AZL	87.00	HCA	152.07	SMA	199.26	ECC	.23778	INC	3.0016
RP	238.14	LAP	1.41	LOP	98.79	VP	21.179	GAP	7.96	AZP	92.65	TAL	.27	TAP	152.33	RCA	151.88	APO	246.64
RC	211.443	GL	26.09	GP	-31.35	ZAL	86.58	ZAP	112.57	ETS	196.78	ZAE	139.49	ETE	230.81	ZAC	54.07	ETC	286.34

V1	29.334	V2	23.073	LVI	11.52														

PLANETOCENTRIC CONIC

C3	15.332	VHL	3.916	DLA	36.69	RAL	19.86	RAD	6640.7	VEL	11.635	PTH	6.67	VHP	2.711	DPA	-16.34	RAP	44.68

ECC	1.2523																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 16 5	3866.18	-45.98	162.86	265.90	76.12	10 20 31	2866.2	-46.24	127.74
60.00	8 41 39	3958.39	-35.37	166.76	261.55	69.27	9 47 37	2958.4	-40.28	136.81
65.58	7 15 16	4210.06	-23.08	180.81	255.00	60.65	8 25 26	3210.1	-33.08	155.98
65.58	7 15 16	4210.06	-23.08	180.81	255.00	60.65	8 25 26	3210.1	-33.08	155.98
65.58	7 15 16	4210.06	-23.08	180.81	255.00	60.65	8 25 26	3210.1	-33.08	155.98
65.58	7 15 16	4210.06	-23.08	180.81	255.00	60.65	8 25 26	3210.1	-33.08	155.98
65.58	7 15 16	4210.06	-23.08	180.81	255.00	60.65	8 25 26	3210.1	-33.08	155.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0963	TRA	-.4893	TC3	-.5320	BAU	.7384	SGT	995.3	SGR	3092.5	SG3	1640.3	ST	15.1	SR	62.0	SS	112.6
RDE	.8388	RRA	.2858	RC3	-3.5629	FAU	.36716	RRT	.1702	RRF	.9918	RTF	.1811	CRT	-.5691	CRS	-.9982	CST	.5228
FDE	6.5490	FRA	1.2229	FC	-20.7319	BSP	5114	SGB	3248.7	R23	.0066	R13	.9918	LSA	128.8	MSA	13.1	SSA	1.1
BDE	.8443	BRA	.5666	BC3	3.6024	FSP	2711	SG1	3097.6	SG2	979.1	THA	86.52	EL1	62.6	EL2	12.3	ALF	98.23

LAUNCH DATE JUL 30 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC DISTANCE 499.310 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.882	GAL	.04	AZL	86.86	HCA	153.02	SMA	199.14	ECC	.23735	INC	3.1430
RP	238.47	LAP	1.43	LOP	99.75	VP	21.134	GAP	7.72	AZP	92.80	TAL	.23	TAP	153.24	RCA	151.88	APO	246.41
RC	214.394	GL	27.21	GP	-32.45	ZAL	86.67	ZAP	110.92	ETS	196.20	ZAE	137.66	ETE	229.36	ZAC	53.16	ETC	286.62

V1	29.334	V2	23.040	LVI	12.43														

PLANETOCENTRIC CONIC

C3	15.544	VHL	3.943	DLA	37.73	RAL	19.33	RAD	6640.8	VEL	11.644	PTH	6.68	VHP	2.710	DPA	-17.59	RAP	44.51

ECC	1.2558																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 5 41	3898.04	-45.42	165.73	266.30	73.97	10 10 39	2898.0	-46.67	130.69
60.00	8 22 9	4014.73	-33.94	170.85	260.99	66.81	9 29 4	3014.7	-40.09	141.59
63.91	7 4 30	4238.58	-23.57	183.43	255.04	59.64	8 15 8	3238.6	-33.93	158.61
63.91	7 4 30	4238.58	-23.57	183.43	255.04	59.64	8 15 8	3238.6	-33.93	158.61
63.91	7 4 30	4238.58	-23.57	183.43	255.04	59.64	8 15 8	3238.6	-33.93	158.61
63.91	7 4 30	4238.58	-23.57	183.43	255.04	59.64	8 15 8	3238.6	-33.93	158.61
63.91	7 4 30	4238.58	-23.57	183.43	255.04	59.64	8 15 8	3238.6	-33.93	158.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0529	TRA	-.4697	TC3	-.6601	BAU	.7812	SGT	1010.8	SGR	3260.6	SG3	1653.1	ST	13.5	SR	69.1	SS	116.7
RDE	.9442	RRA	.2625	RC3	-3.7008	FAU	.36972	RRT	.3025	RRF	.9929	RTF	.1121	CRT	-.3786	CRS	-.9988	CST	.3357
FDE	6.8385	FRA	1.0412	FC	-20.5915	BSP	5220	SGB	3413.7	R23	.0175	R13	.9928	LSA	135.7	MSA	13.0	SSA	1.1
BDE	.9457	BRA	.5381	BC3	3.7592	FSP	2637	SG1	3276.2	SG2	958.8	THA	84.14	EL1	69.3	EL2	12.5	ALF	94.36

LAUNCH DATE JUL 30 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC DISTANCE 503.093 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.877	GAL	.03	AZL	86.71	HCA	153.97	SMA	199.04	ECC	.23696	INC	3.2937
RP	238.79	LAP	1.44	LOP	100.70	VP	21.091	GAP	7.48	AZP	92.96	TAL	.18	TAP	154.15	RCA	151.88	APO	246.21
RC	217.340	GL	28.38	GP	-33.58	ZAL	86.77	ZAP	109.27	ETS	195.58	ZAE	135.80	ETE	227.97	ZAC	52.22	ETC	286.91

V1	29.334	V2	23.008	LVI	13.37														

PLANETOCENTRIC CONIC

C3	15.790	VHL	3.974	DLA	38.82	RAL	18.78	RAD	6640.9	VEL	11.655	PTH	6.69	VHP	2.714	DPA	-18.87	RAP	44.35

ECC	1.2599																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 54 10	3932.85	-44.72	168.79	266.61	71.70	9 59 42	2932.8	-47.06	133.96
60.00	7 57 3	4086.29	-31.90	175.83	259.98	63.94	9 5 10	3086.3	-39.54	147.59
62.22	6 53 57	4266.19	-24.05	186.02	255.11	58.56	8 5 3	3266.2	-34.80	161.23
62.22	6 53 57	4266.19	-24.05	186.02	255.11	58.56	8 5 3	3266.2	-34.80	161.23
62.22	6 53 57	4266.19	-24.05	186.02	255.11	58.56	8 5 3	3266.2	-34.80	161.23
62.22	6 53 57	4266.19	-24.05	186.02	255.11	58.56	8 5 3	3266.2	-34.80	161.23
62.22	6 53 57	4266.19	-24.05	186.02	255.11	58.56	8 5 3	3266.2	-34.80	161.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0059	TRA	-.4447	TC3	-.8066	BAU	.8189	SGT	1043.1	SGR	3389.8	SG3	1638.4	ST	12.4	SR	75.2	SS	118.6
RDE	1.0380	RRA	.2131	RC3	-3.7948	FAU	.36700	RRT	.4585	RRF	.9937	RTF	.4668	CRT	-.0393	CRS	-.9992	CST	.0014
FDE	7.0055	FRA	.7247	FC	-20.1226	BSP	5456	SGB	3546.7	R23	.0279	R13	.9934	LSA	140.4	MSA	12.6	SSA	1.0
BDE	1.0380	BRA	.4931	BC3	3.8796	FSP	2612	SG1	3426.0	SG2	917.2	THA	81.34	EL1	75.2	EL2	12.4	ALF	90.38

LAUNCH DATE JUL 30 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 506.677 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.872	GAL	.02	AZL	86.55	HCA	154.91	SMA	198.95	ECC	.23661	INC	3.4544
RP	239.10	LAP	1.46	LOP	101.65	VP	21.048	GAP	7.24	AZP	93.13	TAL	.12	TAP	155.04	RCA	151.88	APO	246.03
RC	220.278	GL	29.61	GP	-34.73	ZAL	86.89	ZAP	107.64	ETS	194.92	ZAE	133.92	ETE	226.63	ZAC	51.26	ETC	287.22

V1	29.334																		
V2	22.975																		
LVI	14.35																		

PLANETOCENTRIC CONIC

C3	16.072	VHL	4.009	DLA	39.96	RAL	18.18	RAD	6641.0	VEL	11.667	PTH	6.70	VHP	2.723	DPA	-20.17	RAP	44.21
ECC	1.2645																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 41 16	3971.16	-43.85	172.06	266.82	69.30	9 47 27	2971.2	-47.36	137.61
60.00	7 16 42	4199.64	-28.27	183.23	257.73	59.99	8 26 42	3199.6	-37.98	156.81
60.51	6 43 32	4293.09	-24.53	188.61	255.20	57.41	7 55 5	3293.1	-35.69	163.86
60.51	6 43 32	4293.09	-24.53	188.61	255.20	57.41	7 55 5	3293.1	-35.69	163.86
60.51	6 43 32	4293.09	-24.53	188.61	255.20	57.41	7 55 5	3293.1	-35.69	163.86
60.51	6 43 32	4293.09	-24.53	188.61	255.20	57.41	7 55 5	3293.1	-35.69	163.86
60.51	6 43 32	4293.09	-24.53	188.61	255.20	57.41	7 55 5	3293.1	-35.69	163.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0802	TRA	-.3976	TC3	-.9316	BAU	.8649	SGT	1059.9	SGR	3515.9	SG3	1615.0	ST	12.8	SR	78.8	SS	117.0
RDE	1.0998	RRA	.0962	RC3	-3.9160	FAU	.36656	RRT	.6468	RRF	.9944	RTF	.6549	CRT	.4657	CRS	-.9995	CST	-.4913
FDE	6.9534	FRA	.0749	FC	-19.7451	BSP	5365	SGB	3672.2	R23	.0298	R13	.9941	LSA	141.2	MSA	11.4	SSA	.9
BDE	1.1033	BRA	.4091	BC3	4.0253	FSP	2411	SG1	3585.6	SG2	792.6	THA	78.39	EL1	79.0	EL2	11.3	ALF	85.57

LAUNCH DATE JUL 30 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC DISTANCE 510.659 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.868	GAL	.01	AZL	86.37	HCA	155.86	SMA	198.87	ECC	.23630	INC	3.6264
RP	239.42	LAP	1.48	LOP	102.60	VP	21.007	GAP	7.01	AZP	93.31	TAL	.06	TAP	155.92	RCA	151.88	APO	245.86
RC	223.209	GL	30.89	GP	-35.92	ZAL	87.01	ZAP	106.04	ETS	194.22	ZAE	132.02	ETE	225.35	ZAC	50.28	ETC	287.54

V1	29.334																		
V2	22.944																		
LVI	15.35																		

PLANETOCENTRIC CONIC

C3	16.397	VHL	4.049	DLA	41.15	RAL	17.54	RAD	6641.2	VEL	11.681	PTH	6.72	VHP	2.737	DPA	-21.50	RAP	44.10
ECC	1.2699																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 26 39	4013.77	-42.76	175.58	266.85	66.77	9 33 32	3013.8	-47.54	141.72
58.77	6 33 13	4319.42	-25.00	191.20	255.31	56.19	7 45 12	3319.4	-36.60	166.52
58.77	6 33 13	4319.42	-25.00	191.20	255.31	56.19	7 45 12	3319.4	-36.60	166.52
58.77	6 33 13	4319.42	-25.00	191.20	255.31	56.19	7 45 12	3319.4	-36.60	166.52
58.77	6 33 13	4319.42	-25.00	191.20	255.31	56.19	7 45 12	3319.4	-36.60	166.52
58.77	6 33 13	4319.42	-25.00	191.20	255.31	56.19	7 45 12	3319.4	-36.60	166.52
58.77	6 33 13	4319.42	-25.00	191.20	255.31	56.19	7 45 12	3319.4	-36.60	166.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2194	TRA	-.5046	TC3	-1.1078	BAU	.8953	SGT	1341.7	SGR	3548.6	SG3	1525.4	ST	21.1	SR	72.1	SS	102.6
RDE	1.0067	RRA	.3487	RC3	-3.9309	FAU	.35527	RRT	.5622	RRF	.9947	RTF	.5865	CRT	.6396	CRS	-.9987	CST	-.6759
FDE	6.0983	FRA	1.3553	FC	-18.7578	BSP	5108	SGB	3793.8	R23	.0364	R13	.9946	LSA	126.1	MSA	15.9	SSA	.9
BDE	1.0303	BRA	.6134	BC3	4.0840	FSP	2110	SG1	3636.0	SG2	1083.0	THA	76.81	EL1	73.4	EL2	15.9	ALF	78.86

LAUNCH DATE JUL 30 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC DISTANCE 514.427 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.864	GAL	-.00	AZL	86.19	HCA	156.80	SMA	198.80	ECC	.23602	INC	3.8110
RP	239.73	LAP	1.50	LOP	103.54	VP	20.967	GAP	6.77	AZP	93.50	TAL	360.00	TAP	156.80	RCA	151.88	APO	245.72
RC	226.132	GL	32.24	GP	-37.13	ZAL	87.15	ZAP	104.45	ETS	193.48	ZAE	130.11	ETE	224.12	ZAC	49.28	ETC	287.89

V1	29.334																		
V2	22.912																		
LVI	16.38																		

PLANETOCENTRIC CONIC

C3	16.770	VHL	4.095	DLA	42.40	RAL	16.85	RAD	6641.4	VEL	11.696	PTH	6.73	VHP	2.758	DPA	-22.85	RAP	44.01
ECC	1.2760																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 9 43	4061.92	-41.40	179.40	266.62	64.07	9 17 25	3061.9	-47.56	146.37
56.99	6 22 53	4345.36	-25.46	193.81	255.43	54.88	7 35 19	3345.4	-37.53	169.22
56.99	6 22 53	4345.36	-25.46	193.81	255.43	54.88	7 35 19	3345.4	-37.53	169.22
56.99	6 22 53	4345.36	-25.46	193.81	255.43	54.88	7 35 19	3345.4	-37.53	169.22
56.99	6 22 53	4345.36	-25.46	193.81	255.43	54.88	7 35 19	3345.4	-37.53	169.22
56.99	6 22 53	4345.36	-25.46	193.81	255.43	54.88	7 35 19	3345.4	-37.53	169.22
56.99	6 22 53	4345.36	-25.46	193.81	255.43	54.88	7 35 19	3345.4	-37.53	169.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2172	TRA	-.4771	TC3	-1.4562	BAU	.8431	SGT	1527.1	SGR	3471.5	SG3	1426.9	ST	20.4	SR	96.7	SS	124.7
RDE	1.3758	RRA	.2810	RC3	-3.4668	FAU	.29952	RRT	.6584	RRF	.9948	RTF	.6591	CRT	.6691	CRS	-.9995	CST	-.7102
FDE	7.4631	FRA	.9661	FC	-15.4622	BSP	9739	SGB	3792.5	R23	.0910	R13	.9906	LSA	158.4	MSA	14.7	SSA	.8
BDE	1.3928	BRA	.5537	BC3	3.7602	FSP	3980	SG1	3629.7	SG2	1099.3	THA	72.16	EL1	97.7	EL2	14.7	ALF	81.92

LAUNCH DATE JUL 30 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 13 1974

HELIOCENTRIC CONIC DISTANCE 518.219 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.861	GAL	-.01	AZL	85.99	HCA	157.74	SMA	198.73	ECC	.23577	INC	4.0099
RP	240.03	LAP	1.52	LOP	104.48	VP	20.929	GAP	6.54	AZP	93.71	TAL	359.92	TAP	157.66	RCA	151.88	APO	245.59
RC	229.048	GL	33.65	GP	-38.37	ZAL	87.30	ZAP	102.90	ETS	192.71	ZAE	128.20	ETE	222.92	ZAC	48.25	ETC	288.26

V1	29.334																		
V2	22.882																		
LVI	17.45																		

PLANETOCENTRIC CONIC

C3	17.200	VHL	4.147	DLA	43.70	RAL	16.10	RAD	6641.6	VEL	11.715	PTH	6.75	VHP	2.765	DPA	-24.23	RAP	43.96
ECC	1.2831																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 49 34	4117.70	-39.65	183.60	266.01	61.19	8 58 12	3117.7	-47.32	151.75
55.18	6 12 33	4370.95	-25.90	196.44	255.58	53.48	7 25 24	3370.9	-38.47	171.98
55.18	6 12 33	4370.95	-25.90	196.44	255.58	53.48	7 25 24	3370.9	-38.47	171.98
55.18	6 12 33	4370.95	-25.90	196.44	255.58	53.48	7 25 24	3370.9	-38.47	171.98
55.18	6 12 33	4370.95	-25.90	196.44	255.58	53.48	7 25 24	3370.9	-38.47	171.98
55.18	6 12 33	4370.95	-25.90	196.44	255.58	53.48	7 25 24	3370.9	-38.47	171.98
55.18	6 12 33	4370.95	-25.90	196.44	255.58	53.48	7 25 24	3370.9	-38.47	171.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2852	TRA	-.4694	TC3	-1.4312	BAU	.9506	SGT	1539.1	SGR	3891.4	SG3	1501.5	ST	23.9	SR	107.6	SS	129.5
RDE	1.5533	RRA	.2279	RC3	-3.8782	FAU	.32562	RRT	.7135	RRF	.9961	RTF	.7181	CRT	.7903	CRS	-.9997	CST	-.8048
FDE	7.7792	FRA	.6798	FC	-16.3895	BSP	7516	SGB	4184.7	R23	.0665	R13	.9939	LSA	169.4	MSA	14.4	SSA	.7
BDE	1.5793	BRA	.5218	BC3	4.1339	FSP	2837	SG1	4054.7	SG2	1034.9	THA	73.11	EL1	109.3	EL2	14.4	ALF	79.86

LAUNCH DATE JUL 30 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 15 1974

HELIOCENTRIC CONIC DISTANCE 522.005 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.858	GAL	-.03	AZL	85.78	HCA	158.68	SMA	198.68	ECC	.23556	INC	4.2248
RP	240.34	LAP	1.54	LOP	105.42	VP	20.891	GAP	6.30	AZP	93.94	TAL	359.84	TAP	158.52	RCA	151.88	APO	245.48
RC	231.985	GL	35.13	GP	-39.64	ZAL	87.45	ZAP	101.39	ETS	191.89	ZAE	126.28	ETE	221.76	ZAC	47.19	ETC	288.65

V1 29.334
V2 22.851
LVI 18.56

PLANETOCENTRIC CONIC

C3	17.695	VHL	4.207	DLA	45.06	RAL	15.27	RAD	6641.8	VEL	11.736	PTH	6.77	VHP	2.819	DPA	-25.63	RAP	43.94

ECC 1.2912

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 24 21	4185.34	-37.32	188.40	264.76	58.03	8 34 6	3185.3	-46.67	158.15
53.32	6 2 4	4396.44	-26.31	199.11	255.72	51.99	7 15 20	3396.4	-39.42	174.82
53.32	6 2 4	4396.44	-26.31	199.11	255.72	51.99	7 15 20	3396.4	-39.42	174.82
53.32	6 2 4	4396.44	-26.31	199.11	255.72	51.99	7 15 20	3396.4	-39.42	174.82
53.32	6 2 4	4396.44	-26.31	199.11	255.72	51.99	7 15 20	3396.4	-39.42	174.82
53.32	6 2 4	4396.44	-26.31	199.11	255.72	51.99	7 15 20	3396.4	-39.42	174.82
53.32	6 2 4	4396.44	-26.31	199.11	255.72	51.99	7 15 20	3396.4	-39.42	174.82

DIFFERENTIAL CORRECTIONS

TDE	.3784	TRA	-.4661	TC3	-1.5149	BAU	1.0179				
RDE	1.6860	RRA	.1927	RC3	-4.0271	FAU	.32656				
FDE	7.8142	FRA	.4978	FC	-15.9766	BSP	7818				
BDE	1.7280	BRA	.5044	BC3	4.3026	FSP	2744				

MID-COURSE EXECUTION ACCURACY

SGT	1642.5	SGR	4109.8	SG3	1483.6				
RRT	.7655	RRF	.9967	RTF	.7713				
SGB	4425.9	R23	.0628	R13	.9948				
SG1	4309.6	SG2	1007.8	THA	71.97				

ORBIT DETERMINATION ACCURACY

ST	29.1	SR	115.1	SS	129.8				
CRT	.8627	CRS	-.9998	CST	-.8732				
LSA	175.3	MSA	14.4	SSA	.7				
EL1	117.8	EL2	14.4	ALF	77.46				

LAUNCH DATE JUL 30 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 17 1974

HELIOCENTRIC CONIC DISTANCE 525.786 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.856	GAL	-.05	AZL	85.54	HCA	159.61	SMA	198.63	ECC	.23538	INC	4.4578
RP	240.63	LAP	1.55	LOP	106.36	VP	20.854	GAP	6.07	AZP	94.18	TAL	359.76	TAP	159.37	RCA	151.88	APO	245.38
RC	234.852	GL	36.69	GP	-40.94	ZAL	87.62	ZAP	99.91	ETS	191.04	ZAE	124.38	ETE	220.62	ZAC	46.11	ETC	289.06

V1 29.334
V2 22.821
LVI 19.69

PLANETOCENTRIC CONIC

C3	16.268	VHL	4.274	DLA	46.49	RAL	14.36	RAD	6642.1	VEL	11.760	PTH	6.79	VHP	2.861	DPA	-27.05	RAP	43.97

ECC 1.3006

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 48 52	4277.14	-33.84	194.40	262.25	54.31	8 0 9	3277.1	-45.19	166.50
51.42	5 51 25	4421.85	-26.69	201.82	255.87	50.40	7 5 7	3421.8	-40.37	177.77
51.42	5 51 25	4421.85	-26.69	201.82	255.87	50.40	7 5 7	3421.8	-40.37	177.77
51.42	5 51 25	4421.85	-26.69	201.82	255.87	50.40	7 5 7	3421.8	-40.37	177.77
51.42	5 51 25	4421.85	-26.69	201.82	255.87	50.40	7 5 7	3421.8	-40.37	177.77
51.42	5 51 25	4421.85	-26.69	201.82	255.87	50.40	7 5 7	3421.8	-40.37	177.77
51.42	5 51 25	4421.85	-26.69	201.82	255.87	50.40	7 5 7	3421.8	-40.37	177.77

DIFFERENTIAL CORRECTIONS

TDE	.4793	TRA	-.4713	TC3	-1.6076	BAU	1.0732				
RDE	1.8349	RRA	.1632	RC3	-4.0898	FAU	.31958				
FDE	7.8417	FRA	.3573	FC	-15.1455	BSP	7877				
BDE	1.8965	BRA	.4988	BC3	4.3944	FSP	2549				

MID-COURSE EXECUTION ACCURACY

SGT	1773.0	SGR	4286.4	SG3	1442.1				
RRT	.8017	RRF	.9971	RTF	.8078				
SGB	4638.6	R23	.0632	R13	.9952				
SG1	4528.9	SG2	1003.0	THA	70.67				

ORBIT DETERMINATION ACCURACY

ST	35.0	SR	123.2	SS	130.1				
CRT	.9033	CRS	-.9998	CST	-.9111				
LSA	181.9	MSA	14.6	SSA	.6				
EL1	127.2	EL2	14.5	ALF	75.41				

LAUNCH DATE JUL 30 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 19 1974

HELIOCENTRIC CONIC DISTANCE 529.566 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.854	GAL	-.06	AZL	85.29	HCA	160.54	SMA	198.59	ECC	.23522	INC	4.7116
RP	240.93	LAP	1.57	LOP	107.30	VP	20.819	GAP	5.84	AZP	94.44	TAL	359.67	TAP	160.21	RCA	151.88	APO	245.30
RC	237.739	GL	38.33	GP	-42.27	ZAL	87.79	ZAP	98.48	ETS	190.16	ZAE	122.48	ETE	219.51	ZAC	44.99	ETC	289.51

V1 29.334
V2 22.792
LVI 20.87

PLANETOCENTRIC CONIC

C3	18.932	VHL	4.351	DLA	47.99	RAL	13.34	RAD	6642.4	VEL	11.788	PTH	6.81	VHP	2.912	DPA	-28.49	RAP	44.04

ECC 1.3116

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.47	5 40 29	4447.40	-27.02	204.59	256.01	48.70	6 54 36	3447.4	-41.31	180.83
49.47	5 40 29	4447.40	-27.02	204.59	256.01	48.70	6 54 36	3447.4	-41.31	180.83
49.47	5 40 29	4447.40	-27.02	204.59	256.01	48.70	6 54 36	3447.4	-41.31	180.83
49.47	5 40 29	4447.40	-27.02	204.59	256.01	48.70	6 54 36	3447.4	-41.31	180.83
49.47	5 40 29	4447.40	-27.02	204.59	256.01	48.70	6 54 36	3447.4	-41.31	180.83
49.47	5 40 29	4447.40	-27.02	204.59	256.01	48.70	6 54 36	3447.4	-41.31	180.83
49.47	5 40 29	4447.40	-27.02	204.59	256.01	48.70	6 54 36	3447.4	-41.31	180.83

DIFFERENTIAL CORRECTIONS

TDE	.5874	TRA	-.4795	TC3	-1.7074	BAU	1.1221				
RDE	2.0122	RRA	.1243	RC3	-4.0912	FAU	.30752				
FDE	7.8936	FRA	.1988	FC	-14.0627	BSP	8173				
BDE	2.0962	BRA	.4954	BC3	4.4332	FSP	2432				

MID-COURSE EXECUTION ACCURACY

SGT	1922.5	SGR	4444.8	SG3	1387.7				
RRT	.8319	RRF	.9975	RTF	.8373				
SGB	4842.7	R23	.0661	R13	.9954				
SG1	4738.2	SG2	1000.8	THA	69.24				

ORBIT DETERMINATION ACCURACY

ST	41.2	SR	132.6	SS	130.8				
CRT	.9293	CRS	-.9999	CST	-.9351				
LSA	190.2	MSA	14.7	SSA	.5				
EL1	138.1	EL2	14.6	ALF	73.70				

LAUNCH DATE JUL 30 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 21 1974

HELIOCENTRIC CONIC DISTANCE 533.346 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.852	GAL	-.08	AZL	85.01	HCA	161.47	SMA	198.56	ECC	.23510	INC	4.9892
RP	241.22	LAP	1.58	LOP	108.23	VP	20.784	GAP	5.61	AZP	94.73	TAL	359.57	TAP	161.04	RCA	151.88	APO	245.24
RC	240.615	GL	40.06	GP	-43.63	ZAL	87.97	ZAP	97.11	ETS	189.23	ZAE	120.59	ETE	218.42	ZAC	43.85	ETC	289.99

V1 29.334
V2 22.763
LVI 22.08

PLANETOCENTRIC CONIC

C3	19.706	VHL	4.439	DLA	49.55	RAL	12.19	RAD	6642.7	VEL	11.820	PTH	6.84	VHP	2.971	DPA	-29.94	RAP	44.17

ECC 1.3243

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.45	5 29 12	4473.19	-27.29	207.42	256.12	46.89	6 43 45	3473.2	-42.23	184.04
47.45	5 29 12	4473.19	-27.29	207.42	256.12	46.89	6 43 45	3473.2	-42.23	184.04
47.45	5 29 12	4473.19	-27.29	207.42	256.12	46.89	6 43 45	3473.2	-42.23	184.04
47.45	5 29 12	4473.19	-27.29	207.42	256.12	46.89	6 43 45	3473.2	-42.23	184.04
47.45	5 29 12	4473.19	-27.29	207.42	256.12	46.89	6 43 45	3473.2	-42.23	184.04
47.45	5 29 12	4473.19	-27.29	207.42	256.12	46.89	6 43 45	3473.2	-42.23	184.04
47.45	5 29 12	4473.19	-27.29	207.42	256.12	46.89	6 43 45	3473.2	-42.23	184.04

DIFFERENTIAL CORRECTIONS

TDE	.7070	TRA	-.4912	TC3	-1.7934	BAU	1.1693				
RDE	2.2068	RRA	.0751	RC3	-4.0600	FAU	.29315				
FDE	7.9118	FRA	.0261	FC	-12.8790	BSP	8703				
BDE	2.3173	BRA	.4969	BC3	4.4384	FSP	2379				

MID-COURSE EXECUTION ACCURACY

SGT	2079.1	SGR	4596.5	SG3	1324.6				
RRT	.8572	RRF	.9978	RTF	.8619				
SGB	5044.8	R23	.0686	R13	.9955				
SG1	4945.7	SG2	995.0	THA	67.86				

ORBIT DETERMINATION ACCURACY

ST	48.0	SR	142.5	SS	131.2				
CRT	.9472	CRS	-.9999	CST	-.9516				
LSA	199.0	MSA	14.8	SSA	.5				
EL1	149.7	EL2	14.7	ALF	72.14				

LAUNCH DATE JUL 30 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 23 1974

HELIOCENTRIC CONIC DISTANCE 537.124 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.851	GAL	-.10	AZL	84.71	HCA	162.40	SMA	198.53	ECC	.23800	INC	5.2942	V1	29.334
RP	241.50	LAP	1.60	LOP	109.16	VP	20.751	GAP	5.38	AZP	95.05	TAL	359.47	TAP	161.86	RCA	151.88	APO	245.19	V2	22.734
RC	243.479	GL	41.89	GP	-45.02	ZAL	88.16	ZAP	95.79	ETS	188.28	ZAE	118.73	ETE	217.35	ZAC	42.68	ETC	290.51	LVI	23.33

PLANETOCENTRIC CONIC

C3	20.612	VHL	4.540	DLA	51.18	RAL	10.89	RAD	6643.1	VEL	11.858	PTH	6.87	VHP	3.042	DPA	-31.42	RAP	44.35	ECC	1.3392

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.39	5 17 25	4499.39	-27.48	210.31	256.17	44.96	6 32 25	3499.4	-43.12	187.42
45.39	5 17 25	4499.39	-27.48	210.31	256.17	44.96	6 32 25	3499.4	-43.12	187.42
45.39	5 17 25	4499.39	-27.48	210.31	256.17	44.96	6 32 25	3499.4	-43.12	187.42
45.39	5 17 25	4499.39	-27.48	210.31	256.17	44.96	6 32 25	3499.4	-43.12	187.42
45.39	5 17 25	4499.39	-27.48	210.31	256.17	44.96	6 32 25	3499.4	-43.12	187.42
45.39	5 17 25	4499.39	-27.48	210.31	256.17	44.96	6 32 25	3499.4	-43.12	187.42
45.39	5 17 25	4499.39	-27.48	210.31	256.17	44.96	6 32 25	3499.4	-43.12	187.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8374	TRA	-.5068	TC3	-1.8575	BAU	1.2281	SGT	2236.6	SGR	4763.8	SG3	1259.1	ST	55.1	SR	151.9	SS	130.2		
RDE	2.4055	RRA	.0178	RC3	-4.0430	FAU	.28025	RRT	.8788	RRF	.9980	RTF	.8833	CRT	.9596	CRS	-.9999	CST	-.9629		
FDE	7.8458	FRA	-.1454	FC	-11.7710	BSP	8948	SGB	5262.8	R23	.0685	R13	.9958	LSA	207.0	MSA	14.8	SSA	.4		
BDE	2.5471	BRA	.5071	BC3	4.4493	FSP	2221	SG1	5170.0	SG2	983.5	THA	66.69	EL1	160.9	EL2	14.6	ALF	70.65		

LAUNCH DATE JUL 30 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 25 1974

HELIOCENTRIC CONIC DISTANCE 540.901 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.850	GAL	-.12	AZL	84.37	HCA	163.32	SMA	198.51	ECC	.23493	INC	5.8311	V1	29.334
RP	241.78	LAP	1.61	LOP	110.09	VP	20.719	GAP	5.15	AZP	95.40	TAL	359.36	TAP	162.68	RCA	151.88	APO	245.15	V2	22.706
RC	246.330	GL	43.81	GP	-46.45	ZAL	88.35	ZAP	94.53	ETS	187.29	ZAE	116.89	ETE	216.30	ZAC	41.48	ETC	291.07	LVI	24.62

PLANETOCENTRIC CONIC

C3	21.680	VHL	4.656	DLA	52.88	RAL	9.41	RAD	6643.6	VEL	11.903	PTH	6.91	VHP	3.124	DPA	-32.90	RAP	44.61	ECC	1.3568

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.26	5 5 2	4526.19	-27.57	213.28	256.14	42.91	6 20 28	3526.2	-43.94	190.98
43.26	5 5 2	4526.19	-27.57	213.28	256.14	42.91	6 20 28	3526.2	-43.94	190.98
43.26	5 5 2	4526.19	-27.57	213.28	256.14	42.91	6 20 28	3526.2	-43.94	190.98
43.26	5 5 2	4526.19	-27.57	213.28	256.14	42.91	6 20 28	3526.2	-43.94	190.98
43.26	5 5 2	4526.19	-27.57	213.28	256.14	42.91	6 20 28	3526.2	-43.94	190.98
43.26	5 5 2	4526.19	-27.57	213.28	256.14	42.91	6 20 28	3526.2	-43.94	190.98
43.26	5 5 2	4526.19	-27.57	213.28	256.14	42.91	6 20 28	3526.2	-43.94	190.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9784	TRA	-.5294	TC3	-1.9122	BAU	1.2789	SGT	2405.3	SGR	4914.5	SG3	1183.3	ST	62.4	SR	161.6	SS	128.6		
RDE	2.6246	RRA	-.0484	RC3	-3.9764	FAU	.26410	RRT	.8958	RRF	.9983	RTF	.8998	CRT	.9680	CRS	-.9999	CST	-.9707		
FDE	7.7404	FRA	-.3117	FC	-10.5463	BSP	9236	SGB	5471.6	R23	.0698	R13	.9959	LSA	215.3	MSA	14.8	SSA	.4		
BDE	2.8011	BRA	.5316	BC3	4.4123	FSP	2070	SG1	5383.8	SG2	976.1	THA	65.47	EL1	172.6	EL2	14.7	ALF	69.35		

LAUNCH DATE JUL 30 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 27 1974

HELIOCENTRIC CONIC DISTANCE 544.677 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.849	GAL	-.14	AZL	83.99	HCA	164.24	SMA	198.50	ECC	.23488	INC	6.0052	V1	29.334
RP	242.06	LAP	1.63	LOP	111.02	VP	20.687	GAP	4.92	AZP	95.78	TAL	359.25	TAP	163.49	RCA	151.88	APO	245.12	V2	22.679
RC	249.167	GL	45.84	GP	-47.90	ZAL	88.54	ZAP	93.35	ETS	186.28	ZAE	115.09	ETE	215.26	ZAC	40.25	ETC	291.68	LVI	25.95

PLANETOCENTRIC CONIC

C3	22.948	VHL	4.790	DLA	54.64	RAL	7.70	RAD	6644.1	VEL	11.956	PTH	6.96	VHP	3.221	DPA	-34.40	RAP	44.93	ECC	1.3777

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.08	4 51 51	4553.80	-27.55	216.31	255.98	40.74	6 7 45	3553.8	-44.67	194.74
41.08	4 51 51	4553.80	-27.55	216.31	255.98	40.74	6 7 45	3553.8	-44.67	194.74
41.08	4 51 51	4553.80	-27.55	216.31	255.98	40.74	6 7 45	3553.8	-44.67	194.74
41.08	4 51 51	4553.80	-27.55	216.31	255.98	40.74	6 7 45	3553.8	-44.67	194.74
41.08	4 51 51	4553.80	-27.55	216.31	255.98	40.74	6 7 45	3553.8	-44.67	194.74
41.08	4 51 51	4553.80	-27.55	216.31	255.98	40.74	6 7 45	3553.8	-44.67	194.74
41.08	4 51 51	4553.80	-27.55	216.31	255.98	40.74	6 7 45	3553.8	-44.67	194.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1309	TRA	-.5589	TC3	-1.9438	BAU	1.3364	SGT	2575.3	SGR	5072.1	SG3	1103.8	ST	69.9	SR	171.3	SS	126.3		
RDE	2.8623	RRA	-.1138	RC3	-3.8985	FAU	.24774	RRT	.9078	RRF	.9985	RTF	.9016	CRT	.9736	CRS	-.9999	CST	-.9757		
FDE	7.5795	FRA	-.4417	FC	-9.3465	BSP	9686	SGB	5688.4	R23	.0707	R13	.9960	LSA	223.5	MSA	15.0	SSA	.4		
BDE	3.0776	BRA	.5704	BC3	4.3562	FSP	1951	SG1	5603.8	SG2	977.6	THA	64.42	EL1	184.4	EL2	14.8	ALF	68.19		

LAUNCH DATE JUL 30 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 29 1974

HELIOCENTRIC CONIC DISTANCE 548.450 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.849	GAL	-.17	AZL	83.58	HCA	165.16	SMA	198.49	ECC	.23486	INC	6.4238	V1	29.334
RP	242.33	LAP	1.64	LOP	111.94	VP	20.657	GAP	4.70	AZP	96.21	TAL	359.13	TAP	164.29	RCA	151.88	APO	245.11	V2	22.652
RC	251.989	GL	47.99	GP	-49.39	ZAL	88.73	ZAP	92.24	ETS	185.25	ZAE	113.32	ETE	214.24	ZAC	38.98	ETC	292.35	LVI	27.32

PLANETOCENTRIC CONIC

C3	24.465	VHL	4.946	DLA	56.48	RAL	5.70	RAD	6644.8	VEL	12.018	PTH	7.01	VHP	3.334	DPA	-35.91	RAP	45.34	ECC	1.4026

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.84	4 37 40	4582.40	-27.38	219.40	255.64	38.46	5 54 2	3582.4	-45.29	198.72
38.84	4 37 40	4582.40	-27.38	219.40	255.64	38.46	5 54 2	3582.4	-45.29	198.72
38.84	4 37 40	4582.40	-27.38	219.40	255.64	38.46	5 54 2	3582.4	-45.29	198.72
38.84	4 37 40	4582.40	-27.38	219.40	255.64	38.46	5 54 2	3582.4	-45.29	198.72
38.84	4 37 40	4582.40	-27.38	219.40	255.64	38.46	5 54 2	3582.4	-45.29	198.72
38.84	4 37 40	4582.40	-27.38	219.40	255.64	38.46	5 54 2	3582.4	-45.29	198.72
38.84	4 37 40	4582.40	-27.38	219.40	255.64	38.46	5 54 2	3582.4	-45.29	198.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2945	TRA	-.5941	TC3	-1.9560	BAU	1.3892	SGT	2746.8	SGR	5203.3	SG3	1014.3	ST	77.3	SR	180.5	SS	122.6		
RDE	3.1126	RRA	-.1938	RC3	-3.7701	FAU	.22864	RRT	.9186	RRF	.9986	RTF	.9221	CRT	.9779	CRS	-1.0000	CST	-.9797		
FDE	7.3408	FRA	-.5726	FC	-8.0909	BSP	10030	SGB	5883.8	R23	.0718	R13	.9961	LSA	231.0	MSA	15.1	SSA	.3		
BDE	3.3710	BRA	.6249	BC3	4.2473	FSP	1796	SG1	5802.8	SG2	973.3	THA	63.32	EL1	195.8	EL2	14.9	ALF	67.13		

LAUNCH DATE JUL 30 1973 FLIGHT TIME 244.00 ARRIVAL DATE MAR 31 1974

HELIOCENTRIC CONIC DISTANCE 552.221 EARTH TO MARS

RL 151.88 LAL .00 LOL 306.69 VL 32.849 GAL -.19 AZL 83.11 HCA 166.07 SMA 198.49 ECC .23485 INC 6.8947 V1 29.334
RP 242.60 LAP 1.66 LOP 112.86 VP 20.628 GAP 4.47 AZP 96.69 TAL 359.01 TAP 165.08 RCA 151.87 APO 245.11 V2 22.625
RC 254.795 GL 50.26 GP -50.91 ZAL 88.92 ZAP 91.21 ETS 184.20 ZAE 111.60 ETE 213.24 ZAC 37.68 ETC 293.08 LVI 28.73

PLANETOCENTRIC CONIC

C3 26.299 VHL 5.128 DLA 58.36 RAL 3.35 RAD 6645.5 VEL 12.094 PTH 7.07 VHP 3.467 DPA -37.43 RAP 45.84 ECC 1.4328

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.56	4 22 12	4612.30	-27.04	222.55	255.04	36.08	5 39 4	3612.3	-45.74	202.91
36.56	4 22 12	4612.30	-27.04	222.55	255.04	36.08	5 39 4	3612.3	-45.74	202.91
36.56	4 22 12	4612.30	-27.04	222.55	255.04	36.08	5 39 4	3612.3	-45.74	202.91
36.56	4 22 12	4612.30	-27.04	222.55	255.04	36.08	5 39 4	3612.3	-45.74	202.91
36.56	4 22 12	4612.30	-27.04	222.55	255.04	36.08	5 39 4	3612.3	-45.74	202.91
36.56	4 22 12	4612.30	-27.04	222.55	255.04	36.08	5 39 4	3612.3	-45.74	202.91
36.56	4 22 12	4612.30	-27.04	222.55	255.04	36.08	5 39 4	3612.3	-45.74	202.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.4650 TRA -.6397 TC3-1.9467 BAU 1.4518 SGT 2919.4 SGR 5359.2 SG3 926.3 ST 84.4 SR 189.7 SS 118.2
RDE 3.3900 RRA -.3067 RC3-3.6414 FAU .21035 RRT .9298 RRF .9987 RTF .9330 CRT .9814 CRS-1.0000 CST -.9828
FDE 7.0511 FRA -.7320 FC3-6.9245 BSP 10287 SGB 6102.7 R23 .0707 R13 .9963 LSA 238.5 MSA 15.0 SSA .3
BDE 3.6930 BRA .7095 BC3 4.1291 FSP 1619 SG1 6027.5 SG2 955.5 THA 62.39 EL1 207.1 EL2 14.8 ALF 66.28

LAUNCH DATE JUL 30 1973 FLIGHT TIME 246.00 ARRIVAL DATE APR 2 1974

HELIOCENTRIC CONIC DISTANCE 555.990 EARTH TO MARS

RL 151.88 LAL .00 LOL 306.69 VL 32.849 GAL -.21 AZL 82.57 HCA 166.98 SMA 198.49 ECC .23487 INC 7.4293 V1 29.334
RP 242.86 LAP 1.67 LOP 113.78 VP 20.599 GAP 4.25 AZP 97.24 TAL 358.88 TAP 165.87 RCA 151.87 APO 245.12 V2 22.599
RC 257.584 GL 52.66 GP -52.46 ZAL 89.11 ZAP 90.27 ETS 183.15 ZAE 109.93 ETE 212.26 ZAC 36.36 ETC 293.88 LVI 30.17

PLANETOCENTRIC CONIC

C3 28.540 VHL 5.342 DLA 60.30 RAL .54 RAD 6646.4 VEL 12.185 PTH 7.15 VHP 3.623 DPA -38.94 RAP 46.43 ECC 1.4697

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.23	4 5 4	4643.83	-26.48	225.72	254.05	33.61	5 22 28	3643.8	-45.98	207.31
34.23	4 5 4	4643.83	-26.48	225.72	254.05	33.61	5 22 28	3643.8	-45.98	207.31
34.23	4 5 4	4643.83	-26.48	225.72	254.05	33.61	5 22 28	3643.8	-45.98	207.31
34.23	4 5 4	4643.83	-26.48	225.72	254.05	33.61	5 22 28	3643.8	-45.98	207.31
34.23	4 5 4	4643.83	-26.48	225.72	254.05	33.61	5 22 28	3643.8	-45.98	207.31
34.23	4 5 4	4643.83	-26.48	225.72	254.05	33.61	5 22 28	3643.8	-45.98	207.31
34.23	4 5 4	4643.83	-26.48	225.72	254.05	33.61	5 22 28	3643.8	-45.98	207.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.6395 TRA -.6953 TC3-1.9141 BAU 1.5133 SGT 3088.7 SGR 5493.8 SG3 831.6 ST 90.8 SR 197.7 SS 112.3
RDE 3.6762 RRA -.4285 RC3-3.4738 FAU .19044 RRT .9382 RRF .9988 RTF .9411 CRT .9837 CRS-1.0000 CST -.9849
FDE 6.6664 FRA -.8539 FC3-5.7770 BSP 10712 SGB 6302.5 R23 .0702 R13 .9964 LSA 244.4 MSA 15.1 SSA .3
BDE 4.0252 BRA .8168 BC3 3.9662 FSP 1470 SG1 6231.6 SG2 942.5 THA 61.48 EL1 217.1 EL2 14.9 ALF 65.56

LAUNCH DATE JUL 30 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 4 1974

HELIOCENTRIC CONIC DISTANCE 559.756 EARTH TO MARS

RL 151.88 LAL .00 LOL 306.69 VL 32.849 GAL -.24 AZL 81.96 HCA 167.89 SMA 198.50 ECC .23492 INC 8.0415 V1 29.334
RP 243.12 LAP 1.68 LOP 114.70 VP 20.572 GAP 4.02 AZP 97.87 TAL 358.76 TAP 166.65 RCA 151.87 APO 245.14 V2 22.573
RC 260.356 GL 55.21 GP -54.03 ZAL 89.30 ZAP 89.43 ETS 182.11 ZAE 108.32 ETE 211.30 ZAC 35.01 ETC 294.77 LVI 31.65

PLANETOCENTRIC CONIC

C3 31.312 VHL 5.596 DLA 62.27 RAL 357.17 RAD 6647.5 VEL 12.298 PTH 7.23 VHP 3.808 DPA -40.49 RAP 47.13 ECC 1.5153

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.90	3 45 52	4677.20	-25.67	228.89	252.55	31.08	5 3 50	3677.2	-45.96	211.86
31.90	3 45 52	4677.20	-25.67	228.89	252.55	31.08	5 3 50	3677.2	-45.96	211.86
31.90	3 45 52	4677.20	-25.67	228.89	252.55	31.08	5 3 50	3677.2	-45.96	211.86
31.90	3 45 52	4677.20	-25.67	228.89	252.55	31.08	5 3 50	3677.2	-45.96	211.86
31.90	3 45 52	4677.20	-25.67	228.89	252.55	31.08	5 3 50	3677.2	-45.96	211.86
31.90	3 45 52	4677.20	-25.67	228.89	252.55	31.08	5 3 50	3677.2	-45.96	211.86
31.90	3 45 52	4677.20	-25.67	228.89	252.55	31.08	5 3 50	3677.2	-45.96	211.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.8115 TRA -.7621 TC3-1.8561 BAU 1.5802 SGT 3250.8 SGR 5633.0 SG3 735.9 ST 96.1 SR 204.8 SS 108.1
RDE 3.9826 RRA -.5695 RC3-3.2869 FAU .17029 RRT .9451 RRF .9989 RTF .9478 CRT .9851 CRS-1.0000 CST -.9862
FDE 6.2085 FRA -.9306 FC3-4.7083 BSP 11026 SGB 6503.7 R23 .0691 R13 .9966 LSA 249.0 MSA 15.2 SSA .2
BDE 4.3753 BRA .9514 BC3 3.7747 FSP 1297 SG1 6437.0 SG2 929.6 THA 60.72 EL1 225.8 EL2 15.0 ALF 65.07

LAUNCH DATE JUL 30 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 6 1974

HELIOCENTRIC CONIC DISTANCE 563.519 EARTH TO MARS

RL 151.88 LAL .00 LOL 306.69 VL 32.850 GAL -.26 AZL 81.25 HCA 168.80 SMA 198.52 ECC .23498 INC 8.7498 V1 29.334
RP 243.37 LAP 1.69 LOP 115.62 VP 20.545 GAP 3.80 AZP 98.59 TAL 358.63 TAP 167.42 RCA 151.87 APO 245.16 V2 22.548
RC 263.112 GL 57.91 GP -55.62 ZAL 89.47 ZAP 88.69 ETS 181.08 ZAE 106.79 ETE 210.38 ZAC 33.63 ETC 295.75 LVI 33.15

PLANETOCENTRIC CONIC

C3 34.794 VHL 5.899 DLA 64.24 RAL 353.05 RAD 6648.8 VEL 12.438 PTH 7.34 VHP 4.027 DPA -41.94 RAP 47.94 ECC 1.5726

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.58	3 23 56	4712.92	-24.56	232.01	250.32	28.55	4 42 29	3712.9	-45.59	216.49
29.58	3 23 56	4712.92	-24.56	232.01	250.32	28.55	4 42 29	3712.9	-45.59	216.49
29.58	3 23 56	4712.92	-24.56	232.01	250.32	28.55	4 42 29	3712.9	-45.59	216.49
29.58	3 23 56	4712.92	-24.56	232.01	250.32	28.55	4 42 29	3712.9	-45.59	216.49
29.58	3 23 56	4712.92	-24.56	232.01	250.32	28.55	4 42 29	3712.9	-45.59	216.49
29.58	3 23 56	4712.92	-24.56	232.01	250.32	28.55	4 42 29	3712.9	-45.59	216.49
29.58	3 23 56	4712.92	-24.56	232.01	250.32	28.55	4 42 29	3712.9	-45.59	216.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.9643 TRA -.8437 TC3-1.7754 BAU 1.6476 SGT 3403.3 SGR 5760.9 SG3 638.3 ST 99.6 SR 210.1 SS 96.4
RDE 4.2950 RRA -.7365 RC3-3.0649 FAU .14907 RRT .9506 RRF .9989 RTF .9529 CRT .9855 CRS-1.0000 CST -.9865
FDE 5.6587 FRA-1.0218 FC3-3.7092 BSP 11353 SGB 6691.0 R23 .0686 R13 .9966 LSA 251.2 MSA 15.4 SSA .2
BDE 4.7228 BRA 1.1200 BC3 3.5420 FSP 1126 SG1 6627.7 SG2 918.7 THA 60.05 EL1 232.0 EL2 15.3 ALF 64.85

LAUNCH DATE JUL 30 1973 FLIGHT TIME 252.00 ARRIVAL DATE APR 8 1974

HELIOCENTRIC CONIC DISTANCE 567.277 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.851	GAL	-.29	AZL	80.42	HCA	169.70	SMA	198.54	ECC	.23506	INC	9.5789	V1	29.334
RP	243.62	LAP	1.71	LOP	116.53	VP	20.520	GAP	3.57	AZP	99.43	TAL	358.49	TAP	168.19	RCA	151.87	APO	245.20	V2	22.523
RC	265.850	GL	60.77	GP	-57.22	ZAL	89.63	ZAP	88.05	ETS	180.09	ZAE	105.34	ETE	209.50	ZAC	32.24	ETC	296.82	LVI	34.68

PLANETOCENTRIC CONIC

C3	39.241	VHL	6.264	DLA	66.16	RAL	347.98	RAD	6650.4	VEL	12.614	PTH	7.47	VHP	4.291	DPA	-43.40	RAP	48.87	ECC	1.6458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.32	2 58 32	4751.32	-23.12	235.02	247.11	26.07	4 17 43	3751.3	-44.83	221.09
27.32	2 58 32	4751.32	-23.12	235.02	247.11	26.07	4 17 43	3751.3	-44.83	221.09
27.32	2 58 32	4751.32	-23.12	235.02	247.11	26.07	4 17 43	3751.3	-44.83	221.09
27.32	2 58 32	4751.32	-23.12	235.02	247.11	26.07	4 17 43	3751.3	-44.83	221.09
27.32	2 58 32	4751.32	-23.12	235.02	247.11	26.07	4 17 43	3751.3	-44.83	221.09
27.32	2 58 32	4751.32	-23.12	235.02	247.11	26.07	4 17 43	3751.3	-44.83	221.09
27.32	2 58 32	4751.32	-23.12	235.02	247.11	26.07	4 17 43	3751.3	-44.83	221.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.0735	TRA	-.9419	TC3	-1.6703	BAU	1.7233	SGT	3538.2	SGR	5906.1	SG3	543.1	ST	100.1	SR	212.7	SS	86.0
RDE	4.5955	RRA	-.9536	RC3	-2.8286	FAU	.12802	RRT	.9564	RRF	.9989	RTF	.9583	CRT	.9852	CRS	-1.0000	CST	-.9862
FDE	5.0102	FRA	-1.0821	FC3	-2.8243	BSP	11719	SGB	6884.8	R23	.0664	R13	.9967	LSA	249.8	MSA	15.7	SSA	.2
BDE	5.0416	BRA	1.3404	BC3	3.2849	FSP	958	SG1	6826.6	SG2	893.7	THA	59.61	EL1	234.6	EL2	15.6	ALF	65.00

LAUNCH DATE JUL 30 1973 FLIGHT TIME 300.00 ARRIVAL DATE MAY 26 1974

HELIOCENTRIC CONIC DISTANCE 658.169 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.924	GAL	-1.35	AZL	99.33	HCA	191.49	SMA	199.97	ECC	.24157	INC	9.3254	V1	29.334
RP	248.03	LAP	1.85	LOP	138.03	VP	20.161	GAP	-1.44	AZP	80.86	TAL	353.05	TAP	184.54	RCA	151.66	APO	248.27	V2	22.089
RC	324.997	GL	-59.06	GP	52.10	ZAL	95.28	ZAP	72.87	ETS	205.88	ZAE	88.55	ETE	184.06	ZAC	138.51	ETC	291.67	LVI	-72.51

PLANETOCENTRIC CONIC

C3	38.670	VHL	6.219	DLA	-39.59	RAL	62.93	RAD	6650.2	VEL	12.592	PTH	7.45	VHP	4.039	DPA	52.09	RAP	347.02	ECC	1.6364

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 14 58	2420.52	-3.42	63.07	295.16	137.48	18 55 18	1420.5	14.89	47.13
60.00	20 46 40	2014.43	10.17	39.50	307.92	129.21	21 20 15	1014.4	25.02	19.57
61.05	21 42 27	1856.70	16.02	30.85	312.60	126.70	22 13 24	856.7	29.53	9.19
61.05	21 42 27	1856.70	16.02	30.85	312.60	126.70	22 13 24	856.7	29.53	9.19
61.05	21 42 27	1856.70	16.02	30.85	312.60	126.70	22 13 24	856.7	29.53	9.19
61.05	21 42 27	1856.70	16.02	30.85	312.60	126.70	22 13 24	856.7	29.53	9.19
61.05	21 42 27	1856.70	16.02	30.85	312.60	126.70	22 13 24	856.7	29.53	9.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.7896	TRA	3.5968	TC3	-3.8532	BAU	2.3228	SGT	7806.0	SGR	5021.3	SG3	606.1	ST	230.0	SR	125.9	SS	55.1
RDE	2.4951	RRA	-2.8571	RC3	2.3107	FAU	.15483	RRT	-.9850	RRF	-.9975	RTF	.9782	CRT	-.9909	CRS	.9987	CST	-.9827
FDE	-3.0512	FRA	3.9869	FC3	-3.4662	BSP	16120	SGB	9281.6	R23	.1472	R13	-.9869	LSA	267.4	MSA	17.1	SSA	.3
BDE	5.4006	BRA	4.5934	BC3	4.4929	FSP	1059	SG1	9252.7	SG2	731.4	THA	147.41	EL1	261.8	EL2	14.9	ALF	151.42

LAUNCH DATE JUL 30 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 28 1974

HELIOCENTRIC CONIC DISTANCE 661.904 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.928	GAL	-1.40	AZL	98.67	HCA	192.36	SMA	200.06	ECC	.24198	INC	8.6745	V1	29.334
RP	248.14	LAP	1.85	LOP	138.91	VP	20.156	GAP	-1.65	AZP	81.52	TAL	352.82	TAP	185.17	RCA	151.65	APO	248.46	V2	22.078
RC	327.134	GL	-56.68	GP	50.23	ZAL	95.79	ZAP	71.43	ETS	206.26	ZAE	87.50	ETE	185.07	ZAC	136.81	ETC	290.94	LVI	-70.95

PLANETOCENTRIC CONIC

C3	35.299	VHL	5.941	DLA	-37.31	RAL	62.06	RAD	6649.0	VEL	12.458	PTH	7.36	VHP	3.857	DPA	50.53	RAP	348.69	ECC	1.5809

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 51 44	2463.54	-5.58	64.88	291.32	137.33	18 32 47	1463.5	12.78	49.05
60.00	19 50 25	2147.06	4.40	45.95	300.83	130.10	20 26 12	1147.1	19.94	27.09
64.58	21 56 13	1783.93	16.10	24.89	309.79	124.13	22 25 57	783.9	28.63	2.66
64.58	21 56 13	1783.93	16.10	24.89	309.79	124.13	22 25 57	783.9	28.63	2.66
64.58	21 56 13	1783.93	16.10	24.89	309.79	124.13	22 25 57	783.9	28.63	2.66
64.58	21 56 13	1783.93	16.10	24.89	309.79	124.13	22 25 57	783.9	28.63	2.66
64.58	21 56 13	1783.93	16.10	24.89	309.79	124.13	22 25 57	783.9	28.63	2.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.5793	TRA	3.5510	TC3	-4.2627	BAU	2.3080	SGT	7980.9	SGR	4838.2	SG3	683.7	ST	230.2	SR	119.0	SS	57.9
RDE	2.2502	RRA	-2.6829	RC3	2.3977	FAU	.17129	RRT	-.9846	RRF	-.9974	RTF	.9780	CRT	-.9905	CRS	.9985	CST	-.9815
FDE	-3.1977	FRA	4.3794	FC3	-4.2011	BSP	16200	SGB	9332.9	R23	.1513	R13	-.9861	LSA	265.0	MSA	17.2	SSA	.3
BDE	5.1023	BRA	4.4506	BC3	4.8907	FSP	1193	SG1	9304.8	SG2	724.8	THA	148.96	EL1	258.7	EL2	14.6	ALF	152.78

LAUNCH DATE JUL 30 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 30 1974

HELIOCENTRIC CONIC DISTANCE 665.641 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.933	GAL	-1.45	AZL	98.11	HCA	193.23	SMA	200.14	ECC	.24240	INC	8.1085	V1	29.334
RP	248.25	LAP	1.85	LOP	139.79	VP	20.152	GAP	-1.85	AZP	82.10	TAL	352.58	TAP	185.80	RCA	151.63	APO	248.66	V2	22.067
RC	329.241	GL	-54.45	GP	48.41	ZAL	96.31	ZAP	70.02	ETS	206.55	ZAE	86.43	ETE	185.97	ZAC	135.13	ETC	290.29	LVI	-69.36

PLANETOCENTRIC CONIC

C3	32.579	VHL	5.708	DLA	-35.14	RAL	61.34	RAD	6648.0	VEL	12.349	PTH	7.27	VHP	3.706	DPA	49.00	RAP	350.25	ECC	1.5362

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 32 29	2501.44	-7.47	66.48	288.26	137.13	18 14 11	1501.4	10.91	50.71
60.00	19 16 8	2225.38	.96	49.70	296.31	130.29	19 53 14	1225.4	16.76	31.28
68.21	22 13 3	1705.16	15.99	18.51	307.29	121.72	22 41 28	705.2	27.60	355.83
68.21	22 13 3	1705.16	15.99	18.51	307.29	121.72	22 41 28	705.2	27.60	355.83
68.21	22 13 3	1705.16	15.99	18.51	307.29	121.72	22 41 28	705.2	27.60	355.83
68.21	22 13 3	1705.16	15.99	18.51	307.29	121.72	22 41 28	705.2	27.60	355.83
68.21	22 13 3	1705.16	15.99	18.51	307.29	121.72	22 41 28	705.2	27.60	355.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.3831	TRA	3.5202	TC3	-4.6666	BAU	2.2981	SGT	8149.3	SGR	4658.5	SG3	757.1	ST	229.5	SR	112.2	SS	59.9
RDE	2.0329	RRA	-2.5287	RC3	2.4624	FAU	.18647	RRT	-.9843	RRF	-.9972	RTF	.9777	CRT	-.9900	CRS	.9983	CST	-.9801
FDE	-3.2909	FRA	4.7415	FC3	-4.9552	BSP	16335	SGB	9386.8	R23	.1550	R13	-.9854	LSA	261.8	MSA	17.4	SSA	.3
BDE	4.8316	BRA	4.3343	BC3	5.2764	FSP	1324	SG1	9359.5	SG2	716.1	THA	150.44	EL1	255.1	EL2	14.2	ALF	154.08

LAUNCH DATE JUL 30 1973 FLIGHT TIME 306.00 ARRIVAL DATE JUN 1 1974

HELIOCENTRIC CONIC DISTANCE 669.378 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.937	GAL	-1.50	AZL	97.61	HCA	194.10	SMA	200.23	ECC	.24282	INC	7.6118	V1	29.334
RP	248.35	LAP	1.65	LOP	140.67	VP	20.148	GAP	-2.05	AZP	82.61	TAL	352.33	TAP	186.43	RCA	151.61	APO	248.86	V2	22.057
RC	331.317	GL	-52.34	GP	46.64	ZAL	96.84	ZAP	68.63	ETS	206.75	ZAE	85.34	ETE	186.79	ZAC	133.48	ETC	289.71	LVI	-67.78

PLANETOCENTRIC CONIC

C3	30.355	VHL	5.510	DLA	-33.08	RAL	60.75	RAD	6647.1	VEL	12.259	PTH	7.20	VHP	3.580	DPA	47.52	RAP	351.71	ECC	1.4996

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 16 9	2535.93	-9.19	67.95	285.79	136.89	17 58 25	1535.9	9.20	52.20
60.00	18 50 11	2285.66	-1.70	52.58	292.93	130.27	19 28 17	1285.7	14.26	34.40
70.00	21 16 33	1854.20	9.06	25.69	300.93	123.07	21 47 28	854.2	21.75	4.53
72.07	22 33 58	1616.40	15.74	11.43	305.09	119.48	23 0 55	616.4	26.49	348.41
72.07	22 33 58	1616.40	15.74	11.43	305.09	119.48	23 0 55	616.4	26.49	348.41
72.07	22 33 58	1616.40	15.74	11.43	305.09	119.48	23 0 55	616.4	26.49	348.41
110.00	2 19 56	6189.06	9.06	292.51	300.93	123.07	4 3 5	5189.1	21.75	271.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.1996	TRA	3.5002	TC3	-5.0648	BAU	2.2938	SGT	8312.2	SGR	4482.7	SG3	825.7	ST	228.0	SR	105.5	SS	61.1
RDE	1.8380	RRA	-2.3894	RC3	2.5095	FAU	.20056	RRT	-.9840	RRF	-.9970	RTF	.9774	CRT	-.9894	CRS	.9980	CST	-.9782
FDE	-3.3322	FRA	5.0705	FC3	-5.7201	BSP	16454	SGB	9443.9	R23	.1585	R13	-.9846	LSA	258.0	MSA	17.6	SSA	.4
BDE	4.5842	BRA	4.2380	BC3	5.6524	FSP	1442	SG1	9417.4	SG2	705.8	THA	151.88	EL1	250.9	EL2	13.9	ALF	155.32

LAUNCH DATE JUL 30 1973 FLIGHT TIME 308.00 ARRIVAL DATE JUN 3 1974

HELIOCENTRIC CONIC DISTANCE 673.115 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.942	GAL	-1.55	AZL	97.17	HCA	194.97	SMA	200.33	ECC	.24326	INC	7.1721	V1	29.334
RP	248.45	LAP	1.85	LOP	141.55	VP	20.145	GAP	-2.25	AZP	83.07	TAL	352.08	TAP	187.05	RCA	151.60	APO	249.06	V2	22.048
RC	333.364	GL	-50.34	GP	44.94	ZAL	97.37	ZAP	67.29	ETS	206.90	ZAE	84.24	ETE	187.52	ZAC	131.88	ETC	289.18	LVI	-66.22

PLANETOCENTRIC CONIC

C3	28.516	VHL	5.340	DLA	-31.12	RAL	60.27	RAD	6646.4	VEL	12.184	PTH	7.14	VHP	3.474	DPA	46.09	RAP	353.07	ECC	1.4693

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 2 3	2567.96	-10.78	69.34	283.77	136.63	17 44 51	1568.0	7.60	53.57
60.00	18 29 6	2336.33	-3.92	55.00	290.29	130.14	19 8 3	1336.3	12.11	36.96
70.00	20 31 2	1977.50	4.42	32.22	296.57	123.90	21 4 0	977.5	17.75	11.86
76.44	23 1 20	1509.34	15.38	3.07	303.14	117.39	23 26 30	509.3	25.33	339.79
76.44	23 1 20	1509.34	15.38	3.07	303.14	117.39	23 26 30	509.3	25.33	339.79
76.44	23 1 20	1509.34	15.38	3.07	303.14	117.39	23 26 30	509.3	25.33	339.79
110.00	1 34 24	1024.32	4.42	321.14	296.57	123.90	1 51 29	24.3	17.75	300.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.0314	TRA	3.4876	TC3	-5.4566	BAU	2.2940	SGT	8472.2	SGR	4310.2	SG3	888.9	ST	226.2	SR	99.1	SS	61.7
RDE	1.6662	RRA	-2.2629	RC3	2.5364	FAU	.21318	RRT	-.9836	RRF	-.9968	RTF	.9771	CRT	-.9888	CRS	.9976	CST	-.9760
FDE	-3.3347	FRA	5.3678	FC3	-6.4719	BSP	16582	SGB	9505.6	R23	.1618	R13	-.9838	LSA	253.9	MSA	17.9	SSA	.4
BDE	4.3622	BRA	4.1574	BC3	6.0173	FSP	1555	SG1	9480.1	SG2	695.7	THA	153.26	EL1	246.5	EL2	13.6	ALF	156.50

LAUNCH DATE JUL 30 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 5 1974

HELIOCENTRIC CONIC DISTANCE 676.853 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.946	GAL	-1.60	AZL	96.78	HCA	195.84	SMA	200.42	ECC	.24370	INC	6.7801	V1	29.334
RP	248.54	LAP	1.85	LOP	142.43	VP	20.143	GAP	-2.46	AZP	83.48	TAL	351.83	TAP	187.67	RCA	151.58	APO	249.26	V2	22.039
RC	335.380	GL	-48.46	GP	43.29	ZAL	97.91	ZAP	65.97	ETS	206.98	ZAE	83.14	ETE	188.17	ZAC	130.32	ETC	288.72	LVI	-64.69

PLANETOCENTRIC CONIC

C3	26.982	VHL	5.194	DLA	-29.25	RAL	59.88	RAD	6645.8	VEL	12.122	PTH	7.09	VHP	3.385	DPA	44.71	RAP	354.34	ECC	1.4441

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 49 44	2598.09	-12.26	70.65	282.12	136.34	17 33 2	1598.1	6.10	54.84
60.00	18 11 22	2380.91	-5.88	57.15	288.17	129.94	18 51 3	1380.9	10.20	39.18
70.00	20 0 42	2059.33	1.31	36.50	293.59	124.13	20 35 1	1059.3	14.94	16.53
80.00	22 35 28	1574.36	10.18	5.11	298.97	118.22	23 1 42	574.4	20.91	342.87
82.20	23 43 3	1357.72	14.93	351.54	301.43	115.45	24 5 41	357.7	24.14	328.07
100.00	1 22 16	1048.83	10.18	326.48	298.97	118.22	1 39 45	48.8	20.91	304.24
110.00	1 4 4	1106.15	1.31	325.42	293.59	124.13	1 22 30	106.1	14.94	305.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.8746	TRA	3.4810	TC3	-5.0408	BAU	2.2990	SGT	8628.5	SGR	4143.1	SG3	946.7	ST	223.8	SR	93.0	SS	61.9
RDE	1.5144	RRA	-2.1451	RC3	2.5505	FAU	.22482	RRT	-.9833	RRF	-.9965	RTF	.9769	CRT	-.9882	CRS	.9970	CST	-.9736
FDE	-3.3042	FRA	5.6275	FC3	-7.2135	BSP	16693	SGB	9571.7	R23	.1642	R13	-.9830	LSA	249.5	MSA	18.1	SSA	.4
BDE	4.1600	BRA	4.0888	BC3	6.3734	FSP	1653	SG1	9547.3	SG2	681.9	THA	154.59	EL1	242.0	EL2	13.1	ALF	157.61

LAUNCH DATE JUL 30 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 7 1974

HELIOCENTRIC CONIC DISTANCE 680.591 EARTH TO MARS

RL	151.88	LAL	.00	LOL	306.69	VL	32.951	GAL	-1.65	AZL	96.43	HCA	196.72	SMA	200.51	ECC	.24415	INC	6.4282	V1	29.334
RP	248.63	LAP	1.85	LOP	143.31	VP	20.142	GAP	-2.66	AZP	83.84	TAL	351.57	TAP	188.29	RCA	151.56	APO	249.47	V2	22.030
RC	337.366	GL	-46.68	GP	41.72	ZAL	98.46	ZAP	64.70	ETS	207.02	ZAE	82.03	ETE	188.76	ZAC	128.82	ETC	288.30	LVI	-63.21

PLANETOCENTRIC CONIC

C3	25.691	VHL	5.069	DLA	-27.47	RAL	59.56	RAD	6645.3	VEL	12.069	PTH	7.05	VHP	3.311	DPA	43.39	RAP	355.54	ECC	1.4228

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 38 51	2626.68	-13.67	71.92	280.77	136.03	17 22 38	1626.7	4.67	56.05
60.00	17 56 6	2421.22	-7.63	59.10	286.47	129.69	18 36 27	1421.2	8.46	41.16
70.00	19 37 4	2124.29	-1.18	39.89	291.32	124.14	20 12 28	1124.3	12.62	20.14
80.00	21 44 45	1724.57	5.24	13.52	295.30	119.44	22 13 30	724.6	16.83	352.16
90.00	23 46 49	1330.95	9.09	346.65	297.37	116.90	24 9 0	331.0	19.38	324.35
100.00	0 31 33	1199.04	5.24	334.89	295.30	119.44	0 51 32	199.0	16.83	313.53
110.00	0 40 26	1171.11	-1.18	328.81	291.32	124.14	0 59 57	171.1	12.62	309.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.7261	TRA	3.4850	TC3	-6.2122	BAU	2.3063	SGT	8781.5	SGR	3982.2	SG3	999.3	ST	221.1	SR	87.2	SS	61.5
RDE	1.3785	RRA	-2.0395	RC3	2.5490	FAU	.23513	RRT	-.9830	RRF	-.9962	RTF	.9766	CRT	-.9876	CRS	.9963	CST	-.9707
FDE	-3.2414	FRA	5.8642	FC3	-7.9235	BSP	16848	SGB	9642.2	R23	.1663	R13	-.9823	LSA	244.8	MSA	18.3	SSA	.5
BDE	3.9729	BRA	4.0380	BC3	6.7149	FSP	1746	SG1	9619.0	SG2	667.9	THA	155.85	EL1	237.3	EL2	12.7	ALF	158.65

LAUNCH DATE JUL 30 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 9 1974

HELIOCENTRIC CONIC DISTANCE 684.329 EARTH TO MARS

RL 151.88 LAL .00 LOL 306.69 VL 32.956 GAL -1.70 AZL 96.11 HCA 197.59 SMA 200.61 ECC .24462 INC 6.1105 V1 29.334
RP 248.71 LAP 1.84 LOP 144.19 VP 20.141 GAP -2.86 AZP 84.17 TAL 351.31 TAP 188.90 RCA 151.54 APO 249.68 V2 22.023
RC 339.321 GL -44.99 GP 40.21 ZAL 99.01 ZAP 63.46 ETS 207.02 ZAE 80.91 ETE 189.29 ZAC 127.36 ETC 287.93 LVI -61.77

PLANETOCENTRIC CONIC

C3 24.597 VHL 4.959 DLA -25.77 RAL 59.32 RAD 6644.8 VEL 12.024 PTH 7.01 VHP 3.248 DPA 42.13 RAP 356.67 ECC 1.4048

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 29 10	2653.96	-15.00	73.14	279.68	135.70	17 13 24	1654.0	3.30	57.19
60.00	17 42 44	2458.31	-9.24	80.92	285.08	129.40	18 23 42	1458.3	6.85	42.97
70.00	19 17 32	2179.58	-3.28	42.78	289.55	124.01	19 53 51	1179.6	10.61	23.15
80.00	21 13 13	1817.48	2.11	18.64	292.90	119.79	21 43 31	817.5	14.07	357.68
90.00	23 0 52	1470.34	4.71	354.55	294.34	117.92	23 25 22	470.3	15.76	332.97
100.00	0 0 1	1291.95	2.11	340.01	292.90	119.79	0 21 33	291.9	14.07	319.05
110.00	0 20 54	1226.39	-3.28	331.70	289.55	124.01	0 41 21	226.4	10.61	312.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.5883 TRA 3.4919 TC3-6.5727 BAU 2.3163 SGT 8930.6 SGR 3823.9 SG3 1045.6 ST 218.1 SR 81.8 SS 60.9
RDE 1.2585 RRA-1.9403 RC3 2.5330 FAU .24402 RRT -.9827 RRF -.9958 RTF .9764 CRT -.9871 CRS .9954 CST -.9674
FDE-3.1564 FRA 6.0666 FC3-8.5890 BSP 16979 SGB 9714.8 R23 .1675 R13 -.9816 LSA 240.1 MSA 18.5 SSA .5
BDE 3.8026 BRA 3.9947 BC3 7.0439 FSP 1825 SG1 9692.8 SG2 653.3 THA 157.07 EL1 232.6 EL2 12.3 ALF 159.62

LAUNCH DATE JUL 30 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 11 1974

HELIOCENTRIC CONIC DISTANCE 688.066 EARTH TO MARS

RL 151.88 LAL .00 LOL 306.69 VL 32.961 GAL -1.76 AZL 95.82 HCA 198.46 SMA 200.70 ECC .24509 INC 5.8220 V1 29.334
RP 248.78 LAP 1.84 LOP 145.06 VP 20.141 GAP -3.05 AZP 84.48 TAL 351.04 TAP 189.50 RCA 151.51 APO 249.89 V2 22.015
RC 341.246 GL -43.39 GP 38.77 ZAL 99.56 ZAP 62.27 ETS 206.98 ZAE 79.81 ETE 189.76 ZAC 125.97 ETC 287.59 LVI -60.37

PLANETOCENTRIC CONIC

C3 23.664 VHL 4.865 DLA -24.15 RAL 59.14 RAD 6644.4 VEL 11.985 PTH 6.98 VHP 3.195 DPA 40.93 RAP 357.74 ECC 1.3895

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 20 30	2680.13	-16.27	74.32	278.80	135.35	17 5 10	1680.1	1.99	58.29
60.00	17 30 54	2492.88	-10.73	82.62	283.97	129.08	18 12 27	1492.9	5.34	44.64
70.00	19 0 51	2228.44	-5.14	45.34	288.13	123.81	19 38 0	1228.4	8.80	25.78
80.00	20 49 0	1889.98	-.35	22.62	291.11	119.86	21 20 30	890.0	11.82	1.89
90.00	22 30 45	1561.81	1.78	359.67	292.29	118.23	22 56 47	561.8	13.17	338.44
100.00	23 31 52	1364.45	-.35	343.99	291.11	119.86	23 54 36	364.4	11.82	323.25
110.00	0 4 13	1275.26	-5.14	334.26	288.13	123.81	0 25 29	275.3	8.80	314.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.4598 TRA 3.5047 TC3-6.9256 BAU 2.3304 SGT 9081.4 SGR 3674.6 SG3 1087.6 ST 215.0 SR 76.8 SS 59.9
RDE 1.1519 RRA-1.8501 RC3 2.5090 FAU .25205 RRT -.9823 RRF -.9953 RTF .9761 CRT -.9866 CRS .9942 CST -.9635
FDE-3.0519 FRA 6.2478 FC3-9.2211 BSP 17115 SGB 9796.7 R23 .1691 R13 -.9809 LSA 235.3 MSA 18.7 SSA .5
BDE 3.6465 BRA 3.9631 BC3 7.3661 FSP 1898 SG1 9775.8 SG2 639.3 THA 158.23 EL1 228.0 EL2 11.8 ALF 160.53

LAUNCH DATE JUL 30 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 13 1974

HELIOCENTRIC CONIC DISTANCE 691.804 EARTH TO MARS

RL 151.88 LAL .00 LOL 306.69 VL 32.965 GAL -1.81 AZL 95.56 HCA 199.33 SMA 200.80 ECC .24556 INC 5.5589 V1 29.334
RP 248.85 LAP 1.84 LOP 145.94 VP 20.142 GAP -3.25 AZP 84.75 TAL 350.78 TAP 190.11 RCA 151.49 APO 250.11 V2 22.009
RC 343.139 GL -41.87 GP 37.39 ZAL 100.11 ZAP 61.11 ETS 206.92 ZAE 78.70 ETE 190.19 ZAC 124.63 ETC 287.29 LVI -59.04

PLANETOCENTRIC CONIC

C3 22.865 VHL 4.782 DLA -22.60 RAL 59.01 RAD 6644.1 VEL 11.952 PTH 6.95 VHP 3.151 DPA 39.79 RAP 358.76 ECC 1.3763

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 12 42	2705.29	-17.49	75.48	278.11	134.98	16 57 47	1705.3	.72	59.34
60.00	17 20 21	2525.37	-12.12	84.24	283.08	128.74	18 2 26	1525.4	3.91	46.20
70.00	18 46 19	2272.64	-6.81	47.68	287.01	123.55	19 24 11	1272.6	7.15	28.14
80.00	20 29 3	1951.13	-2.42	25.98	289.72	119.77	21 1 34	951.1	9.87	5.37
90.00	22 7 17	1634.28	-.56	3.71	290.75	118.27	22 34 31	634.3	11.03	342.68
100.00	23 11 55	1425.60	-2.42	347.35	289.72	119.77	23 35 40	425.6	9.87	326.74
110.00	23 45 45	1319.46	-6.81	336.59	287.01	123.55	24 7 45	319.5	7.15	317.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.3347 TRA 3.5262 TC3-7.2576 BAU 2.3436 SGT 9224.3 SGR 3528.1 SG3 1123.4 ST 211.5 SR 72.1 SS 58.7
RDE 1.0566 RRA-1.7672 RC3 2.4708 FAU .25849 RRT -.9820 RRF -.9947 RTF .9759 CRT -.9861 CRS .9927 CST -.9692
FDE-2.9303 FRA 6.4065 FC3-9.7869 BSP 17300 SGB 9875.9 R23 .1695 R13 -.9802 LSA 230.3 MSA 18.9 SSA .6
BDE 3.4981 BRA 3.9442 BC3 7.6666 FSP 1962 SG1 9856.2 SG2 624.3 THA 159.33 EL1 223.2 EL2 11.3 ALF 161.36

LAUNCH DATE JUL 30 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 15 1974

HELIOCENTRIC CONIC DISTANCE 695.541 EARTH TO MARS

RL 151.88 LAL .00 LOL 306.69 VL 32.970 GAL -1.87 AZL 95.32 HCA 200.20 SMA 200.90 ECC .24605 INC 5.3178 V1 29.334
RP 248.92 LAP 1.83 LOP 146.82 VP 20.143 GAP -3.45 AZP 85.01 TAL 350.50 TAP 190.71 RCA 151.47 APO 250.33 V2 22.003
RC 345.001 GL -40.43 GP 36.07 ZAL 100.67 ZAP 59.99 ETS 206.83 ZAE 77.60 ETE 190.57 ZAC 123.34 ETC 287.02 LVI -57.75

PLANETOCENTRIC CONIC

C3 22.179 VHL 4.709 DLA -21.12 RAL 58.93 RAD 6643.8 VEL 11.924 PTH 6.93 VHP 3.114 DPA 38.70 RAP 359.73 ECC 1.3650

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 5 38	2729.55	-18.65	76.61	277.57	134.60	16 51 8	1729.5	-.50	60.35
60.00	17 10 51	2556.13	-13.42	85.79	282.38	128.36	17 53 27	1556.1	2.56	47.67
70.00	18 33 27	2313.29	-8.33	49.84	286.11	123.24	19 12 1	1313.3	5.62	30.29
80.00	20 12 0	2004.85	-4.23	28.94	288.63	119.58	20 45 25	1004.9	8.12	8.40
90.00	21 47 48	1695.87	-2.54	7.15	289.57	118.17	22 16 4	695.9	9.16	346.23
100.00	22 54 52	1479.32	-4.23	350.31	288.63	119.58	23 19 32	479.3	8.12	329.77
110.00	23 32 54	1360.10	-8.33	338.75	286.11	123.24	23 55 34	360.1	5.62	319.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.2174 TRA 3.5508 TC3-7.5802 BAU 2.3600 SGT 9367.2 SGR 3388.3 SG3 1154.8 ST 208.0 SR 67.8 SS 57.4
RDE .9715 RRA-1.6900 RC3 2.4269 FAU .26410 RRT -.9816 RRF -.9941 RTF .9756 CRT -.9858 CRS .9908 CST -.9541
FDE-2.7953 FRA 6.5420 FC-10.3089 BSP 17476 SGB 9961.2 R23 .1695 R13 -.9796 LSA 225.3 MSA 19.2 SSA .6
BDE 3.3608 BRA 3.9324 BC3 7.9593 FSP 2018 SG1 9942.5 SG2 609.6 THA 160.38 EL1 218.5 EL2 10.8 ALF 162.14

LAUNCH DATE JUL 31 1973 FLIGHT TIME 106.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 309.002 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	35.555	GAL	-1.90	AZL	90.20	HCA	95.41	SMA	274.36	ECC	.44748	INC	.2033	V1	29.338
RP	218.16	LAP	-.20	LOP	43.06	VP	27.073	GAP	23.98	AZP	89.98	TAL	353.85	TAP	89.26	RCA	151.59	APO	397.14	V2	25.188
RC	74.953	GL	-1.15	GP	-5.03	ZAL	98.86	ZAP	174.42	ETS	246.04	ZAE	164.75	ETE	342.45	ZAC	78.74	ETC	283.00	LVI	-12.63

PLANETOCENTRIC CONIC

C3	39.362	VHL	6.274	DLA	15.67	RAL	44.39	RAD	6650.4	VEL	12.619	PTH	7.47	VHP	8.956	DPA	10.02	RAP	40.05	ECC	1.6478

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 41 58	3617.19	-47.43	139.17	293.77	94.25	13 42 15	2617.2	-40.26	106.90
60.00	13 3 45	3559.20	-40.30	134.37	294.18	90.58	14 3 4	2559.2	-35.66	104.28
70.00	13 35 36	3465.44	-34.09	126.66	294.07	87.70	14 33 22	2465.4	-31.47	98.23
80.00	14 24 38	3311.82	-29.58	114.70	293.76	85.72	15 19 49	2311.8	-28.35	87.35
90.00	15 37 23	3076.98	-27.87	97.29	293.60	84.98	16 28 40	2077.0	-27.15	70.30
100.00	17 7 29	2766.29	-29.58	76.07	293.76	85.72	17 53 56	1786.3	-28.35	48.71
110.00	18 35 3	2512.25	-34.09	55.57	294.07	87.70	19 16 55	1512.3	-31.47	27.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3510	TRA	-1.1535	TC3	.1966	BAU	.1097	SGT	1166.5	SGR	618.8	SG3	138.9	ST	22.9	SR	28.7	SS	13.5	
RDE	-.6238	RRA	.2376	RC3	-.0693	FAU	.05092	RRT	-.1183	RRF	.1359	RTF	-.6590	CRT	.6093	CRS	.6860	CST	.9887	
FDE	.2930	FRA	.7744	FC3	-1.1199	BSP	1738	SGB	1320.5	R23	-.0284	R13	.6610	LSA	35.3	MSA	16.8	SSA	1.3	
BDE	.7158	BRA	1.1778	BC3	.2085	FSP	169	SG1	1169.7	SG2	612.8	THA	175.05	EL1	33.2	EL2	15.7	ALF	55.15	

LAUNCH DATE JUL 31 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 311.057 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	35.404	GAL	-1.81	AZL	90.17	HCA	96.54	SMA	268.44	ECC	.43522	INC	.1667	V1	29.338
RP	218.53	LAP	-.17	LOP	44.20	VP	26.837	GAP	23.61	AZP	89.98	TAL	354.02	TAP	90.56	RCA	151.61	APO	385.27	V2	25.148
RC	76.362	GL	-.97	GP	-5.17	ZAL	98.54	ZAP	173.93	ETS	240.14	ZAE	164.03	ETE	342.42	ZAC	78.53	ETC	282.97	LVI	-12.39

PLANETOCENTRIC CONIC

C3	37.428	VHL	6.118	DLA	15.76	RAL	44.01	RAD	6649.8	VEL	12.542	PTH	7.42	VHP	8.689	DPA	10.02	RAP	40.46	ECC	1.6160

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 40 6	3606.21	-47.37	138.11	292.20	95.06	13 40 13	2606.2	-39.91	106.08
60.00	13 1 47	3548.51	-40.29	133.46	292.74	91.19	14 0 55	2548.5	-35.40	103.49
70.00	13 33 30	3455.15	-34.11	125.85	292.69	88.17	14 31 5	2455.2	-31.29	97.48
80.00	14 22 23	3301.97	-29.62	113.98	292.43	86.10	15 17 25	2302.0	-28.23	86.64
90.00	15 35 4	3067.34	-27.92	96.59	292.28	85.33	16 26 12	2067.3	-27.05	69.61
100.00	17 5 15	2776.44	-29.62	75.34	292.43	86.10	17 51 31	1776.4	-28.23	48.01
110.00	18 32 56	2501.97	-34.11	54.77	292.69	88.17	19 14 38	1502.0	-31.29	26.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3513	TRA	-1.1481	TC3	.2234	BAU	.1183	SGT	1196.2	SGR	622.3	SG3	147.9	ST	23.5	SR	28.7	SS	14.0	
RDE	-.6090	RRA	.2364	RC3	-.0776	FAU	.05292	RRT	-.1280	RRF	.1469	RTF	-.6698	CRT	.6095	CRS	.6909	CST	.9881	
FDE	.3076	FRA	.7975	FC3	-1.2242	BSP	1789	SGB	1348.4	R23	-.0305	R13	.6719	LSA	35.8	MSA	17.0	SSA	1.3	
BDE	.7030	BRA	1.1721	BC3	.2365	FSP	182	SG1	1199.8	SG2	615.3	THA	174.83	EL1	33.5	EL2	16.0	ALF	54.20	

LAUNCH DATE JUL 31 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 313.283 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	35.262	GAL	-1.73	AZL	90.13	HCA	97.68	SMA	263.09	ECC	.42365	INC	.1303	V1	29.338
RP	218.89	LAP	-.13	LOP	45.33	VP	26.611	GAP	23.24	AZP	89.98	TAL	354.19	TAP	91.87	RCA	151.63	APO	374.54	V2	25.107
RC	77.855	GL	-.77	GP	-5.31	ZAL	98.20	ZAP	173.39	ETS	235.15	ZAE	163.37	ETE	342.33	ZAC	78.32	ETC	282.94	LVI	-12.15

PLANETOCENTRIC CONIC

C3	35.642	VHL	5.970	DLA	15.84	RAL	43.61	RAD	6649.1	VEL	12.472	PTH	7.37	VHP	8.432	DPA	10.01	RAP	40.86	ECC	1.5866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 38 9	3595.67	-47.30	137.10	290.66	95.84	13 38 5	2595.7	-39.56	105.31
60.00	12 59 43	3538.28	-40.27	132.59	291.31	91.78	13 58 41	2538.3	-35.15	102.73
70.00	13 31 17	3445.33	-34.13	125.09	291.33	88.62	14 28 43	2445.3	-31.12	96.77
80.00	14 20 2	3292.61	-29.67	113.28	291.11	86.46	15 14 54	2292.6	-28.12	85.97
90.00	15 32 39	3058.20	-27.97	95.92	290.97	85.66	16 23 37	2058.2	-26.96	68.96
100.00	17 2 53	2767.08	-29.67	74.65	291.11	86.46	17 49 0	1767.1	-28.12	47.33
110.00	18 30 44	2492.15	-34.13	54.01	291.33	88.62	19 12 16	1492.2	-31.12	25.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3526	TRA	-1.1395	TC3	.2504	BAU	.1263	SGT	1223.1	SGR	625.5	SG3	157.4	ST	24.0	SR	28.7	SS	14.6	
RDE	-.5944	RRA	.2354	RC3	-.0868	FAU	.05508	RRT	-.1371	RRF	.1580	RTF	-.6793	CRT	.6118	CRS	.6978	CST	.9875	
FDE	.3247	FRA	.8208	FC3	-1.3380	BSP	1848	SGB	1373.8	R23	-.0333	R13	.6816	LSA	36.3	MSA	17.2	SSA	1.3	
BDE	.6911	BRA	1.1635	BC3	.2650	FSP	196	SG1	1227.2	SG2	617.6	THA	174.62	EL1	33.8	EL2	16.2	ALF	53.20	

LAUNCH DATE JUL 31 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 315.660 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	35.127	GAL	-1.64	AZL	90.09	HCA	98.81	SMA	258.23	ECC	.41274	INC	.0936	V1	29.338
RP	219.26	LAP	-.09	LOP	46.46	VP	26.394	GAP	22.87	AZP	89.99	TAL	354.37	TAP	93.18	RCA	151.65	APO	364.81	V2	25.067
RC	79.428	GL	-.57	GP	-5.45	ZAL	97.84	ZAP	172.80	ETS	230.94	ZAE	162.76	ETE	342.17	ZAC	78.11	ETC	282.90	LVI	-11.91

PLANETOCENTRIC CONIC

C3	33.991	VHL	5.830	DLA	15.94	RAL	43.19	RAD	6648.5	VEL	12.406	PTH	7.32	VHP	8.183	DPA	9.99	RAP	41.26	ECC	1.5594

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 36 7	3585.59	-47.23	136.14	289.14	96.58	13 35 52	2585.6	-39.23	104.58
60.00	12 57 33	3528.52	-40.24	131.76	289.89	92.34	13 56 21	2528.5	-34.91	102.02
70.00	13 28 59	3436.01	-34.14	124.36	289.99	89.05	14 26 15	2436.0	-30.96	96.09
80.00	14 17 34	3283.75	-29.70	112.63	289.80	86.80	15 12 18	2283.8	-28.00	85.33
90.00	15 30 7	3049.58	-28.01	95.30	289.68	85.97	16 20 56	2049.6	-26.87	68.35
100.00	17 0 26	2758.23	-29.70	74.00	289.80	86.80	17 46 24	1758.2	-28.00	46.70
110.00	18 28 25	2482.83	-34.14	53.28	289.99	89.05	19 9 48	1482.8	-30.96	25.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3532	TRA	-1.1312	TC3	.2813	BAU	.1352	SGT	1250.8	SGR	628.6	SG3	167.5	ST	24.5	SR	28.7	SS	15.1	
RDE	-.5801	RRA	.2345	RC3	-.0969	FAU	.05736	RRT	-.1478	RRF	.1704	RTF	-.6898	CRT	.6131	CRS	.7038	CST	.9868	
FDE	.3420	FRA	.8443	FC3	-1.4608	BSP	1901	SGB	1399.9	R23	-.0356	R13	.6924	LSA	36.8	MSA	17.3	SSA	1.4	
BDE	.6791	BRA	1.1552	BC3	.2975	FSP	212	SG1	1255.4	SG2	619.4	THA	174.38	EL1	34.1	EL2	16.4	ALF	52.24	

LAUNCH DATE JUL 31 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 318.172 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	35.000	GAL	-1.56	AZL	90.06	HCA	99.93	SMA	253.81	ECC	.40245	INC	.0564	V1	29.338
RP	219.63	LAP	-.06	LOP	47.58	VP	26.165	GAP	22.50	AZP	89.99	TAL	354.56	TAP	94.50	RCA	151.66	APO	355.96	V2	25.026
RC	81.081	GL	-.36	GP	-5.61	ZAL	97.47	ZAP	172.17	ETS	227.39	ZAE	162.21	ETE	341.95	ZAC	77.89	ETC	282.87	LVI	-11.66

PLANETOCENTRIC CONIC

C3	32.464	VHL	5.698	DLA	16.03	RAL	42.76	RAD	6647.9	VEL	12.344	PTH	7.27	VHP	7.944	DPA	9.96	RAP	41.65	ECC	1.5343

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 33 59	3575.98	-47.15	135.23	287.65	97.28	13 33 35	2576.0	-38.90	103.88
60.00	12 55 18	3519.25	-40.22	130.97	288.50	92.88	13 53 57	2519.2	-34.68	101.34
70.00	13 26 34	3427.19	-34.15	123.67	288.66	89.46	14 23 41	2427.2	-30.80	95.45
80.00	14 15 0	3275.43	-29.73	112.01	288.50	87.13	15 9 35	2275.4	-27.90	84.74
90.00	15 27 28	3041.51	-28.05	94.71	288.39	86.26	16 18 10	2041.5	-26.78	67.77
100.00	16 57 52	2749.90	-29.73	73.38	288.50	87.13	17 43 42	1749.9	-27.90	46.10
110.00	18 26 1	2474.01	-34.15	52.59	288.66	89.46	19 7 15	1474.0	-30.80	24.37

DIFFERENTIAL CORRECTIONS

TDE	-.3545	TRA	-1.1227	TC3	.3131	BAU	.1437
RDE	-.5660	RRA	.2338	RC3	-.1078	FAU	.05972
FDE	.3606	FRA	.8678	FC3	-1.5927	BSP	1962
BDE	.6679	BRA	1.1468	BC3	.3312	FSP	228

MID-COURSE EXECUTION ACCURACY

SGT	1278.4	SGR	631.6	SG3	178.1
RRT	-.1588	RRF	.1833	RTF	-.6995
SGB	1425.9	R23	-.0383	R13	.7023
SG1	1283.6	SG2	621.1	THA	174.14

ORBIT DETERMINATION ACCURACY

ST	25.1	SR	28.7	SS	15.7
CRT	.6152	CRS	.7103	CST	.9861
LSA	37.3	MSA	17.4	SSA	1.4
EL1	34.3	EL2	16.5	ALF	51.21

LAUNCH DATE JUL 31 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 320.803 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	34.879	GAL	-1.48	AZL	90.02	HCA	101.05	SMA	249.78	ECC	.39273	INC	.0171	V1	29.338
RP	220.00	LAP	-.02	LOP	48.70	VP	25.983	GAP	22.14	AZP	90.00	TAL	354.76	TAP	95.81	RCA	151.68	APO	347.87	V2	24.985
RC	82.809	GL	-.13	GP	-5.77	ZAL	97.08	ZAP	171.50	ETS	224.37	ZAE	161.73	ETE	341.67	ZAC	77.67	ETC	282.84	LVI	-11.41

PLANETOCENTRIC CONIC

C3	31.052	VHL	5.572	DLA	16.13	RAL	42.31	RAD	6647.4	VEL	12.287	PTH	7.23	VHP	7.712	DPA	9.92	RAP	42.03	ECC	1.5110

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 31 47	3566.85	-47.07	134.36	286.19	97.94	13 31 14	2566.9	-38.59	103.23
60.00	12 52 57	3510.48	-40.18	130.23	287.14	93.38	13 51 28	2510.5	-34.45	100.71
70.00	13 24 4	3418.89	-34.15	123.02	287.35	89.85	14 21 3	2418.9	-30.65	94.86
80.00	14 12 20	3267.66	-29.76	111.43	287.22	87.43	15 6 47	2267.7	-27.79	84.18
90.00	15 24 43	3034.00	-28.08	94.16	287.12	86.53	16 15 17	2034.0	-26.69	67.24
100.00	16 55 12	2742.13	-29.76	72.80	287.22	87.43	17 40 54	1742.1	-27.79	45.55
110.00	18 23 30	2465.71	-34.15	51.94	287.35	89.85	19 4 36	1465.7	-30.65	23.77

DIFFERENTIAL CORRECTIONS

TDE	-.3562	TRA	-1.1145	TC3	.3471	BAU	.1525
RDE	-.5522	RRA	.2332	RC3	-.1198	FAU	.06227
FDE	.3807	FRA	.8915	FC3	-1.7362	BSP	2027
BDE	.6571	BRA	1.1386	BC3	.3672	FSP	247

MID-COURSE EXECUTION ACCURACY

SGT	1306.4	SGR	634.4	SG3	189.5
RRT	-.1707	RRF	.1972	RTF	-.7087
SGB	1452.3	R23	-.0413	R13	.7118
SG1	1312.2	SG2	622.4	THA	173.88

ORBIT DETERMINATION ACCURACY

ST	25.6	SR	28.6	SS	16.3
CRT	.6174	CRS	.7170	CST	.9853
LSA	37.8	MSA	17.5	SSA	1.4
EL1	34.6	EL2	16.7	ALF	50.14

LAUNCH DATE JUL 31 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 323.540 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	34.764	GAL	-1.40	AZL	89.98	HCA	102.17	SMA	246.08	ECC	.38355	INC	.0000	V1	29.338
RP	220.38	LAP	.02	LOP	49.82	VP	25.790	GAP	21.78	AZP	90.00	TAL	354.96	TAP	97.13	RCA	151.70	APO	340.47	V2	24.944
RC	84.610	GL	.10	GP	-5.94	ZAL	96.69	ZAP	170.80	ETS	221.80	ZAE	161.30	ETE	341.33	ZAC	77.44	ETC	282.81	LVI	-11.15

PLANETOCENTRIC CONIC

C3	29.744	VHL	5.454	DLA	16.24	RAL	41.84	RAD	6646.9	VEL	12.234	PTH	7.18	VHP	7.488	DPA	9.87	RAP	42.41	ECC	1.4895

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 29 29	3558.23	-46.98	133.54	284.77	98.57	13 28 48	2558.2	-38.29	102.62
60.00	12 50 32	3502.22	-40.15	129.53	285.79	93.86	13 48 54	2502.2	-34.24	100.11
70.00	13 21 28	3411.14	-34.15	122.42	286.06	90.20	14 18 19	2411.1	-30.50	94.30
80.00	14 9 33	3260.46	-29.78	110.90	285.97	87.71	15 3 54	2260.5	-27.70	83.67
90.00	15 21 52	3027.07	-28.11	93.66	285.87	86.78	16 12 19	2027.1	-26.61	66.75
100.00	16 52 25	2734.93	-29.78	72.27	285.97	87.71	17 38 0	1734.9	-27.70	45.04
110.00	18 20 55	2457.96	-34.15	51.34	286.06	90.20	19 1 53	1458.0	-30.50	23.22

DIFFERENTIAL CORRECTIONS

TDE	-.3578	TRA	-1.1057	TC3	.3824	BAU	.1610
RDE	-.5387	RRA	.2328	RC3	-.1329	FAU	.06496
FDE	.4018	FRA	.9159	FC3	-1.8907	BSP	2085
BDE	.6467	BRA	1.1299	BC3	.4048	FSP	264

MID-COURSE EXECUTION ACCURACY

SGT	1333.8	SGR	637.3	SG3	201.4
RRT	-.1834	RRF	.2122	RTF	-.7176
SGB	1478.3	R23	-.0446	R13	.7209
SG1	1340.4	SG2	623.4	THA	173.60

ORBIT DETERMINATION ACCURACY

ST	26.1	SR	28.6	SS	16.9
CRT	.6196	CRS	.7234	CST	.9845
LSA	38.4	MSA	17.6	SSA	1.5
EL1	34.9	EL2	16.8	ALF	49.07

LAUNCH DATE JUL 31 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 326.372 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	34.656	GAL	-1.32	AZL	89.95	HCA	103.29	SMA	242.70	ECC	.37469	INC	.0509	V1	29.338
RP	220.76	LAP	.05	LOP	50.94	VP	25.603	GAP	21.43	AZP	90.01	TAL	355.17	TAP	98.48	RCA	151.71	APO	333.68	V2	24.902
RC	86.480	GL	.34	GP	-6.11	ZAL	96.28	ZAP	170.08	ETS	219.60	ZAE	160.93	ETE	340.93	ZAC	77.21	ETC	282.78	LVI	-10.89

PLANETOCENTRIC CONIC

C3	28.532	VHL	5.342	DLA	16.35	RAL	41.37	RAD	6646.4	VEL	12.185	PTH	7.14	VHP	7.273	DPA	9.81	RAP	42.78	ECC	1.4696

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 27 8	3550.10	-46.90	132.78	283.37	99.15	13 26 18	2550.1	-38.01	102.05
60.00	12 48 1	3494.49	-40.11	128.87	284.48	94.30	13 46 16	2494.5	-34.03	99.56
70.00	13 18 47	3403.94	-34.15	121.86	284.79	90.54	14 15 31	2403.9	-30.36	93.78
80.00	14 6 41	3253.84	-29.79	110.41	284.73	87.97	15 0 55	2253.8	-27.60	83.20
90.00	15 18 54	3020.74	-28.13	93.20	284.64	87.01	16 9 14	2020.7	-26.54	66.30
100.00	16 49 33	2728.31	-29.79	71.78	284.73	87.97	17 35 1	1728.3	-27.60	44.57
110.00	18 18 13	2450.75	-34.15	50.77	284.79	90.54	18 59 4	1450.8	-30.36	22.70

DIFFERENTIAL CORRECTIONS

TDE	-.3588	TRA	-1.0964	TC3	.4178	BAU	.1690
RDE	-.5254	RRA	.2326	RC3	-.1469	FAU	.06774
FDE	.4239	FRA	.9407	FC3	-2.0553	BSP	2141
BDE	.6362	BRA	1.1208	BC3	.4429	FSP	285

MID-COURSE EXECUTION ACCURACY

SGT	1360.0	SGR	640.2	SG3	214.0
RRT	-.1973	RRF	.2282	RTF	-.7256
SGB	1503.1	R23	-.0477	R13	.7292
SG1	1367.4	SG2	624.2	THA	173.29

ORBIT DETERMINATION ACCURACY

ST	26.6	SR	28.4	SS	17.5
CRT	.6211	CRS	.7296	CST	.9836
LSA	38.9	MSA	17.7	SSA	1.5
EL1	35.1	EL2	16.9	ALF	48.05

LAUNCH DATE JUL 31 1973 FLIGHT TIME 122.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 329.289 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	34.553	GAL	-1.24	AZL	89.91	HCA	104.40	SMA	239.58	ECC	.36669	INC	.0887
RP	221.14	LAP	.09	LOP	52.05	VP	25.423	GAP	21.07	AZP	90.02	TAL	355.38	TAP	99.78	RCA	151.73	APO	327.43
RC	88.416	GL	.59	GP	-6.29	ZAL	95.87	ZAP	169.34	ETS	217.70	ZAE	160.62	ETE	340.46	ZAC	76.97	ETC	282.76

V1	29.338	V2	24.861	LVI	-10.62														

PLANETOCENTRIC CONIC

C3	27.408	VHL	5.235	DLA	16.46	RAL	40.87	RAD	6646.0	VEL	12.139	PTH	7.11	VHP	7.084	DPA	9.74	RAP	43.13

ECC	1.4511																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 24 41	3542.47	-46.81	132.06	282.01	99.70	13 23 44	2542.5	-37.74	101.52
60.00	12 45 26	3487.27	-40.07	128.26	283.19	94.71	13 43 33	2487.3	-33.84	99.05
70.00	13 16 0	3397.27	-34.14	121.34	283.55	90.84	14 12 37	2397.3	-30.23	93.31
80.00	14 3 42	3247.79	-29.81	109.96	283.50	88.20	14 57 50	2247.8	-27.52	82.77
90.00	15 15 49	3015.00	-28.15	92.78	283.43	87.22	16 6 4	2015.0	-26.47	65.90
100.00	16 46 34	2722.26	-29.81	71.33	283.50	88.20	17 31 56	1722.3	-27.52	44.14
110.00	18 15 26	2444.09	-34.14	50.25	283.55	90.84	18 56 10	1444.1	-30.23	22.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3519	TRA	-1.0774	TC3	.4700	BAU	.1821	SGT	1379.2	SGR	642.8	SG3	227.1	ST	26.7	SR	28.3	SS	18.3
RDE	-.5120	RRA	.2327	RC3	-.1619	FAU	.07054	RRT	-.2190	RRF	.2437	RTF	-.7443	CRT	.6171	CRS	.7378	CST	.9811
FDE	.4523	FRA	.9692	FC3	-2.2280	BSP	2079	SGB	1521.7	R23	-.0398	R13	.7478	LSA	39.1	MSA	17.7	SSA	1.8
BDE	.6212	BRA	1.1023	BC3	.4971	FSP	309	SG1	1388.2	SG2	623.1	THA	172.69	EL1	35.0	EL2	17.0	ALF	47.74

LAUNCH DATE JUL 31 1973 FLIGHT TIME 124.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 332.284 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	34.456	GAL	-1.16	AZL	89.87	HCA	105.50	SMA	236.71	ECC	.35896	INC	.1263
RP	221.52	LAP	.12	LOP	53.15	VP	25.250	GAP	20.73	AZP	90.03	TAL	355.60	TAP	101.10	RCA	151.74	APO	321.68
RC	90.414	GL	.85	GP	-6.48	ZAL	95.44	ZAP	168.57	ETS	216.05	ZAE	160.36	ETE	339.94	ZAC	76.73	ETC	282.73

V1	29.338	V2	24.819	LVI	-10.35														

PLANETOCENTRIC CONIC

C3	26.368	VHL	5.135	DLA	16.59	RAL	40.37	RAD	6645.6	VEL	12.097	PTH	7.07	VHP	6.862	DPA	9.66	RAP	43.48

ECC	1.4340																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 22 12	3535.39	-46.73	131.39	280.69	100.20	13 21 7	2535.4	-37.49	101.03
60.00	12 42 46	3480.62	-40.03	127.70	281.93	95.09	13 40 47	2480.6	-33.66	98.58
70.00	13 13 8	3391.22	-34.14	120.86	282.33	91.12	14 9 39	2391.2	-30.12	92.88
80.00	14 0 38	3242.40	-29.82	109.56	282.31	88.41	14 54 40	2242.4	-27.44	82.39
90.00	15 12 38	3009.94	-28.17	92.41	282.24	87.40	16 2 48	2009.9	-26.41	65.54
100.00	16 43 29	2716.87	-29.82	70.93	282.31	88.41	17 28 46	1716.9	-27.44	43.76
110.00	18 12 34	2438.04	-34.14	49.78	282.33	91.12	18 53 13	1438.0	-30.12	21.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3574	TRA	-1.0715	TC3	.5042	BAU	.1886	SGT	1408.3	SGR	645.9	SG3	241.3	ST	27.4	SR	28.1	SS	19.0
RDE	-.4991	RRA	.2326	RC3	-.1786	FAU	.07373	RRT	-.2316	RRF	.2620	RTF	-.7477	CRT	.6222	CRS	.7441	CST	.9807
FDE	.4768	FRA	.9922	FC3	-2.4206	BSP	2176	SGB	1549.3	R23	-.0477	R13	.7518	LSA	39.8	MSA	17.7	SSA	1.5
BDE	.6139	BRA	1.0964	BC3	.5349	FSP	330	SG1	1418.1	SG2	623.9	THA	172.47	EL1	35.3	EL2	17.0	ALF	46.31

LAUNCH DATE JUL 31 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 335.349 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	34.363	GAL	-1.09	AZL	89.83	HCA	106.60	SMA	234.06	ECC	.35164	INC	.1643
RP	221.90	LAP	.16	LOP	54.25	VP	25.083	GAP	20.38	AZP	90.05	TAL	355.82	TAP	102.42	RCA	151.76	APO	316.37
RC	92.473	GL	1.13	GP	-6.68	ZAL	95.02	ZAP	167.79	ETS	214.62	ZAE	160.16	ETE	339.35	ZAC	76.48	ETC	282.71

V1	29.338	V2	24.778	LVI	-10.08														

PLANETOCENTRIC CONIC

C3	25.404	VHL	5.040	DLA	16.71	RAL	39.86	RAD	6645.2	VEL	12.057	PTH	7.04	VHP	6.667	DPA	9.56	RAP	43.82

ECC	1.4181																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 19 38	3528.84	-46.65	130.78	279.41	100.67	13 18 27	2528.8	-37.25	100.59
60.00	12 40 2	3474.53	-39.99	127.19	280.71	95.44	13 37 56	2474.5	-33.49	98.15
70.00	13 10 11	3385.76	-34.13	120.44	281.14	91.37	14 6 37	2385.8	-30.01	92.49
80.00	13 57 27	3237.63	-29.83	109.21	281.14	88.60	14 51 25	2237.6	-27.37	82.05
90.00	15 9 21	3005.53	-28.18	92.09	281.08	87.57	15 59 27	2005.5	-26.35	65.23
100.00	16 40 19	2712.10	-29.83	70.57	281.14	88.60	17 25 31	1712.1	-27.37	43.42
110.00	18 9 37	2432.58	-34.13	49.35	281.14	91.37	18 50 10	1432.6	-30.01	21.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3616	TRA	-1.0638	TC3	.5415	BAU	.1937	SGT	1435.7	SGR	649.1	SG3	256.3	ST	28.0	SR	28.0	SS	19.6
RDE	-.4864	RRA	.2327	RC3	-.1967	FAU	.07709	RRT	-.2464	RRF	.2815	RTF	-.7526	CRT	.6262	CRS	.7500	CST	.9801
FDE	.5033	FRA	1.0168	FC3	-2.6271	BSP	2266	SGB	1575.6	R23	-.0544	R13	.7572	LSA	40.4	MSA	17.7	SSA	1.6
BDE	.6061	BRA	1.0889	BC3	.5762	FSP	353	SG1	1446.6	SG2	624.4	THA	172.18	EL1	35.7	EL2	17.1	ALF	45.00

LAUNCH DATE JUL 31 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 338.476 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	34.276	GAL	-1.02	AZL	89.80	HCA	107.70	SMA	231.61	ECC	.34473	INC	.2028
RP	222.28	LAP	.19	LOP	55.35	VP	24.922	GAP	20.04	AZP	90.06	TAL	356.04	TAP	103.74	RCA	151.77	APO	311.46
RC	94.587	GL	1.41	GP	-6.89	ZAL	94.59	ZAP	166.98	ETS	213.35	ZAE	160.02	ETE	338.69	ZAC	76.22	ETC	282.69

V1	29.338	V2	24.736	LVI	-9.80														

PLANETOCENTRIC CONIC

C3	24.508	VHL	4.951	DLA	16.85	RAL	39.35	RAD	6644.8	VEL	12.020	PTH	7.01	VHP	6.479	DPA	9.45	RAP	44.15

ECC	1.4033																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 17 0	3522.82	-46.57	130.22	278.17	101.09	13 15 43	2522.8	-37.03	100.18
60.00	12 37 13	3469.00	-39.96	126.72	279.51	95.75	13 35 2	2469.0	-33.34	97.76
70.00	13 7 9	3380.89	-34.12	120.06	279.98	91.60	14 3 30	2380.9	-29.91	92.14
80.00	13 54 11	3233.51	-29.83	108.90	280.00	88.76	14 48 4	2233.5	-27.31	81.76
90.00	15 5 58	3001.78	-28.19	91.81	279.94	87.70	15 56 0	2001.8	-26.30	64.96
100.00	16 37 3	2707.98	-29.83	70.27	280.00	88.76	17 22 11	1708.0	-27.31	43.13
110.00	18 6 35	2427.71	-34.12	48.97	279.98	91.60	18 47 3	1427.7	-29.91	21.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3661	TRA	-1.0551	TC3	.5803	BAU	.2029	SGT	1462.0	SGR	652.5	SG3	272.1	ST	28.6	SR	27.7	SS	20.4
RDE	-.4737	RRA	.2329	RC3	-.2162	FAU	.08062	RRT	-.2621	RRF	.3016	RTF	-.7578	CRT	.6306	CRS	.7570	CST	.9793
FDE	.5339	FRA	1.0421	FC3	-2.8479	BSP	2336	SGB	1601.0	R23	-.0606	R13	.7629	LSA	41.1	MSA	17.6	SSA	1.6
BDE	.5987	BRA	1.0805	BC3	.6193	FSP	377	SG1	1474.2	SG2	624.5	THA	171.86	EL1	36.0	EL2	17.1	ALF	43.67

LAUNCH DATE JUL 31 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 341.660 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	34.193	GAL	-.95	AZL	89.76	HCA	108.80	SMA	229.34	ECC	.33820	INC	.2411
RP	222.67	LAP	.23	LOP	56.45	VP	24.786	GAP	19.70	AZP	90.08	TAL	356.26	TAP	105.05	RCA	151.78	APO	306.90
RC	96.756	GL	1.70	GP	-7.10	ZAL	94.16	ZAP	166.16	ETS	212.24	ZAE	159.92	ETE	337.96	ZAC	75.96	ETC	282.67

VI	29.338																		
V2	24.694																		
LVI	-9.52																		

PLANETOCENTRIC CONIC

C3	23.678	VHL	4.866	DLA	16.99	RAL	38.82	RAD	6644.4	VEL	11.986	PTH	6.98	VHP	6.297	DPA	9.33	RAP	44.47

ECC	1.3897																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 19	3517.33	-46.50	129.71	276.96	101.48	13 12 57	2517.3	-36.83	99.80
60.00	12 34 20	3464.03	-39.92	126.30	278.35	96.03	13 32 5	2464.0	-33.20	97.41
70.00	13 4 2	3376.63	-34.11	119.72	278.85	91.80	14 0 18	2376.6	-29.82	91.64
80.00	13 50 48	3230.03	-29.84	108.64	278.88	88.89	14 44 39	2230.0	-27.26	81.51
90.00	15 2 28	2998.70	-28.20	91.59	278.83	87.81	15 52 27	1998.7	-26.26	64.75
100.00	16 33 40	2704.50	-29.84	70.01	278.88	88.89	17 18 45	1704.5	-27.26	42.88
110.00	18 3 28	2423.45	-34.11	48.64	278.85	91.80	18 43 52	1423.4	-29.82	20.76

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3695	TRA	-1.0460	TC3	.6209	BAU	.2104	SGT	1487.6	SGR	656.3	SG3	288.7	ST	29.1	SR	27.5	SS	21.2
RDE	-.4612	RRA	.2333	RC3	-.2371	FAU	.08427	RRT	-.2797	RRF	.3229	RTF	-.7634	CRT	.6337	CRS	.7631	CST	.9783
FDE	.5652	FRA	1.0677	FC3	-3.0813	BSP	2407	SGB	1625.9	R23	-.0665	R13	.7690	LSA	41.7	MSA	17.5	SSA	1.7
BDE	.5910	BRA	1.0717	BC3	.6646	FSP	404	SG1	1501.3	SG2	624.4	THA	171.48	EL1	36.2	EL2	17.1	ALF	42.43

LAUNCH DATE JUL 31 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 344.696 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	34.115	GAL	-.88	AZL	89.72	HCA	109.89	SMA	227.24	ECC	.33202	INC	.2802
RP	223.06	LAP	.26	LOP	57.54	VP	24.616	GAP	19.36	AZP	90.10	TAL	356.48	TAP	106.37	RCA	151.79	APO	302.68
RC	98.976	GL	2.00	GP	-7.33	ZAL	93.72	ZAP	165.32	ETS	211.26	ZAE	159.87	ETE	337.15	ZAC	75.70	ETC	282.65

VI	29.338																		
V2	24.652																		
LVI	-9.23																		

PLANETOCENTRIC CONIC

C3	22.907	VHL	4.786	DLA	17.14	RAL	38.29	RAD	6644.1	VEL	11.954	PTH	6.96	VHP	6.121	DPA	9.19	RAP	44.78

ECC	1.3770																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 11 35	3512.38	-46.43	129.25	275.80	101.83	13 10 7	2512.4	-36.65	99.47
60.00	12 31 24	3459.62	-39.89	125.93	277.22	96.28	13 29 3	2459.6	-33.08	97.10
70.00	13 0 50	3372.97	-34.10	119.44	277.75	91.96	13 57 3	2373.0	-29.75	91.58
80.00	13 47 20	3227.22	-29.84	108.43	277.79	89.00	14 41 8	2227.2	-27.22	81.32
90.00	14 58 52	2996.32	-28.21	91.41	277.74	87.90	15 48 49	1996.3	-26.23	64.58
100.00	16 30 12	2701.69	-29.84	69.80	277.79	89.00	17 15 14	1701.7	-27.22	42.68
110.00	18 0 16	2419.79	-34.10	48.36	277.75	91.96	18 40 36	1419.8	-29.75	20.50

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3726	TRA	-1.0352	TC3	.6612	BAU	.2175	SGT	1510.4	SGR	660.3	SG3	306.0	ST	29.6	SR	27.2	SS	22.0
RDE	-.4488	RRA	.2337	RC3	-.2594	FAU	.08810	RRT	-.2981	RRF	.3449	RTF	-.7686	CRT	.6369	CRS	.7697	CST	.9772
FDE	.5996	FRA	1.0925	FC3	-3.3295	BSP	2468	SGB	1648.5	R23	-.0718	R13	.7748	LSA	42.4	MSA	17.4	SSA	1.7
BDE	.5833	BRA	1.0613	BC3	.7103	FSP	432	SG1	1525.8	SG2	624.0	THA	171.07	EL1	36.4	EL2	17.1	ALF	41.23

LAUNCH DATE JUL 31 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 348.179 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	34.040	GAL	-.81	AZL	89.68	HCA	110.98	SMA	225.28	ECC	.32618	INC	.3192
RP	223.44	LAP	.30	LOP	58.63	VP	24.470	GAP	19.03	AZP	90.11	TAL	356.70	TAP	107.68	RCA	151.80	APO	298.76
RC	101.244	GL	2.31	GP	-7.56	ZAL	93.29	ZAP	164.46	ETS	210.39	ZAE	159.87	ETE	336.26	ZAC	75.42	ETC	282.64

VI	29.338																		
V2	24.611																		
LVI	-8.94																		

PLANETOCENTRIC CONIC

C3	22.191	VHL	4.711	DLA	17.30	RAL	37.76	RAD	6643.8	VEL	11.924	PTH	6.93	VHP	5.950	DPA	9.04	RAP	45.07

ECC	1.3652																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 8 48	3507.97	-46.37	128.85	274.67	102.14	13 7 16	2508.0	-36.49	99.17
60.00	12 28 23	3455.79	-39.86	125.61	276.13	96.50	13 25 59	2455.8	-32.97	96.83
70.00	12 57 33	3369.94	-34.10	119.20	276.68	92.10	13 53 43	2369.9	-29.68	91.37
80.00	13 43 46	3225.08	-29.85	108.27	276.73	89.09	14 37 31	2225.1	-27.19	81.16
90.00	14 55 10	2994.64	-28.21	91.29	276.68	87.96	15 45 4	1994.6	-26.21	64.46
100.00	16 26 38	2699.56	-29.85	69.64	276.73	89.09	17 11 38	1699.6	-27.19	42.53
110.00	17 56 59	2416.76	-34.10	48.12	276.68	92.10	18 37 16	1416.8	-29.68	20.29

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3750	TRA	-1.0249	TC3	.7043	BAU	.2253	SGT	1534.0	SGR	665.1	SG3	324.4	ST	30.1	SR	26.9	SS	22.8
RDE	-.4365	RRA	.2344	RC3	-.2836	FAU	.09214	RRT	-.3185	RRF	.3687	RTF	-.7743	CRT	.6387	CRS	.7749	CST	.9762
FDE	.6342	FRA	1.1185	FC3	-3.5947	BSP	2522	SGB	1672.0	R23	-.0771	R13	.7812	LSA	43.0	MSA	17.3	SSA	1.7
BDE	.5754	BRA	1.0514	BC3	.7593	FSP	463	SG1	1551.4	SG2	623.4	THA	170.61	EL1	36.6	EL2	17.0	ALF	40.07

LAUNCH DATE JUL 31 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 351.505 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.970	GAL	-.75	AZL	89.64	HCA	112.06	SMA	223.46	ECC	.32065	INC	.3589
RP	223.83	LAP	.33	LOP	59.71	VP	24.330	GAP	18.70	AZP	90.13	TAL	356.92	TAP	108.98	RCA	151.81	APO	295.11
RC	103.560	GL	2.63	GP	-7.81	ZAL	92.85	ZAP	163.59	ETS	209.61	ZAE	159.91	ETE	335.28	ZAC	75.14	ETC	282.62

VI	29.338																		
V2	24.569																		
LVI	-8.64																		

PLANETOCENTRIC CONIC

C3	21.527	VHL	4.640	DLA	17.47	RAL	37.22	RAD	6643.5	VEL	11.896	PTH	6.91	VHP	5.786	DPA	8.88	RAP	45.35

ECC	1.3543																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 5 57	3504.10	-46.31	128.49	273.59	102.41	13 4 21	2504.1	-36.34	98.92
60.00	12 25 19	3452.54	-39.84	125.34	275.08	96.68	13 22 52	2452.5	-32.88	96.61
70.00	12 54 12	3367.54	-34.09	119.02	275.64	92.21	13 50 19	2367.5	-29.63	91.20
80.00	13 40 6	3223.64	-29.85	108.17	275.70	89.14	14 33 50	2223.6	-27.16	81.06
90.00	14 51 21	2993.69	-28.21	91.22	275.65	88.00	15 41 14	1993.7	-26.20	64.39
100.00	16 22 58	2698.11	-29.85	69.53	275.70	89.14	17 7 56	1698.1	-27.16	42.43
110.00	17 53 38	2414.36	-34.09	47.93	275.64	92.21	18 33 52	1414.4	-29.63	20.12

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3791	TRA	-1.0138	TC3	.7453	BAU	.2322	SGT	1555.7	SGR	670.2	SG3	343.7	ST	30.6	SR	26.6	SS	23.8
RDE	-.4239	RRA	.2352	RC3	-.3093	FAU	.09636	RRT	-.3386	RRF	.3926	RTF	-.7795	CRT	.6423	CRS	.7815	CST	.9751
FDE	.6758	FRA	1.1454	FC3	-3.8754	BSP	2587	SGB	1693.9	R23	-.0831	R13	.7870	LSA	43.7	MSA	17.2	SSA	1.8
BDE	.5687	BRA	1.0407	BC3	.8070	FSP	496	SG1	1575.2	SG2	622.8	THA	170.15	EL1	36.8	EL2	16.9	ALF	38.78

LAUNCH DATE JUL 31 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 354.871 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.903	GAL	-.68	AZL	89.60	HCA	113.14	SMA	221.77	ECC	.31543	INC	.3990	V1	29.338
RP	224.22	LAP	.37	LOP	60.79	VP	24.194	GAP	18.38	AZP	90.16	TAL	357.14	TAP	110.28	RCA	151.82	APO	291.72	V2	24.527
RC	105.921	GL	2.96	GP	-8.06	ZAL	92.42	ZAP	162.69	ETS	208.91	ZAE	159.99	ETE	334.21	ZAC	74.86	ETC	282.61	LVI	-8.34

PLANETOCENTRIC CONIC

C3	20.910	VHL	4.573	DLA	17.65	RAL	36.69	RAD	6643.2	VEL	11.871	PTH	6.88	VHP	5.627	DPA	8.69	RAP	45.62	ECC	1.3441

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 3 4	3500.78	-46.26	128.18	272.54	102.64	13 1 25	2500.8	-36.22	98.70
60.00	12 22 11	3449.87	-39.82	125.12	274.06	96.83	13 19 41	2449.9	-32.80	96.42
70.00	12 50 45	3365.77	-34.09	118.88	274.63	92.30	13 46 51	2365.8	-29.60	91.08
80.00	13 36 21	3222.89	-29.85	108.11	274.69	89.17	14 30 3	2222.9	-27.15	81.01
90.00	14 47 25	2993.46	-28.22	91.21	274.65	88.01	15 37 18	1993.5	-26.20	64.38
100.00	16 19 12	2697.36	-29.85	69.48	274.69	89.17	17 4 10	1697.4	-27.15	42.38
110.00	17 50 12	2412.59	-34.09	47.80	274.63	92.30	18 30 24	1412.6	-29.60	19.99

DIFFERENTIAL CORRECTIONS

TDE	-.3816	TRA	-1.0018	TC3	.7881	BAU	.2396
RDE	-.4116	RRA	.2360	RC3	-.3373	FAU	.10090
FDE	.7173	FRA	1.1713	FC3	-4.1775	BSP	2630
BDE	.5613	BRA	1.0292	BC3	.8573	FSP	529

MID-COURSE EXECUTION ACCURACY

SGT	1575.8	SGR	676.3	SG3	364.3
RRT	-.3607	RRF	.4183	RTF	-.7845
SGB	1714.8	R23	-.0889	R13	.7928
SG1	1598.0	SG2	622.0	THA	169.61

ORBIT DETERMINATION ACCURACY

ST	31.0	SR	26.2	SS	24.7
CRT	.6444	CRS	.7869	CST	.9739
LSA	44.4	MSA	17.0	SSA	1.8
EL1	37.0	EL2	16.8	ALF	37.61

LAUNCH DATE JUL 31 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 358.273 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.840	GAL	-.62	AZL	89.56	HCA	114.21	SMA	220.19	ECC	.31049	INC	.4396	V1	29.338
RP	224.61	LAP	.40	LOP	61.86	VP	24.063	GAP	18.05	AZP	90.18	TAL	357.36	TAP	111.58	RCA	151.82	APO	288.56	V2	24.485
RC	108.326	GL	3.30	GP	-8.33	ZAL	91.99	ZAP	161.78	ETS	208.28	ZAE	160.11	ETE	333.02	ZAC	74.56	ETC	282.61	LVI	-8.03

PLANETOCENTRIC CONIC

C3	20.337	VHL	4.510	DLA	17.83	RAL	36.15	RAD	6643.0	VEL	11.847	PTH	6.86	VHP	5.473	DPA	8.50	RAP	45.88	ECC	1.3347

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 0 8	3498.01	-46.22	127.93	271.54	102.83	12 58 26	2498.0	-36.12	98.51
60.00	12 19 0	3447.79	-39.80	124.94	273.07	96.95	13 16 28	2447.8	-32.74	96.28
70.00	12 47 14	3364.64	-34.08	118.79	273.66	92.35	13 43 19	2364.6	-29.57	91.00
80.00	13 32 29	3222.86	-29.85	108.11	273.72	89.17	14 26 11	2222.9	-27.15	81.01
90.00	14 43 23	2993.99	-28.21	91.24	273.68	87.99	15 33 17	1994.0	-26.20	64.42
100.00	16 15 20	2697.33	-29.85	69.48	273.72	89.17	17 0 18	1697.3	-27.15	42.38
110.00	17 46 41	2411.46	-34.08	47.71	273.66	92.35	18 26 52	1411.5	-29.57	19.91

DIFFERENTIAL CORRECTIONS

TDE	-.3858	TRA	-.9905	TC3	.8288	BAU	.2465
RDE	-.3990	RRA	.2369	RC3	-.3672	FAU	.10565
FDE	.7638	FRA	1.1969	FC3	-4.4974	BSP	2675
BDE	.5551	BRA	1.0185	BC3	.9065	FSP	564

MID-COURSE EXECUTION ACCURACY

SGT	1595.9	SGR	683.1	SG3	385.9
RRT	-.3825	RRF	.4446	RTF	-.7885
SGB	1735.9	R23	-.0961	R13	.7977
SG1	1620.9	SG2	621.4	THA	169.08

ORBIT DETERMINATION ACCURACY

ST	31.5	SR	25.8	SS	25.8
CRT	.6473	CRS	.7926	CST	.9728
LSA	45.1	MSA	16.8	SSA	1.9
EL1	37.2	EL2	16.7	ALF	36.31

LAUNCH DATE JUL 31 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 361.707 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.780	GAL	-.57	AZL	89.52	HCA	115.29	SMA	218.72	ECC	.30582	INC	.4807	V1	29.338
RP	225.00	LAP	.43	LOP	62.94	VP	23.935	GAP	17.73	AZP	90.21	TAL	357.58	TAP	112.87	RCA	151.83	APO	285.60	V2	24.443
RC	110.773	GL	3.65	GP	-8.61	ZAL	91.57	ZAP	160.85	ETS	207.72	ZAE	160.26	ETE	331.73	ZAC	74.26	ETC	282.60	LVI	-7.72

PLANETOCENTRIC CONIC

C3	19.805	VHL	4.450	DLA	18.03	RAL	35.61	RAD	6642.8	VEL	11.824	PTH	6.84	VHP	5.324	DPA	8.28	RAP	46.12	ECC	1.3259

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 57 10	3495.78	-46.19	127.72	270.58	102.98	12 55 26	2495.8	-36.03	98.36
60.00	12 15 45	3446.29	-39.79	124.82	272.13	97.03	13 13 11	2446.3	-32.70	96.17
70.00	12 43 39	3364.17	-34.08	118.75	272.71	92.37	13 39 43	2364.2	-29.56	90.96
80.00	13 28 31	3223.55	-29.85	108.16	272.78	89.15	14 22 14	2223.5	-27.16	81.06
90.00	14 39 13	2995.29	-28.21	91.34	272.73	87.94	15 29 9	1995.3	-26.22	64.51
100.00	16 11 22	2698.02	-29.85	69.53	272.78	89.15	16 56 20	1698.0	-27.16	42.42
110.00	17 43 5	2410.99	-34.08	47.67	272.71	92.37	18 23 16	1411.0	-29.56	19.88

DIFFERENTIAL CORRECTIONS

TDE	-.3891	TRA	-.9786	TC3	.8704	BAU	.2535
RDE	-.3865	RRA	.2380	RC3	-.3990	FAU	.11058
FDE	.8119	FRA	1.2240	FC3	-4.8335	BSP	2729
BDE	.5485	BRA	1.0071	BC3	.9574	FSP	603

MID-COURSE EXECUTION ACCURACY

SGT	1614.5	SGR	691.1	SG3	408.4
RRT	-.4058	RRF	.4719	RTF	-.[illegible]30
SGB	1756.2	R23	-.1029	R13	.8033
SG1	1642.8	SG2	620.7	THA	168.48

ORBIT DETERMINATION ACCURACY

ST	32.0	SR	25.4	SS	26.8
CRT	.6492	CRS	.7971	CST	.9718
LSA	45.9	MSA	16.6	SSA	1.9
EL1	37.3	EL2	16.5	ALF	35.05

LAUNCH DATE JUL 31 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 365.171 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.723	GAL	-.51	AZL	89.48	HCA	116.35	SMA	217.34	ECC	.30140	INC	.5225	V1	29.338
RP	225.39	LAP	.47	LOP	64.01	VP	23.812	GAP	17.42	AZP	90.23	TAL	357.80	TAP	114.15	RCA	151.83	APO	282.85	V2	24.401
RC	113.259	GL	4.01	GP	-8.90	ZAL	91.16	ZAP	159.90	ETS	207.21	ZAE	160.44	ETE	330.31	ZAC	73.94	ETC	282.60	LVI	-7.40

PLANETOCENTRIC CONIC

C3	19.312	VHL	4.395	DLA	18.24	RAL	35.07	RAD	6642.5	VEL	11.804	PTH	6.83	VHP	5.181	DPA	8.05	RAP	46.35	ECC	1.3178

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 9	3494.10	-46.16	127.57	269.67	103.10	12 52 23	2494.1	-35.97	98.25
60.00	12 12 26	3445.39	-39.78	124.74	271.22	97.08	13 9 52	2445.4	-32.67	96.11
70.00	12 39 58	3364.35	-34.08	118.77	271.81	92.36	13 36 2	2364.3	-29.57	90.98
80.00	13 24 26	3224.97	-29.85	108.27	271.87	89.09	14 18 11	2225.0	-27.18	81.16
90.00	14 34 57	2997.37	-28.21	91.49	271.82	87.86	15 24 54	1997.4	-26.25	64.65
100.00	16 7 18	2699.45	-29.85	69.63	271.87	89.09	16 52 17	1699.4	-27.18	42.53
110.00	17 39 24	2411.17	-34.08	47.68	271.81	92.36	18 19 36	1411.2	-29.57	19.89

DIFFERENTIAL CORRECTIONS

TDE	-.3905	TRA	-.9661	TC3	.9088	BAU	.2599
RDE	-.3741	RRA	.2392	RC3	-.4327	FAU	.11569
FDE	.8608	FRA	1.2515	FC3	-5.1864	BSP	2763
BDE	.5408	BRA	.9953	BC3	1.0065	FSP	641

MID-COURSE EXECUTION ACCURACY

SGT	1629.7	SGR	700.3	SG3	431.9
RRT	-.4302	RRF	.5001	RTF	-.7967
SGB	1773.8	R23	-.1097	R13	.8081
SG1	1661.9	SG2	619.9	THA	167.80

ORBIT DETERMINATION ACCURACY

ST	32.3	SR	24.9	SS	27.8
CRT	.6490	CRS	.8005	CST	.9705
LSA	46.5	MSA	16.4	SSA	2.0
EL1	37.4	EL2	16.4	ALF	33.91

LAUNCH DATE JUL 31 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 368.663 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.669	GAL	-.46	AZL	89.44	HCA	117.42	SMA	216.06	ECC	.29723	INC	.5647
RP	225.78	LAP	.50	LOP	65.07	VP	23.693	GAP	17.10	AZP	90.26	TAL	358.01	TAP	115.43	RCA	151.84	APO	280.27
RC	115.782	GL	4.38	GP	-9.20	ZAL	90.75	ZAP	158.93	ETS	206.74	ZAE	160.65	ETE	328.75	ZAC	73.62	ETC	282.60

VI	29.338																		
V2	24.359																		
LVI	-7.07																		

PLANETOCENTRIC CONIC

C3	18.854	VHL	4.342	DLA	18.45	RAL	34.54	RAD	6642.3	VEL	11.784	PTH	6.81	VHP	5.042	DPA	7.80	RAP	46.56
ECC	1.3103																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 6	3492.96	-46.14	127.47	268.79	103.18	12 49 19	2493.0	-35.93	98.18
60.00	12 9 5	3445.08	-39.78	124.71	270.35	97.10	13 6 30	2445.1	-32.66	96.09
70.00	12 36 13	3365.19	-34.08	118.83	270.94	92.32	13 32 18	2365.2	-29.59	91.04
80.00	13 20 15	3227.15	-29.84	108.43	270.99	89.01	14 14 2	2227.2	-27.22	81.31
90.00	14 30 33	3000.25	-28.20	91.70	270.94	87.76	15 20 33	2000.2	-26.28	64.86
100.00	16 3 7	2701.63	-29.84	69.80	270.99	89.01	16 48 9	1701.6	-27.22	42.68
110.00	17 35 39	2412.01	-34.08	47.75	270.94	92.32	18 15 51	1412.0	-29.59	19.95

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3947	TRA	-.9537	TC3	.9443	BAU	.2657	SGT	1644.3	SGR	710.3	SG3	456.4			ST	32.8	SR	24.4
RDE	-.3611	RRA	.2403	RC3	-.4687	FAU	.12102	RRT	-.4531	RRF	.5277	RTF	-.7993			CRT	.6509	CRS	.8053
FDE	.9184	FRA	1.2758	FC3	-5.5570	BSP	2810	SGB	1791.1	R23	-.1181	R13	.8121			LSA	47.4	MSA	16.2
BDE	.5350	BRA	.9835	BC3	1.0542	FSP	684	SG1	1680.6	SG2	619.5	THA	167.15			EL1	37.5	EL2	16.2

SS	29.0																		
CST	.9693																		
SSA	2.0																		
ALF	32.55																		

LAUNCH DATE JUL 31 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 372.181 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.618	GAL	-.41	AZL	89.39	HCA	118.48	SMA	214.86	ECC	.29328	INC	.6078
RP	226.17	LAP	.53	LOP	66.13	VP	23.577	GAP	16.79	AZP	90.29	TAL	358.21	TAP	116.69	RCA	151.84	APO	277.87
RC	118.341	GL	4.77	GP	-9.52	ZAL	90.35	ZAP	157.94	ETS	206.32	ZAE	160.88	ETE	327.04	ZAC	73.29	ETC	282.61

VI	29.338																		
V2	24.318																		
LVI	-6.74																		

PLANETOCENTRIC CONIC

C3	18.429	VHL	4.293	DLA	18.68	RAL	34.01	RAD	6642.1	VEL	11.767	PTH	6.79	VHP	4.908	DPA	7.53	RAP	46.76
ECC	1.3033																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 48 0	3492.38	-46.13	127.41	267.96	103.22	12 46 13	2492.4	-35.91	98.14
60.00	12 5 39	3445.37	-39.78	124.74	269.52	97.09	13 3 5	2445.4	-32.67	96.11
70.00	12 32 22	3366.71	-34.09	118.95	270.10	92.25	13 28 29	2366.7	-29.62	91.14
80.00	13 15 57	3230.10	-29.84	108.65	270.15	88.89	14 9 47	2230.1	-27.26	81.52
90.00	14 26 1	3003.95	-28.19	91.97	270.09	87.62	15 16 5	2003.9	-26.33	65.12
100.00	15 58 49	2704.57	-29.84	70.01	270.15	88.89	16 43 54	1704.6	-27.26	42.89
110.00	17 31 49	2413.53	-34.09	47.87	270.10	92.25	18 12 2	1413.5	-29.62	20.06

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.4014	TRA	-.9412	TC3	.9817	BAU	.2723	SGT	1660.1	SGR	721.8	SG3	482.8			ST	33.4	SR	23.8
RDE	-.3475	RRA	.2418	RC3	-.5075	FAU	.12673	RRT	-.4762	RRF	.5561	RTF	-.8029			CRT	.6539	CRS	.8096
FDE	.9853	FRA	1.3037	FC3	-5.9535	BSP	2838	SGB	1810.2	R23	-.1267	R13	.8171			LSA	48.4	MSA	15.9
BDE	.5309	BRA	.9718	BC3	1.1051	FSP	727	SG1	1700.9	SG2	619.5	THA	166.47			EL1	37.8	EL2	15.9

SS	30.4																		
CST	.9687																		
SSA	2.1																		
ALF	31.02																		

LAUNCH DATE JUL 31 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 375.722 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.570	GAL	-.36	AZL	89.35	HCA	119.54	SMA	213.73	ECC	.28954	INC	.6515
RP	226.56	LAP	.57	LOP	67.19	VP	23.465	GAP	16.48	AZP	90.32	TAL	358.41	TAP	117.95	RCA	151.85	APO	275.62
RC	120.933	GL	5.16	GP	-9.85	ZAL	89.96	ZAP	156.93	ETS	205.94	ZAE	161.13	ETE	325.17	ZAC	72.95	ETC	282.62

VI	29.338																		
V2	24.276																		
LVI	-6.40																		

PLANETOCENTRIC CONIC

C3	18.035	VHL	4.247	DLA	18.92	RAL	33.48	RAD	6641.9	VEL	11.750	PTH	6.78	VHP	4.778	DPA	7.24	RAP	46.94
ECC	1.2968																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 44 52	3492.35	-46.13	127.41	267.18	103.22	12 43 5	2492.3	-35.90	98.14
60.00	12 2 11	3446.26	-39.79	124.81	268.72	97.03	12 59 37	2446.3	-32.70	96.17
70.00	12 28 27	3368.91	-34.09	119.12	269.30	92.15	13 24 36	2368.9	-29.66	91.30
80.00	13 11 33	3233.84	-29.83	108.92	269.33	88.75	14 5 26	2233.8	-27.32	81.78
90.00	14 21 21	3008.50	-28.17	92.30	269.27	87.46	15 11 29	2008.5	-26.39	65.44
100.00	15 54 24	2708.31	-29.83	70.29	269.33	88.75	16 39 33	1708.3	-27.32	43.19
110.00	17 27 53	2415.73	-34.09	48.04	269.30	92.15	18 8 9	1415.7	-29.66	20.22

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.4009	TRA	-.9294	TC3	1.0198	BAU	.2793	SGT	1673.3	SGR	736.2	SG3	510.4			ST	33.6	SR	23.2
RDE	-.3346	RRA	.2435	RC3	-.5491	FAU	.13278	RRT	-.5034	RRF	.5962	RTF	-.8162			CRT	.6499	CRS	.8104
FDE	1.0430	FRA	1.3328	FC3	-6.3742	BSP	2901	SGB	1828.1	R23	-.1337	R13	.8220			LSA	49.1	MSA	15.7
BDE	.8222	BRA	.9608	BC3	1.1582	FSP	778	SG1	1720.2	SG2	618.7	THA	165.81			EL1	37.7	EL2	15.7

SS	31.8																		
CST	.9671																		
SSA	2.1																		
ALF	29.86																		

LAUNCH DATE JUL 31 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 379.285 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.524	GAL	-.31	AZL	89.30	HCA	120.59	SMA	212.68	ECC	.28601	INC	.6961
RP	226.95	LAP	.60	LOP	68.24	VP	23.356	GAP	16.18	AZP	90.35	TAL	358.61	TAP	118.21	RCA	151.85	APO	273.51
RC	123.856	GL	5.56	GP	-10.20	ZAL	89.57	ZAP	155.90	ETS	205.58	ZAE	161.38	ETE	323.12	ZAC	72.60	ETC	282.64

VI	29.338																		
V2	24.234																		
LVI	-6.05																		

PLANETOCENTRIC CONIC

C3	17.669	VHL	4.203	DLA	19.17	RAL	32.98	RAD	6641.8	VEL	11.734	PTH	6.76	VHP	4.653	DPA	6.93	RAP	47.11
ECC	1.2908																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 41 42	3492.84	-46.14	127.46	266.43	103.19	12 39 55	2492.8	-35.92	98.17
60.00	11 58 36	3447.73	-39.80	124.94	267.96	96.95	12 56 6	2447.7	-32.74	96.27
70.00	12 24 26	3371.76	-34.10	119.35	268.52	92.02	13 20 38	2371.8	-29.72	91.50
80.00	13 7 0	3238.33	-29.83	109.26	268.55	88.57	14 0 58	2238.3	-27.38	82.10
90.00	14 16 32	3013.87	-28.16	92.69	268.48	87.26	15 6 46	2013.9	-26.45	65.82
100.00	15 49 52	2712.80	-29.83	70.63	268.55	88.57	16 35 5	1712.8	-27.38	43.47
110.00	17 23 52	2418.58	-34.10	48.26	268.52	92.02	18 4 11	1418.6	-29.72	20.42

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3918	TRA	-.9019	TC3	1.0798	BAU	.2911	SGT	1674.3	SGR	751.8	SG3	539.1			ST	33.1	SR	22.5
RDE	-.3213	RRA	.2446	RC3	-.5935	FAU	.13911	RRT	-.5389	RRF	.6153	RTF	-.8184			CRT	.6437	CRS	.8128
FDE	1.1083	FRA	1.3525	FC3	-6.8160	BSP	2767	SGB	1835.4	R23	-.1252	R13	.8348			LSA	49.3	MSA	15.5
BDE	.5067	BRA	.9345	BC3	1.2322	FSP	820	SG1	1730.0	SG2	612.9	THA	164.39			EL1	37.0	EL2	15.5

SS	32.8																		
CST	.9641																		
SSA	2.1																		
ALF	29.26																		

LAUNCH DATE JUL 31 1973 FLIGHT TIME 154.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 382.867 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.480	GAL	-.26	AZL	89.26	HCA	121.64	SMA	211.60	ECC	.28268	INC	.7414	V1	29.338
RP	227.34	LAP	.63	LOP	69.29	VP	23.251	GAP	15.88	AZP	90.39	TAL	358.81	TAP	120.45	RCA	151.85	APO	271.53	V2	24.193
RC	126.208	GL	5.97	GP	-10.56	ZAL	89.20	ZAP	154.84	ETS	205.26	ZAE	161.64	ETE	320.89	ZAC	72.24	ETC	282.65	LVI	-5.69

PLANETOCENTRIC CONIC

C3	17.331	VHL	4.163	DLA	19.44	RAL	32.44	RAD	6641.6	VEL	11.720	PTH	6.75	VHP	4.533	DPA	6.60	RAP	47.26	ECC	1.2852

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 38 30	3493.92	-46.16	127.55	265.73	103.11	12 36 44	2493.9	-35.96	98.24
60.00	11 55 2	3449.85	-39.82	125.11	267.25	96.83	12 52 32	2449.9	-32.80	96.42
70.00	12 20 20	3375.38	-34.11	119.63	267.79	91.85	13 16 35	2375.4	-29.80	91.75
80.00	13 2 20	3243.71	-29.82	109.66	267.80	88.36	13 56 24	2243.7	-27.46	82.48
90.00	14 11 34	3020.21	-28.14	93.16	267.72	87.03	15 1 55	2020.2	-26.53	66.26
100.00	15 45 12	2718.19	-29.82	71.03	267.80	88.36	16 30 30	1718.2	-27.46	43.85
110.00	17 19 46	2422.19	-34.11	48.54	267.79	91.85	18 0 9	1422.2	-29.80	20.67

DIFFERENTIAL CORRECTIONS																			
TDE	-.4021	TRA	-.8955	TC3	1.0977	BAU	.2944												
RDE	-.3069	RRA	.2486	RC3	-.6402	FAU	.14561												
FDE	1.1862	FRA	1.3823	FC3	-7.2737	BSP	2870												
BDE	.5058	BRA	.9288	BC3	1.2708	FSP	872												

MID-COURSE EXECUTION ACCURACY									
SGT	1688.1	SGR	769.4	SG3	569.3				
RRT	-.5572	RRF	.6439	RTF	-.8159				
SGB	1855.2	R23	-.1430	R13	.8350				
SG1	1749.8	SG2	616.4	THA	163.67				

ORBIT DETERMINATION ACCURACY					
ST	33.9	SR	21.8	SS	34.3
CRT	.6449	CRS	.8136	CST	.9642
LSA	50.7	MSA	15.2	SSA	2.2
EL1	37.4	EL2	15.1	ALF	27.35

LAUNCH DATE JUL 31 1973 FLIGHT TIME 156.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 386.467 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.439	GAL	-.22	AZL	89.21	HCA	122.69	SMA	210.77	ECC	.27953	INC	.7875	V1	29.338
RP	227.73	LAP	.66	LOP	70.34	VP	23.149	GAP	15.58	AZP	90.43	TAL	358.99	TAP	121.68	RCA	151.86	APO	269.69	V2	24.152
RC	128.887	GL	6.40	GP	-10.93	ZAL	88.84	ZAP	153.77	ETS	204.96	ZAE	161.90	ETE	318.47	ZAC	71.87	ETC	282.68	LVI	-5.33

PLANETOCENTRIC CONIC

C3	17.018	VHL	4.125	DLA	19.71	RAL	31.93	RAD	6641.5	VEL	11.707	PTH	6.74	VHP	4.417	DPA	6.25	RAP	47.39	ECC	1.2801

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 35 15	3495.56	-46.18	127.70	265.07	103.00	12 33 31	2495.6	-36.03	98.35
60.00	11 51 23	3452.59	-39.84	125.34	266.57	96.68	12 48 56	2452.6	-32.88	96.61
70.00	12 16 8	3379.70	-34.12	119.96	267.10	91.65	13 12 28	2379.7	-29.88	92.06
80.00	12 57 32	3249.94	-29.80	110.12	267.09	88.12	13 51 42	2249.9	-27.55	82.92
90.00	14 6 27	3027.47	-28.11	93.69	267.00	86.77	14 56 54	2027.5	-26.62	66.78
100.00	15 40 24	2724.41	-29.80	71.49	267.09	88.12	16 25 48	1724.4	-27.55	44.29
110.00	17 15 35	2426.52	-34.12	48.88	267.10	91.65	17 56 1	1426.5	-29.88	20.98

DIFFERENTIAL CORRECTIONS																			
TDE	-.4056	TRA	-.8871	TC3	1.1112	BAU	.2974												
RDE	-.2930	RRA	.2488	RC3	-.6886	FAU	.15209												
FDE	1.2577	FRA	1.4143	FC3	-7.7369	BSP	2921												
BDE	.5003	BRA	.9213	BC3	1.3073	FSP	925												

MID-COURSE EXECUTION ACCURACY									
SGT	1694.3	SGR	789.4	SG3	599.6				
RRT	-.5773	RRF	.6721	RTF	-.8137				
SGB	1869.2	R23	-.1582	R13	.8358				
SG1	1763.6	SG2	619.3	THA	162.75				

ORBIT DETERMINATION ACCURACY					
ST	34.4	SR	21.1	SS	35.6
CRT	.6398	CRS	.8114	CST	.9634
LSA	51.6	MSA	15.0	SSA	2.2
EL1	37.5	EL2	14.9	ALF	25.79

LAUNCH DATE JUL 31 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 390.084 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.401	GAL	-.18	AZL	89.17	HCA	123.73	SMA	209.91	ECC	.27655	INC	.8347	V1	29.338
RP	228.12	LAP	.69	LOP	71.38	VP	23.050	GAP	15.28	AZP	90.46	TAL	359.17	TAP	122.90	RCA	151.86	APO	267.96	V2	24.110
RC	131.592	GL	6.83	GP	-11.32	ZAL	88.50	ZAP	152.67	ETS	204.68	ZAE	162.15	ETE	315.83	ZAC	71.48	ETC	282.70	LVI	-4.96

PLANETOCENTRIC CONIC

C3	16.729	VHL	4.090	DLA	20.01	RAL	31.42	RAD	6641.3	VEL	11.695	PTH	6.73	VHP	4.304	DPA	5.87	RAP	47.51	ECC	1.2753

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 31 58	3497.75	-46.22	127.91	264.46	102.85	12 30 16	2497.8	-36.11	98.49
60.00	11 47 40	3455.95	-39.86	125.63	265.94	96.49	12 45 16	2456.0	-32.97	96.84
70.00	12 11 51	3384.75	-34.13	120.36	266.43	91.42	13 8 15	2384.8	-29.99	92.42
80.00	12 52 35	3257.04	-29.79	110.65	266.40	87.84	13 46 52	2257.0	-27.65	83.43
90.00	14 1 9	3035.70	-28.08	94.29	266.30	86.47	14 51 44	2035.7	-26.71	67.36
100.00	15 35 27	2731.52	-29.79	72.02	266.40	87.84	16 20 58	1731.5	-27.65	44.79
110.00	17 11 17	2431.57	-34.13	49.28	266.43	91.42	17 51 48	1431.6	-29.99	21.33

DIFFERENTIAL CORRECTIONS																			
TDE	-.4148	TRA	-.8717	TC3	1.1348	BAU	.3034												
RDE	-.2768	RRA	.2499	RC3	-.7430	FAU	.15957												
FDE	1.3568	FRA	1.4298	FC3	-8.2580	BSP	2955												
BDE	.4987	BRA	.9068	BC3	1.3564	FSP	974												

MID-COURSE EXECUTION ACCURACY									
SGT	1699.4	SGR	811.6	SG3	633.7				
RRT	-.5968	RRF	.6994	RTF	-.8439				
SGB	1883.3	R23	-.1713	R13	.8391				
SG1	1777.3	SG2	622.7	THA	161.78				

ORBIT DETERMINATION ACCURACY					
ST	35.0	SR	20.2	SS	37.9
CRT	.6407	CRS	.8129	CST	.9631
LSA	53.1	MSA	14.6	SSA	2.3
EL1	37.8	EL2	14.4	ALF	23.97

LAUNCH DATE JUL 31 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 393.718 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.364	GAL	-.14	AZL	89.12	HCA	124.77	SMA	209.10	ECC	.27374	INC	.8828	V1	29.338
RP	228.51	LAP	.73	LOP	72.42	VP	22.953	GAP	14.99	AZP	90.50	TAL	359.35	TAP	124.12	RCA	151.86	APO	266.33	V2	24.069
RC	134.321	GL	7.28	GP	-11.73	ZAL	88.17	ZAP	151.55	ETS	204.42	ZAE	162.38	ETE	312.97	ZAC	71.09	ETC	282.74	LVI	-4.58

PLANETOCENTRIC CONIC

C3	16.462	VHL	4.057	DLA	20.31	RAL	30.92	RAD	6641.2	VEL	11.683	PTH	6.72	VHP	4.196	DPA	5.48	RAP	47.61	ECC	1.2709

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 28 39	3500.50	-46.26	128.16	263.89	102.66	12 26 59	2500.5	-36.21	98.68
60.00	11 43 52	3459.95	-39.89	125.96	265.34	96.26	12 41 32	2459.9	-33.09	97.12
70.00	12 7 26	3390.55	-34.14	120.81	265.81	91.15	13 3 57	2390.5	-30.10	92.83
80.00	12 47 28	3265.05	-29.76	111.24	265.75	87.53	13 41 53	2265.1	-27.76	84.00
90.00	13 55 39	3044.94	-28.04	94.96	265.64	86.13	14 46 24	2044.9	-26.82	68.02
100.00	15 30 20	2739.53	-29.76	72.61	265.75	87.53	16 15 59	1739.5	-27.76	45.36
110.00	17 6 53	2437.37	-34.14	49.73	265.81	91.15	17 47 30	1437.4	-30.10	21.75

DIFFERENTIAL CORRECTIONS																			
TDE	-.4157	TRA	-.8592	TC3	1.1594	BAU	.3100												
RDE	-.2621	RRA	.2516	RC3	-.7997	FAU	.16709												
FDE	1.4366	FRA	1.4505	FC3	-8.7871	BSP	3107												
BDE	.4914	BRA	.8952	BC3	1.4084	FSP	1058												

MID-COURSE EXECUTION ACCURACY									
SGT	1703.9	SGR	837.6	SG3	667.7				
RRT	-.6188	RRF	.7266	RTF	-.8144				
SGB	1898.7	R23	-.1821	R13	.8428				
SG1	1792.7	SG2	625.4	THA	160.63				

ORBIT DETERMINATION ACCURACY					
ST	35.2	SR	19.4	SS	38.8
CRT	.6323	CRS	.8094	CST	.9617
LSA	54.0	MSA	14.3	SSA	2.3
EL1	37.7	EL2	14.0	ALF	22.48

LAUNCH DATE JUL 31 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 397.363 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.329	GAL	-.10	AZL	89.07	HCA	125.81	SMA	208.34	ECC	.27108	INC	.9320
RP	228.90	LAP	.76	LOP	73.46	VP	22.860	GAP	14.70	AZP	90.55	TAL	359.51	TAP	125.32	RCA	151.86	APO	264.81
RC	137.073	GL	7.74	GP	-12.16	ZAL	87.85	ZAP	150.40	ETS	204.18	ZAE	162.58	ETE	309.89	ZAC	70.68	ETC	282.77

V1	29.338	V2	24.028	LVI	-4.19														

PLANETOCENTRIC CONIC

C3	16.216	VHL	4.027	DLA	20.63	RAL	30.43	RAD	6641.1	VEL	11.673	PTH	6.71	VHP	4.092	DPA	5.06	RAP	47.69
ECC	1.2669																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 25 17	3503.82	-46.31	128.46	263.36	102.43	12 23 40	2503.8	-36.33	98.90
60.00	11 40 1	3464.58	-39.93	126.35	264.78	96.00	12 37 45	2464.6	-33.22	97.45
70.00	12 2 55	3397.11	-34.14	121.32	265.21	90.85	12 59 32	2397.1	-30.23	93.30
80.00	12 42 11	3274.01	-29.74	111.91	265.12	87.18	13 36 45	2274.0	-27.88	84.63
90.00	13 49 57	3055.24	-27.99	95.71	265.00	85.76	14 40 52	2055.2	-26.93	68.75
100.00	15 25 3	2748.48	-29.74	73.27	265.12	87.18	16 10 51	1748.5	-27.88	46.00
110.00	17 2 22	2443.93	-34.14	50.24	265.21	90.85	17 43 6	1443.9	-30.23	22.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4212	TRA	-.8489	TC3	1.1506	BAU	.3105	SGT	1698.0	SGR	861.8	SG3	699.1	ST	35.7	SR	18.4	SS	40.8
RDE	-.2450	RRA	.2542	RC3	-.8529	FAU	.17336	RRT	-.6331	RRF	.7493	RTF	-.8102	CRT	.6221	CRS	.8037	CST	.9609
FDE	1.5449	FRA	1.4818	FC3	-9.2551	BSP	3061	SGB	1904.2	R23	-.1977	R13	.8430	LSA	55.5	MSA	14.1	SSA	2.3
BDE	.4872	BRA	.8861	BC3	1.4322	FSP	1097	SG1	1796.8	SG2	630.4	THA	159.56	EL1	37.8	EL2	13.6	ALF	20.56

LAUNCH DATE JUL 31 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 401.023 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.296	GAL	-.07	AZL	89.02	HCA	126.84	SMA	207.62	ECC	.26858	INC	.9823
RP	229.28	LAP	.79	LOP	74.49	VP	22.769	GAP	14.41	AZP	90.59	TAL	359.67	TAP	126.51	RCA	151.86	APO	263.38
RC	139.847	GL	8.21	GP	-12.60	ZAL	87.54	ZAP	149.23	ETS	203.94	ZAE	162.74	ETE	306.59	ZAC	70.26	ETC	282.82

V1	29.338	V2	23.988	LVI	-3.79														

PLANETOCENTRIC CONIC

C3	15.991	VHL	3.999	DLA	20.96	RAL	29.95	RAD	6641.0	VEL	11.663	PTH	6.70	VHP	3.992	DPA	4.61	RAP	47.75
ECC	1.2632																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 21 52	3507.71	-46.36	128.82	262.88	102.15	12 20 19	2507.7	-36.48	99.16
60.00	11 36 4	3469.87	-39.96	126.80	264.26	95.70	12 33 54	2469.9	-33.36	97.82
70.00	11 58 17	3404.46	-34.15	121.90	264.66	90.51	12 55 1	2404.5	-30.37	93.82
80.00	12 36 43	3283.95	-29.70	112.64	264.53	86.79	13 31 27	2284.0	-28.01	85.35
90.00	13 44 1	3066.66	-27.93	96.54	264.39	85.35	14 35 8	2066.7	-27.05	69.57
100.00	15 19 35	2758.42	-29.70	74.01	264.53	86.79	16 5 33	1758.4	-28.01	46.71
110.00	16 57 43	2451.27	-34.15	50.81	264.66	90.51	17 38 35	1451.3	-30.37	22.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4275	TRA	-.8446	TC3	1.1702	BAU	.3180	SGT	1711.8	SGR	896.7	SG3	738.8	ST	36.3	SR	17.4	SS	42.6
RDE	-.2282	RRA	.2590	RC3	-.9181	FAU	.18184	RRT	-.6527	RRF	.7757	RTF	-.8108	CRT	.6056	CRS	.7902	CST	.9613
FDE	1.6455	FRA	1.5364	FC3	-9.8451	BSP	3218	SGB	1932.5	R23	-.2109	R13	.8478	LSA	56.9	MSA	13.9	SSA	2.4
BDE	.4846	BRA	.8834	BC3	1.4874	FSP	1201	SG1	1824.3	SG2	637.5	THA	158.35	EL1	38.0	EL2	13.2	ALF	18.55

LAUNCH DATE JUL 31 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 404.695 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.265	GAL	-.04	AZL	88.97	HCA	127.87	SMA	206.95	ECC	.26621	INC	1.0338
RP	229.67	LAP	.82	LOP	75.52	VP	22.681	GAP	14.12	AZP	90.63	TAL	359.83	TAP	127.69	RCA	151.86	APO	262.05
RC	142.641	GL	8.69	GP	-13.07	ZAL	87.25	ZAP	148.03	ETS	203.72	ZAE	162.85	ETE	303.08	ZAC	69.82	ETC	282.86

V1	29.338	V2	23.947	LVI	-3.37														

PLANETOCENTRIC CONIC

C3	15.783	VHL	3.973	DLA	21.31	RAL	29.47	RAD	6640.9	VEL	11.655	PTH	6.69	VHP	3.896	DPA	4.14	RAP	47.80
ECC	1.2598																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 24	3512.18	-46.43	129.24	262.45	101.84	12 16 56	2512.2	-36.64	99.46
60.00	11 32 3	3475.82	-40.00	127.30	263.78	95.36	12 29 59	2475.8	-33.53	98.24
70.00	11 53 31	3412.62	-34.15	122.53	264.13	90.14	12 50 23	2412.6	-30.53	94.40
80.00	12 31 3	3294.93	-29.66	113.45	263.97	86.37	13 25 58	2294.9	-28.14	86.13
90.00	13 37 51	3079.27	-27.85	97.45	263.81	84.90	14 29 10	2079.3	-27.17	70.47
100.00	15 13 54	2769.40	-29.66	74.82	263.97	86.37	16 0 4	1769.4	-28.14	47.50
110.00	16 52 57	2459.43	-34.15	51.45	264.13	90.14	17 33 56	1459.4	-30.53	23.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4260	TRA	-.8249	TC3	1.1036	BAU	.3098	SGT	1666.5	SGR	918.7	SG3	783.9	ST	36.2	SR	16.3	SS	44.8
RDE	-.2103	RRA	.2883	RC3	-.9684	FAU	.18685	RRT	-.6525	RRF	.7922	RTF	-.8044	CRT	.5900	CRS	.7847	CST	.9583
FDE	1.7572	FRA	1.5251	FC3	-10.2377	BSP	3281	SGB	1903.0	R23	-.2366	R13	.8401	LSA	58.0	MSA	13.6	SSA	2.4
BDE	.4751	BRA	.8644	BC3	1.4682	FSP	1280	SG1	1789.1	SG2	648.5	THA	157.03	EL1	37.7	EL2	12.7	ALF	18.89

LAUNCH DATE JUL 31 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 408.366 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.236	GAL	-.01	AZL	88.91	HCA	128.89	SMA	206.33	ECC	.26398	INC	1.0866
RP	230.05	LAP	.85	LOP	76.55	VP	22.595	GAP	13.84	AZP	90.68	TAL	359.97	TAP	128.86	RCA	151.86	APO	260.79
RC	145.456	GL	9.18	GP	-13.55	ZAL	86.97	ZAP	148.80	ETS	203.51	ZAE	162.91	ETE	299.37	ZAC	69.37	ETC	282.92

V1	29.338	V2	23.907	LVI	-2.95														

PLANETOCENTRIC CONIC

C3	15.594	VHL	3.949	DLA	21.68	RAL	29.01	RAD	6640.8	VEL	11.646	PTH	6.68	VHP	3.804	DPA	3.64	RAP	47.83
ECC	1.2566																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 14 53	3517.24	-46.50	129.70	262.05	101.49	12 13 30	2517.2	-36.83	99.80
60.00	11 27 57	3482.45	-40.04	127.86	263.34	94.98	12 25 59	2482.4	-33.71	98.70
70.00	11 48 36	3421.62	-34.15	123.24	263.64	89.72	12 45 37	2421.6	-30.70	95.05
80.00	12 25 9	3307.01	-29.60	114.35	263.43	85.90	13 20 16	2307.0	-28.29	87.00
90.00	13 31 23	3093.15	-27.77	98.46	263.26	84.40	14 22 56	2093.2	-27.30	71.46
100.00	15 8 1	2781.48	-29.60	75.72	263.43	85.90	15 54 22	1781.5	-28.29	48.37
110.00	16 48 2	2468.43	-34.15	52.15	263.64	89.72	17 29 11	1468.4	-30.70	23.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4532	TRA	-.8186	TC3	1.0561	BAU	.3060	SGT	1661.8	SGR	942.4	SG3	795.1	ST	38.1	SR	14.7	SS	48.8
RDE	-.1827	RRA	.2636	RC3	-1.0197	FAU	.19131	RRT	-.6534	RRF	.8084	RTF	-.7871	CRT	.5655	CRS	.7599	CST	.9611
FDE	1.9767	FRA	1.5806	FC3	-10.6210	BSP	4017	SGB	1910.4	R23	-.2572	R13	.8392	LSA	62.2	MSA	13.2	SSA	2.4
BDE	.4886	BRA	.8600	BC3	1.4680	FSP	1582	SG1	1792.3	SG2	661.5	THA	156.23	EL1	39.1	EL2	11.8	ALF	13.55

LAUNCH DATE JUL 31 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 412.069 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.208	GAL	.02	AZL	88.86	HCA	129.91	SMA	205.74	ECC	.26187	INC	1.1408	V1	29.338
RP	230.44	LAP	.87	LOP	77.57	VP	22.512	GAP	13.56	AZP	90.73	TAL	.11	TAP	130.02	RCA	151.86	APO	259.61	V2	23.867
RC	148.289	GL	9.69	GP	-14.05	ZAL	86.71	ZAP	145.55	ETS	203.31	ZAE	162.89	ETE	295.49	ZAC	68.91	ETC	282.98	LVI	-2.52

PLANETOCENTRIC CONIC

C3	15.422	VHL	3.927	DLA	22.06	RAL	28.54	RAD	6640.7	VEL	11.639	PTH	6.68	VHP	3.715	DPA	3.11	RAP	47.84	ECC	1.2538

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 11 19	3522.89	-46.57	130.23	261.71	101.09	12 10 1	2522.9	-37.04	100.18
60.00	11 23 44	3489.78	-40.09	128.48	262.93	94.57	12 21 54	2489.8	-33.91	99.23
70.00	11 43 32	3431.49	-34.15	124.01	263.18	89.26	12 40 43	2431.5	-30.88	95.76
80.00	12 19 0	3320.24	-29.53	115.33	262.93	85.39	13 14 20	2320.2	-28.44	87.95
90.00	13 24 37	3108.41	-27.66	99.56	262.73	83.86	14 16 25	2108.4	-27.44	72.56
100.00	15 1 52	2794.72	-29.53	76.69	262.93	85.39	15 48 27	1794.7	-28.44	49.32
110.00	16 42 58	2478.31	-34.15	52.93	263.18	89.26	17 24 16	1478.3	-30.88	24.68

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.4295	TRA	-.6515	TC3	1.2274	BAU	.3453	SGT	1540.8	SGR	988.4	SG3	847.4	ST	34.9	SR	13.6	SS	47.5
RDE	-.1726	RRA	.2133	RC3	-1.1393	FAU	.20941	RRT	-.6890	RRF	.8316	RTF	-.8169	CRT	.6618	CRS	.8393	CST	.9558
FDE	1.9921	FRA	1.0055	FC	-11.7559	BSP	2870	SGB	1830.6	R23	-.2022	R13	.8740	LSA	59.3	MSA	11.5	SSA	2.5
BDE	.4629	BRA	.6856	BC3	1.6747	FSP	1281	SG1	1713.5	SG2	644.2	THA	151.83	EL1	36.2	EL2	9.9	ALF	15.67

LAUNCH DATE JUL 31 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 415.772 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.182	GAL	.05	AZL	88.80	HCA	130.93	SMA	205.19	ECC	.25989	INC	1.1964	V1	29.338
RP	230.82	LAP	.90	LOP	78.59	VP	22.431	GAP	13.28	AZP	90.78	TAL	.24	TAP	131.17	RCA	151.86	APO	258.51	V2	23.827
RC	151.140	GL	10.21	GP	-14.57	ZAL	86.47	ZAP	144.28	ETS	203.10	ZAE	162.79	ETE	291.47	ZAC	68.43	ETC	283.04	LVI	-2.07

PLANETOCENTRIC CONIC

C3	15.265	VHL	3.907	DLA	22.46	RAL	28.09	RAD	6640.7	VEL	11.632	PTH	6.67	VHP	3.630	DPA	2.56	RAP	47.83	ECC	1.2512

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 7 40	3529.15	-46.65	130.81	261.40	100.65	12 6 30	2529.2	-37.26	100.61
60.00	11 19 26	3497.82	-40.13	129.16	262.57	94.11	12 17 44	2497.8	-34.12	99.80
70.00	11 38 17	3442.28	-34.13	124.85	262.75	88.77	12 35 40	2442.3	-31.07	96.55
80.00	12 12 35	3334.73	-29.45	116.39	262.45	84.84	13 8 10	2334.7	-28.60	89.00
90.00	13 17 29	3125.16	-27.53	100.77	262.22	83.27	14 9 35	2125.2	-27.57	73.76
100.00	14 55 27	2809.20	-29.45	77.76	262.45	84.84	15 42 16	1809.2	-28.60	50.37
110.00	16 37 44	2489.09	-34.13	53.77	262.75	88.77	17 19 13	1489.1	-31.07	25.46

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.4186	TRA	-.7429	TC3	1.1983	BAU	.3485	SGT	1625.8	SGR	1056.9	SG3	898.7	ST	35.5	SR	13.0	SS	49.5
RDE	-.1551	RRA	.2535	RC3	-1.2164	FAU	.21817	RRT	-.7127	RRF	.8570	RTF	-.8075	CRT	.5235	CRS	.7404	CST	.9541
FDE	2.0885	FRA	1.4547	FC	-12.3728	BSP	3076	SGB	1939.2	R23	-.2341	R13	.8708	LSA	60.9	MSA	12.6	SSA	2.5
BDE	.4464	BRA	.7850	BC3	1.7075	FSP	1421	SG1	1822.9	SG2	661.3	THA	150.96	EL1	36.2	EL2	10.8	ALF	11.91

LAUNCH DATE JUL 31 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 419.483 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.157	GAL	.07	AZL	88.75	HCA	131.95	SMA	204.67	ECC	.25802	INC	1.2535	V1	29.338
RP	231.20	LAP	.93	LOP	79.60	VP	22.352	GAP	13.00	AZP	90.84	TAL	.36	TAP	132.31	RCA	151.86	APO	257.47	V2	23.787
RC	154.008	GL	10.75	GP	-15.12	ZAL	86.24	ZAP	142.97	ETS	202.90	ZAE	162.61	ETE	287.34	ZAC	67.93	ETC	283.12	LVI	-1.61

PLANETOCENTRIC CONIC

C3	15.124	VHL	3.889	DLA	22.87	RAL	27.64	RAD	6640.6	VEL	11.626	PTH	6.67	VHP	3.549	DPA	1.98	RAP	47.80	ECC	1.2489

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 3 58	3536.02	-46.74	131.45	261.15	100.16	12 2 54	2536.0	-37.51	101.08
60.00	11 15 1	3506.59	-40.17	129.90	262.24	93.60	12 13 27	2506.6	-34.35	100.43
70.00	11 32 52	3454.00	-34.11	125.76	262.36	88.23	12 30 26	2454.0	-31.27	97.40
80.00	12 5 51	3350.52	-29.35	117.56	261.99	84.23	13 1 42	2350.5	-28.76	90.15
90.00	13 9 58	3143.53	-27.38	102.09	261.73	82.62	14 2 21	2143.5	-27.71	75.09
100.00	14 48 43	2825.00	-29.35	78.92	261.99	84.23	15 35 48	1825.0	-28.76	51.52
110.00	16 32 18	2500.81	-34.11	54.68	262.36	88.23	17 13 59	1500.8	-31.27	26.32

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.4077	TRA	-.7360	TC3	1.1833	BAU	.3546	SGT	1610.2	SGR	1107.4	SG3	939.5	ST	34.9	SR	11.8	SS	51.3
RDE	-.1351	RRA	.2600	RC3	-1.2946	FAU	.22657	RRT	-.7271	RRF	.8735	RTF	-.8051	CRT	.4522	CRS	.6907	CST	.9509
FDE	2.2093	FRA	1.5183	FC	-12.9692	BSP	3057	SGB	1954.3	R23	-.2379	R13	.8762	LSA	61.9	MSA	12.6	SSA	2.5
BDE	.4293	BRA	.7806	BC3	1.7539	FSP	1507	SG1	1837.1	SG2	666.4	THA	148.89	EL1	35.3	EL2	10.4	ALF	9.57

LAUNCH DATE JUL 31 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 423.201 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	33.134	GAL	.10	AZL	88.69	HCA	132.96	SMA	204.18	ECC	.25626	INC	1.3123	V1	29.338
RP	231.58	LAP	.96	LOP	80.62	VP	22.276	GAP	12.73	AZP	90.89	TAL	.48	TAP	133.44	RCA	151.86	APO	256.51	V2	23.748
RC	156.890	GL	11.30	GP	-15.69	ZAL	86.03	ZAP	141.65	ETS	202.71	ZAE	162.33	ETE	283.17	ZAC	67.42	ETC	283.20	LVI	-1.14

PLANETOCENTRIC CONIC

C3	14.998	VHL	3.873	DLA	23.31	RAL	27.21	RAD	6640.5	VEL	11.621	PTH	6.66	VHP	3.471	DPA	1.37	RAP	47.76	ECC	1.2468

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 0 11	3543.55	-46.82	132.16	260.94	99.62	11 59 15	2543.5	-37.78	101.60
60.00	11 10 28	3516.14	-40.20	130.71	261.95	93.06	12 9 5	2516.1	-34.60	101.12
70.00	11 27 14	3466.75	-34.08	126.76	262.00	87.64	12 25 1	2466.8	-31.49	98.33
80.00	11 58 47	3367.82	-29.22	118.83	261.56	83.58	12 54 55	2367.8	-28.93	91.41
90.00	13 1 58	3163.77	-27.19	103.54	261.26	81.92	13 54 42	2163.8	-27.84	76.56
100.00	14 41 39	2842.29	-29.22	80.19	261.56	83.58	15 29 1	1842.3	-28.93	52.77
110.00	16 26 41	2513.57	-34.08	55.68	262.00	87.64	17 8 34	1513.6	-31.49	27.25

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.4110	TRA	-.7319	TC3	1.1717	BAU	.3637	SGT	1607.3	SGR	1165.8	SG3	986.4	ST	35.2	SR	10.6	SS	53.7
RDE	-.1122	RRA	.2647	RC3	-1.3844	FAU	.23661	RRT	-.7338	RRF	.8892	RTF	-.7999	CRT	.3671	CRS	.6217	CST	.9501
FDE	2.3547	FRA	1.5589	FC	-13.6573	BSP	3162	SGB	1985.6	R23	-.2477	R13	.8812	LSA	63.8	MSA	12.5	SSA	2.5
BDE	.4260	BRA	.7783	BC3	1.8137	FSP	1591	SG1	1864.5	SG2	682.8	THA	147.00	EL1	35.4	EL2	9.8	ALF	6.83

LAUNCH DATE JUL 31 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 426.927 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 33.112 GAL .12 AZL 88.63 HCA 133.97 SMA 203.73 ECC .25460 INC 1.3729 V1 29.338
RP 231.95 LAP .99 LOP 81.63 VP 22.201 GAP 12.46 AZP 90.95 TAL .59 TAP 134.55 RCA 151.86 APO 255.60 V2 23.708
RC 158.785 GL 11.87 GP -16.28 ZAL 85.83 ZAP 140.29 ETS 202.50 ZAE 161.95 ETE 279.00 ZAC 66.89 ETC 283.28 LVI -.65

PLANETOCENTRIC CONIC

C3 14.887 VHL 3.858 DLA 23.76 RAL 26.78 RAD 6640.5 VEL 11.616 PTH 6.66 VHP 3.398 DPA .73 RAP 47.69 ECC 1.2450

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 56 19	3551.71	-46.91	132.93	260.77	99.03	11 55 31	2551.7	-38.07	102.17
60.00	11 5 48	3526.48	-40.24	131.59	261.70	92.46	12 4 34	2526.5	-34.66	101.87
70.00	11 21 23	3480.56	-34.04	127.83	261.66	87.00	12 19 23	2480.6	-31.71	99.35
80.00	11 51 18	3386.69	-29.07	120.21	261.14	82.87	12 47 45	2386.7	-29.09	92.78
90.00	12 53 26	3186.06	-26.97	105.14	260.81	81.15	13 46 32	2186.1	-27.97	78.17
100.00	14 34 10	2861.16	-29.07	81.58	261.14	82.87	15 21 51	1861.2	-29.09	54.15
110.00	16 20 49	2527.38	-34.04	56.75	261.66	87.00	17 2 57	1527.4	-31.71	28.26

DIFFERENTIAL CORRECTIONS

TDE -.4195 TRA -.7232 TC3 1.1181 BAU .3672
RDE -.0839 RRA .2688 RC3-1.4679 FAU .24488
FDE 2.5498 FRA 1.5904 FC-14.2407 BSP 3142
BDE .4279 BRA .7715 BC3 1.8452 FSP 1656

MID-COURSE EXECUTION ACCURACY

SGT 1584.1 SGR 1220.2 SG3 1028.7
RRT -.7302 RRF .9018 RTF -.7883
SGB 1999.6 R23 -.2597 R13 .8843
SG1 1870.8 SG2 705.9 THA 144.94

ORBIT DETERMINATION ACCURACY

ST 35.8 SR 9.2 SS 56.9
CRT .2332 CRS .5039 CST .9505
LSA 66.7 MSA 12.4 SSA 2.4
EL1 35.9 EL2 8.9 ALF 3.65

LAUNCH DATE JUL 31 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 430.659 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 33.092 GAL .14 AZL 88.56 HCA 134.97 SMA 203.30 ECC .25304 INC 1.4353 V1 29.338
RP 232.33 LAP 1.02 LOP 82.63 VP 22.129 GAP 12.19 AZP 91.01 TAL .68 TAP 135.66 RCA 151.86 APO 254.75 V2 23.670
RC 162.693 GL 12.45 GP -16.89 ZAL 85.65 ZAP 138.90 ETS 202.30 ZAE 161.45 ETE 274.87 ZAC 66.35 ETC 283.38 LVI -.15

PLANETOCENTRIC CONIC

C3 14.789 VHL 3.846 DLA 24.23 RAL 26.35 RAD 6640.4 VEL 11.612 PTH 6.65 VHP 3.327 DPA .06 RAP 47.62 ECC 1.2434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 52 22	3560.55	-47.01	133.76	260.65	98.40	11 51 43	2560.6	-38.37	102.79
60.00	11 0 58	3537.63	-40.27	132.53	261.48	91.82	11 59 56	2537.6	-35.14	102.69
70.00	11 15 16	3495.50	-33.98	129.00	261.35	86.32	12 13 32	2495.5	-31.94	100.45
80.00	11 43 22	3407.34	-28.89	121.72	260.75	82.09	12 40 10	2407.3	-29.26	94.30
90.00	12 44 15	3210.72	-26.70	106.89	260.37	80.31	13 37 46	2210.7	-28.08	79.97
100.00	14 26 14	2881.81	-28.89	83.08	260.75	82.09	15 14 16	1881.8	-29.26	55.66
110.00	16 14 43	2542.32	-33.98	57.91	261.35	86.32	16 57 5	1542.3	-31.94	29.37

DIFFERENTIAL CORRECTIONS

TDE -.4177 TRA -.7103 TC3 1.0861 BAU .3765
RDE -.0573 RRA .2717 RC3-1.5642 FAU .25484
FDE 2.7188 FRA 1.6060 FC-14.9179 BSP 3176
BDE .4216 BRA .7605 BC3 1.9043 FSP 1738

MID-COURSE EXECUTION ACCURACY

SGT 1559.5 SGR 1285.2 SG3 1075.5
RRT -.7320 RRF .9141 RTF -.7805
SGB 2020.8 R23 -.2618 R13 .8909
SG1 1886.8 SG2 723.8 THA 142.45

ORBIT DETERMINATION ACCURACY

ST 35.7 SR 8.1 SS 59.5
CRT .0507 CRS .3403 CST .9489
LSA 68.7 MSA 12.3 SSA 2.4
EL1 35.7 EL2 8.1 ALF .70

LAUNCH DATE JUL 31 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 434.397 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 33.072 GAL .16 AZL 88.50 HCA 135.97 SMA 202.90 ECC .25158 INC 1.4999 V1 29.338
RP 232.70 LAP 1.04 LOP 83.63 VP 22.058 GAP 11.92 AZP 91.08 TAL .77 TAP 136.75 RCA 151.86 APO 253.95 V2 23.631
RC 165.610 GL 13.05 GP -17.52 ZAL 85.49 ZAP 137.49 ETS 202.09 ZAE 160.85 ETE 270.84 ZAC 65.79 ETC 283.48 LVI .37

PLANETOCENTRIC CONIC

C3 14.706 VHL 3.835 DLA 24.73 RAL 25.93 RAD 6640.4 VEL 11.609 PTH 6.65 VHP 3.260 DPA -.64 RAP 47.52 ECC 1.2420

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 48 19	3570.08	-47.10	134.67	260.58	97.71	11 47 49	2570.1	-38.70	103.46
60.00	10 55 59	3549.65	-40.29	133.55	261.30	91.13	11 55 9	2549.6	-35.43	103.57
70.00	11 8 53	3511.65	-33.90	130.25	261.07	85.58	12 7 24	2511.6	-32.18	101.65
80.00	11 34 54	3429.98	-28.66	123.36	260.37	81.26	12 32 4	2430.0	-29.41	95.96
90.00	12 34 17	3238.18	-26.37	108.83	259.92	79.39	13 28 16	2238.2	-28.18	81.97
100.00	14 17 46	2904.45	-28.66	84.73	260.37	81.26	15 6 10	1904.5	-29.41	57.33
110.00	16 8 19	2558.47	-33.90	59.17	261.07	85.58	16 50 57	1558.5	-32.18	30.57

DIFFERENTIAL CORRECTIONS

TDE -.4147 TRA -.6948 TC3 1.0545 BAU .3678
RDE -.0294 RRA .2740 RC3-1.6656 FAU .26505
FDE 2.8916 FRA 1.6134 FC-15.6041 BSP 3197
BDE .4158 BRA .7467 BC3 1.9713 FSP 1813

MID-COURSE EXECUTION ACCURACY

SGT 1530.8 SGR 1355.3 SG3 1123.0
RRT -.7330 RRF .9250 RTF -.7934
SGB 2044.6 R23 -.2582 R13 .8992
SG1 1905.7 SG2 740.6 THA 139.73

ORBIT DETERMINATION ACCURACY

ST 35.4 SR 7.4 SS 62.1
CRT -.1918 CRS .1059 CST .9474
LSA 70.8 MSA 12.1 SSA 2.4
EL1 35.5 EL2 7.2 ALF 177.62

LAUNCH DATE JUL 31 1973 FLIGHT TIME 184.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 438.141 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 33.054 GAL .17 AZL 88.43 HCA 136.97 SMA 202.53 ECC .25020 INC 1.5665 V1 29.338
RP 233.07 LAP 1.07 LOP 84.63 VP 21.990 GAP 11.65 AZP 91.15 TAL .86 TAP 137.83 RCA 151.86 APO 253.20 V2 23.593
RC 168.537 GL 13.66 GP -18.18 ZAL 85.34 ZAP 136.05 ETS 201.87 ZAE 160.15 ETE 266.95 ZAC 65.21 ETC 283.59 LVI .90

PLANETOCENTRIC CONIC

C3 14.635 VHL 3.826 DLA 25.24 RAL 25.52 RAD 6640.4 VEL 11.606 PTH 6.65 VHP 3.197 DPA -1.38 RAP 47.41 ECC 1.2409

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 44 8	3580.32	-47.19	135.64	260.55	96.96	11 43 49	2580.3	-39.05	104.20
60.00	10 50 48	3562.55	-40.30	134.65	261.16	90.38	11 50 11	2562.6	-35.73	104.53
70.00	11 2 10	3529.09	-33.80	131.60	260.81	84.79	12 0 59	2529.1	-32.42	102.95
80.00	11 25 48	3454.90	-28.39	125.16	259.99	80.35	12 23 23	2454.9	-29.56	97.80
90.00	12 23 21	3269.04	-25.96	111.00	259.48	78.38	13 17 50	2269.0	-28.25	84.22
100.00	14 8 40	2929.37	-28.39	86.53	259.99	80.35	14 57 29	1929.4	-29.56	59.17
110.00	16 1 36	2575.91	-33.80	60.52	260.81	84.79	16 44 32	1575.9	-32.42	31.87

DIFFERENTIAL CORRECTIONS

TDE -.4066 TRA -.6761 TC3 1.0043 BAU .3975
RDE .0002 RRA .2752 RC3-1.7659 FAU .27438
FDE 3.0725 FRA 1.6083 FC-16.2313 BSP 3262
BDE .4066 BRA .7299 BC3 2.0315 FSP 1919

MID-COURSE EXECUTION ACCURACY

SGT 1488.1 SGR 1425.9 SG3 1167.2
RRT -.7298 RRF .9342 RTF -.7624
SGB 2061.0 R23 -.2518 R13 .9073
SG1 1917.0 SG2 756.7 THA 136.67

ORBIT DETERMINATION ACCURACY

ST 34.8 SR 7.1 SS 64.7
CRT -.4741 CRS -.1883 CST .9445
LSA 72.8 MSA 12.1 SSA 2.3
EL1 35.0 EL2 6.2 ALF 174.27

LAUNCH DATE JUL 31 1973 FLIGHT TIME 186.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 441.890 EARTH TO MARS
RL 151.86 LAL .00 LOL 307.65 VL 33.037 GAL .19 AZL 88.36 HCA 137.97 SMA 202.18 ECC .24891 INC 1.6354 V1 29.338
RP 233.44 LAP 1.09 LOP 85.63 VP 21.923 GAP 11.39 AZP 91.22 TAL .93 TAP 138.90 RCA 151.86 APO 252.50 V2 23.554
RC 171.472 GL 14.30 GP -18.87 ZAL 85.21 ZAP 134.59 ETS 201.64 ZAE 159.33 ETE 263.22 ZAC 64.61 ETC 283.70 LVI 1.45

PLANETOCENTRIC CONIC
C3 14.570 VHL 3.818 DLA 25.78 RAL 25.11 RAD 6640.3 VEL 11.603 PTH 6.64 VHP 3.138 DPA -2.14 RAP 47.28 ECC 1.2399

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 39 51	3591.32	-47.27	136.69	260.57	96.16	11 39 42	2591.3	-39.42	104.99
60.00	10 45 26	3576.43	-40.30	135.83	261.05	89.58	11 45 3	2576.4	-36.05	105.57
70.00	10 55 5	3547.99	-33.67	133.06	260.58	83.93	11 54 13	2548.0	-32.66	104.37
80.00	11 15 56	3482.54	-28.06	127.15	259.62	79.35	12 13 59	2482.5	-29.68	99.84
90.00	12 11 8	3304.26	-25.46	113.46	259.02	77.25	13 6 12	2304.3	-28.28	86.80
100.00	13 58 48	2957.02	-28.06	88.52	259.62	79.35	14 48 5	1957.0	-29.68	61.21
110.00	15 54 31	2594.81	-33.67	61.98	260.58	83.93	16 37 46	1594.8	-32.66	33.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.4047 TRA -.6618 TC3 .9298 BAU .4064 SGT 1445.4 SGR 1498.3 SG3 1209.5 ST 34.6 SR 7.6 SS 67.6
RDE .0328 RRA .2756 RC3-1.8665 FAU .28311 RRT -.7150 RRF .9421 RTF -.7425 CRT -.7239 CRS -.4834 CST .9426
FDE 3.2698 FRA 1.5925 FC-16.8135 BSP 3287 SGB 2081.8 R23 -.2484 R13 .9141 LSA 75.3 MSA 12.0 SSA 2.3
BDE .4061 BRA .7168 BC3 2.0853 FSP 1984 SG1 1928.0 SG2 785.3 THA 133.56 EL1 35.0 EL2 5.2 ALF 170.74

LAUNCH DATE JUL 31 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 445.643 EARTH TO MARS
RL 151.86 LAL .00 LOL 307.65 VL 33.021 GAL .20 AZL 88.29 HCA 138.96 SMA 201.85 ECC .24770 INC 1.7069 V1 29.338
RP 233.80 LAP 1.12 LOP 86.62 VP 21.858 GAP 11.13 AZP 91.29 TAL .99 TAP 139.96 RCA 151.86 APO 251.85 V2 23.517
RC 174.413 GL 14.95 GP -19.58 ZAL 85.10 ZAP 133.10 ETS 201.40 ZAE 158.41 ETE 259.68 ZAC 64.00 ETC 283.83 LVI 2.02

PLANETOCENTRIC CONIC
C3 14.533 VHL 3.812 DLA 26.34 RAL 24.71 RAD 6640.3 VEL 11.601 PTH 6.64 VHP 3.082 DPA -2.94 RAP 47.14 ECC 1.2392

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 35 25	3603.09	-47.35	137.82	260.63	95.29	11 35 28	2603.1	-39.81	105.85
60.00	10 39 50	3591.31	-40.28	137.10	260.97	88.72	11 39 41	2591.3	-36.38	106.70
70.00	10 47 36	3568.43	-33.52	134.64	260.36	83.01	11 47 4	2568.4	-32.91	105.91
80.00	11 5 7	3513.40	-27.65	129.35	259.24	78.26	12 3 41	2513.4	-29.79	102.13
90.00	11 57 10	3345.27	-24.81	116.28	258.52	75.98	12 52 55	2345.3	-28.25	89.80
100.00	13 47 59	2987.88	-27.65	90.72	259.24	78.26	14 37 47	1987.9	-29.79	63.50
110.00	15 47 2	2615.25	-33.52	63.56	260.36	83.01	16 30 37	1615.3	-32.91	34.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.4017 TRA -.6540 TC3 .8638 BAU .4187 SGT 1414.6 SGR 1580.7 SG3 1255.7 ST 34.4 SR 9.1 SS 70.9
RDE .0692 RRA .2805 RC3-1.9745 FAU .29237 RRT -.7022 RRF .9495 RTF -.7242 CRT -.8843 CRS -.7039 CST .9402
FDE 3.4913 FRA 1.6179 FC-17.4161 BSP 3387 SGB 2121.2 R23 -.2409 R13 .9220 LSA 78.4 MSA 12.0 SSA 2.2
BDE .4077 BRA .7116 BC3 2.1552 FSP 2088 SG1 1959.5 SG2 812.5 THA 130.50 EL1 35.3 EL2 4.1 ALF 166.72

LAUNCH DATE JUL 31 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 449.401 EARTH TO MARS
RL 151.86 LAL .00 LOL 307.65 VL 33.006 GAL .21 AZL 88.22 HCA 139.95 SMA 201.55 ECC .24656 INC 1.7810 V1 29.338
RP 234.17 LAP 1.15 LOP 87.61 VP 21.795 GAP 10.87 AZP 91.36 TAL 1.05 TAP 141.00 RCA 151.86 APO 251.24 V2 23.479
RC 177.360 GL 15.63 GP -20.31 ZAL 85.00 ZAP 131.59 ETS 201.14 ZAE 157.39 ETE 256.35 ZAC 63.36 ETC 283.96 LVI 2.61

PLANETOCENTRIC CONIC
C3 14.502 VHL 3.808 DLA 26.92 RAL 24.31 RAD 6640.3 VEL 11.600 PTH 6.64 VHP 3.029 DPA -3.77 RAP 46.98 ECC 1.2387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 30 49	3615.68	-47.42	139.02	260.74	94.37	11 31 5	2615.7	-40.21	106.79
60.00	10 33 59	3607.26	-40.25	138.46	260.93	87.80	11 34 6	2607.3	-36.72	107.91
70.00	10 39 38	3590.62	-33.32	136.34	260.16	82.02	11 39 28	2590.6	-33.15	107.60
80.00	10 53 6	3548.31	-27.14	131.82	258.84	77.06	11 52 14	2548.3	-29.85	104.72
90.00	11 40 35	3394.88	-23.95	119.66	257.94	74.50	12 37 9	2394.9	-28.11	93.42
100.00	13 35 58	3022.78	-27.14	93.19	258.84	77.06	14 26 20	2022.8	-29.85	66.09
110.00	15 39 4	2637.44	-33.32	65.26	260.16	82.02	16 23 1	1637.4	-33.15	36.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.3880 TRA -.6382 TC3 .7952 BAU .4336 SGT 1366.5 SGR 1668.6 SG3 1300.6 ST 33.4 SR 10.8 SS 73.3
RDE .1031 RRA .2814 RC3-2.0903 FAU .30214 RRT -.6869 RRF .9560 RTF -.7230 CRT -.9536 CRS -.8207 CST .9351
FDE 3.6749 FRA 1.6030 FC-18.0365 BSP 3426 SGB 2156.8 R23 -.2254 R13 .9313 LSA 80.4 MSA 12.0 SSA 2.2
BDE .4015 BRA .6975 BC3 2.2364 FSP 2163 SG1 1989.4 SG2 833.0 THA 126.84 EL1 34.9 EL2 3.1 ALF 162.71

LAUNCH DATE JUL 31 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 453.162 EARTH TO MARS
RL 151.86 LAL .00 LOL 307.65 VL 32.992 GAL .22 AZL 88.14 HCA 140.94 SMA 201.27 ECC .24550 INC 1.8580 V1 29.338
RP 234.53 LAP 1.17 LOP 88.60 VP 21.734 GAP 10.61 AZP 91.44 TAL 1.10 TAP 142.04 RCA 151.85 APO 250.68 V2 23.442
RC 180.313 GL 16.32 GP -21.08 ZAL 84.92 ZAP 130.05 ETS 200.87 ZAE 156.27 ETE 253.22 ZAC 62.71 ETC 284.10 LVI 3.21

PLANETOCENTRIC CONIC
C3 14.485 VHL 3.806 DLA 27.53 RAL 23.91 RAD 6640.3 VEL 11.599 PTH 6.64 VHP 2.980 DPA -4.63 RAP 46.81 ECC 1.2384

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 26 4	3629.12	-47.49	140.32	260.90	93.37	11 26 33	2629.1	-40.64	107.80
60.00	10 27 51	3624.36	-40.20	139.91	260.91	86.82	11 28 15	2624.4	-37.07	109.23
70.00	10 31 6	3614.76	-33.08	138.18	259.96	80.96	11 31 21	2614.8	-33.39	109.44
80.00	10 39 26	3588.56	-26.50	134.64	258.40	75.71	11 39 15	2588.6	-29.85	107.71
90.00	11 19 16	3459.79	-22.70	124.01	257.22	72.67	12 16 56	2459.8	-27.77	98.14
100.00	13 22 18	3063.03	-26.50	96.00	258.40	75.71	14 13 21	2063.0	-29.85	69.08
110.00	15 30 32	2661.58	-33.08	67.10	259.96	80.96	16 14 54	1661.6	-33.39	38.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.3782 TRA -.6207 TC3 .7124 BAU .4484 SGT 1314.7 SGR 1756.3 SG3 1341.9 ST 32.6 SR 13.1 SS 76.3
RDE .1423 RRA .2803 RC3-2.2032 FAU .31071 RRT -.6638 RRF .9615 RTF -.6761 CRT -.9827 CRS -.8941 CST .9310
FDE 3.8906 FRA 1.5682 FC-18.5713 BSP 3505 SGB 2193.9 R23 -.2065 R13 .9404 LSA 83.1 MSA 12.0 SSA 2.1
BDE .4041 BRA .6810 BC3 2.3155 FSP 2248 SG1 2020.6 SG2 854.7 THA 123.07 EL1 35.0 EL2 2.3 ALF 158.32

LAUNCH DATE JUL 31 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 456.927 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.979 GAL .22 AZL 88.06 HCA 141.92 SMA 201.00 ECC .24451 INC 1.9380 V1 29.338
RP 234.89 LAP 1.20 LOP 89.59 VP 21.674 GAP 10.35 AZP 91.53 TAL 1.14 TAP 143.06 RCA 151.85 APO 250.15 V2 23.405
RC 183.270 GL 17.04 GP -21.66 ZAL 84.86 ZAP 128.49 ETS 200.59 ZAE 155.06 ETE 250.29 ZAC 62.04 ETC 284.25 LVI 3.84

PLANETOCENTRIC CONIC

C3 14.480 VHL 3.805 DLA 28.16 RAL 23.52 RAD 6640.3 VEL 11.599 PTH 6.64 VHP 2.935 DPA -5.52 RAP 46.63 ECC 1.2383

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 21 6	3643.46	-47.53	141.70	261.10	92.31	11 21 50	2643.5	-41.08	108.89
60.00	10 21 23	3642.70	-40.12	141.46	260.92	85.77	11 22 6	2642.7	-37.43	110.66
70.00	10 21 55	3641.14	-32.78	140.18	259.77	79.81	11 22 36	2641.1	-33.61	111.47
80.00	10 23 25	3636.44	-25.65	137.94	257.89	74.17	11 24 1	2636.4	-29.75	111.27
90.00	10 43 1	3572.97	-20.22	131.37	255.97	69.79	11 42 34	2573.0	-26.75	106.26
100.00	13 6 17	3110.92	-25.65	99.31	257.89	74.17	13 58 7	2110.9	-29.75	72.64
110.00	15 21 21	2687.96	-32.78	69.10	259.77	79.81	16 6 9	1688.0	-33.61	40.39

DIFFERENTIAL CORRECTIONS

TDE -.3711 TRA -.6099 TC3 .6349 BAU .4674
RDE .1888 RRA .2840 RC3-2.3295 FAU .32055
FDE 4.1539 FRA 1.5740 FC-19.1649 BSP 3530
BDE .4164 BRA .6727 BC3 2.4145 FSP 2302

MID-COURSE EXECUTION ACCURACY

SGT 1277.0 SGR 1859.9 SG3 1390.7
RRT -.6403 RRF .9667 RTF -.6492
SGB 2256.0 R23 -.1864 R13 .9494
SG1 2078.3 SG2 877.8 THA 119.49

ORBIT DETERMINATION ACCURACY

ST 32.0 SR 16.2 SS 80.1
CRT -.9892 CRS -.9375 CST .9272
LSA 87.0 MSA 12.1 SSA 2.0
EL1 35.8 EL2 2.1 ALF 153.33

LAUNCH DATE JUL 31 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 460.695 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.966 GAL .23 AZL 87.98 HCA 142.90 SMA 200.75 ECC .24358 INC 2.0213 V1 29.338
RP 235.24 LAP 1.22 LOP 90.57 VP 21.616 GAP 10.09 AZP 91.61 TAL 1.17 TAP 144.07 RCA 151.85 APO 249.65 V2 23.369
RC 186.232 GL 17.79 GP -22.67 ZAL 84.81 ZAP 126.91 ETS 200.28 ZAE 153.77 ETE 247.56 ZAC 61.35 ETC 284.41 LVI 4.48

PLANETOCENTRIC CONIC

C3 14.490 VHL 3.807 DLA 28.82 RAL 23.12 RAD 6640.3 VEL 11.599 PTH 6.64 VHP 2.893 DPA -6.45 RAP 46.43 ECC 1.2385

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 15 56	3658.75	-47.57	143.18	261.34	91.17	11 16 55	2658.7	-41.53	110.07
60.00	10 14 34	3662.38	-40.00	143.12	260.96	84.64	11 15 37	2662.4	-37.79	112.20
70.00	10 11 57	3670.12	-32.41	142.36	259.57	78.57	11 13 7	2670.1	-33.81	113.71
80.00	10 3 25	3696.97	-24.46	142.04	257.23	72.33	11 5 2	2697.0	-29.48	115.75
84.18	9 30 32	3802.85	-18.77	147.62	255.00	67.71	10 33 54	2802.8	-26.32	123.01
100.00	12 46 17	3171.44	-24.46	103.41	257.23	72.33	13 39 8	2171.4	-29.48	77.11
110.00	15 11 23	2716.94	-32.41	71.28	259.57	78.57	15 56 40	1716.9	-33.81	42.63

DIFFERENTIAL CORRECTIONS

TDE -.3512 TRA -.5929 TC3 .5344 BAU .4848
RDE .2301 RRA .2828 RC3-2.4449 FAU .32800
FDE 4.3514 FRA 1.5350 FC-19.5976 BSP 3655
BDE .4198 BRA .6569 BC3 2.5026 FSP 2395

MID-COURSE EXECUTION ACCURACY

SGT 1217.5 SGR 1954.6 SG3 1426.1
RRT -.6031 RRF .9708 RTF -.6079
SGB 2302.8 R23 -.1631 R13 .9574
SG1 2121.9 SG2 894.6 THA 115.42

ORBIT DETERMINATION ACCURACY

ST 30.5 SR 19.0 SS 82.6
CRT -.9841 CRS -.9589 CST .9186
LSA 89.3 MSA 12.1 SSA 1.9
EL1 35.8 EL2 2.9 ALF 148.30

LAUNCH DATE JUL 31 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 464.465 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.955 GAL .23 AZL 87.89 HCA 143.88 SMA 200.52 ECC .24271 INC 2.1083 V1 29.338
RP 235.59 LAP 1.24 LOP 91.54 VP 21.559 GAP 9.84 AZP 91.70 TAL 1.20 TAP 145.08 RCA 151.85 APO 249.19 V2 23.332
RC 189.197 GL 18.56 GP -23.51 ZAL 84.78 ZAP 125.31 ETS 199.95 ZAE 152.40 ETE 245.01 ZAC 60.64 ETC 284.58 LVI 5.15

PLANETOCENTRIC CONIC

C3 14.513 VHL 3.810 DLA 29.51 RAL 22.72 RAD 6640.3 VEL 11.600 PTH 6.64 VHP 2.855 DPA -7.41 RAP 46.23 ECC 1.2389

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 10 31	3675.05	-47.58	144.76	261.63	89.96	11 11 46	2675.0	-42.01	111.34
60.00	10 7 20	3683.53	-39.85	144.90	261.01	83.45	11 8 44	2683.5	-38.16	113.88
70.00	10 1 0	3702.21	-31.95	144.75	259.35	77.23	11 2 43	2702.2	-33.98	116.20
80.00	9 33 59	3787.39	-22.46	148.01	256.20	69.80	10 37 7	2787.4	-28.76	122.37
81.18	9 5 6	3879.88	-19.19	153.49	254.82	67.13	10 9 46	2879.9	-26.93	128.84
100.00	12 16 51	3261.87	-22.46	109.38	256.20	69.80	13 11 13	2261.9	-28.76	83.74
110.00	15 0 27	2749.03	-31.95	73.67	259.35	77.23	15 46 16	1749.0	-33.98	45.12

DIFFERENTIAL CORRECTIONS

TDE -.3314 TRA -.5739 TC3 .4517 BAU .5080
RDE .2779 RRA .2808 RC3-2.5780 FAU .33736
FDE 4.5833 FRA 1.4869 FC-20.1236 BSP 3725
BDE .4325 BRA .6389 BC3 2.6183 FSP 2452

MID-COURSE EXECUTION ACCURACY

SGT 1162.1 SGR 2066.7 SG3 1469.3
RRT -.5666 RRF .9747 RTF -.[illegible]98
SGB 2371.0 R23 -.1373 R13 .9651
SG1 2193.2 SG2 900.8 THA 111.54

ORBIT DETERMINATION ACCURACY

ST 29.0 SR 22.3 SS 85.7
CRT -.9730 CRS -.9732 CST .9093
LSA 92.4 MSA 12.1 SSA 1.9
EL1 36.4 EL2 4.1 ALF 142.63

LAUNCH DATE JUL 31 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 468.237 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.944 GAL .24 AZL 87.80 HCA 144.85 SMA 200.31 ECC .24191 INC 2.1991 V1 29.338
RP 235.94 LAP 1.27 LOP 92.52 VP 21.504 GAP 9.59 AZP 91.80 TAL 1.22 TAP 146.07 RCA 151.85 APO 248.77 V2 23.297
RC 192.165 GL 19.35 GP -24.38 ZAL 84.77 ZAP 123.70 ETS 199.60 ZAE 150.95 ETE 242.65 ZAC 59.92 ETC 284.76 LVI 5.84

PLANETOCENTRIC CONIC

C3 14.552 VHL 3.815 DLA 30.23 RAL 22.32 RAD 6640.3 VEL 11.602 PTH 6.64 VHP 2.821 DPA -8.40 RAP 46.02 ECC 1.2395

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 4 50	3692.46	-47.56	146.44	261.96	88.66	11 6 22	2692.5	-42.50	112.73
60.00	9 59 38	3706.33	-39.66	146.81	261.09	82.16	11 1 24	2706.3	-38.52	115.71
70.00	9 48 50	3738.21	-31.38	147.40	259.10	75.76	10 51 8	2738.2	-34.10	119.00
78.84	8 45 37	3937.65	-19.61	157.97	254.66	66.52	9 51 14	2937.6	-27.57	133.30
78.84	8 45 37	3937.65	-19.61	157.97	254.66	66.52	9 51 14	2937.6	-27.57	133.30
78.84	8 45 37	3937.65	-19.61	157.97	254.66	66.52	9 51 14	2937.6	-27.57	133.30
110.00	14 48 16	2785.03	-31.38	76.32	259.10	75.76	15 34 42	1785.0	-34.10	47.92

DIFFERENTIAL CORRECTIONS

TDE -.3190 TRA -.5672 TC3 .3284 BAU .5295
RDE .3326 RRA .2821 RC3-2.7018 FAU .34432
FDE 4.8467 FRA 1.4678 FC-20.4842 BSP 3875
BDE .4608 BRA .6335 BC3 2.7217 FSP 2524

MID-COURSE EXECUTION ACCURACY

SGT 1124.6 SGR 2176.9 SG3 1505.8
RRT -.5063 RRF .9779 RTF -.5061
SGB 2450.2 R23 -.1149 R13 .9712
SG1 2266.2 SG2 931.6 THA 107.75

ORBIT DETERMINATION ACCURACY

ST 28.2 SR 26.2 SS 89.4
CRT -.9594 CRS -.9822 CST .9001
LSA 96.5 MSA 12.3 SSA 1.8
EL1 38.1 EL2 5.5 ALF 137.13

LAUNCH DATE JUL 31 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 472.012 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.934	GAL	.24	AZL	87.71	HCA	145.82	SMA	200.11	ECC	.24116	INC	2.2941	V1	29.338
RP	236.29	LAP	1.28	LOP	93.49	VP	21.450	GAP	9.34	AZP	91.90	TAL	1.22	TAP	147.04	RCA	151.85	APO	248.37	V2	23.261
RC	195.134	GL	20.18	GP	-25.27	ZAL	84.77	ZAP	122.07	ETS	199.22	ZAE	149.44	ETE	240.44	ZAC	59.17	ETC	284.95	LVI	6.55

PLANETOCENTRIC CONIC

C3	14.606	VHL	3.822	DLA	30.98	RAL	21.92	RAD	6640.3	VEL	11.604	PTH	6.65	VHP	2.790	DPA	-9.43	RAP	45.81	ECC	1.2404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 58 50	3711.02	-47.52	148.23	262.33	87.28	11 0 41	2711.0	-42.99	114.24
60.00	9 51 22	3730.92	-39.41	148.85	261.16	80.80	10 53 33	2730.9	-38.87	117.70
70.00	9 35 3	3779.16	-30.65	150.37	258.79	74.14	10 38 2	2779.2	-34.15	122.20
76.78	8 29 1	3985.96	-20.04	161.80	254.52	65.87	9 35 27	2986.0	-28.23	137.09
76.78	8 29 1	3985.96	-20.04	161.80	254.52	65.87	9 35 27	2986.0	-28.23	137.09
76.78	8 29 1	3985.96	-20.04	161.80	254.52	65.87	9 35 27	2986.0	-28.23	137.09
110.00	14 34 29	2825.98	-30.65	79.29	258.79	74.14	15 21 35	1826.0	-34.15	51.12

DIFFERENTIAL CORRECTIONS

TDE	-.2982	TRA	-.5530	TC3	.2108	BAU	.5534
RDE	.3895	RRA	.2795	RC3-2.8262		FAU	.35072
FDE	5.1011	FRA	1.4143	FC-20.7879		BSP	4028
BDE	.4905	BRA	.6197	BC3 2.8340		FSP	2593

MID-COURSE EXECUTION ACCURACY

SGT	1077.5	SGR	2290.5	SG3	1538.5
RRT	-.4383	RRF	.9807	RTF	-.4363
SGB	2531.3	R23	-.0904	R13	.9766
SG1	2348.4	SG2	944.6	THA	103.95

ORBIT DETERMINATION ACCURACY

ST	26.6	SR	30.3	SS	92.8
CRT	-.9417	CRS	-.9879	CST	.8863
LSA	100.4	MSA	12.4	SSA	1.7
EL1	39.8	EL2	6.8	ALF	131.13

LAUNCH DATE JUL 31 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 475.789 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.925	GAL	.24	AZL	87.61	HCA	146.79	SMA	199.93	ECC	.24047	INC	2.3938	V1	29.338
RP	236.63	LAP	1.31	LOP	94.46	VP	21.398	GAP	9.09	AZP	92.00	TAL	1.22	TAP	148.01	RCA	151.85	APO	248.01	V2	23.226
RC	198.104	GL	21.04	GP	-26.19	ZAL	84.78	ZAP	120.43	ETS	198.82	ZAE	147.87	ETE	238.38	ZAC	58.40	ETC	285.15	LVI	7.28

PLANETOCENTRIC CONIC

C3	14.677	VHL	3.831	DLA	31.76	RAL	21.51	RAD	6640.4	VEL	11.607	PTH	6.65	VHP	2.764	DPA	-10.48	RAP	45.59	ECC	1.2415

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 52 29	3730.85	-47.44	150.14	262.73	85.81	10 54 40	2730.8	-43.50	115.87
60.00	9 42 28	3757.56	-39.10	151.05	261.24	79.34	10 45 6	2757.6	-39.22	119.89
70.00	9 18 59	3827.04	-29.71	153.78	258.37	72.33	10 22 46	2827.0	-34.10	125.94
74.89	8 14 11	4028.55	-20.49	165.23	254.41	65.18	9 21 19	3028.6	-28.91	140.49
74.89	8 14 11	4028.55	-20.49	165.23	254.41	65.18	9 21 19	3028.6	-28.91	140.49
74.89	8 14 11	4028.55	-20.49	165.23	254.41	65.18	9 21 19	3028.6	-28.91	140.49
110.00	14 18 25	2873.86	-29.71	82.70	258.37	72.33	15 6 19	1873.9	-34.10	54.85

DIFFERENTIAL CORRECTIONS

TDE	-.2746	TRA	-.5431	TC3	.0893	BAU	.5799
RDE	.4509	RRA	.2804	RC3-2.9538		FAU	.35679
FDE	5.3603	FRA	1.3872	FC-21.0454		BSP	4208
BDE	.5280	BRA	.6112	BC3 2.9551		FSP	2662

MID-COURSE EXECUTION ACCURACY

SGT	1042.2	SGR	2412.5	SG3	1570.1
RRT	-.3591	RRF	.9832	RTF	-.3552
SGB	2628.0	R23	-.0686	R13	.9808
SG1	2446.8	SG2	959.0	THA	100.44

ORBIT DETERMINATION ACCURACY

ST	25.0	SR	34.7	SS	96.3
CRT	-.9196	CRS	-.9915	CST	.8673
LSA	104.6	MSA	12.5	SSA	1.6
EL1	42.0	EL2	8.1	ALF	125.08

LAUNCH DATE JUL 31 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 479.567 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.917	GAL	.24	AZL	87.50	HCA	147.75	SMA	199.76	ECC	.23983	INC	2.4983	V1	29.338
RP	236.98	LAP	1.33	LOP	95.43	VP	21.347	GAP	8.84	AZP	92.11	TAL	1.22	TAP	148.97	RCA	151.85	APO	247.67	V2	23.191
RC	201.073	GL	21.93	GP	-27.13	ZAL	84.82	ZAP	118.78	ETS	198.39	ZAE	146.24	ETE	236.46	ZAC	57.62	ETC	285.36	LVI	8.04

PLANETOCENTRIC CONIC

C3	14.765	VHL	3.843	DLA	32.58	RAL	21.09	RAD	6640.4	VEL	11.611	PTH	6.65	VHP	2.741	DPA	-11.57	RAP	45.37	ECC	1.2430

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 45 44	3752.04	-47.31	152.18	263.16	84.25	10 48 16	2752.0	-44.02	117.65
60.00	9 32 49	3786.55	-38.71	153.41	261.30	77.78	10 35 55	2786.5	-39.54	122.28
70.00	8 59 19	3885.71	-28.43	157.86	257.77	70.22	10 4 5	2885.7	-33.86	130.50
73.10	8 0 35	4067.03	-20.94	168.39	254.33	64.45	9 8 22	3067.0	-29.61	143.63
73.10	8 0 35	4067.03	-20.94	168.39	254.33	64.45	9 8 22	3067.0	-29.61	143.63
73.10	8 0 35	4067.03	-20.94	168.39	254.33	64.45	9 8 22	3067.0	-29.61	143.63
110.00	13 58 45	2932.53	-28.43	86.78	257.77	70.22	14 47 38	1932.5	-33.86	59.42

DIFFERENTIAL CORRECTIONS

TDE	-.2426	TRA	-.5295	TC3	-.0410	BAU	.6073
RDE	.5106	RRA	.2750	RC3-3.0763		FAU	.36143
FDE	5.5752	FRA	1.3122	FC-21.1916		BSP	4385
BDE	.5653	BRA	.5966	BC3 3.0786		FSP	2714

MID-COURSE EXECUTION ACCURACY

SGT	1004.8	SGR	2531.0	SG3	1592.5
RRT	-.2583	RRF	.9853	RTF	-.2521
SGB	2723.1	R23	-.0471	R13	.9841
SG1	2546.5	SG2	964.8	THA	96.84

ORBIT DETERMINATION ACCURACY

ST	22.9	SR	38.9	SS	98.9
CRT	-.8871	CRS	-.9939	CST	.8365
LSA	108.0	MSA	12.8	SSA	1.5
EL1	44.2	EL2	9.3	ALF	118.97

LAUNCH DATE JUL 31 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 483.347 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.909	GAL	.23	AZL	87.39	HCA	148.72	SMA	199.61	ECC	.23924	INC	2.6084	V1	29.338
RP	237.31	LAP	1.35	LOP	96.39	VP	21.298	GAP	8.60	AZP	92.23	TAL	1.20	TAP	149.92	RCA	151.85	APO	247.36	V2	23.157
RC	204.040	GL	22.85	GP	-28.10	ZAL	84.86	ZAP	117.12	ETS	197.93	ZAE	144.56	ETE	234.65	ZAC	56.81	ETC	285.58	LVI	8.82

PLANETOCENTRIC CONIC

C3	14.873	VHL	3.857	DLA	33.43	RAL	20.66	RAD	6640.5	VEL	11.616	PTH	6.66	VHP	2.722	DPA	-12.68	RAP	45.15	ECC	1.2448

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 38 32	3774.72	-47.13	154.34	263.61	82.59	10 41 27	2774.7	-44.54	119.58
60.00	9 22 14	3818.27	-38.22	155.97	261.34	76.11	10 25 52	2818.3	-39.82	124.93
70.00	8 32 27	3965.99	-26.46	163.27	256.78	67.57	9 38 33	2966.0	-33.24	136.68
71.38	7 47 52	4102.65	-21.40	171.37	254.27	63.68	8 56 15	3102.7	-30.34	146.59
71.38	7 47 52	4102.65	-21.40	171.37	254.27	63.68	8 56 15	3102.7	-30.34	146.59
71.38	7 47 52	4102.65	-21.40	171.37	254.27	63.68	8 56 15	3102.7	-30.34	146.59
110.00	13 31 53	3012.81	-26.46	92.19	256.78	67.57	14 22 6	2012.8	-33.24	65.60

DIFFERENTIAL CORRECTIONS

TDE	-.2110	TRA	-.5192	TC3	-.1684	BAU	.6382
RDE	.5799	RRA	.2727	RC3-3.2054		FAU	.36615
FDE	5.8262	FRA	1.2614	FC-21.3134		BSP	4547
BDE	.6171	BRA	.5865	BC3 3.2099		FSP	2740

MID-COURSE EXECUTION ACCURACY

SGT	984.6	SGR	2662.9	SG3	1616.9
RRT	-.1517	RRF	.9871	RTF	-.1440
SGB	2839.1	R23	-.0291	R13	.9867
SG1	2667.7	SG2	971.5	THA	93.70

ORBIT DETERMINATION ACCURACY

ST	20.9	SR	43.8	SS	102.3
CRT	-.8451	CRS	-.9956	CST	.7963
LSA	112.5	MSA	12.8	SSA	1.4
EL1	47.5	EL2	10.3	ALF	113.12

LAUNCH DATE JUL 31 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 487.128 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.901	GAL	.23	AZL	87.28	HCA	149.68	SMA	199.47	ECC	.23670	INC	2.7242	V1	29.338
RP	237.65	LAP	1.38	LOP	97.35	VP	21.250	GAP	8.35	AZP	92.35	TAL	1.18	TAP	150.86	RCA	151.85	APO	247.08	V2	23.123
RC	207.005	GL	23.81	GP	-29.09	ZAL	84.92	ZAP	115.46	ETS	197.44	ZAE	142.84	ETE	232.95	ZAC	55.98	ETC	285.81	LVI	9.62

PLANETOCENTRIC CONIC

C3	15.001	VHL	3.873	DLA	34.32	RAL	20.22	RAD	6640.5	VEL	11.621	PTH	6.66	VHP	2.707	DPA	-13.62	RAP	44.94	ECC	1.2469

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 30 48	3799.05	-46.89	156.64	264.08	80.83	10 34 7	2799.0	-45.05	121.70
60.00	9 10 31	3853.25	-37.61	158.74	261.32	74.31	10 14 44	2853.3	-40.06	127.88
69.69	7 35 48	4136.03	-21.86	174.22	254.24	62.86	8 44 44	3136.0	-31.09	149.42
69.69	7 35 48	4136.03	-21.86	174.22	254.24	62.86	8 44 44	3136.0	-31.09	149.42
69.69	7 35 48	4136.03	-21.86	174.22	254.24	62.86	8 44 44	3136.0	-31.09	149.42
69.69	7 35 48	4136.03	-21.86	174.22	254.24	62.86	8 44 44	3136.0	-31.09	149.42
69.69	7 35 48	4136.03	-21.86	174.22	254.24	62.86	8 44 44	3136.0	-31.09	149.42

DIFFERENTIAL CORRECTIONS

TDE	-.1745	TRA	-.5062	TC3	-.2959	BAU	.6711
RDE	.6550	RRA	.2657	RC3	-3.3334	FAU	.36997
FDE	6.0791	FRA	1.1772	FC	-21.3519	BSP	4718
BDE	.6779	BRA	.5716	BC3	3.3465	FSP	2753

MID-COURSE EXECUTION ACCURACY

SGT	970.1	SGR	2798.7	SG3	1636.8		
RRT	-.0330	RRF	.9888	RTF	-.0240		
SGB	2962.1	R23	-.0131	R13	.9887		
SG1	2798.9	SG2	969.5	THA	90.74		

ORBIT DETERMINATION ACCURACY

ST	18.8	SR	49.1	SS	105.6
CRT	-.7827	CRS	-.9968	CST	.7353
LSA	117.3	MSA	12.9	SSA	1.3
EL1	51.4	EL2	11.2	ALF	107.48

LAUNCH DATE JUL 31 1973 FLIGHT TIME 212.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 490.909 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.895	GAL	.22	AZL	87.15	HCA	150.63	SMA	199.34	ECC	.23820	INC	2.8466	V1	29.338
RP	237.98	LAP	1.40	LOP	98.31	VP	21.203	GAP	8.11	AZP	92.48	TAL	1.15	TAP	151.79	RCA	151.85	APO	246.82	V2	23.090
RC	209.965	GL	24.82	GP	-30.11	ZAL	85.00	ZAP	113.80	ETS	196.91	ZAE	141.07	ETE	231.35	ZAC	55.14	ETC	286.05	LVI	10.46

PLANETOCENTRIC CONIC

C3	15.152	VHL	3.893	DLA	35.25	RAL	19.76	RAD	6640.6	VEL	11.628	PTH	6.67	VHP	2.697	DPA	-15.00	RAP	44.73	ECC	1.2494

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 22 28	3825.22	-46.58	159.09	264.55	78.97	10 26 14	2825.2	-45.55	124.02
60.00	8 57 23	3892.31	-36.85	161.78	261.23	72.38	10 2 15	2892.3	-40.23	131.19
68.02	7 24 17	4167.59	-22.34	176.97	254.23	61.99	8 33 45	3167.6	-31.87	152.16
68.02	7 24 17	4167.59	-22.34	176.97	254.23	61.99	8 33 45	3167.6	-31.87	152.16
68.02	7 24 17	4167.59	-22.34	176.97	254.23	61.99	8 33 45	3167.6	-31.87	152.16
68.02	7 24 17	4167.59	-22.34	176.97	254.23	61.99	8 33 45	3167.6	-31.87	152.16
68.02	7 24 17	4167.59	-22.34	176.97	254.23	61.99	8 33 45	3167.6	-31.87	152.16

DIFFERENTIAL CORRECTIONS

TDE	-.1363	TRA	-.4999	TC3	-.4408	BAU	.7054
RDE	.7338	RRA	.2607	RC3	-3.4542	FAU	.37223
FDE	6.3153	FRA	1.1097	FC	-21.2686	BSP	5017
BDE	.7463	BRA	.5638	BC3	3.4822	FSP	2817

MID-COURSE EXECUTION ACCURACY

SGT	984.8	SGR	2935.8	SG3	1649.7		
RRT	.0978	RRF	.9902	RTF	.1072		
SGB	3096.6	R23	.0018	R13	.9903		
SG1	2937.6	SG2	979.5	THA	87.89		

ORBIT DETERMINATION ACCURACY

ST	16.8	SR	54.6	SS	108.7
CRT	-.6903	CRS	-.9977	CST	.6435
LSA	122.1	MSA	13.1	SSA	1.3
EL1	55.9	EL2	11.9	ALF	102.60

LAUNCH DATE JUL 31 1973 FLIGHT TIME 214.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 494.691 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.889	GAL	.21	AZL	87.02	HCA	151.59	SMA	199.22	ECC	.23774	INC	2.9761	V1	29.338
RP	238.30	LAP	1.42	LOP	99.27	VP	21.158	GAP	7.87	AZP	92.62	TAL	1.12	TAP	152.70	RCA	151.85	APO	246.58	V2	23.056
RC	212.919	GL	25.86	GP	-31.16	ZAL	85.09	ZAP	112.15	ETS	196.36	ZAE	139.28	ETE	229.83	ZAC	54.27	ETC	286.31	LVI	11.32

PLANETOCENTRIC CONIC

C3	15.327	VHL	3.915	DLA	36.22	RAL	19.28	RAD	6640.7	VEL	11.635	PTH	6.67	VHP	2.691	DPA	-16.20	RAP	44.53	ECC	1.2522

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 13 26	3853.44	-46.18	161.70	265.01	76.99	10 17 39	2853.4	-46.04	126.57
60.00	8 42 21	3936.59	-35.88	165.14	261.01	70.27	9 47 58	2936.6	-40.30	134.95
66.36	7 13 11	4197.65	-22.81	179.65	254.25	61.07	8 23 8	3197.6	-32.67	154.83
66.36	7 13 11	4197.65	-22.81	179.65	254.25	61.07	8 23 8	3197.6	-32.67	154.83
66.36	7 13 11	4197.65	-22.81	179.65	254.25	61.07	8 23 8	3197.6	-32.67	154.83
66.36	7 13 11	4197.65	-22.81	179.65	254.25	61.07	8 23 8	3197.6	-32.67	154.83
66.36	7 13 11	4197.65	-22.81	179.65	254.25	61.07	8 23 8	3197.6	-32.67	154.83

DIFFERENTIAL CORRECTIONS

TDE	-.0942	TRA	-.4925	TC3	-.5950	BAU	.7381
RDE	.8230	RRA	.2547	RC3	-3.5828	FAU	.37133
FDE	6.3738	FRA	1.0368	FC	-20.9742	BSP	5250
BDE	.8284	BRA	.5544	BC3	3.6023	FSP	2626

MID-COURSE EXECUTION ACCURACY

SGT	1016.9	SGR	3066.4	SG3	1652.5		
RRT	.2300	RRF	.9914	RTF	.2188		
SGB	3230.7	R23	.0158	R13	.9913		
SG1	3076.4	SG2	986.5	THA	85.14		

ORBIT DETERMINATION ACCURACY

ST	15.1	SR	60.8	SS	112.2
CRT	-.5510	CRS	-.9983	CST	.5051
LSA	127.8	MSA	13.2	SSA	1.2
EL1	61.4	EL2	12.5	ALF	98.13

LAUNCH DATE JUL 31 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 498.474 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.883	GAL	.21	AZL	86.89	HCA	152.54	SMA	199.11	ECC	.23733	INC	3.1134	V1	29.338
RP	238.63	LAP	1.44	LOP	100.22	VP	21.114	GAP	7.63	AZP	92.76	TAL	1.07	TAP	153.61	RCA	151.86	APO	246.36	V2	23.024
RC	215.868	GL	26.95	GP	-32.23	ZAL	85.20	ZAP	110.50	ETS	195.76	ZAE	137.45	ETE	228.38	ZAC	53.39	ETC	286.58	LVI	12.20

PLANETOCENTRIC CONIC

C3	15.330	VHL	3.941	DLA	37.24	RAL	18.78	RAD	6640.8	VEL	11.644	PTH	6.68	VHP	2.690	DPA	-17.42	RAP	44.34	ECC	1.2556

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 3 33	3884.00	-45.68	164.47	265.43	74.91	10 8 17	2884.0	-46.49	129.38
60.00	8 24 41	3988.12	-34.63	168.94	260.59	67.95	9 31 9	2988.1	-40.21	139.33
64.70	7 2 22	4226.59	-23.29	182.28	254.29	60.09	8 12 49	3226.6	-33.50	157.47
64.70	7 2 22	4226.59	-23.29	182.28	254.29	60.09	8 12 49	3226.6	-33.50	157.47
64.70	7 2 22	4226.59	-23.29	182.28	254.29	60.09	8 12 49	3226.6	-33.50	157.47
64.70	7 2 22	4226.59	-23.29	182.28	254.29	60.09	8 12 49	3226.6	-33.50	157.47
64.70	7 2 22	4226.59	-23.29	182.28	254.29	60.09	8 12 49	3226.6	-33.50	157.47

DIFFERENTIAL CORRECTIONS

TDE	-.0415	TRA	-.4850	TC3	-.7328	BAU	.7771
RDE	.9063	RRA	.2441	RC3	-3.6706	FAU	.37199
FDE	6.7486	FRA	.9383	FC	-20.7366	BSP	5446
BDE	.9072	BRA	.5430	BC3	3.7430	FSP	2797

MID-COURSE EXECUTION ACCURACY

SGT	1059.1	SGR	3210.1	SG3	1653.7		
RRT	.3519	RRF	.9924	RTF	.3616		
SGB	3380.3	R23	.0256	R13	.9922		
SG1	3233.9	SG2	984.1	THA	82.70		

ORBIT DETERMINATION ACCURACY

ST	13.7	SR	66.4	SS	114.3
CRT	-.3134	CRS	-.9987	CST	.2682
LSA	132.2	MSA	13.4	SSA	1.1
EL1	66.5	EL2	12.9	ALF	93.83

LAUNCH DATE JUL 31 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 502.257 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.878	GAL	.20	AZL	86.74	HCA	153.49	SMA	199.01	ECC	.23695	INC	3.2594	VI	29.338
RP	238.95	LAP	1.45	LOP	101.17	VP	21.071	GAP	7.39	AZP	92.92	TAL	1.02	TAP	154.51	RCA	151.86	APO	246.17	V2	22.991
RC	218.810	GL	28.09	GP	-33.33	ZAL	85.32	ZAP	108.86	ETS	195.13	ZAE	135.60	ETE	227.01	ZAC	52.48	ETC	286.86	LVI	13.12

PLANETOCENTRIC CONIC

C3	15.764	VHL	3.970	DLA	38.30	RAL	18.24	RAD	6640.9	VEL	11.654	PTH	6.69	VHP	2.693	DPA	-18.67	RAP	44.17	ECC	1.2594

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 52 40	3917.26	-45.05	167.43	265.80	72.71	9 57 57	2917.3	-46.90	132.49
60.00	8 2 50	4050.98	-32.93	173.40	259.84	65.32	9 10 21	3051.0	-39.85	144.64
63.02	6 51 48	4254.52	-23.77	184.87	254.36	59.05	8 2 43	3254.5	-34.35	160.09
63.02	6 51 48	4254.52	-23.77	184.87	254.36	59.05	8 2 43	3254.5	-34.35	160.09
63.02	6 51 48	4254.52	-23.77	184.87	254.36	59.05	8 2 43	3254.5	-34.35	160.09
63.02	6 51 48	4254.52	-23.77	184.87	254.36	59.05	8 2 43	3254.5	-34.35	160.09
63.02	6 51 48	4254.52	-23.77	184.87	254.36	59.05	8 2 43	3254.5	-34.35	160.09

DIFFERENTIAL CORRECTIONS

TDE	.0113	TRA	-.4804	TC3	-.8765	BAU	.8158
RDE	1.0083	RRA	.2348	RC3	-3.7704	FAU	.37015
FDE	6.9835	FRA	.8526	FC	-20.3276	BSP	5749
BDE	1.0084	BRA	.5347	BC3	3.8710	FSP	2806

MID-COURSE EXECUTION ACCURACY

SGT	1124.7	SGR	3356.8	SG3	1649.7
RRT	.4572	RRF	.9934	RTF	.4663
SGB	3540.2	R23	.0347	R13	.9929
SG1	3399.6	SG2	987.7	THA	80.48

ORBIT DETERMINATION ACCURACY

ST	13.3	SR	73.2	SS	117.5
CRT	-.0226	CRS	-.9990	CST	-.0183
LSA	138.4	MSA	13.6	SSA	1.0
EL1	73.2	EL2	13.3	ALF	90.24

LAUNCH DATE JUL 31 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 506.040 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.874	GAL	.18	AZL	86.58	HCA	154.43	SMA	198.92	ECC	.23662	INC	3.4150	VI	29.338
RP	239.26	LAP	1.47	LOP	102.12	VP	21.029	GAP	7.15	AZP	93.08	TAL	.97	TAP	155.40	RCA	151.86	APO	245.99	V2	22.960
RC	221.744	GL	29.28	GP	-34.46	ZAL	85.45	ZAP	107.24	ETS	194.47	ZAE	133.73	ETE	225.69	ZAC	51.55	ETC	287.16	LVI	14.06

PLANETOCENTRIC CONIC

C3	16.033	VHL	4.004	DLA	39.40	RAL	17.67	RAD	6641.0	VEL	11.665	PTH	6.70	VHP	2.701	DPA	-19.95	RAP	44.02	ECC	1.2639

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 40 33	3953.69	-44.26	170.58	266.07	70.38	9 46 27	2953.7	-47.23	139.94
60.00	7 32 34	4136.72	-30.35	179.19	258.40	62.10	8 41 31	3136.7	-38.94	151.75
61.33	6 41 24	4281.71	-24.25	187.45	254.44	57.93	7 52 46	3281.7	-35.22	162.71
61.33	6 41 24	4281.71	-24.25	187.45	254.44	57.93	7 52 46	3281.7	-35.22	162.71
61.33	6 41 24	4281.71	-24.25	187.45	254.44	57.93	7 52 46	3281.7	-35.22	162.71
61.33	6 41 24	4281.71	-24.25	187.45	254.44	57.93	7 52 46	3281.7	-35.22	162.71
61.33	6 41 24	4281.71	-24.25	187.45	254.44	57.93	7 52 46	3281.7	-35.22	162.71

DIFFERENTIAL CORRECTIONS

TDE	.0718	TRA	-.4707	TC3	-1.0134	BAU	.8585
RDE	1.1138	RRA	.2089	RC3	-3.8750	FAU	.36830
FDE	7.1812	FRA	.6806	FC	-19.8864	BSP	6021
BDE	1.1161	BRA	.5150	BC3	4.0053	FSP	2780

MID-COURSE EXECUTION ACCURACY

SGT	1195.5	SGR	3509.9	SG3	1641.2
RRT	.5589	RRF	.9942	RTF	.5673
SGB	3707.9	R23	.0416	R13	.9934
SG1	3578.1	SG2	972.5	THA	78.35

ORBIT DETERMINATION ACCURACY

ST	14.1	SR	80.0	SS	120.1
CRT	.3003	CRS	-.9993	CST	-.3334
LSA	144.4	MSA	13.5	SSA	.9
EL1	80.2	EL2	13.4	ALF	86.88

LAUNCH DATE JUL 31 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 509.823 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.870	GAL	.17	AZL	86.42	HCA	155.38	SMA	198.85	ECC	.23631	INC	3.5813	VI	29.338
RP	239.57	LAP	1.49	LOP	103.07	VP	20.988	GAP	6.92	AZP	93.26	TAL	.90	TAP	156.28	RCA	151.86	APO	245.84	V2	22.928
RC	224.672	GL	30.52	GP	-35.61	ZAL	85.59	ZAP	105.65	ETS	193.76	ZAE	131.85	ETE	224.42	ZAC	50.60	ETC	287.47	LVI	15.03

PLANETOCENTRIC CONIC

C3	16.342	VHL	4.043	DLA	40.56	RAL	17.07	RAD	6641.2	VEL	11.678	PTH	6.71	VHP	2.715	DPA	-21.25	RAP	43.89	ECC	1.2689

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 26 54	3993.96	-43.28	173.96	266.20	67.93	9 33 28	2994.0	-47.48	139.81
59.62	6 31 8	4308.19	-24.72	190.03	254.55	56.75	7 42 56	3308.2	-36.12	165.34
59.62	6 31 8	4308.19	-24.72	190.03	254.55	56.75	7 42 56	3308.2	-36.12	165.34
59.62	6 31 8	4308.19	-24.72	190.03	254.55	56.75	7 42 56	3308.2	-36.12	165.34
59.62	6 31 8	4308.19	-24.72	190.03	254.55	56.75	7 42 56	3308.2	-36.12	165.34
59.62	6 31 8	4308.19	-24.72	190.03	254.55	56.75	7 42 56	3308.2	-36.12	165.34
59.62	6 31 8	4308.19	-24.72	190.03	254.55	56.75	7 42 56	3308.2	-36.12	165.34

DIFFERENTIAL CORRECTIONS

TDE	.1377	TRA	-.4702	TC3	-1.1516	BAU	.9019
RDE	1.2281	RRA	.1974	RC3	-3.9642	FAU	.36444
FDE	7.3660	FRA	.5961	FC	-19.3067	BSP	6303
BDE	1.2358	BRA	.5099	BC3	4.1281	FSP	2743

MID-COURSE EXECUTION ACCURACY

SGT	1294.0	SGR	3665.8	SG3	1625.3
RRT	.6326	RRF	.9949	RTF	.6406
SGB	3887.5	R23	.0474	R13	.9939
SG1	3762.9	SG2	976.3	THA	76.49

ORBIT DETERMINATION ACCURACY

ST	16.4	SR	87.3	SS	122.6
CRT	.5454	CRS	-.9995	CST	-.5708
LSA	150.8	MSA	13.7	SSA	.9
EL1	87.8	EL2	13.7	ALF	83.99

LAUNCH DATE JUL 31 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 12 1974

HELIOCENTRIC CONIC DISTANCE 513.606 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.866	GAL	.16	AZL	86.24	HCA	156.32	SMA	198.78	ECC	.23605	INC	3.7595	VI	29.338
RP	239.88	LAP	1.51	LOP	104.01	VP	20.949	GAP	6.68	AZP	93.44	TAL	.83	TAP	157.15	RCA	151.86	APO	245.70	V2	22.897
RC	227.591	GL	31.83	GP	-36.79	ZAL	85.75	ZAP	104.08	ETS	193.02	ZAE	129.95	ETE	223.19	ZAC	49.62	ETC	287.80	LVI	16.04

PLANETOCENTRIC CONIC

C3	16.696	VHL	4.086	DLA	41.78	RAL	16.41	RAD	6641.3	VEL	11.693	PTH	6.73	VHP	2.734	DPA	-22.57	RAP	43.79	ECC	1.2748

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 11 18	4039.03	-42.07	177.61	266.12	65.33	9 18 37	3039.0	-47.58	144.16
57.87	6 20 53	4334.22	-25.18	192.61	254.68	55.49	7 33 8	3334.2	-37.03	168.00
57.87	6 20 53	4334.22	-25.18	192.61	254.68	55.49	7 33 8	3334.2	-37.03	168.00
57.87	6 20 53	4334.22	-25.18	192.61	254.68	55.49	7 33 8	3334.2	-37.03	168.00
57.87	6 20 53	4334.22	-25.18	192.61	254.68	55.49	7 33 8	3334.2	-37.03	168.00
57.87	6 20 53	4334.22	-25.18	192.61	254.68	55.49	7 33 8	3334.2	-37.03	168.00
57.87	6 20 53	4334.22	-25.18	192.61	254.68	55.49	7 33 8	3334.2	-37.03	168.00

DIFFERENTIAL CORRECTIONS

TDE	.2150	TRA	-.4704	TC3	-1.2919	BAU	.9441
RDE	1.3354	RRA	.1789	RC3	-4.0273	FAU	.35773
FDE	7.4554	FRA	.4835	FC	-18.5494	BSP	6685
BDE	1.3526	BRA	.5032	BC3	4.2295	FSP	2734

MID-COURSE EXECUTION ACCURACY

SGT	1409.9	SGR	3801.6	SG3	1592.9
RRT	.6981	RRF	.9955	RTF	.7060
SGB	4054.6	R23	.0528	R13	.9942
SG1	3935.6	SG2	975.0	THA	74.51

ORBIT DETERMINATION ACCURACY

ST	20.1	SR	93.9	SS	123.6
CRT	.7150	CRS	-.9996	CST	-.7336
LSA	155.9	MSA	13.9	SSA	.8
EL1	95.0	EL2	13.9	ALF	81.09

LAUNCH DATE JUL 31 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC DISTANCE 517.388 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.863 GAL .14 AZL 86.05 HCA 157.25 SMA 198.72 ECC .23581 INC 3.9510 V1 29.338
RP 240.18 LAP 1.53 LOP 104.95 VP 20.911 GAP 6.45 AZP 93.64 TAL .75 TAP 158.01 RCA 151.86 APO 245.58 V2 22.866
RC 230.502 GL 33.20 GP -36.00 ZAL 85.92 ZAP 102.54 ETS 192.25 ZAE 128.06 ETE 222.00 ZAC 48.63 ETC 288.16 LVI 17.07

PLANETOCENTRIC CONIC

C3 17.102 VHL 4.136 DLA 43.04 RAL 15.69 RAD 6641.5 VEL 11.711 PTH 6.74 VHP 2.760 DPA -23.92 RAP 43.72 ECC 1.2815

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 53 1	4090.46	-40.53	181.58	265.72	62.57	9 1 11	3090.5	-47.47	149.13
56.09	6 10 37	4359.93	-25.62	195.22	254.82	54.15	7 23 17	3359.9	-37.96	170.72
56.09	6 10 37	4359.93	-25.62	195.22	254.82	54.15	7 23 17	3359.9	-37.96	170.72
56.09	6 10 37	4359.93	-25.62	195.22	254.82	54.15	7 23 17	3359.9	-37.96	170.72
56.09	6 10 37	4359.93	-25.62	195.22	254.82	54.15	7 23 17	3359.9	-37.96	170.72
56.09	6 10 37	4359.93	-25.62	195.22	254.82	54.15	7 23 17	3359.9	-37.96	170.72
56.09	6 10 37	4359.93	-25.62	195.22	254.82	54.15	7 23 17	3359.9	-37.96	170.72

DIFFERENTIAL CORRECTIONS

TDE .2945 TRA -.4728 TC3-1.4281 BAU .9872
RDE 1.4684 RRA .1603 RC3-4.0749 FAU .34939
FDE 7.6028 FRA .3799 FC-17.6865 BSP 6959
BDE 1.4976 BRA .4992 BC3 4.3179 FSP 2659

MID-COURSE EXECUTION ACCURACY

SGT 1537.9 SGR 3948.4 SG3 1558.7
RRT .7474 RRF .9960 RTF .7544
SGB 4237.4 R23 .0582 R13 .9945
SG1 4122.9 SG2 978.4 THA 72.77

ORBIT DETERMINATION ACCURACY

ST 24.5 SR 101.9 SS 125.7
CRT .8100 CRS -.9997 CST -.8237
LSA 163.1 MSA 14.1 SSA .7
EL1 103.9 EL2 14.1 ALF 78.78

LAUNCH DATE JUL 31 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 16 1974

HELIOCENTRIC CONIC DISTANCE 521.170 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.861 GAL .13 AZL 85.84 HCA 158.19 SMA 198.67 ECC .23561 INC 4.1576 V1 29.338
RP 240.48 LAP 1.54 LOP 105.89 VP 20.873 GAP 6.21 AZP 93.86 TAL .67 TAP 158.86 RCA 151.86 APO 245.47 V2 22.836
RC 233.405 GL 34.64 GP -39.23 ZAL 86.10 ZAP 101.03 ETS 191.43 ZAE 126.16 ETE 220.85 ZAC 47.60 ETC 288.53 LVI 18.14

PLANETOCENTRIC CONIC

C3 17.569 VHL 4.192 DLA 44.37 RAL 14.91 RAD 6641.7 VEL 11.730 PTH 6.76 VHP 2.792 DPA -25.28 RAP 43.69 ECC 1.2891

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 30 48	4151.10	-38.53	186.01	264.84	59.58	8 39 59	3151.1	-47.05	154.93
54.27	6 0 17	4385.38	-26.04	197.85	254.97	52.71	7 13 23	3385.4	-38.89	173.51
54.27	6 0 17	4385.38	-26.04	197.85	254.97	52.71	7 13 23	3385.4	-38.89	173.51
54.27	6 0 17	4385.38	-26.04	197.85	254.97	52.71	7 13 23	3385.4	-38.89	173.51
54.27	6 0 17	4385.38	-26.04	197.85	254.97	52.71	7 13 23	3385.4	-38.89	173.51
54.27	6 0 17	4385.38	-26.04	197.85	254.97	52.71	7 13 23	3385.4	-38.89	173.51
54.27	6 0 17	4385.38	-26.04	197.85	254.97	52.71	7 13 23	3385.4	-38.89	173.51

DIFFERENTIAL CORRECTIONS

TDE .3821 TRA -.4762 TC3-1.5502 BAU 1.0336
RDE 1.6156 RRA .1329 RC3-4.1184 FAU .34061
FDE 7.7397 FRA .2480 FC-16.7837 BSP 7298
BDE 1.6602 BRA .4944 BC3 4.4005 FSP 2596

MID-COURSE EXECUTION ACCURACY

SGT 1670.5 SGR 4106.3 SG3 1521.5
RRT .7885 RRF .9965 RTF .7947
SGB 4433.1 R23 .0617 R13 .9947
SG1 4324.4 SG2 975.6 THA 71.22

ORBIT DETERMINATION ACCURACY

ST 29.5 SR 110.6 SS 127.7
CRT .8699 CRS -.9998 CST -.8799
LSA 170.9 MSA 14.2 SSA .7
EL1 113.6 EL2 14.2 ALF 76.71

LAUNCH DATE JUL 31 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 18 1974

HELIOCENTRIC CONIC DISTANCE 524.952 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.858 GAL .11 AZL 85.62 HCA 159.12 SMA 198.62 ECC .23543 INC 4.3812 V1 29.338
RP 240.78 LAP 1.56 LOP 106.83 VP 20.837 GAP 5.98 AZP 94.09 TAL .58 TAP 159.71 RCA 151.86 APO 245.38 V2 22.807
RC 236.297 GL 36.15 GP -40.49 ZAL 86.29 ZAP 99.57 ETS 190.58 ZAE 124.27 ETE 219.72 ZAC 46.55 ETC 288.93 LVI 19.25

PLANETOCENTRIC CONIC

C3 18.108 VHL 4.255 DLA 45.76 RAL 14.05 RAD 6642.0 VEL 11.753 PTH 6.78 VHP 2.831 DPA -26.67 RAP 43.70 ECC 1.2980

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 1 50	4227.54	-35.76	191.22	263.11	56.24	8 12 18	3227.5	-46.07	162.05
52.40	5 49 48	4410.72	-26.42	200.53	255.12	51.18	7 3 19	3410.7	-39.83	176.39
52.40	5 49 48	4410.72	-26.42	200.53	255.12	51.18	7 3 19	3410.7	-39.83	176.39
52.40	5 49 48	4410.72	-26.42	200.53	255.12	51.18	7 3 19	3410.7	-39.83	176.39
52.40	5 49 48	4410.72	-26.42	200.53	255.12	51.18	7 3 19	3410.7	-39.83	176.39
52.40	5 49 48	4410.72	-26.42	200.53	255.12	51.18	7 3 19	3410.7	-39.83	176.39
52.40	5 49 48	4410.72	-26.42	200.53	255.12	51.18	7 3 19	3410.7	-39.83	176.39

DIFFERENTIAL CORRECTIONS

TDE .4798 TRA -.4825 TC3-1.6576 BAU 1.0851
RDE 1.7564 RRA .0998 RC3-4.1648 FAU .33203
FDE 7.7733 FRA .1073 FC-15.8745 BSP 7516
BDE 1.8207 BRA .4928 BC3 4.4825 FSP 2471

MID-COURSE EXECUTION ACCURACY

SGT 1809.6 SGR 4265.3 SG3 1476.7
RRT .8225 RRF .9970 RTF .8086
SGB 4633.3 R23 .0631 R13 .9951
SG1 4530.9 SG2 968.9 THA 69.80

ORBIT DETERMINATION ACCURACY

ST 35.3 SR 118.4 SS 128.1
CRT .9060 CRS -.9998 CST -.9158
LSA 177.4 MSA 14.3 SSA .6
EL1 122.7 EL2 14.2 ALF 74.66

LAUNCH DATE JUL 31 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 20 1974

HELIOCENTRIC CONIC DISTANCE 528.733 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.857 GAL .09 AZL 85.38 HCA 160.05 SMA 198.58 ECC .23529 INC 4.6240 V1 29.338
RP 241.07 LAP 1.58 LOP 107.76 VP 20.802 GAP 5.75 AZP 94.35 TAL .49 TAP 160.54 RCA 151.86 APO 245.31 V2 22.777
RC 239.179 GL 37.74 GP -41.78 ZAL 86.49 ZAP 98.15 ETS 189.70 ZAE 122.39 ETE 218.62 ZAC 45.47 ETC 289.35 LVI 20.39

PLANETOCENTRIC CONIC

C3 18.730 VHL 4.328 DLA 47.21 RAL 13.09 RAD 6642.3 VEL 11.779 PTH 6.80 VHP 2.878 DPA -28.07 RAP 43.75 ECC 1.3082

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 14 0	4348.97	-30.90	198.72	259.12	51.83	7 26 29	3349.0	-43.59	172.67
50.48	5 39 5	4436.11	-26.77	203.25	255.26	49.54	6 53 1	3436.1	-40.77	179.38
50.48	5 39 5	4436.11	-26.77	203.25	255.26	49.54	6 53 1	3436.1	-40.77	179.38
50.48	5 39 5	4436.11	-26.77	203.25	255.26	49.54	6 53 1	3436.1	-40.77	179.38
50.48	5 39 5	4436.11	-26.77	203.25	255.26	49.54	6 53 1	3436.1	-40.77	179.38
50.48	5 39 5	4436.11	-26.77	203.25	255.26	49.54	6 53 1	3436.1	-40.77	179.38
50.48	5 39 5	4436.11	-26.77	203.25	255.26	49.54	6 53 1	3436.1	-40.77	179.38

DIFFERENTIAL CORRECTIONS

TDE .5866 TRA -.4925 TC3-1.7672 BAU 1.1298
RDE 1.9088 RRA .0549 RC3-4.1513 FAU .31846
FDE 7.7772 FRA -.0600 FC-14.7200 BSP 8083
BDE 1.9969 BRA .4956 BC3 4.5118 FSP 2463

MID-COURSE EXECUTION ACCURACY

SGT 1965.8 SGR 4394.1 SG3 1415.4
RRT .8516 RRF .9973 RTF .8570
SGB 4813.8 R23 .0663 R13 .9952
SG1 4717.1 SG2 959.9 THA 68.20

ORBIT DETERMINATION ACCURACY

ST 41.5 SR 126.5 SS 128.1
CRT .9332 CRS -.9999 CST -.9388
LSA 184.2 MSA 14.3 SSA .6
EL1 132.3 EL2 14.2 ALF 72.78

LAUNCH DATE JUL 31 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 22 1974

HELIOCENTRIC CONIC DISTANCE 532.513 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.855	GAL	.07	AZL	85.11	HCA	160.88	SMA	198.55	ECC	.23917	INC	4.8869
RP	241.36	LAP	1.59	LOP	108.69	VP	20.768	GAP	5.52	AZP	94.62	TAL	.39	TAP	161.37	RCA	151.86	APO	245.25
RC	242.049	GL	39.41	GP	-43.11	ZAL	86.69	ZAP	96.78	ETS	188.78	ZAE	120.53	ETE	217.54	ZAC	44.37	ETC	289.81

V1	29.338																		
V2	22.749																		
LVI	21.56																		

PLANETOCENTRIC CONIC

C3	19.453	VHL	4.411	DLA	48.72	RAL	12.02	RAD	6642.6	VEL	11.810	PTH	6.83	VHP	2.934	DPA	-29.49	RAP	43.85
ECC	1.3201																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.51	5 28 4	4461.66	-27.06	206.03	255.39	47.80	6 42 26	3461.7	-41.69	182.50
48.51	5 28 4	4461.66	-27.06	206.03	255.39	47.80	6 42 26	3461.7	-41.69	182.50
48.51	5 28 4	4461.66	-27.06	206.03	255.39	47.80	6 42 26	3461.7	-41.69	182.50
48.51	5 28 4	4461.66	-27.06	206.03	255.39	47.80	6 42 26	3461.7	-41.69	182.50
48.51	5 28 4	4461.66	-27.06	206.03	255.39	47.80	6 42 26	3461.7	-41.69	182.50
48.51	5 28 4	4461.66	-27.06	206.03	255.39	47.80	6 42 26	3461.7	-41.69	182.50
48.51	5 28 4	4461.66	-27.06	206.03	255.39	47.80	6 42 26	3461.7	-41.69	182.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.7015	TRA	-.5075	TC3	-1.8539	BAU	1.1825	SGT	2122.1	SGR	4572.9	SG3	1363.5	ST	48.0	SR	137.0	SS	129.6
RDE	2.1075	RRA	.0202	RC3	-4.1520	FAU	.30634	RRT	.8702	RRF	.9976	RTF	.8750	CRT	.9486	CRS	-.9999	CST	-.9529
FDE	7.8622	FRA	-.1677	FC	-13.6338	BSP	8208	SGB	5041.3	R23	.0682	R13	.9954	LSA	194.0	MSA	14.5	SSA	.5
BDE	2.2212	BRA	.5079	BC3	4.5471	FSP	2285	SG1	4947.8	SG2	966.3	THA	67.09	EL1	144.5	EL2	14.4	ALF	71.41

LAUNCH DATE JUL 31 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 24 1974

HELIOCENTRIC CONIC DISTANCE 536.291 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.854	GAL	.05	AZL	84.82	HCA	161.91	SMA	198.53	ECC	.23508	INC	5.1792
RP	241.64	LAP	1.61	LOP	109.62	VP	20.735	GAP	5.29	AZP	94.92	TAL	.28	TAP	162.19	RCA	151.86	APO	245.20
RC	244.907	GL	41.17	GP	-44.46	ZAL	86.91	ZAP	95.47	ETS	187.83	ZAE	118.69	ETE	216.47	ZAC	43.23	ETC	290.30

V1	29.338																		
V2	22.720																		
LVI	22.78																		

PLANETOCENTRIC CONIC

C3	20.295	VHL	4.505	DLA	50.31	RAL	10.80	RAD	6643.0	VEL	11.845	PTH	6.86	VHP	3.000	DPA	-30.93	RAP	44.02
ECC	1.3340																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.49	5 16 37	4487.57	-27.29	208.88	255.47	45.94	6 31 24	3487.6	-42.58	185.77
46.49	5 16 37	4487.57	-27.29	208.88	255.47	45.94	6 31 24	3487.6	-42.58	185.77
46.49	5 16 37	4487.57	-27.29	208.88	255.47	45.94	6 31 24	3487.6	-42.58	185.77
46.49	5 16 37	4487.57	-27.29	208.88	255.47	45.94	6 31 24	3487.6	-42.58	185.77
46.49	5 16 37	4487.57	-27.29	208.88	255.47	45.94	6 31 24	3487.6	-42.58	185.77
46.49	5 16 37	4487.57	-27.29	208.88	255.47	45.94	6 31 24	3487.6	-42.58	185.77
46.49	5 16 37	4487.57	-27.29	208.88	255.47	45.94	6 31 24	3487.6	-42.58	185.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8274	TRA	-.5256	TC3	-1.9332	BAU	1.2322	SGT	2288.5	SGR	4699.2	SG3	1289.5	ST	55.0	SR	144.7	SS	127.8
RDE	2.2739	RRA	-.0474	RC3	-4.1095	FAU	.29113	RRT	.8919	RRF	.9979	RTF	.8963	CRT	.9610	CRS	-.9999	CST	-.9643
FDE	7.7455	FRA	-.3631	FC	-12.4186	BSP	8649	SGB	5226.8	R23	.0690	R13	.9956	LSA	200.2	MSA	14.4	SSA	.5
BDE	2.4198	BRA	.5278	BC3	4.5415	FSP	2203	SG1	5140.5	SG2	946.0	THA	65.64	EL1	154.1	EL2	14.3	ALF	69.76

LAUNCH DATE JUL 31 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 26 1974

HELIOCENTRIC CONIC DISTANCE 540.069 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.853	GAL	.03	AZL	84.50	HCA	162.83	SMA	198.51	ECC	.23501	INC	5.4989
RP	241.92	LAP	1.62	LOP	110.55	VP	20.704	GAP	5.06	AZP	95.26	TAL	.17	TAP	163.00	RCA	151.86	APO	245.17
RC	247.751	GL	43.03	GP	-45.85	ZAL	87.13	ZAP	94.23	ETS	186.85	ZAE	116.87	ETE	215.43	ZAC	42.06	ETC	290.83

V1	29.338																		
V2	22.692																		
LVI	24.03																		

PLANETOCENTRIC CONIC

C3	21.284	VHL	4.613	DLA	51.96	RAL	9.42	RAD	6643.4	VEL	11.886	PTH	6.90	VHP	3.078	DPA	-32.38	RAP	44.25
ECC	1.3503																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.41	5 4 37	4513.98	-27.42	211.79	255.48	43.97	6 19 51	3514.0	-43.42	189.21
44.41	5 4 37	4513.98	-27.42	211.79	255.48	43.97	6 19 51	3514.0	-43.42	189.21
44.41	5 4 37	4513.98	-27.42	211.79	255.48	43.97	6 19 51	3514.0	-43.42	189.21
44.41	5 4 37	4513.98	-27.42	211.79	255.48	43.97	6 19 51	3514.0	-43.42	189.21
44.41	5 4 37	4513.98	-27.42	211.79	255.48	43.97	6 19 51	3514.0	-43.42	189.21
44.41	5 4 37	4513.98	-27.42	211.79	255.48	43.97	6 19 51	3514.0	-43.42	189.21
44.41	5 4 37	4513.98	-27.42	211.79	255.48	43.97	6 19 51	3514.0	-43.42	189.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9838	TRA	-.5493	TC3	-1.9884	BAU	1.2839	SGT	2454.4	SGR	4763.4	SG3	1194.0	ST	62.2	SR	147.5	SS	121.8
RDE	2.3731	RRA	-.0972	RC3	-4.0502	FAU	.27516	RRT	.9067	RRF	.9980	RTF	.9119	CRT	.9668	CRS	-.9999	CST	-.9714
FDE	7.3547	FRA	-.4706	FC	-11.1922	BSP	8886	SGB	5358.6	R23	.0692	R13	.9958	LSA	200.5	MSA	14.5	SSA	.4
BDE	2.5613	BRA	.5578	BC3	4.5120	FSP	2046	SG1	5276.5	SG2	934.4	THA	64.08	EL1	159.4	EL2	14.3	ALF	67.60

LAUNCH DATE JUL 31 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 28 1974

HELIOCENTRIC CONIC DISTANCE 543.847 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.852	GAL	.01	AZL	84.15	HCA	163.75	SMA	198.50	ECC	.23497	INC	5.8529
RP	242.19	LAP	1.64	LOP	111.48	VP	20.673	GAP	4.84	AZP	95.62	TAL	.06	TAP	163.81	RCA	151.86	APO	245.15
RC	250.580	GL	44.99	GP	-47.27	ZAL	87.36	ZAP	93.05	ETS	185.84	ZAE	115.09	ETE	214.40	ZAC	40.86	ETC	291.41

V1	29.338																		
V2	22.665																		
LVI	25.32																		

PLANETOCENTRIC CONIC

C3	22.453	VHL	4.738	DLA	53.67	RAL	7.84	RAD	6643.9	VEL	11.935	PTH	6.94	VHP	3.168	DPA	-33.85	RAP	44.54
ECC	1.3695																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.27	4 51 55	4541.08	-27.46	214.76	255.39	41.88	6 7 36	3541.1	-44.19	192.85
42.27	4 51 55	4541.08	-27.46	214.76	255.39	41.88	6 7 36	3541.1	-44.19	192.85
42.27	4 51 55	4541.08	-27.46	214.76	255.39	41.88	6 7 36	3541.1	-44.19	192.85
42.27	4 51 55	4541.08	-27.46	214.76	255.39	41.88	6 7 36	3541.1	-44.19	192.85
42.27	4 51 55	4541.08	-27.46	214.76	255.39	41.88	6 7 36	3541.1	-44.19	192.85
42.27	4 51 55	4541.08	-27.46	214.76	255.39	41.88	6 7 36	3541.1	-44.19	192.85
42.27	4 51 55	4541.08	-27.46	214.76	255.39	41.88	6 7 36	3541.1	-44.19	192.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1073	TRA	-.5855	TC3	-2.0052	BAU	1.3841	SGT	2613.7	SGR	5153.7	SG3	1171.4	ST	69.4	SR	166.4	SS	126.7
RDE	2.7507	RRA	.0568	RC3	-4.1523	FAU	.27111	RRT	.8754	RRF	.9985	RTF	.8811	CRT	.9632	CRS	-.9999	CST	-.9660
FDE	7.6553	FRA	-.0024	FC	-10.4536	BSP	8189	SGB	5778.6	R23	.0799	R13	.9954	LSA	219.7	MSA	17.5	SSA	.4
BDE	2.9652	BRA	.5882	BC3	4.6111	FSP	1647	SG1	5663.0	SG2	1149.8	THA	64.96	EL1	179.5	EL2	17.3	ALF	67.91

LAUNCH DATE JUL 31 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 30 1974

HELIOCENTRIC CONIC DISTANCE 547.615 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.852	GAL	-.01	AZL	83.75	HCA	164.66	SMA	198.50	ECC	.23495	INC	6.2472
RP	242.46	LAP	1.65	LOP	112.40	VP	20.643	GAP	4.61	AZP	96.03	TAL	359.94	TAP	164.60	RCA	151.86	APO	245.14
RC	253.394	GL	47.06	GP	-48.72	ZAL	87.59	ZAP	91.95	ETS	184.82	ZAE	113.34	ETE	213.39	ZAC	39.63	ETC	292.03

V1	29.338																		
V2	22.638																		
LVI	26.65																		

PLANETOCENTRIC CONIC

C3	23.843	VHL	4.883	DLA	55.45	RAL	6.00	RAD	6644.5	VEL	11.993	PTH	6.99	VHP	3.273	DPA	-35.33	RAP	44.92
ECC	1.3924																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.08	4 38 21	4569.05	-27.36	217.80	255.14	39.68	5 54 30	3569.0	-44.86	196.68
40.08	4 38 21	4569.05	-27.36	217.80	255.14	39.68	5 54 30	3569.0	-44.86	196.68
40.08	4 38 21	4569.05	-27.36	217.80	255.14	39.68	5 54 30	3569.0	-44.86	196.68
40.08	4 38 21	4569.05	-27.36	217.80	255.14	39.68	5 54 30	3569.0	-44.86	196.68
40.08	4 38 21	4569.05	-27.36	217.80	255.14	39.68	5 54 30	3569.0	-44.86	196.68
40.08	4 38 21	4569.05	-27.36	217.80	255.14	39.68	5 54 30	3569.0	-44.86	196.68
40.08	4 38 21	4569.05	-27.36	217.80	255.14	39.68	5 54 30	3569.0	-44.86	196.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2670	TRA	-.6152	TC3	-2.0637	BAU	1.3221	SGT	2809.3	SGR	4961.0	SG3	1018.1	ST	76.8	SR	173.8	SS	122.5
RDE	2.9590	RRA	-.2222	RC3	-3.5978	FAU	.22221	RRT	.9204	RRF	.9983	RTF	.9216	CRT	.9777	CRS	-1.0000	CST	-.9794
FDE	7.3731	FRA	-.6717	FC3	-8.0682	BSP	10009	SGB	5701.2	R23	.0860	R13	.9946	LSA	225.6	MSA	15.0	SSA	.3
BDE	3.2189	BRA	.6541	BC3	4.1476	FSP	1875	SG1	5618.1	SG2	969.7	THA	61.55	EL1	189.5	EL2	14.8	ALF	66.48

LAUNCH DATE JUL 31 1973 FLIGHT TIME 244.00 ARRIVAL DATE APR 1 1974

HELIOCENTRIC CONIC DISTANCE 551.388 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.852	GAL	-.04	AZL	83.31	HCA	165.58	SMA	198.50	ECC	.23496	INC	6.6892
RP	242.73	LAP	1.66	LOP	113.32	VP	20.614	GAP	4.39	AZP	96.48	TAL	359.81	TAP	165.39	RCA	151.86	APO	245.14
RC	256.191	GL	49.25	GP	-50.20	ZAL	87.83	ZAP	90.92	ETS	183.78	ZAE	111.64	ETE	212.39	ZAC	38.36	ETC	292.72

V1	29.338																		
V2	22.612																		
LVI	28.02																		

PLANETOCENTRIC CONIC

C3	25.514	VHL	5.051	DLA	57.30	RAL	3.84	RAD	6645.2	VEL	12.062	PTH	7.04	VHP	3.396	DPA	-36.81	RAP	45.38
ECC	1.4199																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.84	4 23 39	4598.16	-27.10	220.90	254.67	37.37	5 40 17	3598.2	-45.39	200.73
37.84	4 23 39	4598.16	-27.10	220.90	254.67	37.37	5 40 17	3598.2	-45.39	200.73
37.84	4 23 39	4598.16	-27.10	220.90	254.67	37.37	5 40 17	3598.2	-45.39	200.73
37.84	4 23 39	4598.16	-27.10	220.90	254.67	37.37	5 40 17	3598.2	-45.39	200.73
37.84	4 23 39	4598.16	-27.10	220.90	254.67	37.37	5 40 17	3598.2	-45.39	200.73
37.84	4 23 39	4598.16	-27.10	220.90	254.67	37.37	5 40 17	3598.2	-45.39	200.73
37.84	4 23 39	4598.16	-27.10	220.90	254.67	37.37	5 40 17	3598.2	-45.39	200.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4325	TRA	-.6599	TC3	-2.0470	BAU	1.4295	SGT	2972.5	SGR	5215.4	SG3	953.5	ST	83.9	SR	181.9	SS	118.0
RDE	3.2008	RRA	-.2898	RC3	-3.6569	FAU	.21634	RRT	.9277	RRF	.9986	RTF	.9304	CRT	.9800	CRS	-1.0000	CST	-.9815
FDE	7.0749	FRA	-.7373	FC3	-7.3408	BSP	10252	SGB	6003.0	R23	.0793	R13	.9955	LSA	231.9	MSA	15.4	SSA	.3
BDE	3.5068	BRA	.7207	BC3	4.1908	FSP	1695	SG1	5922.9	SG2	977.1	THA	61.28	EL1	199.7	EL2	15.2	ALF	65.51

LAUNCH DATE JUL 31 1973 FLIGHT TIME 246.00 ARRIVAL DATE APR 3 1974

HELIOCENTRIC CONIC DISTANCE 555.158 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.853	GAL	-.06	AZL	82.81	HCA	166.49	SMA	198.51	ECC	.23498	INC	7.1887
RP	242.99	LAP	1.68	LOP	114.24	VP	20.586	GAP	4.16	AZP	96.99	TAL	359.69	TAP	166.18	RCA	151.86	APO	245.15
RC	258.972	GL	51.57	GP	-51.71	ZAL	88.06	ZAP	89.98	ETS	182.73	ZAE	109.99	ETE	211.42	ZAC	37.06	ETC	293.47

V1	29.338																		
V2	22.586																		
LVI	29.43																		

PLANETOCENTRIC CONIC

C3	27.541	VHL	5.248	DLA	59.19	RAL	1.30	RAD	6646.0	VEL	12.145	PTH	7.11	VHP	3.540	DPA	-38.30	RAP	45.94
ECC	1.4533																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.56	4 7 32	4628.64	-26.66	224.03	253.89	34.97	5 24 41	3628.6	-45.74	204.98
35.56	4 7 32	4628.64	-26.66	224.03	253.89	34.97	5 24 41	3628.6	-45.74	204.98
35.56	4 7 32	4628.64	-26.66	224.03	253.89	34.97	5 24 41	3628.6	-45.74	204.98
35.56	4 7 32	4628.64	-26.66	224.03	253.89	34.97	5 24 41	3628.6	-45.74	204.98
35.56	4 7 32	4628.64	-26.66	224.03	253.89	34.97	5 24 41	3628.6	-45.74	204.98
35.56	4 7 32	4628.64	-26.66	224.03	253.89	34.97	5 24 41	3628.6	-45.74	204.98
35.56	4 7 32	4628.64	-26.66	224.03	253.89	34.97	5 24 41	3628.6	-45.74	204.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6086	TRA	-.7123	TC3	-2.0155	BAU	1.5015	SGT	3140.8	SGR	5408.7	SG3	872.1	ST	90.8	SR	192.0	SS	113.9
RDE	3.5079	RRA	-.4036	RC3	-3.5453	FAU	.19981	RRT	.9362	RRF	.9987	RTF	.9387	CRT	.9827	CRS	-1.0000	CST	-.9839
FDE	6.8023	FRA	-.8607	FC3	-6.2747	BSP	10028	SGB	6254.5	R23	.0769	R13	.9958	LSA	240.5	MSA	15.5	SSA	.3
BDE	3.8592	BRA	.8187	BC3	4.0781	FSP	1575	SG1	6179.5	SG2	966.1	THA	60.68	EL1	211.8	EL2	15.3	ALF	64.94

LAUNCH DATE JUL 31 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 5 1974

HELIOCENTRIC CONIC DISTANCE 558.925 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.853	GAL	-.08	AZL	82.24	HCA	167.40	SMA	198.52	ECC	.23503	INC	7.7575
RP	243.24	LAP	1.69	LOP	115.16	VP	20.559	GAP	3.94	AZP	97.57	TAL	359.55	TAP	166.95	RCA	151.86	APO	245.17
RC	261.736	GL	84.02	GP	-53.25	ZAL	88.29	ZAP	89.14	ETS	181.69	ZAE	108.40	ETE	210.47	ZAC	35.74	ETC	294.31

V1	29.338																		
V2	22.560																		
LVI	30.88																		

PLANETOCENTRIC CONIC

C3	30.029	VHL	5.480	DLA	61.12	RAL	358.28	RAD	6647.0	VEL	12.246	PTH	7.19	VHP	3.709	DPA	-39.78	RAP	46.60
ECC	1.4942																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.26	3 49 34	4660.92	-25.98	227.18	252.67	32.50	5 7 15	3660.9	-45.84	209.41
33.26	3 49 34	4660.92	-25.98	227.18	252.67	32.50	5 7 15	3660.9	-45.84	209.41
33.26	3 49 34	4660.92	-25.98	227.18	252.67	32.50	5 7 15	3660.9	-45.84	209.41
33.26	3 49 34	4660.92	-25.98	227.18	252.67	32.50	5 7 15	3660.9	-45.84	209.41
33.26	3 49 34	4660.92	-25.98	227.18	252.67	32.50	5 7 15	3660.9	-45.84	209.41
33.26	3 49 34	4660.92	-25.98	227.18	252.67	32.50	5 7 15	3660.9	-45.84	209.41
33.26	3 49 34	4660.92	-25.98	227.18	252.67	32.50	5 7 15	3660.9	-45.84	209.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.7741	TRA	-.7774	TC3	-1.9654	BAU	1.5620	SGT	3303.5	SGR	5517.7	SG3	774.2	ST	96.2	SR	197.9	SS	106.7
RDE	3.7690	RRA	-.5410	RC3	-3.3579	FAU	.17898	RRT	.9441	RRF	.9988	RTF	.9463	CRT	.9844	CRS	-1.0000	CST	-.9854
FDE	6.3355	FRA	-.9719	FC3	-5.1599	BSP	10875	SGB	6431.0	R23	.0760	R13	.9959	LSA	244.0	MSA	15.5	SSA	.2
BDE	4.1657	BRA	.9471	BC3	3.8908	FSP	1359	SG1	6361.2	SG2	944.8	THA	59.79	EL1	219.5	EL2	15.3	ALF	64.30

LAUNCH DATE JUL 31 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 7 1974

HELIOCENTRIC CONIC DISTANCE 562.689 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.684 GAL -.11 AZL 81.59 HCA 160.30 SMA 198.53 ECC .23509 INC 8.4116 V1 29.338
RP 243.50 LAP 1.70 LOP 116.08 VP 20.533 GAP 3.71 AZP 98.24 TAL 359.42 TAP 167.72 RCA 151.66 APO 245.21 V2 22.535
RC 264.483 GL 56.62 GP -54.81 ZAL 88.52 ZAP 88.39 ETS 180.66 ZAE 106.87 ETE 209.55 ZAC 34.38 ETC 295.22 LVI 32.36

PLANETOCENTRIC CONIC

C3 33.126 VHL 5.756 DLA 63.07 RAL 354.56 RAD 6648.2 VEL 12.371 PTH 7.29 VHP 3.909 DPA -41.25 RAP 47.37 ECC 1.5452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.95	3 29 16	4695.24	-25.03	230.30	250.84	29.99	4 47 31	3695.2	-45.65	213.96
30.95	3 29 16	4695.24	-25.03	230.30	250.84	29.99	4 47 31	3695.2	-45.65	213.96
30.95	3 29 16	4695.24	-25.03	230.30	250.84	29.99	4 47 31	3695.2	-45.65	213.96
30.95	3 29 16	4695.24	-25.03	230.30	250.84	29.99	4 47 31	3695.2	-45.65	213.96
30.95	3 29 16	4695.24	-25.03	230.30	250.84	29.99	4 47 31	3695.2	-45.65	213.96
30.95	3 29 16	4695.24	-25.03	230.30	250.84	29.99	4 47 31	3695.2	-45.65	213.96
30.95	3 29 16	4695.24	-25.03	230.30	250.84	29.99	4 47 31	3695.2	-45.65	213.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.9342 TRA -.8545 TC3-1.8886 BAU 1.6346 SGT 3458.4 SGR 5671.8 SG3 681.7 ST 100.4 SR 204.2 SS 99.0
RDE 4.0744 RRA -.7040 RC3-3.1711 FAU .15929 RRT .9508 RRF .9988 RTF .9528 CRT .9855 CRS-1.0000 CST -.9864
FDE 5.8452 FRA-1.0602 FC3-4.1630 BSP 11380 SGB 6643.0 R23 .0734 R13 .9962 LSA 247.6 MSA 15.5 SSA .2
BDE 4.5102 BRA 1.1071 BC3 3.6909 FSP 1214 SG1 6578.5 SG2 923.4 THA 59.22 EL1 227.0 EL2 15.3 ALF 64.03

LAUNCH DATE JUL 31 1973 FLIGHT TIME 252.00 ARRIVAL DATE APR 9 1974

HELIOCENTRIC CONIC DISTANCE 566.449 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.855 GAL -.14 AZL 80.83 HCA 169.20 SMA 198.55 ECC .23518 INC 9.1723 V1 29.338
RP 243.74 LAP 1.71 LOP 116.99 VP 20.508 GAP 3.49 AZP 99.01 TAL 359.28 TAP 168.49 RCA 151.86 APO 245.25 V2 22.511
RC 267.212 GL 59.37 GP -56.39 ZAL 88.74 ZAP 87.75 ETS 179.67 ZAE 105.43 ETE 208.68 ZAC 33.01 ETC 296.24 LVI 33.86

PLANETOCENTRIC CONIC

C3 37.041 VHL 6.086 DLA 64.99 RAL 350.05 RAD 6649.6 VEL 12.527 PTH 7.41 VHP 4.148 DPA -42.70 RAP 48.25 ECC 1.6096

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.69	3 5 58	4731.98	-23.78	233.34	248.20	27.51	4 24 50	3732.0	-45.10	218.53
28.69	3 5 58	4731.98	-23.78	233.34	248.20	27.51	4 24 50	3732.0	-45.10	218.53
28.69	3 5 58	4731.98	-23.78	233.34	248.20	27.51	4 24 50	3732.0	-45.10	218.53
28.69	3 5 58	4731.98	-23.78	233.34	248.20	27.51	4 24 50	3732.0	-45.10	218.53
28.69	3 5 58	4731.98	-23.78	233.34	248.20	27.51	4 24 50	3732.0	-45.10	218.53
28.69	3 5 58	4731.98	-23.78	233.34	248.20	27.51	4 24 50	3732.0	-45.10	218.53
28.69	3 5 58	4731.98	-23.78	233.34	248.20	27.51	4 24 50	3732.0	-45.10	218.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 2.0609 TRA -.9462 TC3-1.7882 BAU 1.7062 SGT 3597.5 SGR 5807.8 SG3 586.4 ST 102.1 SR 208.0 SS 89.7
RDE 4.3719 RRA -.8912 RC3-2.9451 FAU .13828 RRT .9558 RRF .9988 RTF .9573 CRT .9854 CRS-1.0000 CST -.9862
FDE 5.2542 FRA-1.1111 FC3-3.2320 BSP 11735 SGB 6831.7 R23 .0722 R13 .9963 LSA 247.9 MSA 15.8 SSA .2
BDE 4.8334 BRA 1.2998 BC3 3.4455 FSP 1045 SG1 6771.2 SG2 907.0 THA 58.75 EL1 231.2 EL2 15.7 ALF 64.06

LAUNCH DATE JUL 31 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 29 1974

HELIOCENTRIC CONIC DISTANCE 661.077 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.934 GAL -1.26 AZL 99.05 HCA 191.85 SMA 200.11 ECC .24206 INC 9.0457 V1 29.338
RP 248.20 LAP 1.85 LOP 139.35 VP 20.155 GAP -1.72 AZP 81.14 TAL 353.55 TAP 185.40 RCA 151.67 APO 248.55 V2 22.073
RC 328.191 GL -58.12 GP 51.27 ZAL 94.80 ZAP 71.87 ETS 206.61 ZAE 87.45 ETE 185.27 ZAC 137.70 ETC 291.31 LVI -71.74

PLANETOCENTRIC CONIC

C3 37.168 VHL 6.097 DLA -38.75 RAL 62.36 RAD 6649.7 VEL 12.532 PTH 7.41 VHP 3.976 DPA 51.52 RAP 348.01 ECC 1.6117

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 1 8	2435.51	-4.17	63.70	293.37	137.44	18 41 43	1435.5	14.15	47.80
60.00	20 16 22	2074.27	7.58	42.43	304.50	129.70	20 50 56	1074.3	22.78	23.04
62.32	21 42 16	1829.51	16.12	28.66	311.23	125.73	22 12 45	829.5	29.26	6.76
62.32	21 42 16	1829.51	16.12	28.66	311.23	125.73	22 12 45	829.5	29.26	6.76
62.32	21 42 16	1829.51	16.12	28.66	311.23	125.73	22 12 45	829.5	29.26	6.76
62.32	21 42 16	1829.51	16.12	28.66	311.23	125.73	22 12 45	829.5	29.26	6.76
62.32	21 42 16	1829.51	16.12	28.66	311.23	125.73	22 12 45	829.5	29.26	6.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-4.8469 TRA 3.5205 TC3-4.0941 BAU 2.3443 SGT 7979.3 SGR 4907.0 SG3 627.2 ST 236.6 SR 124.6 SS 56.6
RDE 2.4353 RRA-2.7103 RC3 2.3445 FAU .13962 RRT -.9846 RRF -.9974 RTF .9575 CRT -.9913 CRS .9986 CST -.9830
FDE-3.1434 FRA 4.0159 FC3-3.7179 BSP 16304 SGB 9367.3 R23 .1530 R13 -.9859 LSA 272.8 MSA 16.9 SSA .3
BDE 5.4243 BRA 4.4429 BC3 4.7178 FSP 1094 SG1 9338.7 SG2 731.8 THA 148.59 EL1 267.0 EL2 14.5 ALF 152.35

LAUNCH DATE JUL 31 1973 FLIGHT TIME 304.00 ARRIVAL DATE MAY 31 1974

HELIOCENTRIC CONIC DISTANCE 664.812 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.939 GAL -1.30 AZL 98.43 HCA 192.72 SMA 200.20 ECC .24247 INC 8.4305 V1 29.338
RP 248.30 LAP 1.85 LOP 140.24 VP 20.151 GAP -1.92 AZP 81.77 TAL 353.31 TAP 186.03 RCA 151.66 APO 248.74 V2 22.062
RC 330.283 GL -55.80 GP 49.42 ZAL 95.29 ZAP 70.44 ETS 206.93 ZAE 86.38 ETE 186.21 ZAC 136.00 ETC 290.62 LVI -70.16

PLANETOCENTRIC CONIC

C3 34.076 VHL 5.837 DLA -36.51 RAL 61.56 RAD 6648.6 VEL 12.409 PTH 7.32 VHP 3.807 DPA 49.98 RAP 349.64 ECC 1.5608

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 39 34	2476.47	-6.22	65.42	289.86	137.26	18 20 50	1476.5	12.14	49.62
60.00	19 31 50	2177.24	3.08	47.40	298.73	130.20	20 8 8	1177.2	18.73	28.72
65.87	21 57 7	1754.97	16.13	22.57	308.55	123.21	22 26 22	755.0	28.30	.14
65.87	21 57 7	1754.97	16.13	22.57	308.55	123.21	22 26 22	755.0	28.30	.14
65.87	21 57 7	1754.97	16.13	22.57	308.55	123.21	22 26 22	755.0	28.30	.14
65.87	21 57 7	1754.97	16.13	22.57	308.55	123.21	22 26 22	755.0	28.30	.14
65.87	21 57 7	1754.97	16.13	22.57	308.55	123.21	22 26 22	755.0	28.30	.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-4.6341 TRA 3.4778 TC3-4.5092 BAU 2.3317 SGT 8151.1 SGR 4724.2 SG3 701.8 ST 236.3 SR 117.5 SS 59.0
RDE 2.1958 RRA-2.5478 RC3 2.4214 FAU .17534 RRT -.9842 RRF -.9972 RTF .9772 CRT -.9908 CRS .9984 CST -.9818
FDE-3.2677 FRA 4.3822 FC3-4.4546 BSP 16399 SGB 9421.2 R23 .1570 R13 -.9851 LSA 269.9 MSA 17.1 SSA .3
BDE 5.1280 BRA 4.3112 BC3 5.1182 FSP 1223 SG1 9393.2 SG2 725.1 THA 150.10 EL1 263.5 EL2 14.2 ALF 153.69

LAUNCH DATE JUL 31 1973 FLIGHT TIME 306.00 ARRIVAL DATE JUN 2 1974

HELIOCENTRIC CONIC DISTANCE 668.549 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.943	GAL	-1.35	AZL	97.89	HCA	193.59	SMA	200.29	ECC	.24289	INC	7.8934	V1	29.338
RP	248.40	LAP	1.85	LOP	141.11	VP	20.148	GAP	-2.12	AZP	82.32	TAL	353.06	TAP	186.65	RCA	151.64	APO	248.94	V2	22.052
RC	332.344	GL	-53.61	GP	47.62	ZAL	95.79	ZAP	69.03	ETS	207.17	ZAE	85.28	ETE	187.05	ZAC	134.33	ETC	290.00	LVI	-68.58

PLANETOCENTRIC CONIC

C3	31.566	VHL	5.618	DLA	-34.38	RAL	60.91	RAD	6647.6	VEL	12.308	PTH	7.24	VHP	3.667	DPA	48.48	RAP	351.17	ECC	1.5195

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 21 31	2513.05	-8.05	66.97	287.04	137.05	18 3 24	1513.0	10.34	51.21
60.00	19 1 16	2247.47	-.01	50.75	294.71	130.30	19 38 43	1247.5	15.85	32.43
69.58	22 15 19	1673.22	15.96	15.97	306.18	120.87	22 43 13	673.2	27.24	353.14
69.58	22 15 19	1673.22	15.96	15.97	306.18	120.87	22 43 13	673.2	27.24	353.14
69.58	22 15 19	1673.22	15.96	15.97	306.18	120.87	22 43 13	673.2	27.24	353.14
69.58	22 15 19	1673.22	15.96	15.97	306.18	120.87	22 43 13	673.2	27.24	353.14
69.58	22 15 19	1673.22	15.96	15.97	306.18	120.87	22 43 13	673.2	27.24	353.14

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.4331	TRA	3.4504	TC3	-4.9160	BAU	2.3231	SGT	8314.6	SGR	4544.2	SG3	771.7	ST	235.1	SR	110.5	SS	60.7
RDE	1.9812	RRA	-2.4033	RC3	2.4773	FAU	.18979	RRT	-.9838	RRF	-.9971	RTF	.9769	CRT	-.9903	CRS	.9982	CST	-.9802
FDE	-3.3355	FRA	4.7184	FC3	-5.2052	BSP	16552	SGB	9475.3	R23	.1607	R13	-.9843	LSA	266.2	MSA	17.3	SSA	.3
BDE	4.8557	BRA	4.2049	BC3	5.5049	FSP	1348	SG1	9448.2	SG2	715.9	THA	151.55	EL1	259.4	EL2	13.9	ALF	154.96

LAUNCH DATE JUL 31 1973 FLIGHT TIME 308.00 ARRIVAL DATE JUN 4 1974

HELIOCENTRIC CONIC DISTANCE 672.285 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.948	GAL	-1.40	AZL	97.42	HCA	194.46	SMA	200.38	ECC	.24332	INC	7.4201	V1	29.338
RP	248.50	LAP	1.85	LOP	141.99	VP	20.145	GAP	-2.33	AZP	82.81	TAL	352.81	TAP	187.27	RCA	151.63	APO	249.14	V2	22.043
RC	334.378	GL	-51.55	GP	45.88	ZAL	96.30	ZAP	67.66	ETS	207.33	ZAE	84.18	ETE	187.80	ZAC	132.70	ETC	289.44	LVI	-67.00

PLANETOCENTRIC CONIC

C3	29.504	VHL	5.432	DLA	-32.36	RAL	60.37	RAD	6646.8	VEL	12.225	PTH	7.18	VHP	3.549	DPA	47.02	RAP	352.60	ECC	1.4856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 6 6	2546.62	-9.72	68.41	284.76	136.81	17 48 33	1546.6	8.67	52.65
60.00	18 37 22	2303.75	-2.49	53.44	291.65	130.24	19 15 45	1303.7	13.49	35.32
70.00	20 52 13	1906.58	7.10	28.48	298.83	123.49	21 24 0	906.6	20.09	7.69
73.58	22 38 18	1579.02	15.66	8.51	304.08	118.68	23 4 37	579.0	26.10	345.38
73.58	22 38 18	1579.02	15.66	8.51	304.08	118.68	23 4 37	579.0	26.10	345.38
73.58	22 38 18	1579.02	15.66	8.51	304.08	118.68	23 4 37	579.0	26.10	345.38
110.00	1 55 35	6241.43	7.10	295.30	298.83	123.49	3 39 37	5241.4	20.09	274.52

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.2502	TRA	3.4293	TC3	-5.3216	BAU	2.3222	SGT	8476.9	SGR	4371.0	SG3	837.1	ST	233.3	SR	103.8	SS	61.6
RDE	1.7929	RRA	-2.2712	RC3	2.5184	FAU	.20330	RRT	-.9835	RRF	-.9969	RTF	.9766	CRT	-.9897	CRS	.9979	CST	-.9783
FDE	-3.3621	FRA	5.0199	FC3	-5.9654	BSP	16654	SGB	9537.5	R23	.1639	R13	-.9835	LSA	262.1	MSA	17.5	SSA	.4
BDE	4.6129	BRA	4.1132	BC3	5.8874	FSP	1460	SG1	9511.4	SG2	705.2	THA	152.95	EL1	255.0	EL2	13.6	ALF	156.17

LAUNCH DATE JUL 31 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 6 1974

HELIOCENTRIC CONIC DISTANCE 676.023 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.952	GAL	-1.46	AZL	97.00	HCA	195.33	SMA	200.48	ECC	.24376	INC	6.9999	V1	29.338
RP	248.59	LAP	1.85	LOP	142.87	VP	20.143	GAP	-2.53	AZP	83.25	TAL	352.56	TAP	187.89	RCA	151.61	APO	249.35	V2	22.034
RC	336.377	GL	-49.60	GP	44.20	ZAL	96.82	ZAP	68.32	ETS	207.43	ZAE	83.06	ETE	188.47	ZAC	131.11	ETC	288.95	LVI	-65.45

PLANETOCENTRIC CONIC

C3	27.791	VHL	5.272	DLA	-30.43	RAL	59.93	RAD	6646.1	VEL	12.155	PTH	7.12	VHP	3.451	DPA	45.61	RAP	353.93	ECC	1.4574

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 52 44	2577.96	-11.27	69.77	282.89	136.54	17 35 42	1578.0	7.11	53.99
60.00	18 17 39	2351.99	-4.61	55.76	289.22	130.08	18 56 51	1352.0	11.44	37.75
70.00	20 14 15	2008.93	3.23	33.87	295.13	124.02	20 47 44	1008.9	16.69	13.67
78.28	23 9 21	1460.94	15.26	359.37	302.24	116.65	23 33 42	460.9	24.92	336.01
78.28	23 9 21	1460.94	15.26	359.37	302.24	116.65	23 33 42	460.9	24.92	336.01
78.28	23 9 21	1460.94	15.26	359.37	302.24	116.65	23 33 42	460.9	24.92	336.01
110.00	1 17 38	1055.75	3.23	322.79	295.13	124.02	1 35 13	55.8	16.69	302.59

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.0803	TRA	3.4178	TC3	-5.7164	BAU	2.3240	SGT	8634.2	SGR	4201.6	SG3	897.0	ST	231.1	SR	97.4	SS	62.1
RDE	1.6269	RRA	-2.1520	RC3	2.5395	FAU	.21531	RRT	-.9831	RRF	-.9966	RTF	.9763	CRT	-.9891	CRS	.9974	CST	-.9761
FDE	-3.3523	FRA	5.2929	FC3	-6.7071	BSP	16782	SGB	9602.3	R23	.1666	R13	-.9827	LSA	257.8	MSA	17.7	SSA	.4
BDE	4.3927	BRA	4.0389	BC3	6.2551	FSP	1565	SG1	9577.2	SG2	693.5	THA	154.29	EL1	250.5	EL2	13.2	ALF	157.30

LAUNCH DATE JUL 31 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 8 1974

HELIOCENTRIC CONIC DISTANCE 679.760 EARTH TO MARS

RL	151.86	LAL	.00	LOL	307.65	VL	32.957	GAL	-1.51	AZL	96.62	HCA	196.20	SMA	200.57	ECC	.24421	INC	6.6241	V1	29.338
RP	248.67	LAP	1.84	LOP	143.75	VP	20.142	GAP	-2.73	AZP	83.64	TAL	352.30	TAP	186.50	RCA	151.59	APO	249.55	V2	22.026
RC	338.347	GL	-47.75	GP	42.59	ZAL	97.34	ZAP	68.02	ETS	207.48	ZAE	81.95	ETE	189.07	ZAC	129.57	ETC	288.50	LVI	-63.94

PLANETOCENTRIC CONIC

C3	26.356	VHL	5.134	DLA	-28.59	RAL	59.58	RAD	6645.6	VEL	12.096	PTH	7.07	VHP	3.368	DPA	44.27	RAP	355.19	ECC	1.4338

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 40 59	2607.54	-12.73	71.07	281.37	136.24	17 24 27	1607.5	5.63	55.24
60.00	18 0 55	2394.92	-6.49	57.83	287.27	129.86	18 40 50	1394.9	9.60	39.87
70.00	19 46 51	2083.39	.39	37.76	292.46	124.15	20 21 34	1083.4	14.09	17.87
80.00	22 7 53	1641.69	7.99	8.91	297.12	118.87	22 35 15	641.7	19.14	347.10
85.63	0 9 40	1262.33	14.78	344.45	300.62	114.75	0 30 43	262.3	23.72	320.92
100.00	0 54 41	1116.16	7.99	330.28	297.12	118.87	1 13 17	116.2	19.14	308.47
110.00	0 50 13	1130.20	.39	326.67	292.46	124.15	1 9 3	130.2	14.09	306.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.9203	TRA	3.4146	TC3	-6.1017	BAU	2.3299	SGT	8788.0	SGR	4038.0	SG3	951.8	ST	228.4	SR	91.3	SS	61.9
RDE	1.4784	RRA	-2.0429	RC3	2.5474	FAU	.22625	RRT	-.9828	RRF	-.9963	RTF	.9760	CRT	-.9885	CRS	.9969	CST	-.9736
FDE	-3.3061	FRA	5.5357	FC3	-7.4317	BSP	16919	SGB	9671.3	R23	.1691	R13	-.9819	LSA	253.1	MSA	17.9	SSA	.4
BDE	4.1898	BRA	3.9790	BC3	6.6122	FSP	1659	SG1	9647.4	SG2	680.0	THA	155.57	EL1	245.7	EL2	12.8	ALF	158.38

LAUNCH DATE JUL 31 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 10 1974

HELIOCENTRIC CONIC DISTANCE 683.498 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.962 GAL -1.56 AZL 96.29 HCA 197.07 SMA 200.67 ECC .24466 INC 6.2858 V1 29.338
RP 248.75 LAP 1.84 LOP 144.63 VP 20.142 GAP -2.92 AZP 83.99 TAL 352.04 TAP 189.11 RCA 151.57 APO 249.76 V2 22.019
RC 340.287 GL -46.01 GP 41.04 ZAL 97.87 ZAP 63.77 ETS 207.48 ZAE 80.83 ETE 189.61 ZAC 128.09 ETC 288.11 LVI -62.48

PLANETOCENTRIC CONIC

C3 25.145 VHL 5.014 DLA -26.84 RAL 59.31 RAD 6645.1 VEL 12.046 PTH 7.03 VHP 3.298 DPA 42.98 RAP 356.37 ECC 1.4138

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 30 36	2635.68	-14.11	72.32	280.13	135.93	17 14 31	1635.7	4.22	56.43
60.00	17 46 25	2434.02	-8.19	59.73	285.70	129.60	18 26 59	1434.0	7.91	41.79
70.00	19 24 55	2144.38	-1.94	40.94	290.40	124.11	20 0 39	1144.4	11.89	21.24
80.00	21 27 23	1761.06	4.01	15.54	294.09	119.61	21 56 44	761.1	15.77	354.35
90.00	23 21 58	1391.51	7.20	350.10	295.84	117.42	23 45 10	391.5	17.86	328.14
100.00	0 14 10	1235.53	4.01	336.91	294.09	119.61	0 34 46	235.5	15.77	315.72
110.00	0 28 17	1191.19	-1.94	329.86	290.40	124.11	0 48 8	191.2	11.89	310.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.7719 TRA 3.4168 TC3-6.4775 BAU 2.3390 SGT 8939.6 SGR 3879.4 SG3 1000.9 ST 225.5 SR 85.6 SS 61.4
RDE 1.3470 RRA-1.9426 RC3 2.5409 FAU .23590 RRT -.9824 RRF -.9959 RTF .9757 CRT -.9879 CRS .9961 CST -.9706
FDE-3.2337 FRA 5.7499 FC3-8.1220 BSP 17076 SGB 9745.1 R23 .1711 R13 -.9812 LSA 248.2 MSA 18.1 SSA .5
BDE 4.0052 BRA 3.9304 BC3 6.9580 FSP 1749 SG1 9722.3 SG2 666.3 THA 156.80 EL1 240.9 EL2 12.4 ALF 159.38

LAUNCH DATE JUL 31 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 12 1974

HELIOCENTRIC CONIC DISTANCE 687.236 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.967 GAL -1.62 AZL 95.98 HCA 197.94 SMA 200.77 ECC .24513 INC 5.9797 V1 29.338
RP 248.82 LAP 1.84 LOP 145.50 VP 20.142 GAP -3.12 AZP 84.31 TAL 351.77 TAP 189.72 RCA 151.55 APO 249.98 V2 22.012
RC 342.196 GL -44.35 GP 39.56 ZAL 98.41 ZAP 62.55 ETS 207.45 ZAE 79.71 ETE 190.09 ZAC 126.66 ETC 287.75 LVI -61.06

PLANETOCENTRIC CONIC

C3 24.116 VHL 4.911 DLA -25.16 RAL 59.10 RAD 6644.6 VEL 12.004 PTH 7.00 VHP 3.240 DPA 41.75 RAP 357.49 ECC 1.3969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 21 20	2662.59	-15.42	73.53	279.13	135.59	17 5 42	1662.6	2.87	57.55
60.00	17 33 40	2470.19	-9.75	61.50	284.43	129.30	18 14 50	1470.2	6.33	43.54
70.00	19 6 33	2197.12	-3.95	43.70	288.77	123.95	19 43 10	1197.1	9.96	24.10
80.00	20 59 6	1844.86	1.18	20.15	291.96	119.84	21 29 50	844.9	13.23	359.28
90.00	22 44 6	1506.18	3.56	356.56	293.28	118.07	23 9 13	506.2	14.76	335.13
100.00	23 41 57	1319.33	1.18	341.52	291.96	119.84	24 3 57	319.3	13.23	320.65
110.00	0 9 55	1243.94	-3.95	332.62	288.77	123.95	0 30 39	243.9	9.96	313.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.6314 TRA 3.4266 TC3-6.8390 BAU 2.3501 SGT 9087.3 SGR 3726.6 SG3 1044.9 ST 222.2 SR 80.3 SS 60.6
RDE 1.2306 RRA-1.8504 RC3 2.5221 FAU .24435 RRT -.9821 RRF -.9955 RTF .9755 CRT -.9874 CRS .9952 CST -.9672
FDE-3.1406 FRA 5.9385 FC3-8.7719 BSP 17229 SGB 9821.7 R23 .1722 R13 -.9805 LSA 243.2 MSA 18.3 SSA .5
BDE 3.8342 BRA 3.8943 BC3 7.2892 FSP 1823 SG1 9800.1 SG2 651.0 THA 157.96 EL1 236.0 EL2 12.0 ALF 160.31

LAUNCH DATE JUL 31 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 14 1974

HELIOCENTRIC CONIC DISTANCE 690.973 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.972 GAL -1.67 AZL 95.70 HCA 198.81 SMA 200.86 ECC .24560 INC 5.7011 V1 29.338
RP 248.88 LAP 1.84 LOP 146.38 VP 20.143 GAP -3.32 AZP 84.60 TAL 351.50 TAP 190.32 RCA 151.53 APO 250.20 V2 22.006
RC 344.074 GL -42.78 GP 38.15 ZAL 98.96 ZAP 61.37 ETS 207.39 ZAE 78.60 ETE 190.52 ZAC 125.28 ETC 287.43 LVI -59.69

PLANETOCENTRIC CONIC

C3 23.236 VHL 4.820 DLA -23.57 RAL 58.95 RAD 6644.2 VEL 11.967 PTH 6.97 VHP 3.191 DPA 40.58 RAP 358.55 ECC 1.3824

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 13 1	2688.42	-16.67	74.70	278.33	135.23	16 57 49	1688.4	1.57	58.64
60.00	17 22 21	2504.02	-11.21	63.18	283.41	128.97	18 4 5	1504.0	4.85	45.18
70.00	18 50 43	2244.20	-5.74	46.17	287.48	123.73	19 28 7	1244.2	8.21	26.62
80.00	20 36 40	1912.65	-1.12	23.87	290.34	119.84	21 8 32	912.6	11.10	3.18
90.00	22 16 55	1589.28	.89	1.20	291.46	118.27	22 43 24	589.3	12.37	340.05
100.00	23 19 31	1387.12	-1.12	345.24	290.34	119.84	23 42 39	387.1	11.10	324.55
110.00	23 50 10	1291.02	-5.74	335.09	287.48	123.73	24 11 41	291.0	8.21	315.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.5018 TRA 3.4384 TC3-7.1934 BAU 2.3651 SGT 9235.8 SGR 3579.9 SG3 1083.8 ST 218.8 SR 75.4 SS 59.8
RDE 1.1275 RRA-1.7647 RC3 2.4945 FAU .25179 RRT -.9817 RRF -.9949 RTF .9752 CRT -.9869 CRS .9939 CST -.9633
FDE-3.0300 FRA 6.1009 FC3-9.3813 BSP 17354 SGB 9905.3 R23 .1731 R13 -.9798 LSA 238.3 MSA 18.6 SSA .6
BDE 3.6789 BRA 3.8648 BC3 7.6136 FSP 1887 SG1 9884.8 SG2 636.6 THA 159.08 EL1 231.2 EL2 11.5 ALF 161.18

LAUNCH DATE JUL 31 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 16 1974

HELIOCENTRIC CONIC DISTANCE 694.711 EARTH TO MARS

RL 151.86 LAL .00 LOL 307.65 VL 32.977 GAL -1.73 AZL 95.45 HCA 199.69 SMA 200.96 ECC .24608 INC 5.4465 V1 29.338
RP 248.94 LAP 1.83 LOP 147.25 VP 20.145 GAP -3.52 AZP 84.87 TAL 351.23 TAP 190.92 RCA 151.51 APO 250.41 V2 22.000
RC 345.920 GL -41.29 GP 36.80 ZAL 99.50 ZAP 60.23 ETS 207.30 ZAE 77.50 ETE 190.91 ZAC 123.96 ETC 287.15 LVI -58.37

PLANETOCENTRIC CONIC

C3 22.481 VHL 4.741 DLA -22.04 RAL 58.85 RAD 6643.9 VEL 11.936 PTH 6.94 VHP 3.150 DPA 39.47 RAP 359.55 ECC 1.3700

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 5 31	2713.29	-17.87	75.85	277.70	134.86	16 50 44	1713.3	.32	59.67
60.00	17 12 13	2535.91	-12.57	64.77	282.60	128.61	17 54 29	1535.9	3.45	46.71
70.00	18 36 51	2287.08	-7.35	48.44	286.45	123.45	19 14 58	1287.1	6.61	28.90
80.00	20 17 54	1970.85	-3.08	27.07	289.08	119.71	20 50 45	970.8	9.23	6.49
90.00	21 55 7	1657.26	-1.30	4.99	290.07	118.25	22 22 44	657.3	10.34	344.01
100.00	23 0 46	1445.32	-3.08	348.43	289.08	119.71	23 24 51	445.3	9.23	327.86
110.00	23 36 17	1333.90	-7.35	337.36	286.45	123.45	23 58 31	333.9	6.61	317.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.3780 TRA 3.4591 TC3-7.5289 BAU 2.3800 SGT 9378.3 SGR 3437.2 SG3 1117.2 ST 215.2 SR 70.8 SS 58.3
RDE 1.0346 RRA-1.6865 RC3 2.4544 FAU .25780 RRT -.9813 RRF -.9944 RTF .9749 CRT -.9864 CRS .9923 CST -.9587
FDE-2.9008 FRA 6.2451 FC3-9.9279 BSP 17524 SGB 9988.3 R23 .1736 R13 -.9791 LSA 233.1 MSA 18.8 SSA .6
BDE 3.5310 BRA 3.8484 BC3 7.9189 FSP 1945 SG1 9968.9 SG2 622.3 THA 160.14 EL1 226.2 EL2 11.1 ALF 161.98

LAUNCH DATE AUG 1 1973 FLIGHT TIME 106.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 307.569 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	35.517	GAL	-1.66	AZL	90.19	HCA	95.02	SMA	272.74	ECC	.44403	INC	.1846
RP	218.35	LAP	-.18	LOP	43.63	VP	27.001	GAP	23.88	AZP	89.98	TAL	354.61	TAP	89.63	RCA	151.64	APO	393.84
RC	75.647	GL	-1.06	GP	-5.08	ZAL	97.46	ZAP	174.29	ETS	244.55	ZAE	164.21	ETE	342.74	ZAC	78.62	ETC	282.96

V1	29.342																		
V2	25.168																		
LVI	-12.47																		

PLANETOCENTRIC CONIC

C3	38.626	VHL	6.215	DLA	15.64	RAL	43.92	RAD	6650.2	VEL	12.590	PTH	7.45	VHP	8.876	DPA	10.10	RAP	40.43
ECC	1.6387																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 36 17	3611.67	-47.40	138.64	292.78	94.66	13 36 29	2611.7	-40.08	106.49
60.00	12 58 7	3553.55	-40.29	133.89	293.25	90.90	13 57 21	2553.6	-35.52	103.86
70.00	13 30 2	3459.62	-34.10	126.20	293.18	87.97	14 27 42	2459.6	-31.37	97.81
80.00	14 19 7	3305.82	-29.61	114.26	292.90	85.95	15 14 13	2305.8	-28.28	86.91
90.00	15 31 54	3070.89	-27.90	96.85	292.75	85.20	16 23 5	2070.9	-27.09	69.87
100.00	17 1 59	2780.30	-29.61	75.63	292.90	85.95	17 48 19	1780.3	-28.28	48.28
110.00	18 29 28	2506.44	-34.10	55.12	293.18	87.97	19 11 15	1506.4	-31.37	26.73

DIFFERENTIAL CORRECTIONS

TDE	-.3465	TRA	-1.1327	TC3	.2124	BAU	.1159												
RDE	-.6191	RRA	.2362	RC3	-.0724	FAU	.05154												
FDE	.2893	FRA	.7493	FC3	-1.1551	BSP	1711												
BDE	.7095	BRA	1.1571	BC3	.2244	FSP	171												

MID-COURSE EXECUTION ACCURACY

SGT	1160.9	SGR	620.5	SG3	140.6														
RRT	-.1202	RRF	.1379	RTF	-.6577														
SGB	1316.3	R23	-.0283	R13	.6597														
SG1	1164.2	SG2	614.2	THA	174.90														

ORBIT DETERMINATION ACCURACY

ST	22.8	SR	28.7	SS	13.2														
CRT	.6114	CRS	.6927	CST	.9876														
LSA	35.3	MSA	16.6	SSA	1.3														
EL1	33.2	EL2	15.6	ALF	55.45														

LAUNCH DATE AUG 1 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 309.678 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	35.369	GAL	-1.57	AZL	90.15	HCA	96.16	SMA	266.96	ECC	.43192	INC	.1480
RP	218.71	LAP	-.15	LOP	44.76	VP	26.767	GAP	23.51	AZP	89.98	TAL	354.79	TAP	90.94	RCA	151.65	APO	382.26
RC	77.098	GL	-.87	GP	-5.22	ZAL	97.11	ZAP	173.79	ETS	238.87	ZAE	163.52	ETE	342.67	ZAC	78.41	ETC	282.93

V1	29.342																		
V2	25.127																		
LVI	-12.24																		

PLANETOCENTRIC CONIC

C3	36.743	VHL	6.062	DLA	15.72	RAL	43.52	RAD	6649.5	VEL	12.515	PTH	7.40	VHP	8.612	DPA	10.09	RAP	40.83
ECC	1.6047																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 34 21	3600.73	-47.34	137.59	291.20	95.47	13 34 22	2600.7	-39.73	105.68
60.00	12 56 5	3542.90	-40.28	132.98	291.79	91.52	13 55 8	2542.9	-35.27	103.07
70.00	13 27 52	3449.35	-34.12	125.40	291.79	88.44	14 25 21	2449.4	-31.19	97.06
80.00	14 16 48	3295.97	-29.65	113.53	291.55	86.33	15 11 44	2296.0	-28.16	86.21
90.00	15 29 32	3061.24	-27.98	96.14	291.41	85.55	16 20 33	2061.2	-26.99	69.18
100.00	16 59 40	2770.44	-29.65	74.90	291.55	86.33	17 45 51	1770.4	-28.16	47.57
110.00	18 27 18	2496.17	-34.12	54.32	291.79	88.44	19 8 54	1496.2	-31.19	25.98

DIFFERENTIAL CORRECTIONS

TDE	-.3467	TRA	-1.1247	TC3	.2378	BAU	.1234												
RDE	-.6045	RRA	.2349	RC3	-.0811	FAU	.05359												
FDE	.3049	FRA	.7707	FC3	-1.2627	BSP	1773												
BDE	.6969	BRA	1.1490	BC3	.2512	FSP	184												

MID-COURSE EXECUTION ACCURACY

SGT	1187.5	SGR	624.0	SG3	149.6														
RRT	-.1294	RRF	.1484	RTF	-.6669														
SGB	1341.5	R23	-.0305	R13	.6692														
SG1	1191.3	SG2	616.8	THA	174.68														

ORBIT DETERMINATION ACCURACY

ST	23.3	SR	28.8	SS	13.8														
CRT	.6125	CRS	.6993	CST	.9868														
LSA	35.7	MSA	16.8	SSA	1.3														
EL1	33.5	EL2	15.8	ALF	54.57														

LAUNCH DATE AUG 1 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 311.953 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	35.228	GAL	-1.49	AZL	90.11	HCA	97.29	SMA	261.73	ECC	.42051	INC	.1115
RP	219.08	LAP	-.11	LOP	45.89	VP	26.543	GAP	23.14	AZP	89.99	TAL	354.97	TAP	92.26	RCA	151.67	APO	371.79
RC	78.631	GL	-.87	GP	-5.36	ZAL	96.75	ZAP	173.23	ETS	234.07	ZAE	162.89	ETE	342.54	ZAC	78.20	ETC	282.90

V1	29.342																		
V2	25.087																		
LVI	-12.00																		

PLANETOCENTRIC CONIC

C3	35.005	VHL	5.916	DLA	15.80	RAL	43.09	RAD	6648.9	VEL	12.446	PTH	7.35	VHP	8.356	DPA	10.08	RAP	41.23
ECC	1.5761																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 20	3590.24	-47.26	136.59	289.64	96.24	13 32 10	2590.2	-39.38	104.91
60.00	12 53 56	3532.71	-40.26	132.11	290.35	92.10	13 52 49	2532.7	-35.02	102.33
70.00	13 25 35	3439.56	-34.14	124.64	290.41	88.89	14 22 55	2439.6	-31.02	96.35
80.00	14 14 24	3286.61	-29.69	112.84	290.21	86.69	15 9 10	2286.6	-28.04	85.54
90.00	15 27 3	3052.10	-28.00	95.48	290.09	85.88	16 17 55	2052.1	-26.89	68.53
100.00	16 57 15	2761.08	-29.69	74.21	290.21	86.69	17 43 16	1761.1	-28.04	46.90
110.00	18 25 1	2486.38	-34.14	53.56	290.41	88.89	19 6 28	1486.4	-31.02	25.27

DIFFERENTIAL CORRECTIONS

TDE	-.3486	TRA	-1.1170	TC3	.2675	BAU	.1322												
RDE	-.5902	RRA	.2339	RC3	-.0906	FAU	.05577												
FDE	.3208	FRA	.7923	FC3	-1.3794	BSP	1842												
BDE	.6855	BRA	1.1412	BC3	.2824	FSP	200												

MID-COURSE EXECUTION ACCURACY

SGT	1215.7	SGR	627.4	SG3	159.2														
RRT	-.1365	RRF	.1601	RTF	-.6675														
SGB	1368.0	R23	-.0337	R13	.6799														
SG1	1219.9	SG2	619.2	THA	174.49														

ORBIT DETERMINATION ACCURACY

ST	23.9	SR	28.8	SS	14.3														
CRT	.6152	CRS	.7053	CST	.9864														
LSA	36.2	MSA	17.0	SSA	1.3														
EL1	33.8	EL2	16.0	ALF	53.54														

LAUNCH DATE AUG 1 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 314.374 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	35.095	GAL	-1.41	AZL	90.08	HCA	98.41	SMA	256.98	ECC	.40975	INC	.0750
RP	219.48	LAP	-.08	LOP	47.02	VP	26.327	GAP	22.77	AZP	89.99	TAL	355.16	TAP	93.58	RCA	151.68	APO	362.26
RC	80.245	GL	-.46	GP	-5.51	ZAL	96.37	ZAP	172.63	ETS	230.02	ZAE	162.32	ETE	342.35	ZAC	77.99	ETC	282.87

V1	29.342																		
V2	25.046																		
LVI	-11.75																		

PLANETOCENTRIC CONIC

C3	33.399	VHL	5.779	DLA	15.89	RAL	42.66	RAD	6648.3	VEL	12.382	PTH	7.30	VHP	8.110	DPA	10.06	RAP	41.62
ECC	1.5497																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 30 13	3580.22	-47.18	135.63	288.11	96.97	13 29 53	2580.2	-39.05	104.19
60.00	12 51 43	3522.99	-40.23	131.29	288.92	92.66	13 50 26	2523.0	-34.77	101.62
70.00	13 23 13	3430.26	-34.15	123.91	289.05	89.32	14 20 23	2430.3	-30.86	95.68
80.00	14 11 53	3277.77	-29.72	112.18	288.89	87.03	15 6 30	2277.8	-27.93	84.90
90.00	15 24 28	3043.49	-28.04	94.85	288.78	86.19	16 15 11	2043.5	-26.80	67.91
100.00	16 54 44	2752.24	-29.72	73.55	288.89	87.03	17 40 37	1752.2	-27.93	46.27
110.00	18 22 39	2477.08	-34.15	52.83	289.05	89.32	19 3 56	1477.1	-30.86	24.59

DIFFERENTIAL CORRECTIONS

TDE	-.3502	TRA	-1.1084	TC3	.2997	BAU	.1412												
RDE	-.5762	RRA	.2330	RC3	-.1009	FAU	.05809												
FDE	.3388	FRA	.8139	FC3	-1.5058	BSP	1891												
BDE	.6742	BRA	1.1326	BC3	.3163	FSP	215												

MID-COURSE EXECUTION ACCURACY

SGT	1243.3	SGR	630.5	SG3	169.4														
RRT	-.1486	RRF	.1720	RTF	-.6882														
SGB	1394.1	R23	-.0360	R13	.6909														
SG1	1248.0	SG2	621.2	THA	174.26														

ORBIT DETERMINATION ACCURACY

ST	24.4	SR	28.8	SS	14.8														
CRT	.6178	CRS	.7127	CST	.9856														
LSA	36.7	MSA	17.1	SSA	1.4														
EL1	34.1	EL2	16.2	ALF	52.53														

LAUNCH DATE AUG 1 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 316.925 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	34.969	GAL	-1.32	AZL	90.04	HCA	99.54	SMA	252.66	ECC	.39960	INC	.0377	V1	29.342
RP	219.82	LAP	-.04	LOP	48.14	VP	26.120	GAP	22.40	AZP	89.99	TAL	355.36	TAP	94.90	RCA	151.70	APO	353.63	V2	25.005
RC	81.936	GL	-.24	GP	-5.66	ZAL	95.98	ZAP	171.98	ETS	226.59	ZAE	161.80	ETE	342.09	ZAC	77.77	ETC	282.84	LVI	-11.50

PLANETOCENTRIC CONIC

C3	31.915	VHL	5.649	DLA	15.98	RAL	42.20	RAD	6647.7	VEL	12.322	PTH	7.25	VHP	7.872	DPA	10.03	RAP	42.01	ECC	1.5252

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 28 1	3570.67	-47.10	134.72	286.61	97.66	13 27 32	2570.7	-38.72	103.50
60.00	12 49 24	3513.77	-40.20	130.51	287.52	93.19	13 47 57	2513.8	-34.54	100.95
70.00	13 20 45	3421.48	-34.15	123.23	287.71	89.73	14 17 46	2421.5	-30.70	95.04
80.00	14 9 15	3269.47	-29.75	111.57	287.58	87.36	15 3 45	2269.5	-27.82	84.31
90.00	15 21 46	3035.42	-28.08	94.27	287.48	86.48	16 12 21	2035.4	-26.71	67.34
100.00	16 52 7	2743.94	-29.75	72.94	287.58	87.36	17 37 51	1743.9	-27.82	45.68
110.00	18 20 11	2468.30	-34.15	52.14	287.71	89.73	19 1 19	1468.3	-30.70	23.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3514	TRA	-1.1001	TC3	.3315	BAU	.1493	SGT	1270.5	SGR	633.6	SG3	180.2	ST	24.9	SR	28.8	SS	15.4
RDE	-.5624	RRA	.2323	RC3	-.1122	FAU	.06052	RRT	-.1598	RRF	.1851	RTF	-.6973	CRT	.6198	CRS	.7193	CST	.9848
FDE	.3575	FRA	.8363	FC3	-1.6418	BSP	1952	SGB	1419.8	R23	-.0389	R13	.7002	LSA	37.2	MSA	17.2	SSA	1.4
BDE	.6632	BRA	1.1243	BC3	.3500	FSP	231	SG1	1275.8	SG2	622.9	THA	174.01	EL1	34.3	EL2	16.4	ALF	51.53

LAUNCH DATE AUG 1 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 319.591 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	34.849	GAL	-1.24	AZL	90.00	HCA	100.66	SMA	248.72	ECC	.39002	INC	.0000	V1	29.342
RP	220.19	LAP	-.00	LOP	49.26	VP	25.920	GAP	22.04	AZP	90.00	TAL	355.57	TAP	96.22	RCA	151.71	APO	345.72	V2	24.964
RC	83.701	GL	-.02	GP	-5.82	ZAL	95.58	ZAP	171.31	ETS	223.69	ZAE	161.35	ETE	341.78	ZAC	77.55	ETC	282.81	LVI	-11.25

PLANETOCENTRIC CONIC

C3	30.541	VHL	5.526	DLA	16.08	RAL	41.73	RAD	6647.2	VEL	12.267	PTH	7.21	VHP	7.642	DPA	9.98	RAP	42.39	ECC	1.5026

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 25 45	3561.62	-47.02	133.86	285.15	98.32	13 25 6	2561.6	-38.41	102.86
60.00	12 46 59	3505.06	-40.16	129.77	286.14	93.69	13 45 24	2505.1	-34.31	100.32
70.00	13 18 11	3413.23	-34.15	122.58	286.39	90.11	14 15 5	2413.2	-30.54	94.45
80.00	14 6 32	3261.73	-29.77	110.99	286.29	87.66	15 0 54	2261.7	-27.71	83.76
90.00	15 18 58	3027.93	-28.11	93.72	286.20	86.75	16 9 26	2027.9	-26.62	66.81
100.00	16 49 24	2736.20	-29.77	72.36	286.29	87.66	17 35 0	1736.2	-27.71	45.13
110.00	18 17 38	2460.05	-34.15	51.50	286.39	90.11	18 58 38	1460.1	-30.54	23.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3531	TRA	-1.0910	TC3	.3659	BAU	.1578	SGT	1297.4	SGR	636.6	SG3	191.6	ST	25.4	SR	28.7	SS	16.0
RDE	-.5489	RRA	.2316	RC3	-.1246	FAU	.06311	RRT	-.1713	RRF	.1989	RTF	-.7062	CRT	.6225	CRS	.7267	CST	.9839
FDE	.3774	FRA	.8574	FC3	-1.7889	BSP	2006	SGB	1445.2	R23	-.0420	R13	.7093	LSA	37.7	MSA	17.3	SSA	1.4
BDE	.6527	BRA	1.1153	BC3	.3865	FSP	249	SG1	1303.3	SG2	624.3	THA	173.76	EL1	34.6	EL2	16.5	ALF	50.49

LAUNCH DATE AUG 1 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 322.360 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	34.736	GAL	-1.17	AZL	89.97	HCA	101.77	SMA	245.10	ECC	.38097	INC	.0297	V1	29.342
RP	220.57	LAP	.03	LOP	50.38	VP	25.728	GAP	21.68	AZP	90.01	TAL	355.78	TAP	97.55	RCA	151.73	APO	338.48	V2	24.923
RC	85.536	GL	.22	GP	-5.99	ZAL	95.16	ZAP	170.60	ETS	221.20	ZAE	160.95	ETE	341.42	ZAC	77.32	ETC	282.78	LVI	-11.00

PLANETOCENTRIC CONIC

C3	29.271	VHL	5.410	DLA	16.18	RAL	41.25	RAD	6646.7	VEL	12.215	PTH	7.17	VHP	7.421	DPA	9.93	RAP	42.75	ECC	1.4817

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 23 24	3553.07	-46.93	133.06	283.72	98.94	13 22 37	2553.1	-38.11	102.26
60.00	12 44 30	3496.87	-40.12	129.08	284.79	94.16	13 42 47	2496.9	-34.10	99.73
70.00	13 15 32	3405.53	-34.15	121.98	285.10	90.46	14 12 18	2405.5	-30.39	93.90
80.00	14 3 43	3254.55	-29.79	110.46	285.02	87.94	14 57 57	2254.6	-27.61	83.25
90.00	15 16 4	3021.02	-28.13	93.22	284.94	87.00	16 6 25	2021.0	-26.54	66.32
100.00	16 46 35	2729.03	-29.79	71.83	285.02	87.94	17 32 4	1729.0	-27.61	44.62
110.00	18 14 59	2452.35	-34.15	50.90	285.10	90.46	18 55 51	1452.3	-30.39	22.81

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3543	TRA	-1.0818	TC3	.4014	BAU	.1661	SGT	1323.8	SGR	639.6	SG3	203.6	ST	25.9	SR	28.6	SS	16.5
RDE	-.5357	RRA	.2312	RC3	-.1379	FAU	.06579	RRT	-.1844	RRF	.2140	RTF	-.7151	CRT	.6245	CRS	.7328	CST	.9830
FDE	.3980	FRA	.8805	FC3	-1.9459	BSP	2067	SGB	1470.2	R23	-.0450	R13	.7185	LSA	38.2	MSA	17.4	SSA	1.5
BDE	.6422	BRA	1.1063	BC3	.4244	FSP	268	SG1	1330.6	SG2	625.4	THA	173.46	EL1	34.9	EL2	16.6	ALF	49.49

LAUNCH DATE AUG 1 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 325.221 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	34.629	GAL	-1.09	AZL	89.93	HCA	102.88	SMA	241.79	ECC	.37242	INC	.0692	V1	29.342
RP	220.95	LAP	.07	LOP	51.49	VP	25.543	GAP	21.33	AZP	90.02	TAL	355.99	TAP	98.87	RCA	151.74	APO	331.84	V2	24.882
RC	87.440	GL	.46	GP	-6.17	ZAL	94.74	ZAP	169.87	ETS	219.07	ZAE	160.62	ETE	340.99	ZAC	77.09	ETC	282.75	LVI	-10.74

PLANETOCENTRIC CONIC

C3	28.094	VHL	5.300	DLA	16.29	RAL	40.75	RAD	6646.3	VEL	12.167	PTH	7.13	VHP	7.206	DPA	9.87	RAP	43.11	ECC	1.4624

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 58	3545.04	-46.84	132.30	282.32	99.51	13 20 3	2545.0	-37.83	101.70
60.00	12 41 56	3489.21	-40.08	128.43	283.47	94.60	13 40 6	2489.2	-33.89	99.18
70.00	13 12 48	3398.38	-34.15	121.42	283.82	90.79	14 9 26	2398.4	-30.26	93.39
80.00	14 0 48	3247.97	-29.81	109.97	283.78	88.19	14 54 56	2248.0	-27.52	82.78
90.00	15 13 3	3014.72	-28.16	92.76	283.70	87.23	16 3 18	2014.7	-26.47	65.88
100.00	16 43 40	2722.44	-29.81	71.34	283.78	88.19	17 29 2	1722.4	-27.52	44.15
110.00	18 12 14	2445.20	-34.15	50.34	283.82	90.79	18 53 0	1445.2	-30.26	22.30

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3556	TRA	-1.0727	TC3	.4394	BAU	.1747	SGT	1350.6	SGR	642.6	SG3	216.5	ST	26.4	SR	28.5	SS	17.2
RDE	-.5226	RRA	.2309	RC3	-.1526	FAU	.06872	RRT	-.1985	RRF	.2303	RTF	-.7236	CRT	.6264	CRS	.7394	CST	.9820
FDE	.4204	FRA	.9034	FC3	-2.1177	BSP	2121	SGB	1495.7	R23	-.0482	R13	.7274	LSA	38.7	MSA	17.5	SSA	1.5
BDE	.6321	BRA	1.0972	BC3	.4652	FSP	288	SG1	1358.2	SG2	626.3	THA	173.14	EL1	35.1	EL2	16.7	ALF	48.47

LAUNCH DATE AUG 1 1973 FLIGHT TIME 122.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 328.165 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 34.528 GAL -1.01 AZL 89.89 HCA 103.99 SMA 236.73 ECC .36435 INC .1070 V1 29.342
RP 221.33 LAP .10 LOP 52.60 VP 25.365 GAP 20.97 AZP 90.03 TAL 356.21 TAP 100.20 RCA 151.75 APO 325.72 V2 24.840
RC 89.407 GL .72 GP -6.35 ZAL 94.31 ZAP 169.12 ETS 217.23 ZAE 160.34 ETE 340.50 ZAC 76.85 ETC 282.72 LVI -10.47

PLANETOCENTRIC CONIC

C3 27.004 VHL 5.197 DLA 16.40 RAL 40.24 RAD 6645.8 VEL 12.123 PTH 7.09 VHP 6.999 DPA 9.79 RAP 43.47 ECC 1.4444

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 18 29	3537.49	-46.75	131.59	280.95	100.05	13 17 26	2537.5	-37.56	101.18
60.00	12 39 18	3482.07	-40.04	127.82	282.17	95.01	13 37 20	2482.1	-33.70	98.68
70.00	13 9 58	3391.77	-34.14	120.91	282.57	91.10	14 6 30	2391.8	-30.13	92.92
80.00	13 57 47	3241.96	-29.82	109.53	282.55	88.43	14 51 49	2242.0	-27.44	82.36
90.00	15 9 57	3009.01	-28.17	92.34	282.48	87.44	16 0 6	2009.0	-26.39	65.47
100.00	16 40 39	2716.43	-29.82	70.90	282.55	88.43	17 25 55	1716.4	-27.44	43.72
110.00	18 9 25	2436.59	-34.14	49.82	282.57	91.10	18 50 3	1438.6	-30.13	21.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3490 TRA-1.0545 TC3 .4906 BAU .1872 SGT 1370.0 SGR 645.4 SG3 229.8 ST 26.5 SR 28.4 SS 17.9
RDE -.5095 RRA .2309 RC3 -.1679 FAU .07157 RRT -.2199 RRF .2459 RTF -.7412 CRT .6228 CRS .7479 CST .9794
FDE .4483 FRA .9293 FC3-2.2946 BSP 2076 SGB 1514.4 R23 -.0409 R13 .7450 LSA 39.0 MSA 17.5 SSA 1.5
BDE .6176 BRA 1.0795 BC3 .5186 FSP 314 SG1 1379.3 SG2 625.3 THA 172.54 EL1 35.0 EL2 16.8 ALF 48.16

LAUNCH DATE AUG 1 1973 FLIGHT TIME 124.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 331.184 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 34.432 GAL -.94 AZL 89.85 HCA 105.10 SMA 235.92 ECC .35673 INC .1449 V1 29.342
RP 221.71 LAP .14 LOP 53.70 VP 25.193 GAP 20.62 AZP 90.04 TAL 356.43 TAP 101.53 RCA 151.76 APO 320.08 V2 24.799
RC 91.436 GL .98 GP -6.54 ZAL 93.87 ZAP 168.35 ETS 215.63 ZAE 160.11 ETE 339.95 ZAC 76.61 ETC 282.70 LVI -10.21

PLANETOCENTRIC CONIC

C3 25.994 VHL 5.098 DLA 16.52 RAL 39.72 RAD 6645.4 VEL 12.081 PTH 7.06 VHP 6.799 DPA 9.70 RAP 43.81 ECC 1.4278

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 15 56	3530.51	-46.67	130.94	279.63	100.55	13 14 46	2530.5	-37.31	100.70
60.00	12 36 35	3475.50	-40.00	127.27	280.91	95.38	13 34 31	2475.5	-33.52	98.21
70.00	13 7 4	3385.78	-34.13	120.44	281.35	91.37	14 3 30	2385.8	-30.01	92.49
80.00	13 54 40	3236.61	-29.83	109.13	281.35	88.64	14 48 37	2236.6	-27.36	81.98
90.00	15 6 44	3003.97	-28.19	91.97	281.29	87.62	15 56 48	2004.0	-26.33	65.12
100.00	16 37 32	2711.08	-29.83	70.50	281.35	88.64	17 22 43	1711.1	-27.36	43.35
110.00	18 6 30	2432.60	-34.13	49.36	281.35	91.37	18 47 3	1432.6	-30.01	21.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3543 TRA-1.0481 TC3 .5260 BAU .1938 SGT 1398.4 SGR 648.6 SG3 244.2 ST 27.1 SR 28.2 SS 18.6
RDE -.4970 RRA .2308 RC3 -.1851 FAU .07486 RRT -.2328 RRF .2645 RTF -.7450 CRT .6279 CRS .7540 CST .9789
FDE .4725 FRA .9510 FC3-2.4930 BSP 2174 SGB 1541.5 R23 -.0488 R13 .7493 LSA 39.6 MSA 17.5 SSA 1.6
BDE .6103 BRA 1.0732 BC3 .5576 FSP 334 SG1 1408.6 SG2 626.2 THA 172.31 EL1 35.3 EL2 16.9 ALF 46.76

LAUNCH DATE AUG 1 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 334.270 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 34.341 GAL -.87 AZL 89.82 HCA 106.20 SMA 233.33 ECC .34952 INC .1827 V1 29.342
RP 222.09 LAP .18 LOP 54.80 VP 25.027 GAP 20.28 AZP 90.05 TAL 356.66 TAP 102.85 RCA 151.77 APO 314.88 V2 24.757
RC 93.523 GL 1.26 GP -6.74 ZAL 93.43 ZAP 167.55 ETS 214.23 ZAE 159.94 ETE 339.34 ZAC 76.36 ETC 282.68 LVI -9.93

PLANETOCENTRIC CONIC

C3 25.059 VHL 5.006 DLA 16.65 RAL 39.20 RAD 6645.0 VEL 12.043 PTH 7.03 VHP 6.606 DPA 9.60 RAP 44.14 ECC 1.4124

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 13 19	3524.04	-46.59	130.34	278.35	101.01	13 12 3	2524.0	-37.08	100.26
60.00	12 33 48	3469.49	-39.96	126.76	279.69	95.72	13 31 38	2469.5	-33.35	97.79
70.00	13 4 5	3380.38	-34.12	120.02	280.15	91.62	14 0 25	2380.4	-29.90	92.11
80.00	13 51 28	3231.88	-29.84	108.78	280.17	88.82	14 45 20	2231.9	-27.29	81.64
90.00	15 3 26	2999.59	-28.20	91.65	280.12	87.78	15 53 25	1999.6	-28.28	64.81
100.00	16 34 20	2706.35	-29.84	70.15	280.17	88.82	17 19 26	1706.3	-27.29	43.01
110.00	18 3 31	2427.20	-34.12	48.94	280.15	91.62	18 43 58	1427.2	-29.90	21.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3592 TRA-1.0394 TC3 .5646 BAU .2011 SGT 1424.9 SGR 691.9 SG3 259.2 ST 27.8 SR 28.0 SS 19.3
RDE -.4845 RRA .2307 RC3 -.2036 FAU .07826 RRT -.2469 RRF .2835 RTF -.7502 CRT .6333 CRS .7611 CST .9783
FDE .4998 FRA .9723 FC3-2.7036 BSP 2246 SGB 1567.0 R23 -.0554 R13 .7550 LSA 40.3 MSA 17.4 SSA 1.6
BDE .6031 BRA 1.0647 BC3 .6001 FSP 358 SG1 1436.2 SG2 626.8 THA 172.03 EL1 35.7 EL2 16.9 ALF 48.46

LAUNCH DATE AUG 1 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 337.417 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 34.254 GAL -.80 AZL 89.78 HCA 107.29 SMA 230.93 ECC .34272 INC .2204 V1 29.342
RP 222.48 LAP .21 LOP 55.90 VP 24.867 GAP 19.94 AZP 90.07 TAL 356.88 TAP 104.18 RCA 151.78 APO 310.07 V2 24.715
RC 95.665 GL 1.54 GP -6.95 ZAL 92.99 ZAP 166.74 ETS 213.01 ZAE 159.83 ETE 338.66 ZAC 76.11 ETC 282.66 LVI -9.66

PLANETOCENTRIC CONIC

C3 24.191 VHL 4.918 DLA 16.78 RAL 38.66 RAD 6644.7 VEL 12.007 PTH 7.00 VHP 6.419 DPA 9.49 RAP 44.46 ECC 1.3981

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 39	3518.12	-46.51	129.78	277.10	101.43	13 9 17	2518.1	-36.86	99.86
60.00	12 30 57	3464.04	-39.92	126.31	278.49	96.03	13 28 41	2464.0	-33.20	97.41
70.00	13 1 0	3375.57	-34.11	119.64	278.99	91.84	13 57 16	2375.6	-29.80	91.77
80.00	13 48 10	3227.79	-29.84	108.47	279.03	88.98	14 41 58	2227.8	-27.23	81.36
90.00	15 0 1	2995.86	-28.21	91.38	278.98	87.92	15 49 57	1995.9	-26.23	64.55
100.00	16 31 2	2702.26	-29.84	69.84	279.03	88.98	17 16 4	1702.3	-27.23	42.72
110.00	18 0 27	2422.39	-34.11	48.56	278.99	91.84	18 40 49	1422.4	-29.80	20.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3633 TRA-1.0301 TC3 .6024 BAU .2078 SGT 1449.5 SGR 655.4 SG3 274.9 ST 28.3 SR 27.8 SS 20.0
RDE -.4721 RRA .2307 RC3 -.2232 FAU .08175 RRT -.2624 RRF .3031 RTF -.7550 CRT .6376 CRS .7683 CST .9773
FDE .5299 FRA .9943 FC3-2.9255 BSP 2317 SGB 1590.8 R23 -.0614 R13 .7604 LSA 40.9 MSA 17.4 SSA 1.7
BDE .5957 BRA 1.0556 BC3 .6424 FSP 382 SG1 1462.0 SG2 627.0 THA 171.70 EL1 35.9 EL2 16.9 ALF 44.20

LAUNCH DATE AUG 1 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 340.619 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	34.173	GAL	-.73	AZL	89.74	HCA	108.39	SMA	228.70	ECC	.33628	INC	.2591
RP	222.86	LAP	.25	LOP	56.99	VP	24.713	GAP	19.60	AZP	90.08	TAL	357.11	TAP	105.50	RCA	151.79	APO	305.61
RC	97.860	GL	1.83	GP	-7.16	ZAL	92.54	ZAP	165.91	ETS	211.92	ZAE	159.76	ETE	337.90	ZAC	75.85	ETC	282.64

V1	29.342
V2	24.673
LVI	-9.37

PLANETOCENTRIC CONIC

C3	23.386	VHL	4.836	DLA	16.92	RAL	38.12	RAD	6644.3	VEL	11.974	PTH	6.97	VHP	6.239	DPA	9.36	RAP	44.77	ECC	1.3849

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 7 55	3512.72	-46.43	129.28	275.90	101.80	13 6 28	2512.7	-36.66	99.49
60.00	12 28 3	3459.14	-39.89	125.89	277.33	96.31	13 25 42	2459.1	-33.06	97.07
70.00	12 57 52	3371.37	-34.10	119.31	277.86	92.04	13 54 3	2371.4	-29.71	91.47
80.00	13 44 46	3224.35	-29.85	108.22	277.91	89.12	14 38 31	2224.3	-27.17	81.11
90.00	14 56 30	2992.81	-28.22	91.16	277.86	88.03	15 46 23	1992.8	-26.19	64.33
100.00	16 27 38	2698.82	-29.85	69.59	277.91	89.12	17 12 37	1698.8	-27.17	42.48
110.00	17 57 18	2418.18	-34.10	48.23	277.86	92.04	18 37 36	1418.2	-29.71	20.39

DIFFERENTIAL CORRECTIONS

TDE	-.3658	TRA	-1.0203	TC3	.6452	BAU	.2157
RDE	-.4599	RRA	.2309	RC3	-.2448	FAU	.08559
FDE	.5609	FRA	1.0167	FC3	-3.1683	BSP	2379
BDE	.5876	BRA	1.0461	BC3	.6900	FSP	409

MID-COURSE EXECUTION ACCURACY

SGT	1474.3	SGR	659.4	SG3	291.9
RRT	-.2808	RRF	.3248	RTF	-.7610
SGB	1615.1	R23	-.0665	R13	.7669
SG1	1488.5	SG2	626.8	THA	171.29

ORBIT DETERMINATION ACCURACY

ST	28.8	SR	27.6	SS	20.7
CRT	.6404	CRS	.7747	CST	.9761
LSA	41.5	MSA	17.3	SSA	1.7
EL1	36.1	EL2	16.9	ALF	43.06

LAUNCH DATE AUG 1 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 343.871 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	34.095	GAL	-.66	AZL	89.70	HCA	109.48	SMA	226.64	ECC	.33020	INC	.2978
RP	223.25	LAP	.28	LOP	58.08	VP	24.563	GAP	19.26	AZP	90.10	TAL	357.34	TAP	106.81	RCA	151.80	APO	301.47
RC	100.104	GL	2.14	GP	-7.39	ZAL	92.09	ZAP	165.07	ETS	210.96	ZAE	159.74	ETE	337.07	ZAC	75.58	ETC	282.62

V1	29.342
V2	24.631
LVI	-9.09

PLANETOCENTRIC CONIC

C3	22.640	VHL	4.758	DLA	17.06	RAL	37.58	RAD	6644.0	VEL	11.943	PTH	6.95	VHP	6.064	DPA	9.22	RAP	45.07	ECC	1.3726

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 5 9	3507.86	-46.37	128.84	274.73	102.14	13 3 36	2507.9	-36.48	99.17
60.00	12 25 4	3454.82	-39.85	125.53	276.20	96.55	13 22 39	2454.8	-32.94	96.77
70.00	12 54 38	3367.77	-34.09	119.03	276.75	92.20	13 50 46	2367.8	-29.64	91.22
80.00	13 41 17	3221.57	-29.85	108.01	276.81	89.22	14 34 59	2221.6	-27.13	80.92
90.00	14 52 53	2990.44	-28.22	90.98	276.77	88.12	15 42 44	1990.4	-26.16	64.17
100.00	16 24 9	2696.04	-29.85	69.38	276.81	89.22	17 9 5	1696.0	-27.13	42.29
110.00	17 54 4	2414.59	-34.09	47.95	276.75	92.20	18 34 19	1414.6	-29.64	20.13

DIFFERENTIAL CORRECTIONS

TDE	-.3693	TRA	-1.0103	TC3	.6869	BAU	.2231
RDE	-.4477	RRA	.2314	RC3	-.2679	FAU	.08956
FDE	.5945	FRA	1.0415	FC3	-3.4249	BSP	2450
BDE	.5804	BRA	1.0365	BC3	.7372	FSP	439

MID-COURSE EXECUTION ACCURACY

SGT	1498.2	SGR	663.8	SG3	309.8
RRT	-.2994	RRF	.3476	RTF	-.7666
SGB	1638.6	R23	-.0725	R13	.7732
SG1	1514.1	SG2	626.7	THA	170.86

ORBIT DETERMINATION ACCURACY

ST	29.3	SR	27.3	SS	21.6
CRT	.6438	CRS	.7805	CST	.9752
LSA	42.1	MSA	17.2	SSA	1.7
EL1	36.4	EL2	16.9	ALF	41.85

LAUNCH DATE AUG 1 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 347.170 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	34.022	GAL	-.60	AZL	89.66	HCA	110.56	SMA	224.72	ECC	.32445	INC	.3368
RP	223.64	LAP	.32	LOP	59.17	VP	24.419	GAP	18.93	AZP	90.12	TAL	357.57	TAP	108.13	RCA	151.81	APO	297.63
RC	102.397	GL	2.45	GP	-7.63	ZAL	91.65	ZAP	164.20	ETS	210.11	ZAE	159.76	ETE	336.15	ZAC	75.31	ETC	282.61

V1	29.342
V2	24.590
LVI	-8.80

PLANETOCENTRIC CONIC

C3	21.947	VHL	4.685	DLA	17.22	RAL	37.04	RAD	6643.7	VEL	11.914	PTH	6.92	VHP	5.896	DPA	9.07	RAP	45.36	ECC	1.3612

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 2 19	3503.55	-46.30	128.44	273.61	102.44	13 0 43	2503.5	-36.32	98.88
60.00	12 22 2	3451.07	-39.82	125.22	275.11	96.76	13 19 33	2451.1	-32.83	96.50
70.00	12 51 20	3364.79	-34.08	118.80	275.68	92.34	13 47 25	2364.8	-29.58	91.01
80.00	13 37 43	3219.46	-29.85	107.86	275.75	89.31	14 31 22	2219.5	-27.10	80.77
90.00	14 49 10	2988.78	-28.23	90.86	275.71	88.18	15 38 59	1988.8	-26.13	64.05
100.00	16 20 34	2693.93	-29.85	69.22	275.75	89.31	17 5 28	1693.9	-27.10	42.14
110.00	17 50 47	2411.61	-34.08	47.72	275.68	92.34	18 30 58	1411.6	-29.58	19.93

DIFFERENTIAL CORRECTIONS

TDE	-.3733	TRA	-.9996	TC3	.7282	BAU	.2302
RDE	-.4355	RRA	.2318	RC3	-.2925	FAU	.09369
FDE	.6322	FRA	1.0639	FC3	-3.6958	BSP	2500
BDE	.5736	BRA	1.0261	BC3	.7847	FSP	469

MID-COURSE EXECUTION ACCURACY

SGT	1520.5	SGR	668.5	SG3	328.4
RRT	-.3184	RRF	.3706	RTF	-.7716
SGB	1661.0	R23	-.0786	R13	.7788
SG1	1538.4	SG2	626.3	THA	170.43

ORBIT DETERMINATION ACCURACY

ST	29.8	SR	27.0	SS	22.4
CRT	.6477	CRS	.7875	CST	.9740
LSA	42.8	MSA	17.1	SSA	1.8
EL1	36.6	EL2	16.8	ALF	40.60

LAUNCH DATE AUG 1 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 350.510 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.952	GAL	-.53	AZL	89.62	HCA	111.64	SMA	222.93	ECC	.31901	INC	.3763
RP	224.03	LAP	.35	LOP	60.25	VP	24.280	GAP	18.60	AZP	90.14	TAL	357.79	TAP	109.44	RCA	151.81	APO	294.05
RC	104.735	GL	2.77	GP	-7.87	ZAL	91.20	ZAP	163.32	ETS	209.35	ZAE	159.83	ETE	335.14	ZAC	75.03	ETC	282.59

V1	29.342
V2	24.548
LVI	-8.50

PLANETOCENTRIC CONIC

C3	21.304	VHL	4.616	DLA	17.38	RAL	36.49	RAD	6643.4	VEL	11.887	PTH	6.90	VHP	5.733	DPA	8.90	RAP	45.63	ECC	1.3506

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 59 27	3499.77	-46.25	128.09	272.53	102.71	12 57 47	2499.8	-36.18	98.63
60.00	12 18 56	3447.89	-39.80	124.95	274.05	96.94	13 16 24	2447.9	-32.74	96.28
70.00	12 47 58	3362.44	-34.08	118.62	274.64	92.45	13 44 0	2362.4	-29.53	90.84
80.00	13 34 2	3218.04	-29.85	107.75	274.72	89.36	14 27 40	2218.0	-27.08	80.67
90.00	14 45 21	2987.83	-28.23	90.79	274.68	88.21	15 35 9	1987.8	-26.12	63.98
100.00	16 16 54	2692.51	-29.85	69.12	274.72	89.36	17 1 47	1692.5	-27.08	42.04
110.00	17 47 24	2409.26	-34.08	47.54	274.64	92.45	18 27 33	1409.3	-29.53	19.76

DIFFERENTIAL CORRECTIONS

TDE	-.3756	TRA	-.9881	TC3	.7719	BAU	.2379
RDE	-.4234	RRA	.2323	RC3	-.3189	FAU	.09806
FDE	.6705	FRA	1.0862	FC3	-3.9849	BSP	2540
BDE	.5660	BRA	1.0150	BC3	.8351	FSP	499

MID-COURSE EXECUTION ACCURACY

SGT	1541.7	SGR	674.0	SG3	348.0
RRT	-.3397	RRF	.3951	RTF	-.7771
SGB	1682.6	R23	-.0838	R13	.7850
SG1	1562.0	SG2	625.7	THA	169.92

ORBIT DETERMINATION ACCURACY

ST	30.3	SR	26.7	SS	23.3
CRT	.6501	CRS	.7935	CST	.9727
LSA	43.4	MSA	16.9	SSA	1.8
EL1	36.7	EL2	16.7	ALF	39.48

LAUNCH DATE AUG 1 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 353.888 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.886	GAL	-.47	AZL	89.58	HCA	112.72	SMA	221.27	ECC	.31387	INC	.4162	V1	29.342
RP	224.42	LAP	.38	LOP	61.33	VP	24.145	GAP	18.28	AZP	90.16	TAL	358.02	TAP	110.74	RCA	151.82	APO	290.72	V2	24.506
RC	107.119	GL	3.10	GP	-8.13	ZAL	90.76	ZAP	162.42	ETS	208.66	ZAE	159.93	ETE	334.03	ZAC	74.74	ETC	282.59	LVI	-8.20

PLANETOCENTRIC CONIC

C3	20.707	VHL	4.551	DLA	17.56	RAL	35.94	RAD	6643.2	VEL	11.862	PTH	6.88	VHP	5.575	DPA	8.71	RAP	45.89	ECC	1.3408

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 56 32	3496.54	-46.20	127.79	271.49	102.93	12 54 49	2496.5	-36.06	98.41
60.00	12 15 47	3445.29	-39.78	124.73	273.04	97.09	13 13 12	2445.3	-32.67	96.10
70.00	12 44 31	3360.72	-34.07	118.48	273.64	92.53	13 40 32	2360.7	-29.49	90.72
80.00	13 30 16	3217.30	-29.85	107.70	273.72	89.39	14 23 54	2217.3	-27.07	80.62
90.00	14 41 26	2987.60	-28.23	90.78	273.68	88.22	15 31 14	1987.6	-26.12	63.97
100.00	16 13 8	2691.78	-29.85	69.06	273.72	89.39	16 58 0	1691.8	-27.07	41.99
110.00	17 43 57	2407.54	-34.07	47.40	273.64	92.53	18 24 5	1407.5	-29.49	19.64

DIFFERENTIAL CORRECTIONS

TDE	-.3786	TRA	-.9772	TC3	.8109	BAU	.2442												
RDE	-.4112	RRA	.2330	RC3	-.3469	FAU	.10254												
FDE	.7132	FRA	1.1105	FC3	-4.2668	BSP	2606												
BDE	.5590	BRA	1.0046	BC3	.8820	FSP	537												

MID-COURSE EXECUTION ACCURACY

SGT	1561.1	SGR	680.0	SG3	368.4						
RRT	-.3609	RRF	.4201	RTF	-.7812						
SGB	1702.8	R23	-.0902	R13	.7900						
SG1	1584.0	SG2	625.1	THA	169.39						

ORBIT DETERMINATION ACCURACY

ST	30.7	SR	26.3	SS	24.2		
CRT	.6524	CRS	.7992	CST	.9714		
LSA	44.0	MSA	16.8	SSA	1.9		
EL1	36.9	EL2	16.6	ALF	38.27		

LAUNCH DATE AUG 1 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 357.302 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.824	GAL	-.41	AZL	89.54	HCA	113.79	SMA	219.72	ECC	.30901	INC	.4566	V1	29.342
RP	224.81	LAP	.42	LOP	62.40	VP	24.015	GAP	17.95	AZP	90.18	TAL	358.24	TAP	112.04	RCA	151.82	APO	287.62	V2	24.464
RC	109.544	GL	3.44	GP	-8.40	ZAL	90.33	ZAP	161.50	ETS	208.05	ZAE	160.07	ETE	332.81	ZAC	74.45	ETC	282.58	LVI	-7.89

PLANETOCENTRIC CONIC

C3	20.154	VHL	4.489	DLA	17.74	RAL	35.39	RAD	6642.9	VEL	11.839	PTH	6.86	VHP	5.423	DPA	8.51	RAP	46.14	ECC	1.3317

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 53 35	3493.65	-46.16	127.55	270.49	103.12	12 51 49	2493.8	-35.96	98.24
60.00	12 12 35	3443.27	-39.76	124.56	272.05	97.20	13 9 58	2443.3	-32.61	95.97
70.00	12 41 0	3359.63	-34.07	118.40	272.66	92.58	13 36 59	2359.6	-29.47	90.65
80.00	13 26 25	3217.28	-29.85	107.69	272.75	89.39	14 20 2	2217.3	-27.07	80.62
90.00	14 37 24	2988.12	-28.23	90.82	272.71	88.20	15 27 12	1988.1	-26.13	64.00
100.00	16 9 17	2691.75	-29.85	69.06	272.75	89.39	16 54 8	1691.7	-27.07	41.98
110.00	17 40 26	2406.45	-34.07	47.32	272.66	92.58	18 20 32	1406.5	-29.47	19.56

DIFFERENTIAL CORRECTIONS

TDE	-.3819	TRA	-.9653	TC3	.8518	BAU	.2510												
RDE	-.3992	RRA	.2337	RC3	-.3772	FAU	.10736												
FDE	.7565	FRA	1.1341	FC3	-4.6116	BSP	2661												
BDE	.5524	BRA	.9932	BC3	.9316	FSP	574												

MID-COURSE EXECUTION ACCURACY

SGT	1579.7	SGR	687.2	SG3	390.1						
RRT	-.3830	RRF	.4468	RTF	-.7856						
SGB	1722.7	R23	-.0973	R13	.7953						
SG1	1605.5	SG2	624.6	THA	168.83						

ORBIT DETERMINATION ACCURACY

ST	31.2	SR	25.9	SS	25.2		
CRT	.6551	CRS	.8040	CST	.9705		
LSA	44.7	MSA	16.6	SSA	1.9		
EL1	37.0	EL2	16.5	ALF	37.07		

LAUNCH DATE AUG 1 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 360.747 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.765	GAL	-.36	AZL	89.50	HCA	114.86	SMA	218.28	ECC	.30442	INC	.4975	V1	29.342
RP	225.20	LAP	.45	LOP	63.47	VP	23.888	GAP	17.63	AZP	90.21	TAL	358.46	TAP	113.33	RCA	151.83	APO	284.72	V2	24.422
RC	112.011	GL	3.79	GP	-8.68	ZAL	89.90	ZAP	160.56	ETS	207.49	ZAE	160.25	ETE	331.48	ZAC	74.15	ETC	282.58	LVI	-7.58

PLANETOCENTRIC CONIC

C3	19.640	VHL	4.432	DLA	17.93	RAL	34.84	RAD	6642.7	VEL	11.817	PTH	6.84	VHP	5.275	DPA	8.29	RAP	46.37	ECC	1.3232

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 50 36	3491.70	-46.12	127.55	269.53	103.26	12 48 48	2491.7	-35.88	98.10
60.00	12 9 19	3441.84	-39.75	124.44	271.11	97.28	13 6 41	2441.8	-32.57	95.87
70.00	12 37 24	3359.19	-34.07	118.36	271.73	92.60	13 33 23	2359.2	-29.46	90.61
80.00	13 22 27	3217.97	-29.85	107.74	271.81	89.36	14 16 5	2218.0	-27.08	80.66
90.00	14 33 16	2989.40	-28.22	90.91	271.77	88.15	15 23 5	1989.4	-26.14	64.09
100.00	16 5 19	2692.44	-29.85	69.11	271.81	89.36	16 50 12	1692.4	-27.08	42.03
110.00	17 36 50	2406.01	-34.07	47.28	271.73	92.60	18 16 56	1406.0	-29.46	19.53

DIFFERENTIAL CORRECTIONS

TDE	-.3843	TRA	-.9524	TC3	.8938	BAU	.2582												
RDE	-.3868	RRA	.2344	RC3	-.4097	FAU	.11246												
FDE	.8055	FRA	1.1547	FC3	-4.9571	BSP	2715												
BDE	.5453	BRA	.9808	BC3	.9833	FSP	613												

MID-COURSE EXECUTION ACCURACY

SGT	1596.7	SGR	695.3	SG3	413.0						
RRT	-.4066	RRF	.4737	RTF	-.[illegible]						
SGB	1741.5	R23	-.1033	R13	.8007						
SG1	1626.0	SG2	623.8	THA	168.20						

ORBIT DETERMINATION ACCURACY

ST	31.6	SR	25.5	SS	26.2		
CRT	.6570	CRS	.8097	CST	.9689		
LSA	45.4	MSA	16.4	SSA	2.0		
EL1	37.1	EL2	16.3	ALF	35.90		

LAUNCH DATE AUG 1 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 364.221 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.709	GAL	-.30	AZL	89.46	HCA	115.93	SMA	216.93	ECC	.30008	INC	.5390	V1	29.342
RP	225.59	LAP	.48	LOP	64.54	VP	23.766	GAP	17.32	AZP	90.24	TAL	358.68	TAP	114.61	RCA	151.83	APO	282.02	V2	24.380
RC	114.816	GL	4.16	GP	-8.97	ZAL	89.47	ZAP	159.60	ETS	206.99	ZAE	160.45	ETE	330.01	ZAC	73.83	ETC	282.58	LVI	-7.26

PLANETOCENTRIC CONIC

C3	19.163	VHL	4.378	DLA	18.13	RAL	34.30	RAD	6642.5	VEL	11.797	PTH	6.82	VHP	5.133	DPA	8.06	RAP	46.59	ECC	1.3154

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 47 34	3490.09	-46.10	127.20	268.62	103.36	12 45 45	2490.1	-35.82	97.99
60.00	12 6 1	3440.99	-39.74	124.37	270.21	97.33	13 3 22	2441.0	-32.54	95.81
70.00	12 33 44	3359.39	-34.07	118.38	270.82	92.59	13 29 43	2359.4	-29.46	90.63
80.00	13 18 24	3219.38	-29.85	107.85	270.91	89.31	14 12 3	2219.4	-27.10	80.76
90.00	14 29 1	2991.44	-28.22	91.06	270.86	88.08	15 18 52	1991.4	-26.17	64.24
100.00	16 1 16	2693.85	-29.85	69.22	270.91	89.31	16 46 10	1693.9	-27.10	42.13
110.00	17 33 10	2406.21	-34.07	47.30	270.82	92.59	18 13 16	1406.2	-29.46	19.55

DIFFERENTIAL CORRECTIONS

TDE	-.3896	TRA	-.9435	TC3	.9259	BAU	.2630												
RDE	-.3742	RRA	.2358	RC3	-.4434	FAU	.11751												
FDE	.8602	FRA	1.1849	FC3	-5.3085	BSP	2768												
BDE	.5402	BRA	.9725	BC3	1.0266	FSP	656												

MID-COURSE EXECUTION ACCURACY

SGT	1614.2	SGR	704.3	SG3	436.6						
RRT	-.4283	RRF	.5010	RTF	-.7923						
SGB	1761.1	R23	-.1125	R13	.8044						
SG1	1647.0	SG2	623.7	THA	167.61						

ORBIT DETERMINATION ACCURACY

ST	32.1	SR	25.0	SS	27.4		
CRT	.6591	CRS	.8135	CST	.9681		
LSA	46.3	MSA	16.2	SSA	2.0		
EL1	37.3	EL2	16.2	ALF	34.46		

LAUNCH DATE AUG 1 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 367.723 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.656	GAL	-.25	AZL	89.42	HCA	116.99	SMA	215.67	ECC	.29597	INC	.5811	V1	29.342
RP	225.98	LAP	.52	LOP	65.60	VP	23.648	GAP	17.00	AZP	90.26	TAL	358.90	TAP	115.89	RCA	151.83	APO	279.50	V2	24.338
RC	117.057	GL	4.53	GP	-9.27	ZAL	89.06	ZAP	158.63	ETS	206.53	ZAE	160.67	ETE	328.41	ZAC	73.51	ETC	282.58	LVI	-6.94

PLANETOCENTRIC CONIC

C3	18.721	VHL	4.327	DLA	18.34	RAL	33.76	RAD	6642.3	VEL	11.779	PTH	6.80	VHP	4.996	DPA	7.80	RAP	46.79	ECC	1.3081

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 44 31	3489.02	-46.08	127.11	267.75	103.45	12 42 40	2489.0	-35.78	97.92
60.00	12 2 39	3440.72	-39.74	124.35	269.34	97.35	13 0 0	2440.7	-32.54	95.79
70.00	12 29 59	3360.25	-34.07	118.45	269.95	92.55	13 25 59	2360.3	-29.48	90.69
80.00	13 14 14	3221.54	-29.85	108.01	270.03	89.23	14 7 56	2221.5	-27.13	80.92
90.00	14 24 39	2994.28	-28.21	91.27	269.99	87.98	15 14 33	1994.3	-26.21	64.44
100.00	15 57 6	2696.01	-29.85	69.38	270.03	89.23	16 42 2	1696.0	-27.13	42.28
110.00	17 29 25	2407.07	-34.07	47.37	269.95	92.55	18 9 32	1407.1	-29.48	19.61

DIFFERENTIAL CORRECTIONS

TDE	-.3947	TRA	-.9292	TC3	.9652	BAU	.2698
RDE	-.3612	RRA	.2365	RC3	-.4800	FAU	.12300
FDE	.9204	FRA	1.2043	FC3	-5.6882	BSP	2791
BDE	.5350	BRA	.9588	BC3	1.0780	FSP	697

MID-COURSE EXECUTION ACCURACY

SGT	1628.2	SGR	714.3	SG3	461.6
RRT	-.4511	RRF	.5283	RTF	-.7963
SGB	1778.0	R23	-.1199	R13	.8097
SG1	1665.2	SG2	623.3	THA	166.94

ORBIT DETERMINATION ACCURACY

ST	32.6	SR	24.4	SS	28.6
CRT	.6630	CRS	.8192	CST	.9671
LSA	47.1	MSA	15.9	SSA	2.1
EL1	37.5	EL2	15.9	ALF	33.10

LAUNCH DATE AUG 1 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 371.249 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.605	GAL	-.20	AZL	89.38	HCA	118.05	SMA	214.49	ECC	.29209	INC	.6239	V1	29.342
RP	226.37	LAP	.55	LOP	66.66	VP	23.533	GAP	16.69	AZP	90.29	TAL	359.10	TAP	117.16	RCA	151.84	APO	277.14	V2	24.297
RC	119.633	GL	4.91	GP	-9.59	ZAL	88.65	ZAP	157.63	ETS	206.11	ZAE	160.92	ETE	326.65	ZAC	73.18	ETC	282.59	LVI	-6.61

PLANETOCENTRIC CONIC

C3	18.311	VHL	4.279	DLA	18.57	RAL	33.22	RAD	6642.1	VEL	11.762	PTH	6.79	VHP	4.863	DPA	7.53	RAP	46.98	ECC	1.3014

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 41 25	3488.50	-46.07	127.06	266.93	103.48	12 39 34	2488.5	-35.76	97.89
60.00	11 59 14	3441.05	-39.74	124.38	268.51	97.33	12 56 35	2441.1	-32.55	95.81
70.00	12 26 10	3361.78	-34.07	118.57	269.12	92.48	13 22 12	2361.8	-29.51	90.80
80.00	13 9 58	3224.45	-29.85	108.23	269.19	89.11	14 3 43	2224.5	-27.18	81.12
90.00	14 20 9	2997.92	-28.20	91.53	269.14	87.84	15 10 7	1997.9	-26.25	64.69
100.00	15 52 50	2698.93	-29.85	69.60	269.19	89.11	16 37 49	1698.9	-27.18	42.49
110.00	17 25 36	2408.60	-34.07	47.48	269.12	92.48	18 5 45	1408.6	-29.51	19.71

DIFFERENTIAL CORRECTIONS

TDE	-.3989	TRA	-.9188	TC3	1.0039	BAU	.2768
RDE	-.3483	RRA	.2377	RC3	-.5199	FAU	.12900
FDE	.9817	FRA	1.2283	FC3	-6.0992	BSP	2851
BDE	.5295	BRA	.9490	BC3	1.1305	FSP	744

MID-COURSE EXECUTION ACCURACY

SGT	1645.4	SGR	726.7	SG3	488.6
RRT	-.4757	RRF	.5577	RTF	-.7993
SGB	1798.8	R23	-.1288	R13	.8142
SG1	1687.3	SG2	623.4	THA	166.22

ORBIT DETERMINATION ACCURACY

ST	33.1	SR	23.9	SS	29.9
CRT	.6637	CRS	.8227	CST	.9659
LSA	48.0	MSA	15.7	SSA	2.1
EL1	37.6	EL2	15.7	ALF	31.70

LAUNCH DATE AUG 1 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 374.798 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.558	GAL	-.15	AZL	89.33	HCA	119.11	SMA	213.38	ECC	.28843	INC	.6673	V1	29.342
RP	226.76	LAP	.58	LOP	67.72	VP	23.422	GAP	16.38	AZP	90.32	TAL	359.31	TAP	118.42	RCA	151.84	APO	274.93	V2	24.255
RC	122.240	GL	5.30	GP	-9.92	ZAL	88.26	ZAP	156.61	ETS	205.73	ZAE	161.18	ETE	324.73	ZAC	72.85	ETC	282.60	LVI	-6.27

PLANETOCENTRIC CONIC

C3	17.931	VHL	4.235	DLA	18.80	RAL	32.69	RAD	6641.9	VEL	11.746	PTH	6.77	VHP	4.735	DPA	7.23	RAP	47.15	ECC	1.2951

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 38 17	3488.52	-46.07	127.06	266.15	103.48	12 36 26	2488.5	-35.76	97.89
60.00	11 55 46	3441.98	-39.75	124.45	267.73	97.28	12 53 8	2442.0	-32.57	95.88
70.00	12 22 16	3363.98	-34.08	118.74	268.32	92.38	13 18 20	2364.0	-29.56	90.95
80.00	13 5 36	3228.14	-29.84	108.50	268.38	88.97	13 59 24	2228.1	-27.23	81.38
90.00	14 15 32	3002.40	-28.19	91.86	268.33	87.68	15 5 34	2002.4	-26.31	65.01
100.00	15 48 28	2702.61	-29.84	69.87	268.38	88.97	16 33 30	1702.6	-27.23	42.75
110.00	17 21 42	2410.79	-34.08	47.66	268.32	92.38	18 1 53	1410.8	-29.56	19.87

DIFFERENTIAL CORRECTIONS

TDE	-.3963	TRA	-.9060	TC3	1.0305	BAU	.2813
RDE	-.3359	RRA	.2390	RC3	-.5608	FAU	.13485
FDE	1.0360	FRA	1.2536	FC3	-6.5109	BSP	2895
BDE	.5195	BRA	.9370	BC3	1.1733	FSP	790

MID-COURSE EXECUTION ACCURACY

SGT	1651.1	SGR	740.9	SG3	515.4
RRT	-.5013	RRF	.5870	RTF	-.8006
SGB	1809.7	R23	-.1369	R13	.8174
SG1	1699.1	SG2	622.9	THA	165.30

ORBIT DETERMINATION ACCURACY

ST	33.1	SR	23.3	SS	30.9
CRT	.6589	CRS	.8233	CST	.9639
LSA	48.5	MSA	15.5	SSA	2.2
EL1	37.4	EL2	15.5	ALF	30.71

LAUNCH DATE AUG 1 1973 FLIGHT TIME 152.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 378.368 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.513	GAL	-.11	AZL	89.29	HCA	120.16	SMA	212.35	ECC	.28495	INC	.7115	V1	29.342
RP	227.15	LAP	.62	LOP	68.77	VP	23.314	GAP	16.08	AZP	90.36	TAL	359.51	TAP	119.67	RCA	151.84	APO	272.86	V2	24.214
RC	124.878	GL	5.70	GP	-10.27	ZAL	87.87	ZAP	155.57	ETS	205.38	ZAE	161.45	ETE	322.63	ZAC	72.50	ETC	282.62	LVI	-5.93

PLANETOCENTRIC CONIC

C3	17.579	VHL	4.193	DLA	19.05	RAL	32.16	RAD	6641.7	VEL	11.731	PTH	6.76	VHP	4.611	DPA	6.92	RAP	47.31	ECC	1.2893

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 35 7	3489.06	-46.08	127.11	265.40	103.45	12 33 16	2489.1	-35.78	97.92
60.00	11 52 15	3443.47	-39.76	124.58	266.97	97.19	12 49 38	2443.5	-32.62	95.98
70.00	12 18 17	3366.82	-34.09	118.96	267.56	92.25	13 14 23	2366.8	-29.62	91.15
80.00	13 1 6	3232.57	-29.84	108.83	267.60	88.79	13 54 59	2232.6	-27.30	81.69
90.00	14 10 46	3007.67	-28.18	92.24	267.54	87.49	15 0 54	2007.7	-26.38	65.38
100.00	15 43 58	2707.04	-29.84	70.20	267.60	88.79	16 29 5	1707.0	-27.30	43.06
110.00	17 17 43	2413.63	-34.09	47.88	267.56	92.25	17 57 57	1413.6	-29.62	20.07

DIFFERENTIAL CORRECTIONS

TDE	-.3902	TRA	-.8854	TC3	1.0923	BAU	.2936
RDE	-.3225	RRA	.2408	RC3	-.6066	FAU	.14157
FDE	1.1053	FRA	1.2826	FC3	-6.9721	BSP	2820
BDE	.5062	BRA	.9176	BC3	1.2494	FSP	845

MID-COURSE EXECUTION ACCURACY

SGT	1661.9	SGR	757.7	SG3	545.8
RRT	-.5372	RRF	.6172	RTF	-.8129
SGB	1826.5	R23	-.1302	R13	.8305
SG1	1718.8	SG2	617.9	THA	164.13

ORBIT DETERMINATION ACCURACY

ST	32.9	SR	22.7	SS	32.3
CRT	.6525	CRS	.8244	CST	.9615
LSA	48.9	MSA	15.3	SSA	2.2
EL1	36.9	EL2	15.3	ALF	29.85

LAUNCH DATE AUG 1 1973 FLIGHT TIME 154.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 381.956 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.470	GAL	-.07	AZL	89.24	HCA	121.21	SMA	211.38	ECC	.28168	INC	.7565
RP	227.54	LAP	.65	LOP	69.82	VP	23.210	GAP	15.78	AZP	90.39	TAL	359.70	TAP	120.91	RCA	151.84	APO	270.93
RC	127.544	GL	6.11	GP	-10.63	ZAL	87.50	ZAP	154.51	ETS	205.05	ZAE	161.73	ETE	320.33	ZAC	72.14	ETC	282.64

V1	29.342																		
V2	24.172																		
LVI	-5.57																		

PLANETOCENTRIC CONIC

C3	17.253	VHL	4.154	DLA	19.31	RAL	31.64	RAD	6641.6	VEL	11.717	PTH	6.75	VHP	4.491	DPA	6.59	RAP	47.45

ECC	1.2839																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 31 56	3490.18	-46.10	127.21	264.71	103.37	12 30 6	2490.2	-35.82	98.00
60.00	11 46 40	3445.60	-39.78	124.76	266.27	97.07	12 46 6	2445.6	-32.68	96.13
70.00	12 14 13	3370.40	-34.10	119.24	266.83	92.08	13 10 23	2370.4	-29.69	91.40
80.00	12 56 29	3237.87	-29.83	109.22	266.86	88.59	13 50 27	2237.9	-27.38	82.07
90.00	14 5 52	3013.90	-28.16	92.70	266.79	87.26	14 56 6	2013.9	-26.46	65.82
100.00	15 39 21	2712.34	-29.83	70.59	266.86	88.59	16 24 34	1712.3	-27.38	43.44
110.00	17 13 39	2417.22	-34.10	48.16	266.83	92.08	17 53 56	1417.2	-29.69	20.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4194	TRA	-.8716	TC3	1.1102	BAU	.2971	SGT	1673.9	SGR	772.5	SG3	576.3	ST	34.5	SR	21.8	SS	34.6
RDE	-.3057	RRA	.2414	RC3	-.6533	FAU	.14806	RRT	-.5478	RRF	.6424	RTF	-.8120	CRT	.6693	CRS	.8316	CST	.9641
FDE	1.2162	FRA	1.2956	FC3	-7.4295	BSP	2858	SGB	1843.5	R23	-.1497	R13	.8323	LSA	51.3	MSA	14.7	SSA	2.2
BDE	.5157	BRA	.9044	BC3	1.2882	FSP	891	SG1	1734.9	SG2	623.5	THA	163.64	EL1	38.0	EL2	14.6	ALF	27.27

LAUNCH DATE AUG 1 1973 FLIGHT TIME 156.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 385.561 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.430	GAL	-.02	AZL	89.20	HCA	122.25	SMA	210.48	ECC	.27859	INC	.8023
RP	227.93	LAP	.68	LOP	70.86	VP	23.108	GAP	15.48	AZP	90.43	TAL	359.89	TAP	122.14	RCA	151.84	APO	269.12
RC	130.237	GL	6.53	GP	-11.00	ZAL	87.14	ZAP	153.42	ETS	204.75	ZAE	161.99	ETE	317.84	ZAC	71.77	ETC	282.66

V1	29.342																		
V2	24.131																		
LVI	-5.21																		

PLANETOCENTRIC CONIC

C3	16.952	VHL	4.117	DLA	19.58	RAL	31.13	RAD	6641.4	VEL	11.704	PTH	6.74	VHP	4.376	DPA	6.23	RAP	47.57

ECC	1.2790																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 28 42	3491.84	-46.13	127.36	264.06	103.25	12 26 54	2491.8	-35.89	98.11
60.00	11 45 2	3448.34	-39.80	124.99	265.60	96.92	12 42 31	2448.3	-32.76	96.32
70.00	12 10 3	3374.68	-34.11	119.57	266.14	91.89	13 6 18	2374.7	-29.78	91.70
80.00	12 51 45	3244.00	-29.82	109.68	266.15	88.35	13 45 49	2244.0	-27.46	82.50
90.00	14 0 49	3021.02	-28.13	93.22	266.08	87.00	14 51 10	2021.0	-26.54	66.32
100.00	15 34 36	2718.47	-29.82	71.05	266.15	88.35	16 19 55	1718.5	-27.46	43.67
110.00	17 9 30	2421.50	-34.11	48.49	266.14	91.89	17 49 51	1421.5	-29.78	20.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4095	TRA	-.8880	TC3	1.0828	BAU	.2914	SGT	1685.3	SGR	791.3	SG3	601.6	ST	34.7	SR	21.1	SS	35.8
RDE	-.2926	RRA	.2485	RC3	-.6930	FAU	.15244	RRT	-.5686	RRF	.6690	RTF	-.8031	CRT	.6434	CRS	.8180	CST	.9616
FDE	1.2801	FRA	1.3897	FC3	-7.7852	BSP	3392	SGB	1861.8	R23	-.1685	R13	.8266	LSA	52.0	MSA	15.0	SSA	2.2
BDE	.5033	BRA	.9221	BC3	1.2856	FSP	1033	SG1	1753.5	SG2	625.6	THA	162.79	EL1	37.8	EL2	14.8	ALF	25.63

LAUNCH DATE AUG 1 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 389.188 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.391	GAL	.02	AZL	89.15	HCA	123.29	SMA	209.63	ECC	.27567	INC	.8490
RP	228.32	LAP	.71	LOP	71.90	VP	23.010	GAP	15.18	AZP	90.47	TAL	.07	TAP	123.37	RCA	151.84	APO	267.42
RC	132.954	GL	6.96	GP	-11.39	ZAL	86.79	ZAP	152.32	ETS	204.47	ZAE	162.25	ETE	315.12	ZAC	71.38	ETC	282.69

V1	29.342																		
V2	24.090																		
LVI	-4.84																		

PLANETOCENTRIC CONIC

C3	16.674	VHL	4.083	DLA	19.87	RAL	30.62	RAD	6641.3	VEL	11.692	PTH	6.73	VHP	4.265	DPA	5.86	RAP	47.68

ECC	1.2744																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 25 27	3494.05	-46.16	127.57	263.45	103.10	12 23 41	2494.0	-35.97	98.25
60.00	11 41 21	3451.69	-39.83	125.27	264.97	96.73	12 38 53	2451.7	-32.85	96.55
70.00	12 5 48	3379.67	-34.12	119.96	265.49	91.66	13 2 8	2379.7	-29.88	92.06
80.00	12 46 52	3250.98	-29.80	110.20	265.48	88.08	13 41 3	2251.0	-27.56	83.00
90.00	13 55 36	3029.09	-28.10	93.80	265.39	86.71	14 46 5	2029.1	-26.64	66.89
100.00	15 29 43	2725.45	-29.80	71.56	265.48	88.08	16 15 9	1725.4	-27.56	44.36
110.00	17 5 15	2426.49	-34.12	48.88	265.49	91.66	17 45 41	1426.5	-29.88	20.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2709	TRA	-.8712	TC3	1.3120	BAU	.3417	SGT	1726.8	SGR	863.9	SG3	663.2	ST	27.3	SR	22.3	SS	28.8
RDE	-.3079	RRA	.2508	RC3	-.7931	FAU	.17085	RRT	-.6812	RRF	.7361	RTF	-.8135	CRT	.4916	CRS	.7623	CST	.9294
FDE	.9958	FRA	1.4205	FC3	-8.8708	BSP	2612	SGB	1930.8	R23	-.1247	R13	.8556	LSA	41.9	MSA	17.3	SSA	2.4
BDE	.4101	BRA	.9065	BC3	1.5330	FSP	931	SG1	1837.0	SG2	594.5	THA	158.86	EL1	30.7	EL2	17.3	ALF	33.90

LAUNCH DATE AUG 1 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 392.823 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.355	GAL	.05	AZL	89.10	HCA	124.33	SMA	208.83	ECC	.27291	INC	.8968
RP	228.70	LAP	.74	LOP	72.94	VP	22.915	GAP	14.89	AZP	90.51	TAL	.25	TAP	124.58	RCA	151.84	APO	265.83
RC	135.694	GL	7.40	GP	-11.80	ZAL	86.46	ZAP	151.18	ETS	204.21	ZAE	162.48	ETE	312.19	ZAC	70.99	ETC	282.72

V1	29.342																		
V2	24.049																		
LVI	-4.47																		

PLANETOCENTRIC CONIC

C3	16.417	VHL	4.052	DLA	20.16	RAL	30.12	RAD	6641.2	VEL	11.681	PTH	6.72	VHP	4.159	DPA	5.45	RAP	47.77

ECC	1.2702																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 22 9	3496.81	-46.20	127.82	262.89	102.91	12 20 26	2496.8	-36.07	98.43
60.00	11 37 36	3455.66	-39.86	125.60	264.37	96.51	12 35 11	2455.7	-32.96	96.82
70.00	12 1 27	3385.40	-34.13	120.41	264.87	91.39	12 57 53	2385.4	-30.00	92.46
80.00	12 41 50	3258.84	-29.78	110.78	264.83	87.77	13 36 8	2258.8	-27.67	83.55
90.00	13 50 12	3038.13	-28.07	94.46	264.73	86.38	14 40 50	2038.1	-26.74	67.53
100.00	15 24 41	2733.31	-29.78	72.15	264.83	87.77	16 10 15	1733.3	-27.67	44.92
110.00	17 0 54	2432.21	-34.13	49.33	264.87	91.39	17 41 26	1432.2	-30.00	21.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3919	TRA	-.8160	TC3	1.1917	BAU	.3174	SGT	1658.6	SGR	846.3	SG3	675.7	ST	33.3	SR	19.8	SS	36.9
RDE	-.2682	RRA	.2407	RC3	-.8193	FAU	.17116	RRT	-.6247	RRF	.7287	RTF	-.8136	CRT	.6439	CRS	.8304	CST	.9548
FDE	1.3853	FRA	1.2986	FC3	-9.0260	BSP	2761	SGB	1862.0	R23	-.1731	R13	.8436	LSA	51.6	MSA	14.2	SSA	2.4
BDE	.4749	BRA	.8508	BC3	1.4462	FSP	990	SG1	1754.0	SG2	624.9	THA	159.62	EL1	36.1	EL2	13.9	ALF	24.83

LAUNCH DATE AUG 1 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 396.475 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.321	GAL	.09	AZL	89.05	HCA	125.37	SMA	208.09	ECC	.27031	INC	.9455
RP	229.09	LAP	.77	LOP	73.98	VP	22.822	GAP	14.60	AZP	90.55	TAL	.42	TAP	125.78	RCA	151.84	APO	264.34
RC	138.457	GL	7.86	GP	-12.23	ZAL	86.14	ZAP	150.03	ETS	203.96	ZAE	162.68	ETE	309.03	ZAC	70.58	ETC	282.76

V1	29.342	V2	24.008	LVI	-4.08														

PLANETOCENTRIC CONIC

C3	16.181	VHL	4.023	DLA	20.48	RAL	29.63	RAD	6641.1	VEL	11.671	PTH	6.71	VHP	4.056	DPA	5.03	RAP	47.84

ECC	1.2663																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 48	3500.12	-46.25	128.12	262.37	102.68	12 17 9	2500.1	-36.20	98.65
60.00	11 33 47	3460.25	-39.90	125.99	263.82	96.25	12 31 27	2460.3	-33.09	97.14
70.00	11 57 0	3391.86	-34.14	120.91	264.28	91.09	12 53 32	2391.9	-30.13	92.92
80.00	12 36 38	3267.62	-29.76	111.43	264.22	87.43	13 31 5	2267.6	-27.79	84.18
90.00	13 44 36	3048.20	-28.02	95.20	264.10	86.02	14 35 24	2048.2	-26.85	68.25
100.00	15 19 30	2742.09	-29.76	72.80	264.22	87.43	16 5 12	1742.1	-27.79	45.55
110.00	16 56 26	2438.68	-34.14	49.83	264.28	91.09	17 37 5	1438.7	-30.13	21.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4001	TRA	-.8157	TC3	1.2205	BAU	.3258	SGT	1681.4	SGR	878.4	SG3	715.6	ST	34.1	SR	18.8	SS	39.0
RDE	-.2515	RRA	.2453	RC3	-.8826	FAU	.17973	RRT	-.6470	RRF	.7561	RTF	-.8159	CRT	.6322	CRS	.8214	CST	.9552
FDE	1.4909	FRA	1.3552	FC3	-9.6161	BSP	2897	SGB	1897.0	R23	-.1847	R13	.8491	LSA	53.2	MSA	14.0	SSA	2.4
BDE	.4726	BRA	.8518	BC3	1.5062	FSP	1090	SG1	1789.6	SG2	629.3	THA	158.54	EL1	36.4	EL2	13.6	ALF	22.55

LAUNCH DATE AUG 1 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 400.139 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.289	GAL	.12	AZL	89.00	HCA	126.40	SMA	207.39	ECC	.26785	INC	.9953
RP	229.48	LAP	.80	LOP	75.01	VP	22.732	GAP	14.31	AZP	90.59	TAL	.58	TAP	126.97	RCA	151.84	APO	262.94
RC	141.241	GL	8.32	GP	-12.67	ZAL	85.84	ZAP	148.85	ETS	203.73	ZAE	162.84	ETE	305.65	ZAC	70.17	ETC	282.81

V1	29.342	V2	23.967	LVI	-3.68														

PLANETOCENTRIC CONIC

C3	15.964	VHL	3.996	DLA	20.81	RAL	29.15	RAD	6641.0	VEL	11.662	PTH	6.70	VHP	3.957	DPA	4.58	RAP	47.89

ECC	1.2627																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 15 26	3503.99	-46.31	128.48	261.90	102.41	12 13 50	2504.0	-36.34	98.91
60.00	11 29 53	3465.49	-39.93	126.43	263.31	95.95	12 27 39	2465.5	-33.24	97.51
70.00	11 52 26	3399.10	-34.15	121.48	263.73	90.76	12 49 5	2399.1	-30.27	93.44
80.00	12 31 15	3277.36	-29.73	112.15	263.63	87.05	13 25 53	2277.4	-27.92	84.87
90.00	13 38 47	3059.36	-27.97	96.01	263.50	85.61	14 29 46	2059.4	-26.97	69.04
100.00	15 14 7	2751.83	-29.73	73.52	263.63	87.05	15 59 59	1751.8	-27.92	46.24
110.00	16 51 52	2445.92	-34.15	50.40	263.73	90.76	17 32 38	1445.9	-30.27	22.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4086	TRA	-.7955	TC3	1.2052	BAU	.3262	SGT	1661.3	SGR	903.7	SG3	747.1	ST	34.6	SR	17.7	SS	40.9
RDE	-.2340	RRA	.2442	RC3	-.9396	FAU	.18640	RRT	-.6552	RRF	.7760	RTF	-.8102	CRT	.6314	CRS	.8211	CST	.9549
FDE	1.6041	FRA	1.3418	FC-10	.1086	BSP	2968	SGB	1891.2	R23	-.2012	R13	.8493	LSA	54.7	MSA	13.6	SSA	2.5
BDE	.4708	BRA	.8321	BC3	1.5282	FSP	1167	SG1	1780.7	SG2	636.9	THA	157.32	EL1	36.6	EL2	13.0	ALF	20.65

LAUNCH DATE AUG 1 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 403.814 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.258	GAL	.15	AZL	88.95	HCA	127.42	SMA	206.73	ECC	.26553	INC	1.0463
RP	229.86	LAP	.83	LOP	76.04	VP	22.644	GAP	14.02	AZP	90.64	TAL	.73	TAP	128.15	RCA	151.84	APO	261.63
RC	144.046	GL	8.80	GP	-13.13	ZAL	85.55	ZAP	147.64	ETS	203.51	ZAE	162.95	ETE	302.05	ZAC	69.73	ETC	282.86

V1	29.342	V2	23.927	LVI	-3.28														

PLANETOCENTRIC CONIC

C3	15.765	VHL	3.971	DLA	21.15	RAL	28.67	RAD	6640.9	VEL	11.654	PTH	6.69	VHP	3.862	DPA	4.11	RAP	47.93

ECC	1.2595																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 12 0	3508.43	-46.37	128.89	261.47	102.10	12 10 29	2508.4	-36.51	99.21
60.00	11 25 55	3471.37	-39.97	126.92	262.83	95.62	12 23 47	2471.4	-33.41	97.92
70.00	11 47 44	3407.13	-34.15	122.11	263.22	90.39	12 44 31	2407.1	-30.43	94.01
80.00	12 25 42	3288.11	-29.68	112.95	263.08	86.63	13 20 30	2288.1	-28.06	85.64
90.00	13 32 44	3071.67	-27.90	96.90	262.93	85.17	14 23 56	2071.7	-27.10	69.92
100.00	15 8 33	2762.58	-29.68	74.32	263.08	86.63	15 54 36	1762.6	-28.06	47.01
110.00	16 47 10	2453.95	-34.15	51.02	263.22	90.39	17 28 4	1453.9	-30.43	22.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4179	TRA	-.7867	TC3	1.2054	BAU	.3310	SGT	1664.1	SGR	939.1	SG3	787.4	ST	35.3	SR	16.5	SS	43.4
RDE	-.2144	RRA	.2480	RC3	-1.0086	FAU	.19480	RRT	-.5699	RRF	.7989	RTF	-.8285	CRT	.6151	CRS	.8081	CST	.9555
FDE	1.7387	FRA	1.3856	FC-10	.6975	BSP	2986	SGB	1910.8	R23	-.2148	R13	.8530	LSA	56.7	MSA	13.4	SSA	2.5
BDE	.4697	BRA	.8268	BC3	1.5705	FSP	1231	SG1	1798.6	SG2	645.1	THA	156.02	EL1	36.9	EL2	12.5	ALF	18.23

LAUNCH DATE AUG 1 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 407.501 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.229	GAL	.18	AZL	88.90	HCA	128.45	SMA	206.12	ECC	.26334	INC	1.0986
RP	230.25	LAP	.86	LOP	77.06	VP	22.560	GAP	13.74	AZP	90.68	TAL	.88	TAP	128.32	RCA	151.84	APO	260.40
RC	146.870	GL	9.29	GP	-13.61	ZAL	85.28	ZAP	146.41	ETS	203.29	ZAE	163.00	ETE	298.26	ZAC	69.29	ETC	282.91

V1	29.342	V2	23.887	LVI	-2.86														

PLANETOCENTRIC CONIC

C3	15.584	VHL	3.948	DLA	21.51	RAL	28.21	RAD	6640.8	VEL	11.646	PTH	6.68	VHP	3.770	DPA	3.61	RAP	47.94

ECC	1.2565																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 8 32	3513.45	-46.44	129.35	261.08	101.75	12 7 5	2513.4	-36.69	99.54
60.00	11 21 52	3477.92	-40.02	127.47	262.40	95.24	12 19 50	2477.9	-33.59	98.38
70.00	11 42 54	3415.97	-34.15	122.80	262.73	89.98	12 39 50	2416.0	-30.59	94.65
80.00	12 19 55	3299.91	-29.63	113.82	262.55	86.18	13 14 55	2299.9	-28.21	86.49
90.00	13 26 25	3085.20	-27.82	97.88	262.39	84.69	14 17 51	2085.2	-27.23	70.89
100.00	15 2 47	2774.38	-29.63	75.19	262.55	86.18	15 49 1	1774.4	-28.21	47.86
110.00	16 42 21	2462.79	-34.15	51.71	262.73	89.98	17 23 23	1462.8	-30.59	23.56

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4154	TRA	-.7726	TC3	1.2130	BAU	.3382	SGT	1653.3	SGR	978.5	SG3	827.2	ST	35.2	SR	15.5	SS	45.0
RDE	-.1973	RRA	.2485	RC3	-1.0785	FAU	.20370	RRT	-.6862	RRF	.8202	RTF	-.8074	CRT	.5951	CRS	.7966	CST	.9536
FDE	1.8408	FRA	1.3894	FC-11	.3164	BSP	3014	SGB	1921.2	R23	-.2227	R13	.8580	LSA	57.7	MSA	13.2	SSA	2.5
BDE	.4599	BRA	.8116	BC3	1.6231	FSP	1302	SG1	1807.5	SG2	651.0	THA	154.33	EL1	36.5	EL2	12.0	ALF	16.53

LAUNCH DATE AUG 1 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 411.197 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.202	GAL	.21	AZL	88.85	HCA	129.47	SMA	205.54	ECC	.26128	INC	1.1521	V1	29.342
RP	230.63	LAP	.89	LOP	78.08	VP	22.477	GAP	15.46	AZP	90.73	TAL	1.01	TAP	130.48	RCA	151.84	APO	259.24	V2	23.847
RC	149.713	GL	9.78	GP	-14.11	ZAL	85.02	ZAP	145.15	ETS	203.08	ZAE	162.97	ETE	294.30	ZAC	68.83	ETC	282.97	LVI	-2.43

PLANETOCENTRIC CONIC

C3	15.418	VHL	3.927	DLA	21.88	RAL	27.75	RAD	6640.7	VEL	11.639	PTH	6.68	VHP	3.683	DPA	3.08	RAP	47.94	ECC	1.2537

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 5 1	3519.04	-46.52	129.87	260.74	101.36	12 3 40	2519.0	-36.90	99.92
60.00	11 17 44	3485.15	-40.06	128.08	262.00	94.83	12 15 49	2485.1	-33.78	98.90
70.00	11 37 56	3425.66	-34.15	123.55	262.28	89.53	12 35 1	2425.7	-30.77	95.34
80.00	12 13 55	3312.83	-29.57	114.78	262.06	85.68	13 9 7	2312.8	-28.36	87.42
90.00	13 19 49	3100.04	-27.72	98.96	261.87	84.16	14 11 29	2100.0	-27.36	71.96
100.00	14 56 46	2787.31	-29.57	76.15	262.06	85.68	15 43 14	1787.3	-28.36	48.79
110.00	16 37 22	2472.48	-34.15	52.47	262.28	89.53	17 18 35	1472.5	-30.77	24.26

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4163	TRA	-.7616	TC3	1.2008	BAU	.3428	SGT	1640.9	SGR	1019.4	SG3	866.9	ST	35.3	SR	14.3	SS	47.1
RDE	-.1777	RRA	.2506	RC3	-1.1507	FAU	.21214	RRT	-.6975	RRF	.8391	RTF	-.8030	CRT	.5651	CRS	.7767	CST	.9521
FDE	1.9677	FRA	1.4096	FC	-11.9116	BSP	3067	SGB	1931.7	R23	-.2343	R13	.8611	LSA	59.1	MSA	13.0	SSA	2.5
BDE	.4526	BRA	.8018	BC3	1.6631	FSP	1385	SG1	1815.4	SG2	660.3	THA	152.66	EL1	36.3	EL2	11.5	ALF	14.37

LAUNCH DATE AUG 1 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 414.902 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.177	GAL	.24	AZL	88.79	HCA	130.48	SMA	205.00	ECC	.25934	INC	1.2072	V1	29.342
RP	231.01	LAP	.92	LOP	79.10	VP	22.397	GAP	13.18	AZP	90.78	TAL	1.14	TAP	131.63	RCA	151.84	APO	258.16	V2	23.807
RC	152.572	GL	10.30	GP	-14.64	ZAL	84.78	ZAP	143.87	ETS	202.87	ZAE	162.86	ETE	290.21	ZAC	68.35	ETC	283.04	LVI	-1.99

PLANETOCENTRIC CONIC

C3	15.269	VHL	3.908	DLA	22.27	RAL	27.30	RAD	6640.7	VEL	11.633	PTH	6.67	VHP	3.599	DPA	2.53	RAP	47.92	ECC	1.2513

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 1 26	3525.23	-46.60	130.45	260.44	100.92	12 0 11	2525.2	-37.12	100.34
60.00	11 13 30	3493.07	-40.10	128.75	261.64	94.38	12 11 43	2493.1	-34.00	99.46
70.00	11 32 48	3436.24	-34.14	124.38	261.87	89.04	12 30 4	2436.2	-30.96	96.11
80.00	12 7 39	3326.95	-29.49	115.82	261.59	85.14	13 3 6	2327.0	-28.52	88.44
90.00	13 12 53	3116.31	-27.60	100.13	261.37	83.58	14 4 49	2116.3	-27.50	73.13
100.00	14 50 30	2801.42	-29.49	77.19	261.59	85.14	15 37 12	1801.4	-28.52	49.81
110.00	16 32 14	2483.06	-34.14	53.30	261.87	89.04	17 13 37	1483.1	-30.96	25.03

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4172	TRA	-.7483	TC3	1.1874	BAU	.3488	SGT	1625.2	SGR	1065.8	SG3	909.1	ST	35.4	SR	13.1	SS	49.2
RDE	-.1574	RRA	.2527	RC3	-1.2289	FAU	.22125	RRT	-.7071	RRF	.8571	RTF	-.7990	CRT	.5266	CRS	.7485	CST	.9513
FDE	2.0985	FRA	1.4281	FC	-12.5450	BSP	3029	SGB	1943.5	R23	-.2434	R13	.8659	LSA	60.6	MSA	12.8	SSA	2.5
BDE	.4459	BRA	.7899	BC3	1.7088	FSP	1436	SG1	1823.8	SG2	671.6	THA	150.78	EL1	36.1	EL2	10.9	ALF	12.14

LAUNCH DATE AUG 1 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 418.616 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.152	GAL	.26	AZL	88.74	HCA	131.50	SMA	204.49	ECC	.25751	INC	1.2636	V1	29.342
RP	231.39	LAP	.95	LOP	80.11	VP	22.319	GAP	12.90	AZP	90.84	TAL	1.27	TAP	132.76	RCA	151.83	APO	257.15	V2	23.767
RC	155.447	GL	10.83	GP	-15.18	ZAL	84.55	ZAP	142.56	ETS	202.66	ZAE	162.66	ETE	286.02	ZAC	67.86	ETC	283.11	LVI	-1.54

PLANETOCENTRIC CONIC

C3	15.134	VHL	3.890	DLA	22.68	RAL	26.86	RAD	6640.6	VEL	11.627	PTH	6.67	VHP	3.519	DPA	1.94	RAP	47.88	ECC	1.2491

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 57 47	3532.01	-46.69	131.08	260.19	100.44	11 56 39	2532.0	-37.37	100.80
60.00	11 9 10	3501.69	-40.14	129.48	261.32	93.89	12 7 31	2501.7	-34.22	100.08
70.00	11 27 29	3447.72	-34.13	125.27	261.48	88.51	12 24 57	2447.7	-31.17	96.94
80.00	12 1 5	3342.33	-29.40	116.95	261.14	84.55	12 56 47	2342.3	-28.68	89.55
90.00	13 5 34	3134.11	-27.46	101.42	260.90	82.95	13 57 48	2134.1	-27.64	74.41
100.00	14 43 57	2816.80	-29.40	78.32	261.14	84.55	15 30 54	1816.8	-28.68	50.92
110.00	16 26 55	2494.54	-34.13	54.19	261.48	88.51	17 8 30	1494.5	-31.17	25.86

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4147	TRA	-.7280	TC3	1.1781	BAU	.3566	SGT	1601.1	SGR	1114.8	SG3	951.6	ST	35.2	SR	11.6	SS	51.4
RDE	-.1356	RRA	.2529	RC3	-1.3107	FAU	.23050	RRT	-.7182	RRF	.8731	RTF	-.[illegible]73	CRT	.4759	CRS	.7114	CST	.9497
FDE	2.2409	FRA	1.4235	FC	-13.1857	BSP	3056	SGB	1951.0	R23	-.2452	R13	.8730	LSA	62.1	MSA	12.6	SSA	2.5
BDE	.4363	BRA	.7707	BC3	1.7623	FSP	1527	SG1	1829.0	SG2	679.1	THA	148.63	EL1	35.7	EL2	10.2	ALF	9.87

LAUNCH DATE AUG 1 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 422.337 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.130	GAL	.28	AZL	88.68	HCA	132.51	SMA	204.02	ECC	.25579	INC	1.3217	V1	29.342
RP	231.77	LAP	.97	LOP	81.12	VP	22.243	GAP	12.63	AZP	90.89	TAL	1.38	TAP	133.89	RCA	151.83	APO	256.20	V2	23.728
RC	158.336	GL	11.37	GP	-15.74	ZAL	84.35	ZAP	141.22	ETS	202.46	ZAE	162.35	ETE	281.80	ZAC	67.36	ETC	283.20	LVI	-1.07

PLANETOCENTRIC CONIC

C3	15.014	VHL	3.875	DLA	23.11	RAL	26.42	RAD	6640.5	VEL	11.622	PTH	6.66	VHP	3.442	DPA	1.33	RAP	47.82	ECC	1.2471

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 54 4	3539.43	-46.78	131.77	259.98	99.91	11 53 3	2539.4	-37.63	101.31
60.00	11 4 42	3511.08	-40.19	130.28	261.04	93.35	12 3 14	2511.1	-34.47	100.75
70.00	11 21 59	3460.20	-34.10	126.25	261.12	87.94	12 19 39	2460.2	-31.38	97.85
80.00	11 54 12	3359.13	-29.29	118.19	260.72	83.91	12 50 11	2359.1	-28.85	90.77
90.00	12 57 50	3153.68	-27.29	102.82	260.45	82.27	13 50 23	2153.7	-27.78	75.83
100.00	14 37 4	2833.60	-29.29	79.56	260.72	83.91	15 24 18	1833.6	-28.85	52.14
110.00	16 21 25	2507.02	-34.10	55.17	261.12	87.94	17 3 12	1507.0	-31.38	26.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4153	TRA	-.7192	TC3	1.1411	BAU	.3617	SGT	1579.9	SGR	1168.0	SG3	994.1	ST	35.3	SR	10.5	SS	53.6
RDE	-.1132	RRA	.2553	RC3	-1.3944	FAU	.23955	RRT	-.7193	RRF	.8877	RTF	-.7872	CRT	.3991	CRS	.6513	CST	.9483
FDE	2.3827	FRA	1.4410	FC	-13.8134	BSP	3115	SGB	1964.8	R23	-.2571	R13	.8762	LSA	63.8	MSA	12.5	SSA	2.5
BDE	.4305	BRA	.7632	BC3	1.8018	FSP	1609	SG1	1836.6	SG2	698.0	THA	146.55	EL1	35.6	EL2	9.6	ALF	7.31

LAUNCH DATE AUG 1 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 426.065 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 33.108 GAL .30 AZL 88.62 HCA 135.51 SMA 203.57 ECC .25416 INC 1.3815 V1 29.342
RP 232.14 LAP 1.00 LOP 82.13 VP 22.169 GAP 12.36 AZP 90.95 TAL 1.48 TAP 135.00 RCA 151.83 APO 255.31 V2 23.689
RC 161.236 GL 11.93 GP -16.33 ZAL 84.16 ZAP 139.86 ETS 202.25 ZAE 161.95 ETE 277.60 ZAC 66.84 ETC 283.28 LVI -.59

PLANETOCENTRIC CONIC

C3 14.907 VHL 3.861 DLA 23.55 RAL 26.00 RAD 6640.5 VEL 11.617 PTH 6.66 VHP 3.369 DPA .69 RAP 47.75 ECC 1.2453

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 50 17	3547.47	-46.87	132.53	259.82	99.34	11 49 24	2547.5	-37.92	101.87
60.00	11 0 8	3521.23	-40.22	131.14	260.79	92.76	11 58 49	2521.2	-34.73	101.49
70.00	11 16 16	3473.69	-34.06	127.30	260.80	87.32	12 14 9	2473.7	-31.60	98.84
80.00	11 46 57	3377.44	-29.15	119.53	260.32	83.21	12 43 14	2377.4	-29.01	92.11
90.00	12 49 35	3175.18	-27.08	104.36	260.01	81.52	13 42 30	2175.2	-27.91	77.38
100.00	14 29 49	2851.91	-29.15	80.90	260.32	83.21	15 17 20	1851.9	-29.01	53.48
110.00	16 15 42	2520.51	-34.06	56.22	260.80	87.32	16 57 42	1520.5	-31.60	27.76

DIFFERENTIAL CORRECTIONS

TDE -.4170 TRA -.7050 TC3 1.1090 BAU .3693
RDE -.0878 RRA .2561 RC3-1.4843 FAU .24916
FDE 2.5503 FRA 1.4407 FC-14.4697 BSP 3152
BDE .4262 BRA .7501 BC3 1.8529 FSP 1690

MID-COURSE EXECUTION ACCURACY

SGT 1555.3 SGR 1225.8 SG3 1039.0
RRT -.7207 RRF .9010 RTF -.7792
SGB 1980.3 R23 -.2619 R13 .8822
SG1 1846.4 SG2 715.8 THA 144.22

ORBIT DETERMINATION ACCURACY

ST 35.4 SR 9.2 SS 56.2
CRT .2864 CRS .5569 CST .9474
LSA 65.9 MSA 12.3 SSA 2.5
EL1 35.5 EL2 8.8 ALF 4.52

LAUNCH DATE AUG 1 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 429.800 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 33.088 GAL .32 AZL 88.56 HCA 134.52 SMA 203.15 ECC .25264 INC 1.4431 V1 29.342
RP 232.51 LAP 1.03 LOP 83.13 VP 22.097 GAP 12.09 AZP 91.01 TAL 1.58 TAP 136.10 RCA 151.83 APO 254.48 V2 23.650
RC 164.150 GL 12.50 GP -16.93 ZAL 83.98 ZAP 138.47 ETS 202.03 ZAE 161.43 ETE 273.45 ZAC 66.30 ETC 283.38 LVI -.10

PLANETOCENTRIC CONIC

C3 14.814 VHL 3.849 DLA 24.02 RAL 25.58 RAD 6640.4 VEL 11.613 PTH 6.65 VHP 3.300 DPA .02 RAP 47.66 ECC 1.2438

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 46 24	3556.17	-46.96	133.35	259.71	98.71	11 45 40	2556.2	-38.22	102.48
60.00	10 55 24	3532.17	-40.25	132.07	260.58	92.13	11 54 16	2532.2	-35.00	102.29
70.00	11 10 18	3488.27	-34.01	128.43	260.50	86.65	12 8 26	2488.3	-31.83	99.91
80.00	11 39 16	3397.41	-28.98	120.99	259.94	82.46	12 35 53	2397.4	-29.18	93.57
90.00	12 40 45	3198.87	-26.83	106.05	259.58	80.71	13 34 4	2198.9	-28.03	79.11
100.00	14 22 8	2871.88	-28.98	82.36	259.94	82.46	15 10 0	1871.9	-29.18	54.94
110.00	16 9 45	2535.09	-34.01	57.35	260.50	86.65	16 52 0	1535.1	-31.83	28.83

DIFFERENTIAL CORRECTIONS

TDE -.4127 TRA -.6908 TC3 1.0638 BAU .3765
RDE -.0628 RRA .2573 RC3-1.5756 FAU .25840
FDE 2.7055 FRA 1.4425 FC-15.1007 BSP 3175
BDE .4175 BRA .7372 BC3 1.9011 FSP 1770

MID-COURSE EXECUTION ACCURACY

SGT 1521.7 SGR 1286.7 SG3 1082.1
RRT -.7190 RRF .9126 RTF -.7682
SGB 1992.8 R23 -.2642 R13 .8883
SG1 1852.4 SG2 734.6 THA 141.60

ORBIT DETERMINATION ACCURACY

ST 35.1 SR 8.0 SS 58.5
CRT .1247 CRS .4168 CST .9452
LSA 67.5 MSA 12.2 SSA 2.5
EL1 35.1 EL2 8.0 ALF 1.73

LAUNCH DATE AUG 1 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 433.540 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 33.069 GAL .34 AZL 88.49 HCA 135.52 SMA 202.76 ECC .25121 INC 1.5067 V1 29.342
RP 232.89 LAP 1.06 LOP 84.13 VP 22.028 GAP 11.82 AZP 91.08 TAL 1.67 TAP 137.19 RCA 151.83 APO 253.70 V2 23.612
RC 167.073 GL 13.09 GP -17.57 ZAL 83.83 ZAP 137.05 ETS 201.81 ZAE 160.81 ETE 269.42 ZAC 65.74 ETC 283.48 LVI .41

PLANETOCENTRIC CONIC

C3 14.734 VHL 3.839 DLA 24.50 RAL 25.17 RAD 6640.4 VEL 11.610 PTH 6.65 VHP 3.234 DPA -.68 RAP 47.55 ECC 1.2425

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 42 25	3565.53	-47.05	134.23	259.63	98.04	11 41 51	2565.5	-38.55	103.14
60.00	10 50 32	3543.94	-40.28	133.07	260.41	91.46	11 49 36	2543.9	-35.29	103.15
70.00	11 4 5	3504.00	-33.94	129.66	260.23	85.93	12 2 29	2504.0	-32.07	101.08
80.00	11 31 5	3419.26	-28.77	122.58	259.57	81.65	12 28 4	2419.3	-29.34	95.17
90.00	12 31 12	3225.15	-26.53	107.91	259.16	79.83	13 24 57	2225.1	-28.14	81.02
100.00	14 13 57	2893.73	-28.77	83.95	259.57	81.65	15 2 11	1893.7	-29.34	56.54
110.00	16 3 31	2550.62	-33.94	58.58	260.23	85.93	16 46 2	1550.8	-32.07	30.00

DIFFERENTIAL CORRECTIONS

TDE -.4123 TRA -.6790 TC3 1.0261 BAU .3871
RDE -.0334 RRA .2598 RC3-1.6758 FAU .26859
FDE 2.8979 FRA 1.4556 FC-15.7811 BSP 3183
BDE .4137 BRA .7270 BC3 1.9649 FSP 1848

MID-COURSE EXECUTION ACCURACY

SGT 1496.7 SGR 1356.1 SG3 1130.5
RRT -.7180 RRF .9236 RTF -.7891
SGB 2019.7 R23 -.2619 R13 .8964
SG1 1873.7 SG2 754.0 THA 138.92

ORBIT DETERMINATION ACCURACY

ST 35.0 SR 7.1 SS 61.5
CRT -.1299 CRS .1752 CST .9440
LSA 70.0 MSA 12.1 SSA 2.4
EL1 35.0 EL2 7.1 ALF 178.42

LAUNCH DATE AUG 1 1973 FLIGHT TIME 184.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 437.288 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 33.051 GAL .35 AZL 88.43 HCA 136.52 SMA 202.40 ECC .24986 INC 1.5723 V1 29.342
RP 233.25 LAP 1.08 LOP 85.13 VP 21.960 GAP 11.55 AZP 91.14 TAL 1.75 TAP 138.27 RCA 151.83 APO 252.97 V2 23.573
RC 170.003 GL 13.70 GP -18.22 ZAL 83.69 ZAP 135.60 ETS 201.59 ZAE 160.07 ETE 265.53 ZAC 65.17 ETC 283.59 LVI .94

PLANETOCENTRIC CONIC

C3 14.667 VHL 3.830 DLA 25.00 RAL 24.76 RAD 6640.4 VEL 11.607 PTH 6.65 VHP 3.172 DPA -1.41 RAP 47.42 ECC 1.2414

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 38 21	3575.58	-47.15	135.19	259.61	97.31	11 37 56	2575.6	-38.89	103.86
60.00	10 45 29	3556.57	-40.30	134.14	260.27	90.73	11 44 45	2556.6	-35.59	104.09
70.00	10 57 33	3520.97	-33.85	130.97	259.98	85.15	11 56 14	2521.0	-32.31	102.34
80.00	11 22 20	3443.23	-28.52	124.32	259.21	80.77	12 19 43	2443.2	-29.49	96.94
90.00	12 20 46	3254.49	-26.16	109.98	258.74	78.85	13 15 1	2254.5	-28.22	83.16
100.00	14 5 12	2917.70	-28.52	85.69	259.21	80.77	14 53 49	1917.7	-29.49	58.31
110.00	15 57 0	2567.79	-33.85	59.89	259.98	85.15	16 39 47	1567.8	-32.31	31.26

DIFFERENTIAL CORRECTIONS

TDE -.4012 TRA -.6598 TC3 .9842 BAU .3987
RDE -.0060 RRA .2589 RC3-1.7792 FAU .27865
FDE 3.0587 FRA 1.4329 FC-16.4473 BSP 3166
BDE .4012 BRA .7088 BC3 2.0332 FSP 1918

MID-COURSE EXECUTION ACCURACY

SGT 1454.3 SGR 1428.3 SG3 1175.9
RRT -.7161 RRF .9331 RTF -.7487
SGB 2038.3 R23 -.2526 R13 .9056
SG1 1888.2 SG2 767.8 THA 135.72

ORBIT DETERMINATION ACCURACY

ST 34.2 SR 6.7 SS 63.7
CRT -.4055 CRS -.1039 CST .9402
LSA 71.5 MSA 12.1 SSA 2.4
EL1 34.3 EL2 6.1 ALF 175.27

LAUNCH DATE AUG 1 1973 FLIGHT TIME 186.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 441.036 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.034	GAL	.36	AZL	88.36	HCA	137.51	SMA	202.06	ECC	.24860	INC	1.6401	V1	29.342
RP	233.62	LAP	1.11	LOP	86.13	VP	21.894	GAP	11.29	AZP	91.21	TAL	1.82	TAP	139.33	RCA	151.83	APO	252.29	V2	23.536
RC	172.941	GL	14.32	GP	-18.90	ZAL	83.56	ZAP	134.14	ETS	201.35	ZAE	159.23	ETE	261.82	ZAC	64.59	ETC	283.71	LVI	1.46

PLANETOCENTRIC CONIC

C3	14.613	VHL	3.823	DLA	25.53	RAL	24.36	RAD	6640.3	VEL	11.605	PTH	6.65	VHP	3.113	DPA	-2.17	RAP	47.28	ECC	1.2405

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 34 9	3586.37	-47.23	136.22	259.63	96.52	11 33 55	2586.4	-39.25	104.63
60.00	10 40 14	3570.14	-40.30	135.30	260.17	89.94	11 39 45	2570.1	-35.91	105.10
70.00	10 50 41	3539.33	-33.74	132.40	259.76	84.32	11 49 41	2539.3	-32.55	103.72
80.00	11 12 52	3469.71	-28.22	126.23	258.86	79.81	12 10 42	2469.7	-29.63	98.89
90.00	12 9 13	3287.71	-25.70	112.31	258.30	77.78	13 4 1	2287.7	-28.27	85.59
100.00	13 55 44	2944.18	-28.22	87.60	258.86	79.81	14 44 48	1944.2	-29.63	60.26
110.00	15 50 8	2586.15	-33.74	61.31	259.76	84.32	16 33 14	1586.2	-32.55	32.64

DIFFERENTIAL CORRECTIONS

TDE	-.4005	TRA	-.6521	TC3	.9104	BAU	.4083												
RDE	.0266	RRA	.2615	RC3	-1.8813	FAU	.28782												
FDE	3.2608	FRA	1.4436	FC	-17.0514	BSP	3283												
BDE	.4014	BRA	.7026	BC3	2.0900	FSP	2022												

MID-COURSE EXECUTION ACCURACY

SGT	1420.6	SGR	1503.0	SG3	1220.6				
RRT	-.7004	RRF	.9413	RTF	-.7277				
SGB	2068.2	R23	-.2499	R13	.9126				
SG1	1907.6	SG2	798.9	THA	132.70				

ORBIT DETERMINATION ACCURACY

ST	34.1	SR	7.1	SS	66.6				
CRT	-.6881	CRS	-.4312	CST	.9384				
LSA	74.2	MSA	12.1	SSA	2.4				
EL1	34.5	EL2	5.1	ALF	171.62				

LAUNCH DATE AUG 1 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 444.791 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.018	GAL	.37	AZL	88.29	HCA	138.50	SMA	201.74	ECC	.24742	INC	1.7104	V1	29.342
RP	233.99	LAP	1.13	LOP	87.12	VP	21.830	GAP	11.03	AZP	91.28	TAL	1.89	TAP	140.39	RCA	151.83	APO	251.65	V2	23.498
RC	175.886	GL	14.96	GP	-19.60	ZAL	83.46	ZAP	132.64	ETS	201.10	ZAE	158.29	ETE	258.31	ZAC	63.98	ETC	283.83	LVI	2.03

PLANETOCENTRIC CONIC

C3	14.572	VHL	3.817	DLA	26.08	RAL	23.96	RAD	6640.3	VEL	11.603	PTH	6.64	VHP	3.058	DPA	-2.96	RAP	47.13	ECC	1.2398

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 29 49	3597.90	-47.32	137.32	259.69	95.68	11 29 47	2597.9	-39.64	105.47
60.00	10 34 47	3584.66	-40.29	136.53	260.10	89.11	11 34 32	2584.7	-36.24	106.19
70.00	10 43 27	3559.15	-33.59	133.92	259.55	83.43	11 42 46	2559.2	-32.80	105.21
80.00	11 2 34	3499.11	-27.85	128.33	258.51	78.76	12 0 53	2499.1	-29.74	101.07
90.00	11 56 11	3325.91	-25.12	114.95	257.84	76.57	12 51 37	2325.9	-28.27	88.38
100.00	13 45 26	2973.58	-27.85	89.70	258.51	78.76	14 35 0	1973.6	-29.74	62.44
110.00	15 42 53	2605.97	-33.59	62.84	259.55	83.43	16 26 19	1606.0	-32.80	34.13

DIFFERENTIAL CORRECTIONS

TDE	-.3944	TRA	-.6379	TC3	.8437	BAU	.4211												
RDE	.0612	RRA	.2617	RC3	-1.9900	FAU	.29740												
FDE	3.4694	FRA	1.4287	FC	-17.6689	BSP	3320												
BDE	.3991	BRA	.6895	BC3	2.1615	FSP	2101												

MID-COURSE EXECUTION ACCURACY

SGT	1379.0	SGR	1583.7	SG3	1266.2				
RRT	-.6865	RRF	.9486	RTF	-.7084				
SGB	2099.9	R23	-.2375	R13	.9218				
SG1	1932.5	SG2	821.7	THA	129.28				

ORBIT DETERMINATION ACCURACY

ST	33.7	SR	8.3	SS	69.6				
CRT	-.8674	CRS	-.6731	CST	.9354				
LSA	76.8	MSA	12.1	SSA	2.3				
EL1	34.4	EL2	4.1	ALF	167.71				

LAUNCH DATE AUG 1 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 448.550 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	33.004	GAL	.38	AZL	88.22	HCA	139.49	SMA	201.44	ECC	.24631	INC	1.7833	V1	29.342
RP	234.35	LAP	1.16	LOP	88.11	VP	21.767	GAP	10.77	AZP	91.36	TAL	1.94	TAP	141.43	RCA	151.82	APO	251.06	V2	23.461
RC	178.836	GL	15.62	GP	-20.33	ZAL	83.37	ZAP	131.13	ETS	200.83	ZAE	157.24	ETE	255.00	ZAC	63.36	ETC	283.97	LVI	2.61

PLANETOCENTRIC CONIC

C3	14.543	VHL	3.814	DLA	26.65	RAL	23.57	RAD	6640.3	VEL	11.602	PTH	6.64	VHP	3.006	DPA	-3.79	RAP	46.96	ECC	1.2393

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 25 21	3610.22	-47.39	138.50	259.81	94.77	11 25 31	2610.2	-40.04	106.38
60.00	10 29 6	3600.22	-40.27	137.86	260.06	88.21	11 29 6	2600.2	-36.58	107.37
70.00	10 35 45	3580.62	-33.41	135.57	259.36	82.47	11 35 26	2580.6	-33.05	106.84
80.00	10 51 11	3532.12	-27.39	130.68	258.14	77.61	11 50 4	2532.1	-29.83	103.52
90.00	11 41 1	3371.16	-24.37	118.05	257.33	75.20	12 37 12	2371.2	-28.19	91.69
100.00	13 34 3	3006.59	-27.39	92.05	258.14	77.61	14 24 10	2006.6	-29.83	64.89
110.00	15 35 11	2627.44	-33.41	64.49	259.36	82.47	16 18 59	1627.4	-33.05	35.76

DIFFERENTIAL CORRECTIONS

TDE	-.3846	TRA	-.6253	TC3	.7694	BAU	.4353												
RDE	.0965	RRA	.2629	RC3	-2.1024	FAU	.30684												
FDE	3.6701	FRA	1.4216	FC	-18.2659	BSP	3373												
BDE	.3965	BRA	.6784	BC3	2.2387	FSP	2181												

MID-COURSE EXECUTION ACCURACY

SGT	1335.4	SGR	1669.6	SG3	1310.9				
RRT	-.6680	RRF	.9551	RTF	-.6947				
SGB	2137.9	R23	-.2219	R13	.9311				
SG1	1964.0	SG2	844.7	THA	125.68				

ORBIT DETERMINATION ACCURACY

ST	32.9	SR	10.1	SS	72.4				
CRT	-.9493	CRS	-.8110	CST	.9313				
LSA	79.2	MSA	12.1	SSA	2.2				
EL1	34.3	EL2	3.1	ALF	163.61				

LAUNCH DATE AUG 1 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 452.313 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.990	GAL	.39	AZL	88.14	HCA	140.47	SMA	201.16	ECC	.24527	INC	1.8589	V1	29.342
RP	234.71	LAP	1.18	LOP	89.09	VP	21.706	GAP	10.51	AZP	91.43	TAL	1.99	TAP	142.46	RCA	151.82	APO	250.50	V2	23.424
RC	181.791	GL	16.31	GP	-21.08	ZAL	83.30	ZAP	129.59	ETS	200.55	ZAE	156.11	ETE	251.91	ZAC	62.72	ETC	284.11	LVI	3.20

PLANETOCENTRIC CONIC

C3	14.527	VHL	3.811	DLA	27.25	RAL	23.18	RAD	6640.3	VEL	11.601	PTH	6.64	VHP	2.958	DPA	-4.64	RAP	46.78	ECC	1.2391

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 20 43	3623.35	-47.46	139.76	259.96	93.80	11 21 6	2623.4	-40.46	107.36
60.00	10 23 9	3616.87	-40.22	139.27	260.05	87.25	11 23 26	2616.9	-36.92	108.65
70.00	10 27 32	3603.91	-33.19	137.36	259.19	81.44	11 27 36	2603.9	-33.28	108.61
80.00	10 38 25	3569.77	-26.81	133.33	257.74	76.34	11 37 54	2569.8	-29.86	106.32
90.00	11 22 22	3427.71	-23.34	121.87	256.71	73.56	12 19 29	2427.7	-27.96	95.81
100.00	13 21 16	3044.24	-26.81	94.69	257.74	76.34	14 12 1	2044.2	-29.86	67.69
110.00	15 26 59	2650.73	-33.19	66.27	259.19	81.44	16 11 9	1650.7	-33.28	37.53

DIFFERENTIAL CORRECTIONS

TDE	-.3744	TRA	-.6098	TC3	.6901	BAU	.4515												
RDE	.1354	RRA	.2613	RC3	-2.2198	FAU	.31633												
FDE	3.8880	FRA	1.3871	FC	-18.8519	BSP	3432												
BDE	.3982	BRA	.6634	BC3	2.3246	FSP	2256												

MID-COURSE EXECUTION ACCURACY

SGT	1287.1	SGR	1760.6	SG3	1355.6				
RRT	-.6444	RRF	.9608	RTF	-.6570				
SGB	2181.0	R23	-.2015	R13	.9408				
SG1	2001.8	SG2	865.7	THA	121.85				

ORBIT DETERMINATION ACCURACY

ST	32.1	SR	12.4	SS	75.4				
CRT	-.9808	CRS	-.8908	CST	.9267				
LSA	82.0	MSA	12.1	SSA	2.1				
EL1	34.4	EL2	2.3	ALF	159.16				

LAUNCH DATE AUG 1 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 456.079 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.977 GAL .40 AZL 88.06 HCA 141.45 SMA 200.90 ECC .24430 INC 1.9375 V1 29.342
RP 235.06 LAP 1.21 LOP 90.08 VP 21.647 GAP 10.25 AZP 91.52 TAL 2.03 TAP 143.48 RCA 151.82 APO 249.99 V2 23.587
RC 184.750 GL 17.01 GP -21.85 ZAL 83.25 ZAP 128.02 ETS 200.25 ZAE 154.88 ETE 249.01 ZAC 62.06 ETC 284.26 LVI 3.81

PLANETOCENTRIC CONIC

C3 14.523 VHL 3.811 DLA 27.87 RAL 22.80 RAD 6640.3 VEL 11.601 PTH 6.64 VHP 2.913 DPA -5.53 RAP 46.58 ECC 1.2390

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 15 54	3637.36	-47.52	141.11	260.16	92.76	11 16 31	2637.4	-40.89	108.42
60.00	10 16 53	3634.71	-40.15	140.78	260.07	86.22	11 17 28	2634.7	-37.28	110.03
70.00	10 18 44	3629.29	-32.92	139.28	259.01	80.33	11 19 13	2629.3	-33.51	110.56
80.00	10 23 40	3613.77	-26.06	136.38	257.28	74.89	11 23 54	2613.8	-29.81	109.59
90.00	10 56 9	3508.72	-21.67	127.22	255.83	71.37	11 54 37	2508.7	-27.40	101.67
100.00	13 6 32	3088.24	-26.06	97.75	257.28	74.89	13 58 0	2088.2	-29.81	70.95
110.00	15 18 10	2676.10	-32.92	68.20	259.01	80.33	16 2 46	1676.1	-33.51	39.48

DIFFERENTIAL CORRECTIONS

TDE -.3611 TRA -.5976 TC3 .5976 BAU .4682
RDE .1762 RRA .2617 RC3-2.3360 FAU .32488
FDE 4.1058 FRA 1.3693 FC-19.3659 BSP 3534
BDE .4018 BRA .6524 BC3 2.4112 FSP 2347

MID-COURSE EXECUTION ACCURACY

SGT 1239.0 SGR 1854.3 SG3 1396.9
RRT -.6125 RRF .9657 RTF -.6211
SGB 2230.1 R23 -.1803 R13 .9495
SG1 2045.8 SG2 887.7 THA 117.96

ORBIT DETERMINATION ACCURACY

ST 31.1 SR 15.1 SS 78.4
CRT -.9868 CRS -.9333 CST .9205
LSA 84.8 MSA 12.2 SSA 2.1
EL1 34.5 EL2 2.2 ALF 154.36

LAUNCH DATE AUG 1 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 459.848 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.965 GAL .40 AZL 87.98 HCA 142.43 SMA 200.66 ECC .24340 INC 2.0193 V1 29.342
RP 235.42 LAP 1.23 LOP 91.06 VP 21.589 GAP 10.00 AZP 91.60 TAL 2.06 TAP 144.49 RCA 151.82 APO 249.51 V2 23.351
RC 187.714 GL 17.74 GP -22.65 ZAL 83.21 ZAP 126.44 ETS 199.94 ZAE 153.57 ETE 246.32 ZAC 61.38 ETC 284.42 LVI 4.45

PLANETOCENTRIC CONIC

C3 14.533 VHL 3.812 DLA 28.51 RAL 22.41 RAD 6640.3 VEL 11.601 PTH 6.64 VHP 2.872 DPA -6.45 RAP 46.38 ECC 1.2392

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 10 52	3652.28	-47.55	142.55	260.41	91.65	11 11 45	2652.3	-41.34	109.57
60.00	10 10 18	3653.82	-40.06	142.40	260.12	85.13	11 11 11	2653.8	-37.64	111.53
70.00	10 9 12	3657.06	-32.58	141.38	258.83	79.13	11 10 9	2657.1	-33.72	112.70
80.00	10 5 53	3667.48	-25.06	140.06	256.72	73.21	11 7 1	2667.5	-29.63	113.57
86.19	9 40 19	3750.03	-18.56	143.65	254.26	67.96	10 42 49	2750.0	-26.03	119.06
100.00	12 48 45	3141.95	-25.06	101.42	256.72	73.21	13 41 7	2141.9	-29.63	74.94
110.00	15 8 38	2703.88	-32.58	70.30	258.83	79.13	15 53 42	1703.9	-33.72	41.62

DIFFERENTIAL CORRECTIONS

TDE -.3462 TRA -.5827 TC3 .5037 BAU .4874
RDE .2211 RRA .2598 RC3-2.4572 FAU .33342
FDE 4.3403 FRA 1.3303 FC-19.8614 BSP 3594
BDE .4108 BRA .6380 BC3 2.5083 FSP 2406

MID-COURSE EXECUTION ACCURACY

SGT 1188.1 SGR 1954.0 SG3 1438.1
RRT -.5752 RRF .9701 RTF -.5804
SGB 2286.8 R23 -.1555 R13 .9579
SG1 2100.5 SG2 904.1 THA 113.99

ORBIT DETERMINATION ACCURACY

ST 30.0 SR 18.1 SS 81.6
CRT -.9810 CRS -.9586 CST .9132
LSA 87.9 MSA 12.2 SSA 2.0
EL1 34.9 EL2 3.0 ALF 149.11

LAUNCH DATE AUG 1 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 463.620 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.954 GAL .41 AZL 87.90 HCA 143.41 SMA 200.44 ECC .24256 INC 2.1045 V1 29.342
RP 235.77 LAP 1.25 LOP 92.03 VP 21.533 GAP 9.75 AZP 91.69 TAL 2.08 TAP 145.49 RCA 151.82 APO 249.06 V2 23.315
RC 190.680 GL 18.49 GP -23.48 ZAL 83.19 ZAP 124.84 ETS 199.60 ZAE 152.19 ETE 243.81 ZAC 60.69 ETC 284.58 LVI 5.10

PLANETOCENTRIC CONIC

C3 14.557 VHL 3.815 DLA 29.19 RAL 22.02 RAD 6640.3 VEL 11.602 PTH 6.64 VHP 2.834 DPA -7.40 RAP 46.16 ECC 1.2396

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 5 37	3668.17	-47.57	144.09	260.69	90.47	11 6 45	2668.2	-41.81	110.80
60.00	10 3 19	3674.32	-39.92	144.13	260.18	83.97	11 4 33	2674.3	-38.00	113.15
70.00	9 58 48	3687.65	-32.16	143.67	258.64	77.84	11 0 15	2687.7	-33.91	115.07
80.00	9 42 17	3739.64	-23.55	144.89	255.94	71.10	10 44 37	2739.6	-29.19	116.88
82.46	9 8 24	3848.39	-18.97	151.06	254.08	67.39	10 12 33	2848.4	-26.63	126.44
100.00	12 25 9	3214.11	-23.55	106.25	255.94	71.10	13 18 43	2214.1	-29.19	80.25
110.00	14 58 14	2734.47	-32.16	72.59	258.64	77.84	15 43 48	1734.5	-33.91	43.99

DIFFERENTIAL CORRECTIONS

TDE -.3247 TRA -.5658 TC3 .4128 BAU .5097
RDE .2663 RRA .2561 RC3-2.5862 FAU .34229
FDE 4.5567 FRA 1.2761 FC-20.3567 BSP 3671
BDE .4200 BRA .6210 BC3 2.6190 FSP 2466

MID-COURSE EXECUTION ACCURACY

SGT 1133.2 SGR 2061.2 SG3 1478.8
RRT -.5332 RRF .9739 RTF -.5545
SGB 2352.2 R23 -.1296 R13 .9654
SG1 2168.5 SG2 911.3 THA 110.02

ORBIT DETERMINATION ACCURACY

ST 28.4 SR 21.3 SS 84.4
CRT -.9685 CRS -.9729 CST .9022
LSA 90.7 MSA 12.3 SSA 1.9
EL1 35.2 EL2 4.3 ALF 143.45

LAUNCH DATE AUG 1 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 467.392 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.944 GAL .41 AZL 87.81 HCA 144.38 SMA 200.23 ECC .24178 INC 2.1934 V1 29.342
RP 236.12 LAP 1.28 LOP 93.01 VP 21.479 GAP 9.50 AZP 91.78 TAL 2.09 TAP 146.47 RCA 151.82 APO 248.65 V2 23.279
RC 193.649 GL 19.27 GP -24.33 ZAL 83.18 ZAP 123.23 ETS 199.24 ZAE 150.73 ETE 241.48 ZAC 59.98 ETC 284.76 LVI 5.77

PLANETOCENTRIC CONIC

C3 14.595 VHL 3.820 DLA 29.89 RAL 21.64 RAD 6640.3 VEL 11.604 PTH 6.65 VHP 2.801 DPA -8.38 RAP 45.94 ECC 1.2402

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 0 7	3685.12	-47.57	145.73	261.02	89.21	11 1 32	2685.1	-42.29	112.14
60.00	9 55 54	3696.39	-39.75	145.98	260.26	82.72	10 57 30	2696.4	-38.37	114.91
70.00	9 47 18	3721.75	-31.65	146.19	258.43	76.43	10 49 20	2721.8	-34.05	117.72
79.89	8 46 51	3913.11	-19.38	156.04	253.92	66.79	9 52 4	2913.1	-27.25	131.39
79.89	8 46 51	3913.11	-19.38	156.04	253.92	66.79	9 52 4	2913.1	-27.25	131.39
79.89	8 46 51	3913.11	-19.38	156.04	253.92	66.79	9 52 4	2913.1	-27.25	131.39
110.00	14 46 44	2768.57	-31.65	75.11	258.43	76.43	15 32 53	1768.6	-34.05	46.64

DIFFERENTIAL CORRECTIONS

TDE -.3120 TRA -.5612 TC3 .2884 BAU .5315
RDE .3197 RRA .2575 RC3-2.7085 FAU .34942
FDE 4.8181 FRA 1.2637 FC-20.7264 BSP 3840
BDE .4467 BRA .6175 BC3 2.7238 FSP 2548

MID-COURSE EXECUTION ACCURACY

SGT 1100.0 SGR 2170.5 SG3 1515.8
RRT -.4661 RRF .9772 RTF -.4660
SGB 2433.3 R23 -.1066 R13 .9715
SG1 2243.8 SG2 941.4 THA 106.22

ORBIT DETERMINATION ACCURACY

ST 27.6 SR 25.1 SS 88.0
CRT -.9537 CRS -.9821 CST .8920
LSA 94.7 MSA 12.4 SSA 1.8
EL1 36.8 EL2 5.6 ALF 137.82

LAUNCH DATE AUG 1 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 471.168 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.934	GAL	.41	AZL	87.71	HCA	145.35	SMA	200.04	ECC	.24105	INC	2.2885	V1	29.342
RP	236.46	LAP	1.30	LOP	93.98	VP	21.426	GAP	9.25	AZP	91.88	TAL	2.10	TAP	147.45	RCA	151.82	APO	248.26	V2	23.244
RC	196.619	GL	20.08	GP	-25.20	ZAL	83.19	ZAP	121.60	ETS	198.85	ZAE	149.21	ETE	239.30	ZAC	59.25	ETC	284.95	LVI	6.46

PLANETOCENTRIC CONIC

C3	14.648	VHL	3.827	DLA	30.63	RAL	21.25	RAD	6640.4	VEL	11.606	PTH	6.65	VHP	2.771	DPA	-9.39	RAP	45.71	ECC	1.2411

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 54 19	3703.17	-47.54	147.47	261.39	87.86	10 56 2	2703.2	-42.79	113.60
60.00	9 47 58	3720.13	-39.53	147.96	260.35	81.40	10 49 58	2720.1	-38.72	116.83
70.00	9 34 24	3760.17	-31.00	149.00	258.16	74.88	10 37 5	2760.2	-34.14	120.72
77.73	8 29 12	3965.09	-19.81	160.12	253.79	66.15	9 35 17	2965.1	-27.90	135.43
77.73	8 29 12	3965.09	-19.81	160.12	253.79	66.15	9 35 17	2965.1	-27.90	135.43
77.73	8 29 12	3965.09	-19.81	160.12	253.79	66.15	9 35 17	2965.1	-27.90	135.43
110.00	14 33 51	2806.99	-31.00	77.92	258.16	74.88	15 20 38	1807.0	-34.14	49.63

DIFFERENTIAL CORRECTIONS

TDE	-.2887	TRA	-.5497	TC3	.1719	BAU	.5561				
RDE	.3730	RRA	.2552	RC3	-2.8344	FAU	.35626				
FDE	5.0517	FRA	1.2205	FC	-21.0564	BSP	4022				
BDE	.4716	BRA	.6061	BC3	2.8396	FSP	2634				

MID-COURSE EXECUTION ACCURACY

SGT	1057.7	SGR	2283.8	SG3	1549.1						
RRT	-.3939	RRF	.9801	RTF	-.3913						
SGB	2516.9	R23	-.0826	R13	.9766						
SG1	2329.4	SG2	953.2	THA	102.46						

ORBIT DETERMINATION ACCURACY

ST	25.9	SR	28.9	SS	91.0
CRT	-.9336	CRS	-.9876	CST	.8753
LSA	98.1	MSA	12.5	SSA	1.7
EL1	38.2	EL2	7.0	ALF	131.70

LAUNCH DATE AUG 1 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 474.945 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.925	GAL	.41	AZL	87.62	HCA	146.32	SMA	199.86	ECC	.24038	INC	2.3839	V1	29.342
RP	236.81	LAP	1.32	LOP	94.95	VP	21.374	GAP	9.00	AZP	91.98	TAL	2.10	TAP	148.41	RCA	151.82	APO	247.91	V2	23.209
RC	199.589	GL	20.92	GP	-26.10	ZAL	83.22	ZAP	119.96	ETS	198.43	ZAE	147.63	ETE	237.27	ZAC	58.50	ETC	285.14	LVI	7.18

PLANETOCENTRIC CONIC

C3	14.716	VHL	3.836	DLA	31.39	RAL	20.85	RAD	6640.4	VEL	11.609	PTH	6.65	VHP	2.744	DPA	-10.43	RAP	45.48	ECC	1.2422

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 48 12	3722.41	-47.47	149.33	261.79	86.43	10 50 14	2722.4	-43.29	115.17
60.00	9 39 26	3745.79	-39.24	150.08	260.45	79.98	10 41 52	2745.8	-39.07	118.92
70.00	9 19 36	3804.42	-30.17	152.18	257.81	73.17	10 23 1	2804.4	-34.14	124.17
75.78	8 13 42	4010.04	-20.24	163.71	253.68	65.48	9 20 32	3010.0	-28.56	139.00
75.78	8 13 42	4010.04	-20.24	163.71	253.68	65.48	9 20 32	3010.0	-28.56	139.00
75.78	8 13 42	4010.04	-20.24	163.71	253.68	65.48	9 20 32	3010.0	-28.56	139.00
110.00	14 19 2	2851.24	-30.17	81.09	257.81	73.17	15 6 34	1851.2	-34.14	53.09

DIFFERENTIAL CORRECTIONS

TDE	-.2649	TRA	-.5386	TC3	.0470	BAU	.5824				
RDE	.4322	RRA	.2512	RC3	-2.9598	FAU	.36228				
FDE	5.3043	FRA	1.1635	FC	-21.3122	BSP	4160				
BDE	.5069	BRA	.5943	BC3	2.9602	FSP	2678				

MID-COURSE EXECUTION ACCURACY

SGT	1022.6	SGR	2401.5	SG3	1579.7						
RRT	-.3060	RRF	.9826	RTF	-.3018						
SGB	2610.1	R23	-.0594	R13	.9808						
SG1	2425.6	SG2	963.8	THA	98.83						

ORBIT DETERMINATION ACCURACY

ST	24.3	SR	33.1	SS	94.4
CRT	-.9089	CRS	-.9915	CST	.8544
LSA	102.1	MSA	12.7	SSA	1.6
EL1	40.2	EL2	8.3	ALF	125.47

LAUNCH DATE AUG 1 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 478.724 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.917	GAL	.40	AZL	87.51	HCA	147.28	SMA	199.70	ECC	.23976	INC	2.4860	V1	29.342
RP	237.14	LAP	1.34	LOP	95.91	VP	21.324	GAP	8.75	AZP	92.09	TAL	2.09	TAP	149.37	RCA	151.82	APO	247.58	V2	23.174
RC	202.557	GL	21.78	GP	-27.03	ZAL	83.27	ZAP	118.31	ETS	197.99	ZAE	146.00	ETE	235.37	ZAC	57.74	ETC	285.35	LVI	7.91

PLANETOCENTRIC CONIC

C3	14.802	VHL	3.847	DLA	32.19	RAL	20.45	RAD	6640.4	VEL	11.613	PTH	6.65	VHP	2.722	DPA	-11.50	RAP	45.25	ECC	1.2436

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 41 42	3742.96	-47.37	151.31	262.23	84.92	10 44 5	2743.0	-43.80	116.88
60.00	9 30 13	3773.61	-38.89	152.36	260.53	78.47	10 33 7	2773.6	-39.40	121.21
70.00	9 1 59	3857.17	-29.07	155.89	257.33	71.23	10 6 16	2857.2	-34.00	128.28
73.95	7 59 39	4050.26	-20.69	166.98	253.60	64.78	9 7 9	3050.3	-29.25	142.24
73.95	7 59 39	4050.26	-20.69	166.98	253.60	64.78	9 7 9	3050.3	-29.25	142.24
73.95	7 59 39	4050.26	-20.69	166.98	253.60	64.78	9 7 9	3050.3	-29.25	142.24
110.00	14 1 25	2903.99	-29.07	84.81	257.33	71.23	14 49 49	1904.0	-34.00	57.20

DIFFERENTIAL CORRECTIONS

TDE	-.2362	TRA	-.5292	TC3	-.0810	BAU	.6108				
RDE	.4944	RRA	.2482	RC3	-3.0854	FAU	.36754				
FDE	5.5480	FRA	1.1149	FC	-21.4966	BSP	4345				
BDE	.5479	BRA	.5845	BC3	3.0864	FSP	2734				

MID-COURSE EXECUTION ACCURACY

SGT	997.4	SGR	2523.7	SG3	1606.5						
RRT	-.2057	RRF	.9848	RTF	-.2996						
SGB	2713.7	R23	-.0390	R13	.9840						
SG1	2533.5	SG2	972.3	THA	95.45						

ORBIT DETERMINATION ACCURACY

ST	22.5	SR	37.6	SS	97.6
CRT	-.8755	CRS	-.9939	CST	.8235
LSA	106.2	MSA	12.8	SSA	1.6
EL1	42.7	EL2	9.5	ALF	119.23

LAUNCH DATE AUG 1 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 482.504 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.909	GAL	.40	AZL	87.41	HCA	148.24	SMA	199.55	ECC	.23918	INC	2.5933	V1	29.342
RP	237.48	LAP	1.36	LOP	96.87	VP	21.275	GAP	8.50	AZP	92.21	TAL	2.07	TAP	150.31	RCA	151.82	APO	247.28	V2	23.140
RC	205.523	GL	22.69	GP	-27.97	ZAL	83.33	ZAP	116.66	ETS	197.52	ZAE	144.32	ETE	233.59	ZAC	56.95	ETC	285.56	LVI	8.68

PLANETOCENTRIC CONIC

C3	14.908	VHL	3.861	DLA	33.02	RAL	20.03	RAD	6640.5	VEL	11.617	PTH	6.66	VHP	2.703	DPA	-12.60	RAP	45.02	ECC	1.2453

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 34 47	3764.92	-47.22	153.41	262.68	83.30	10 37 32	2764.9	-44.32	118.74
60.00	9 20 10	3803.95	-38.45	154.82	260.59	76.86	10 23 34	2803.9	-39.70	123.73
70.00	8 39 27	3924.59	-27.50	160.51	256.58	68.90	9 44 52	2924.6	-33.60	133.51
72.20	7 46 37	4087.15	-21.14	170.04	253.54	64.02	8 54 44	3087.1	-29.97	145.28
72.20	7 46 37	4087.15	-21.14	170.04	253.54	64.02	8 54 44	3087.1	-29.97	145.28
72.20	7 46 37	4087.15	-21.14	170.04	253.54	64.02	8 54 44	3087.1	-29.97	145.28
110.00	13 38 54	2971.41	-27.50	89.43	256.58	68.90	14 28 25	1971.4	-33.60	62.42

DIFFERENTIAL CORRECTIONS

TDE	-.2037	TRA	-.5194	TC3	-.2151	BAU	.6406				
RDE	.5607	RRA	.2431	RC3	-3.2075	FAU	.37161				
FDE	5.7883	FRA	1.0516	FC	-21.5838	BSP	4530				
BDE	.5965	BRA	.5735	BC3	3.2147	FSP	2772				

MID-COURSE EXECUTION ACCURACY

SGT	981.9	SGR	2647.9	SG3	1627.9						
RRT	-.0907	RRF	.9866	RTF	-.0832						
SGB	2824.1	R23	-.0204	R13	.9864						
SG1	2649.6	SG2	977.2	THA	92.23						

ORBIT DETERMINATION ACCURACY

ST	20.5	SR	42.3	SS	100.7
CRT	-.8269	CRS	-.9956	CST	.7788
LSA	110.3	MSA	12.9	SSA	1.5
EL1	45.7	EL2	10.6	ALF	113.17

LAUNCH DATE AUG 1 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC DISTANCE 486.286 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.902 GAL .39 AZL 87.29 HCA 149.20 SMA 199.41 ECC .23865 INC 2.7063 V1 29.342
RP 237.81 LAP 1.39 LOP 97.83 VP 21.228 GAP 8.26 AZP 92.33 TAL 2.05 TAP 151.24 RCA 151.82 APO 247.00 V2 23.106
RC 208.485 GL 23.62 GP -28.95 ZAL 83.40 ZAP 115.00 ETS 197.02 ZAE 142.60 ETE 231.91 ZAC 56.15 ETC 285.79 LVI 9.46

PLANETOCENTRIC CONIC

C3 15.029 VHL 3.877 DLA 33.89 RAL 19.60 RAD 6640.5 VEL 11.622 PTH 6.66 VHP 2.688 DPA -13.72 RAP 44.79 ECC 1.2473

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 27 22	3788.42	-47.01	155.64	263.16	81.60	10 30 31	2788.4	-44.83	120.77
60.00	9 9 6	3837.23	-37.90	157.48	260.62	75.13	10 13 3	2837.2	-39.96	126.53
70.00	8 3 34	4032.19	-24.67	167.58	255.11	65.59	9 10 46	3032.2	-32.48	141.69
70.50	7 34 19	4121.51	-21.60	172.94	253.51	63.23	8 43 1	3121.5	-30.70	148.16
70.50	7 34 19	4121.51	-21.60	172.94	253.51	63.23	8 43 1	3121.5	-30.70	148.16
70.50	7 34 19	4121.51	-21.60	172.94	253.51	63.23	8 43 1	3121.5	-30.70	148.16
110.00	13 3 0	3079.01	-24.67	96.50	255.11	65.59	13 54 19	2079.0	-32.48	70.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1655 TRA -.5070 TC3 -.3439 BAU .6739 SGT 972.5 SGR 2780.9 SG3 1647.8 ST 18.2 SR 47.2 SS 103.6
RDE .6306 RRA .2338 RC3-3.3363 FAU .37577 RRT .0318 RRF .9883 RTF .0407 CRT -.7583 CRS -.9968 CST .7093
FDE 6.0186 FRA .9606 FC-21.6468 BSP 4716 SGB 2946.0 R23 -.0049 R13 .9884 LSA 114.6 MSA 13.0 SSA 1.4
BDE .6519 BRA .5583 BC3 3.3540 FSP 2793 SG1 2781.1 SG2 971.9 THA 89.27 EL1 49.3 EL2 11.4 ALF 107.30

LAUNCH DATE AUG 1 1973 FLIGHT TIME 212.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC DISTANCE 490.067 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.896 GAL .39 AZL 87.17 HCA 150.15 SMA 199.29 ECC .23817 INC 2.8254 V1 29.342
RP 238.14 LAP 1.41 LOP 98.79 VP 21.181 GAP 8.02 AZP 92.45 TAL 2.01 TAP 152.17 RCA 151.82 APO 246.75 V2 23.073
RC 211.443 GL 24.60 GP -29.95 ZAL 83.49 ZAP 113.35 ETS 196.49 ZAE 140.84 ETE 230.33 ZAC 55.33 ETC 286.03 LVI 10.27

PLANETOCENTRIC CONIC

C3 15.173 VHL 3.895 DLA 34.79 RAL 19.16 RAD 6640.6 VEL 11.629 PTH 6.67 VHP 2.678 DPA -14.87 RAP 44.57 ECC 1.2497

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 19 24	3813.67	-46.73	158.02	263.64	79.79	10 22 58	2813.7	-45.34	122.99
60.00	8 56 47	3874.16	-37.21	160.37	260.58	73.27	10 1 21	2874.2	-40.17	129.65
68.83	7 22 38	4153.85	-22.06	175.73	253.50	62.39	8 31 52	3153.9	-31.46	150.94
68.83	7 22 38	4153.85	-22.06	175.73	253.50	62.39	8 31 52	3153.9	-31.46	150.94
68.83	7 22 38	4153.85	-22.06	175.73	253.50	62.39	8 31 52	3153.9	-31.46	150.94
68.83	7 22 38	4153.85	-22.06	175.73	253.50	62.39	8 31 52	3153.9	-31.46	150.94
68.83	7 22 38	4153.85	-22.06	175.73	253.50	62.39	8 31 52	3153.9	-31.46	150.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1294 TRA -.5031 TC3 -.4941 BAU .7070 SGT 998.1 SGR 2912.2 SG3 1659.9 ST 16.5 SR 52.7 SS 107.0
RDE .7092 RRA .2285 RC3-3.4503 FAU .37745 RRT .1608 RRF .9897 RTF .1696 CRT -.6622 CRS -.9977 CST .6145
FDE 6.2687 FRA .9003 FC-21.5359 BSP 4968 SGB 3078.5 R23 .0102 R13 .9898 LSA 119.7 MSA 13.2 SSA 1.3
BDE .7209 BRA .5525 BC3 3.4855 FSP 2831 SG1 2917.2 SG2 983.5 THA 86.44 EL1 53.9 EL2 12.1 ALF 102.38

LAUNCH DATE AUG 1 1973 FLIGHT TIME 214.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC DISTANCE 493.850 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.890 GAL .38 AZL 87.05 HCA 151.11 SMA 199.17 ECC .23773 INC 2.9513 V1 29.342
RP 238.47 LAP 1.43 LOP 99.75 VP 21.136 GAP 7.78 AZP 92.58 TAL 1.97 TAP 153.08 RCA 151.82 APO 246.52 V2 23.040
RC 214.394 GL 25.62 GP -30.97 ZAL 83.60 ZAP 111.70 ETS 195.92 ZAE 139.04 ETE 228.82 ZAC 54.48 ETC 286.28 LVI 11.10

PLANETOCENTRIC CONIC

C3 15.341 VHL 3.917 DLA 35.74 RAL 18.70 RAD 6640.7 VEL 11.636 PTH 6.67 VHP 2.672 DPA -16.05 RAP 44.36 ECC 1.2525

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 10 47	3840.82	-46.37	160.54	264.12	77.87	10 14 48	2840.8	-45.83	125.42
60.00	8 42 50	3915.60	-36.35	163.56	260.44	71.26	9 48 5	2915.6	-40.29	133.17
67.17	7 11 23	4184.62	-22.53	178.44	253.52	61.49	8 21 8	3184.6	-32.25	153.64
67.17	7 11 23	4184.62	-22.53	178.44	253.52	61.49	8 21 8	3184.6	-32.25	153.64
67.17	7 11 23	4184.62	-22.53	178.44	253.52	61.49	8 21 8	3184.6	-32.25	153.64
67.17	7 11 23	4184.62	-22.53	178.44	253.52	61.49	8 21 8	3184.6	-32.25	153.64
67.17	7 11 23	4184.62	-22.53	178.44	253.52	61.49	8 21 8	3184.6	-32.25	153.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0836 TRA -.4968 TC3 -.6392 BAU .7425 SGT 1033.1 SGR 3046.0 SG3 1665.9 ST 14.8 SR 58.1 SS 109.6
RDE .7879 RRA .2199 RC3-3.5635 FAU .37839 RRT .2866 RRF .9910 RTF .2058 CRT -.5000 CRS -.9983 CST .4526
FDE 6.4779 FRA .8204 FC-21.3532 BSP 5211 SGB 3216.4 R23 .0223 R13 .9908 LSA 124.2 MSA 13.4 SSA 1.2
BDE .7924 BRA .5433 BC3 3.6204 FSP 2847 SG1 3062.0 SG2 984.6 THA 83.80 EL1 58.6 EL2 12.7 ALF 97.61

LAUNCH DATE AUG 1 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC DISTANCE 497.632 EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.885 GAL .37 AZL 86.92 HCA 152.06 SMA 199.07 ECC .23733 INC 3.0848 V1 29.342
RP 238.79 LAP 1.44 LOP 100.70 VP 21.093 GAP 7.54 AZP 92.73 TAL 1.93 TAP 153.98 RCA 151.82 APO 246.32 V2 23.008
RC 217.340 GL 26.68 GP -32.01 ZAL 83.72 ZAP 110.06 ETS 195.32 ZAE 137.22 ETE 227.39 ZAC 53.62 ETC 286.54 LVI 11.96

PLANETOCENTRIC CONIC

C3 15.536 VHL 3.942 DLA 36.73 RAL 18.22 RAD 6640.8 VEL 11.644 PTH 6.68 VHP 2.670 DPA -17.25 RAP 44.16 ECC 1.2557

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 1 24	3870.15	-45.91	163.22	264.57	75.85	10 5 54	2870.1	-46.29	128.10
60.00	8 26 41	3963.10	-35.26	167.11	260.14	69.06	9 32 44	2963.1	-40.28	137.21
65.52	7 0 32	4214.00	-23.00	181.08	253.56	60.54	8 10 46	3214.0	-33.06	156.29
65.52	7 0 32	4214.00	-23.00	181.08	253.56	60.54	8 10 46	3214.0	-33.06	156.29
65.52	7 0 32	4214.00	-23.00	181.08	253.56	60.54	8 10 46	3214.0	-33.06	156.29
65.52	7 0 32	4214.00	-23.00	181.08	253.56	60.54	8 10 46	3214.0	-33.06	156.29
65.52	7 0 32	4214.00	-23.00	181.08	253.56	60.54	8 10 46	3214.0	-33.06	156.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0345 TRA -.4919 TC3 -.7851 BAU .7795 SGT 1087.0 SGR 3183.6 SG3 1667.0 ST 13.6 SR 64.0 SS 112.5
RDE .8752 RRA .2110 RC3-3.6701 FAU .37799 RRT .4004 RRF .9921 RTF .4095 CRT -.2657 CRS -.9987 CST .2203
FDE 6.6954 FRA .7420 FC-21.0638 BSP 5481 SGB 3364.0 R23 .0325 R13 .9916 LSA 129.4 MSA 13.5 SSA 1.1
BDE .8759 BRA .5352 BC3 3.7531 FSP 2859 SG1 3216.3 SG2 985.9 THA 81.40 EL1 64.1 EL2 13.1 ALF 93.38

LAUNCH DATE AUG 1 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 501.416 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.880	GAL	.36	AZL	86.77	HCA	153.00	SMA	198.98	ECC	.23697	INC	3.2263	V1	29.342
RP	239.10	LAP	1.46	LOP	101.65	VP	21.080	GAP	7.30	AZP	92.88	TAL	1.87	TAP	154.68	RCA	151.83	APO	246.13	V2	22.975
RC	220.278	GL	27.78	GP	-35.08	ZAL	83.85	ZAP	108.44	ETS	194.68	ZAE	135.38	ETE	226.03	ZAC	52.74	ETC	286.81	LVI	12.85

PLANETOCENTRIC CONIC

C3	15.759	VHL	3.970	DLA	37.76	RAL	17.71	RAD	6640.9	VEL	11.654	PTH	6.69	VHP	2.673	DPA	-18.48	RAP	43.98	ECC	1.2894

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 51 6	3901.95	-45.35	166.08	264.98	73.71	9 56 8	2901.9	-46.72	131.05
60.00	8 7 17	4019.41	-33.81	171.18	259.59	66.62	9 14 17	3019.4	-40.06	141.98
63.86	6 49 56	4242.31	-23.48	183.68	253.62	59.53	8 0 39	3242.3	-33.89	158.90
63.86	6 49 56	4242.31	-23.48	183.68	253.62	59.53	8 0 39	3242.3	-33.89	158.90
63.86	6 49 56	4242.31	-23.48	183.68	253.62	59.53	8 0 39	3242.3	-33.89	158.90
63.86	6 49 56	4242.31	-23.48	183.68	253.62	59.53	8 0 39	3242.3	-33.89	158.90
63.86	6 49 56	4242.31	-23.48	183.68	253.62	59.53	8 0 39	3242.3	-33.89	158.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0182	TRA	-.4875	TC3	-.9307	BAU	.8184	SGT	1157.1	SGR	3327.0	SG3	1664.1	ST	13.5	SR	70.6	SS	115.7
RDE	.9732	RRA	.1982	RC3	-3.7712	FAU	.37645	RRT	.5006	RRF	.9930	RTF	.5091	CRT	.0261	CRS	-.9990	CST	-.0665
FDE	6.9277	FRA	.6456	FC	-20.6804	BSP	5756	SGB	3522.5	R23	.0413	R13	.9923	LSA	135.5	MSA	13.7	SSA	1.1
BDE	.9734	BRA	.5263	BC3	3.8643	FSP	2853	SG1	3381.8	SG2	985.4	THA	79.19	EL1	70.6	EL2	13.5	ALF	89.70

LAUNCH DATE AUG 1 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC DISTANCE 505.199 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.876	GAL	.35	AZL	86.62	HCA	153.95	SMA	198.89	ECC	.23664	INC	3.3770	V1	29.342
RP	239.42	LAP	1.48	LOP	102.60	VP	21.009	GAP	7.06	AZP	93.03	TAL	1.81	TAP	155.76	RCA	151.83	APO	245.96	V2	22.944
RC	223.209	GL	28.94	GP	-34.18	ZAL	84.00	ZAP	106.83	ETS	194.01	ZAE	133.52	ETE	224.72	ZAC	51.84	ETC	287.10	LVI	13.77

PLANETOCENTRIC CONIC

C3	16.015	VHL	4.002	DLA	38.84	RAL	17.17	RAD	6641.0	VEL	11.664	PTH	6.70	VHP	2.680	DPA	-19.73	RAP	43.82	ECC	1.2636

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 39 43	3936.63	-44.64	169.12	265.31	71.46	9 45 19	2936.6	-47.09	134.32
60.00	7 42 18	4090.90	-31.77	176.14	258.58	63.77	8 50 29	3090.9	-39.49	147.97
62.19	6 39 32	4269.79	-23.95	186.25	253.71	58.46	7 50 42	3269.8	-34.74	161.51
62.19	6 39 32	4269.79	-23.95	186.25	253.71	58.46	7 50 42	3269.8	-34.74	161.51
62.19	6 39 32	4269.79	-23.95	186.25	253.71	58.46	7 50 42	3269.8	-34.74	161.51
62.19	6 39 32	4269.79	-23.95	186.25	253.71	58.46	7 50 42	3269.8	-34.74	161.51
62.19	6 39 32	4269.79	-23.95	186.25	253.71	58.46	7 50 42	3269.8	-34.74	161.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0791	TRA	-.4861	TC3	-1.0764	BAU	.8590	SGT	1246.3	SGR	3468.1	SG3	1651.9	ST	14.6	SR	76.8	SS	117.8
RDE	1.0692	RRA	.1854	RC3	-3.8647	FAU	.37362	RRT	.5862	RRF	.9939	RTF	.5945	CRT	.3303	CRS	-.9993	CST	-.3636
FDE	7.0953	FRA	.5550	FC	-20.1968	BSP	6051	SGB	3685.2	R23	.0485	R13	.9928	LSA	140.7	MSA	13.8	SSA	1.0
BDE	1.0721	BRA	.5202	BC3	4.0118	FSP	2841	SG1	3550.8	SG2	986.2	THA	77.09	EL1	77.0	EL2	13.8	ALF	86.29

LAUNCH DATE AUG 1 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC DISTANCE 508.983 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.872	GAL	.33	AZL	86.46	HCA	154.89	SMA	198.82	ECC	.23635	INC	3.5377	V1	29.342
RP	239.73	LAP	1.50	LOP	103.54	VP	20.969	GAP	6.83	AZP	93.20	TAL	1.75	TAP	156.64	RCA	151.83	APO	245.81	V2	22.912
RC	226.132	GL	30.15	GP	-35.30	ZAL	84.16	ZAP	105.24	ETS	193.31	ZAE	131.65	ETE	223.46	ZAC	50.92	ETC	287.40	LVI	14.71

PLANETOCENTRIC CONIC

C3	16.308	VHL	4.038	DLA	39.97	RAL	16.59	RAD	6641.1	VEL	11.677	PTH	6.71	VHP	2.693	DPA	-21.00	RAP	43.67	ECC	1.2684

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 26 58	3974.76	-43.76	172.37	265.52	69.08	9 33 13	2974.8	-47.38	137.96
60.00	7 2 1	4204.27	-28.11	183.52	256.33	59.85	8 12 6	3204.3	-37.90	157.18
60.49	6 29 16	4296.58	-24.41	188.82	253.82	57.32	7 40 52	3296.6	-35.62	164.13
60.49	6 29 16	4296.58	-24.41	188.82	253.82	57.32	7 40 52	3296.6	-35.62	164.13
60.49	6 29 16	4296.58	-24.41	188.82	253.82	57.32	7 40 52	3296.6	-35.62	164.13
60.49	6 29 16	4296.58	-24.41	188.82	253.82	57.32	7 40 52	3296.6	-35.62	164.13
60.49	6 29 16	4296.58	-24.41	188.82	253.82	57.32	7 40 52	3296.6	-35.62	164.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1443	TRA	-.4845	TC3	-1.2168	BAU	.9017	SGT	1346.2	SGR	3618.9	SG3	1636.2	ST	17.0	SR	83.8	SS	120.3
RDE	1.1781	RRA	.1661	RC3	-3.9525	FAU	.36978	RRT	.6581	RRF	.9946	RTF	.6187	CRT	.5628	CRS	-.9994	CST	-.9880
FDE	7.2785	FRA	.4360	FC	-19.6296	BSP	6344	SGB	3858.9	R23	.0543	R13	.9932	LSA	146.9	MSA	14.0	SSA	.9
BDE	1.1869	BRA	.5121	BC3	4.1355	FSP	2810	SG1	3731.8	SG2	982.2	THA	75.19	EL1	84.4	EL2	13.9	ALF	83.32

LAUNCH DATE AUG 1 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 13 1974

HELIOCENTRIC CONIC DISTANCE 512.766 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.869	GAL	.32	AZL	86.29	HCA	155.83	SMA	198.75	ECC	.23609	INC	3.7097	V1	29.342
RP	240.03	LAP	1.52	LOP	104.48	VP	20.930	GAP	6.59	AZP	93.39	TAL	1.67	TAP	157.50	RCA	151.83	APO	245.68	V2	22.882
RC	229.048	GL	31.42	GP	-36.45	ZAL	84.34	ZAP	103.68	ETS	192.56	ZAE	129.78	ETE	222.25	ZAC	49.98	ETC	287.72	LVI	15.68

PLANETOCENTRIC CONIC

C3	16.644	VHL	4.080	DLA	41.15	RAL	15.96	RAD	6641.3	VEL	11.691	PTH	6.73	VHP	2.711	DPA	-22.29	RAP	43.56	ECC	1.2739

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 12 31	4017.10	-42.67	175.85	265.56	66.57	9 19 28	3017.1	-47.55	142.04
58.77	6 19 4	4322.79	-24.87	191.39	253.94	56.10	7 31 7	3322.8	-36.51	166.77
58.77	6 19 4	4322.79	-24.87	191.39	253.94	56.10	7 31 7	3322.8	-36.51	166.77
58.77	6 19 4	4322.79	-24.87	191.39	253.94	56.10	7 31 7	3322.8	-36.51	166.77
58.77	6 19 4	4322.79	-24.87	191.39	253.94	56.10	7 31 7	3322.8	-36.51	166.77
58.77	6 19 4	4322.79	-24.87	191.39	253.94	56.10	7 31 7	3322.8	-36.51	166.77
58.77	6 19 4	4322.79	-24.87	191.39	253.94	56.10	7 31 7	3322.8	-36.51	166.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2170	TRA	-.4865	TC3	-1.3583	BAU	.9439	SGT	1464.4	SGR	3756.4	SG3	1609.1	ST	20.5	SR	90.8	SS	122.1
RDE	1.2897	RRA	.1497	RC3	-4.0187	FAU	.36347	RRT	.7150	RRF	.9952	RTF	.7221	CRT	.7153	CRS	-.9996	CST	-.7340
FDE	7.4161	FRA	.3421	FC	-18.9058	BSP	6641	SGB	4031.8	R23	.0597	R13	.9936	LSA	152.9	MSA	14.1	SSA	.8
BDE	1.3079	BRA	.5090	BC3	4.2420	FSP	2763	SG1	3909.9	SG2	983.7	THA	73.34	EL1	92.0	EL2	14.1	ALF	80.60

LAUNCH DATE AUG 1 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 15 1974

HELIOCENTRIC CONIC — DISTANCE 516.548 — EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.866 GAL .30 AZL 86.11 HCA 156.77 SMA 198.70 ECC .23587 INC 3.8943 V1 29.342
RP 240.34 LAP 1.54 LOP 105.42 VP 20.892 GAP 6.36 AZP 93.58 TAL 1.59 TAP 156.36 RCA 151.83 APO 245.56 V2 22.851
RC 231.955 GL 32.75 GP -37.62 ZAL 84.52 ZAP 102.15 ETS 191.78 ZAE 127.90 ETE 221.07 ZAC 49.01 ETC 288.06 LVI 16.69

PLANETOCENTRIC CONIC

C3 17.028 VHL 4.127 DLA 42.38 RAL 15.29 RAD 6641.5 VEL 11.707 PTH 6.74 VHP 2.735 DPA -23.61 RAP 43.47 ECC 1.2802

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 55 49	4064.85	-41.31	179.63	265.35	63.92	9 3 34	3064.8	-47.55	146.66
57.02	6 8 53	4348.62	-25.31	193.98	254.08	54.80	7 21 22	3348.6	-37.42	169.46
57.02	6 8 53	4348.62	-25.31	193.98	254.08	54.80	7 21 22	3348.6	-37.42	169.46
57.02	6 8 53	4348.62	-25.31	193.98	254.08	54.80	7 21 22	3348.6	-37.42	169.46
57.02	6 8 53	4348.62	-25.31	193.98	254.08	54.80	7 21 22	3348.6	-37.42	169.46
57.02	6 8 53	4348.62	-25.31	193.98	254.08	54.80	7 21 22	3348.6	-37.42	169.46
57.02	6 8 53	4348.62	-25.31	193.98	254.08	54.80	7 21 22	3348.6	-37.42	169.46

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .2956 TRA -.4894 TC3-1.4893 BAU .9893 — SGT 1589.1 SGR 3909.2 SG3 1580.5 — ST 24.8 SR 98.6 SS 124.3
RDE 1.4175 RRA .1259 RC3-4.0825 FAU .35672 — RRT .7616 RRF .9958 RTF .7680 — CRT .8097 CRS -.9997 CST -.8233
FDE 7.5685 FRA .2212 FC-18.1356 BSP 6948 — SGB 4219.8 R23 .0636 R13 .9939 — LSA 159.9 MSA 14.3 SSA .8
BDE 1.4480 BRA .5053 BC3 4.3456 FSP 2706 — SG1 4104.3 SG2 980.9 THA 71.72 — EL1 100.7 EL2 14.3 ALF 78.25

LAUNCH DATE AUG 1 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 17 1974

HELIOCENTRIC CONIC — DISTANCE 520.331 — EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.863 GAL .29 AZL 85.91 HCA 157.70 SMA 198.65 ECC .23568 INC 4.0929 V1 29.342
RP 240.63 LAP 1.55 LOP 106.36 VP 20.856 GAP 6.12 AZP 93.79 TAL 1.51 TAP 159.21 RCA 151.83 APO 245.46 V2 22.821
RC 234.852 GL 34.14 GP -38.82 ZAL 84.72 ZAP 100.66 ETS 190.97 ZAE 126.02 ETE 219.92 ZAC 48.02 ETC 288.42 LVI 17.73

PLANETOCENTRIC CONIC

C3 17.469 VHL 4.180 DLA 43.67 RAL 14.55 RAD 6641.7 VEL 11.726 PTH 6.76 VHP 2.765 DPA -24.94 RAP 43.42 ECC 1.2875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 35 59	4120.00	-39.58	183.77	264.75	61.08	8 44 39	3120.0	-47.31	151.97
55.22	5 58 40	4374.08	-25.74	196.58	254.23	53.42	7 11 34	3374.1	-38.35	172.20
55.22	5 58 40	4374.08	-25.74	196.58	254.23	53.42	7 11 34	3374.1	-38.35	172.20
55.22	5 58 40	4374.08	-25.74	196.58	254.23	53.42	7 11 34	3374.1	-38.35	172.20
55.22	5 58 40	4374.08	-25.74	196.58	254.23	53.42	7 11 34	3374.1	-38.35	172.20
55.22	5 58 40	4374.08	-25.74	196.58	254.23	53.42	7 11 34	3374.1	-38.35	172.20
55.22	5 58 40	4374.08	-25.74	196.58	254.23	53.42	7 11 34	3374.1	-38.35	172.20

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .3829 TRA -.4957 TC3-1.6148 BAU 1.0360 — SGT 1726.3 SGR 4057.4 SG3 1542.4 — ST 29.9 SR 106.2 SS 125.6
RDE 1.5471 RRA .1014 RC3-4.1316 FAU .34844 — RRT .7987 RRF .9963 RTF .8048 — CRT .8681 CRS -.9997 CST -.8782
FDE 7.6613 FRA .1095 FC-17.2678 BSP 7286 — SGB 4409.4 R23 .0668 R13 .9942 — LSA 166.5 MSA 14.4 SSA .7
BDE 1.5937 BRA .5060 BC3 4.4359 FSP 2646 — SG1 4299.0 SG2 980.4 THA 70.16 — EL1 109.4 EL2 14.4 ALF 76.04

LAUNCH DATE AUG 1 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 19 1974

HELIOCENTRIC CONIC — DISTANCE 524.112 — EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.861 GAL .27 AZL 85.69 HCA 158.63 SMA 198.61 ECC .23551 INC 4.3075 V1 29.342
RP 240.93 LAP 1.57 LOP 107.30 VP 20.820 GAP 5.89 AZP 94.01 TAL 1.42 TAP 160.05 RCA 151.83 APO 245.38 V2 22.792
RC 237.739 GL 35.60 GP -40.05 ZAL 84.94 ZAP 99.20 ETS 190.12 ZAE 124.15 ETE 218.80 ZAC 47.00 ETC 288.80 LVI 18.79

PLANETOCENTRIC CONIC

C3 17.975 VHL 4.240 DLA 45.02 RAL 13.74 RAD 6641.9 VEL 11.747 PTH 6.78 VHP 2.802 DPA -26.29 RAP 43.41 ECC 1.2958

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 11 14	4186.59	-37.28	188.48	263.54	57.97	8 21 1	3186.6	-46.66	158.27
53.39	5 48 19	4399.45	-26.13	199.23	254.39	51.94	7 1 38	3399.4	-39.28	175.02
53.39	5 48 19	4399.45	-26.13	199.23	254.39	51.94	7 1 38	3399.4	-39.28	175.02
53.39	5 48 19	4399.45	-26.13	199.23	254.39	51.94	7 1 38	3399.4	-39.28	175.02
53.39	5 48 19	4399.45	-26.13	199.23	254.39	51.94	7 1 38	3399.4	-39.28	175.02
53.39	5 48 19	4399.45	-26.13	199.23	254.39	51.94	7 1 38	3399.4	-39.28	175.02
53.39	5 48 19	4399.45	-26.13	199.23	254.39	51.94	7 1 38	3399.4	-39.28	175.02

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .4779 TRA -.5032 TC3-1.7315 BAU 1.0831 — SGT 1870.3 SGR 4202.7 SG3 1498.5 — ST 35.4 SR 114.1 SS 126.5
RDE 1.6868 RRA .0676 RC3-4.1611 FAU .33836 — RRT .8305 RRF .9967 RTF .8160 — CRT .9061 CRS -.9998 CST -.9136
FDE 7.7273 FRA -.0280 FC-16.2959 BSP 7657 — SGB 4600.1 R23 .0693 R13 .9944 — LSA 173.4 MSA 14.5 SSA .7
BDE 1.7531 BRA .5077 BC3 4.5070 FSP 2584 — SG1 4495.8 SG2 973.8 THA 68.66 — EL1 118.6 EL2 14.4 ALF 74.04

LAUNCH DATE AUG 1 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 21 1974

HELIOCENTRIC CONIC — DISTANCE 527.893 — EARTH TO MARS

RL 151.84 LAL .00 LOL 308.61 VL 32.859 GAL .25 AZL 85.46 HCA 159.56 SMA 198.57 ECC .23537 INC 4.5401 V1 29.342
RP 241.22 LAP 1.58 LOP 108.23 VP 20.786 GAP 5.66 AZP 94.26 TAL 1.32 TAP 160.88 RCA 151.83 APO 245.31 V2 22.763
RC 240.615 GL 37.14 GP -41.30 ZAL 85.16 ZAP 97.80 ETS 189.24 ZAE 122.29 ETE 217.71 ZAC 45.95 ETC 289.20 LVI 19.90

PLANETOCENTRIC CONIC

C3 18.559 VHL 4.308 DLA 46.43 RAL 12.83 RAD 6642.2 VEL 11.772 PTH 6.80 VHP 2.847 DPA -27.66 RAP 43.45 ECC 1.3054

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 36 50	4275.91	-33.89	194.32	261.12	54.36	7 48 6	3275.9	-45.22	166.39
51.51	5 37 48	4424.73	-26.50	201.91	254.54	50.37	6 51 32	3424.7	-40.21	177.94
51.51	5 37 48	4424.73	-26.50	201.91	254.54	50.37	6 51 32	3424.7	-40.21	177.94
51.51	5 37 48	4424.73	-26.50	201.91	254.54	50.37	6 51 32	3424.7	-40.21	177.94
51.51	5 37 48	4424.73	-26.50	201.91	254.54	50.37	6 51 32	3424.7	-40.21	177.94
51.51	5 37 48	4424.73	-26.50	201.91	254.54	50.37	6 51 32	3424.7	-40.21	177.94
51.51	5 37 48	4424.73	-26.50	201.91	254.54	50.37	6 51 32	3424.7	-40.21	177.94

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .5809 TRA -.5149 TC3-1.8394 BAU 1.1305 — SGT 2023.8 SGR 4347.4 SG3 1443.8 — ST 41.5 SR 122.6 SS 127.3
RDE 1.8414 RRA .0320 RC3-4.1683 FAU .32644 — RRT .8550 RRF .9971 RTF .8599 — CRT .9303 CRS -.9999 CST -.9360
FDE 7.7780 FRA -.1545 FC-15.2278 BSP 7946 — SGB 4795.4 R23 .0719 R13 .9946 — LSA 180.9 MSA 14.6 SSA .6
BDE 1.9309 BRA .5159 BC3 4.5561 FSP 2476 — SG1 4695.9 SG2 971.6 THA 67.27 — EL1 128.6 EL2 14.5 ALF 72.29

LAUNCH DATE AUG 1 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 23 1974

HELIOCENTRIC CONIC DISTANCE 531.673 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.838	GAL	.23	AZL	85.21	HCA	160.49	SMA	198.55	ECC	.23526	INC	4.7931
RP	241.50	LAP	1.60	LOP	109.16	VP	20.752	GAP	5.43	AZP	94.52	TAL	1.22	TAP	161.71	RCA	151.83	APO	245.26
RC	243.479	GL	38.76	GP	-42.59	ZAL	85.39	ZAP	96.44	ETS	188.32	ZAE	120.44	ETE	216.64	ZAC	44.88	ETC	289.63

V1	29.342																		
V2	22.734																		
LVI	21.04																		

PLANETOCENTRIC CONIC

C3	19.234	VHL	4.386	DLA	47.90	RAL	11.83	RAD	6642.5	VEL	11.800	PTH	6.82	VHP	2.899	DPA	-29.05	RAP	43.53

ECC	1.3166																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.58	5 27 0	4450.15	-26.81	204.65	254.67	48.69	6 41 10	3450.2	-41.13	180.98
49.58	5 27 0	4450.15	-26.81	204.65	254.67	48.69	6 41 10	3450.2	-41.13	180.98
49.58	5 27 0	4450.15	-26.81	204.65	254.67	48.69	6 41 10	3450.2	-41.13	180.98
49.58	5 27 0	4450.15	-26.81	204.65	254.67	48.69	6 41 10	3450.2	-41.13	180.98
49.58	5 27 0	4450.15	-26.81	204.65	254.67	48.69	6 41 10	3450.2	-41.13	180.98
49.58	5 27 0	4450.15	-26.81	204.65	254.67	48.69	6 41 10	3450.2	-41.13	180.98
49.58	5 27 0	4450.15	-26.81	204.65	254.67	48.69	6 41 10	3450.2	-41.13	180.98

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6929	TRA	-.5311	TC3	-1.9341	BAU	1.1787	SGT	2183.7	SGR	4487.7	SG3	1383.2	ST	47.9	SR	131.0	SS	127.4
RDE	2.0038	RRA	-.0040	RC3	-4.1556	FAU	.31310	RRT	.8737	RRF	.9974	RTF	.8782	CRT	.9463	CRS	-.9999	CST	-.9507
FDE	7.7776	FRA	-.2636	FC	-14.0925	BSP	8260	SGB	4990.7	R23	.0744	R13	.9947	LSA	188.3	MSA	14.8	SSA	.5
BDE	2.1202	BRA	.5311	BC3	4.5836	FSP	2366	SG1	4894.8	SG2	974.0	THA	65.96	EL1	138.7	EL2	14.6	ALF	70.68

LAUNCH DATE AUG 1 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 25 1974

HELIOCENTRIC CONIC DISTANCE 535.452 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.857	GAL	.21	AZL	84.93	HCA	161.41	SMA	198.53	ECC	.23518	INC	5.0697
RP	241.78	LAP	1.61	LOP	110.09	VP	20.720	GAP	5.20	AZP	94.81	TAL	1.11	TAP	162.52	RCA	151.84	APO	245.21
RC	246.330	GL	40.46	GP	-43.90	ZAL	85.64	ZAP	95.14	ETS	187.37	ZAE	118.62	ETE	215.59	ZAC	43.78	ETC	290.10

V1	29.342																		
V2	22.706																		
LVI	22.22																		

PLANETOCENTRIC CONIC

C3	20.019	VHL	4.474	DLA	49.43	RAL	10.69	RAD	6642.8	VEL	11.833	PTH	6.85	VHP	2.961	DPA	-30.45	RAP	43.68

ECC	1.3295																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.60	5 15 49	4475.82	-27.06	207.44	254.77	46.91	6 30 25	3475.8	-42.02	184.15
47.60	5 15 49	4475.82	-27.06	207.44	254.77	46.91	6 30 25	3475.8	-42.02	184.15
47.60	5 15 49	4475.82	-27.06	207.44	254.77	46.91	6 30 25	3475.8	-42.02	184.15
47.60	5 15 49	4475.82	-27.06	207.44	254.77	46.91	6 30 25	3475.8	-42.02	184.15
47.60	5 15 49	4475.82	-27.06	207.44	254.77	46.91	6 30 25	3475.8	-42.02	184.15
47.60	5 15 49	4475.82	-27.06	207.44	254.77	46.91	6 30 25	3475.8	-42.02	184.15
47.60	5 15 49	4475.82	-27.06	207.44	254.77	46.91	6 30 25	3475.8	-42.02	184.15

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8148	TRA	-.5503	TC3	-2.0104	BAU	1.2340	SGT	2345.1	SGR	4648.7	SG3	1322.9	ST	54.7	SR	139.9	SS	127.1
RDE	2.1826	RRA	-.0564	RC3	-4.1493	FAU	.30056	RRT	.8913	RRF	.9977	RTF	.8955	CRT	.9583	CRS	-.9999	CST	-.9617
FDE	7.7501	FRA	-.4088	FC	-12.9975	BSP	8656	SGB	5206.7	R23	.0745	R13	.9950	LSA	196.2	MSA	14.8	SSA	.5
BDE	2.3297	BRA	.5532	BC3	4.6107	FSP	2272	SG1	5116.3	SG2	966.2	THA	64.83	EL1	149.5	EL2	14.6	ALF	69.24

LAUNCH DATE AUG 1 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 27 1974

HELIOCENTRIC CONIC DISTANCE 539.229 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.856	GAL	.19	AZL	84.63	HCA	162.34	SMA	198.51	ECC	.23512	INC	5.3736
RP	242.06	LAP	1.63	LOP	111.02	VP	20.688	GAP	4.98	AZP	95.12	TAL	.99	TAP	163.33	RCA	151.84	APO	245.19
RC	249.167	GL	42.26	GP	-45.25	ZAL	85.89	ZAP	93.90	ETS	186.40	ZAE	116.83	ETE	214.55	ZAC	42.64	ETC	290.60

V1	29.342																		
V2	22.679																		
LVI	23.43																		

PLANETOCENTRIC CONIC

C3	20.936	VHL	4.576	DLA	51.04	RAL	9.41	RAD	6643.3	VEL	11.872	PTH	6.88	VHP	3.033	DPA	-31.87	RAP	43.88

ECC	1.3446																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.56	5 4 12	4501.86	-27.24	210.30	254.82	45.01	6 19 14	3501.9	-42.88	187.48
45.56	5 4 12	4501.86	-27.24	210.30	254.82	45.01	6 19 14	3501.9	-42.88	187.48
45.56	5 4 12	4501.86	-27.24	210.30	254.82	45.01	6 19 14	3501.9	-42.88	187.48
45.56	5 4 12	4501.86	-27.24	210.30	254.82	45.01	6 19 14	3501.9	-42.88	187.48
45.56	5 4 12	4501.86	-27.24	210.30	254.82	45.01	6 19 14	3501.9	-42.88	187.48
45.56	5 4 12	4501.86	-27.24	210.30	254.82	45.01	6 19 14	3501.9	-42.88	187.48
45.56	5 4 12	4501.86	-27.24	210.30	254.82	45.01	6 19 14	3501.9	-42.88	187.48

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9469	TRA	-.5742	TC3	-2.0740	BAU	1.2839	SGT	2513.0	SGR	4779.9	SG3	1248.2	ST	61.8	SR	148.3	SS	125.7
RDE	2.3666	RRA	-.1102	RC3	-4.0912	FAU	.28437	RRT	.9050	RRF	.9980	RTF	.9088	CRT	.9666	CRS	-.9999	CST	-.9693
FDE	7.6511	FRA	-.5311	FC	-11.7589	BSP	8961	SGB	5400.2	R23	.0760	R13	.9951	LSA	203.4	MSA	14.9	SSA	.4
BDE	2.5489	BRA	.5847	BC3	4.5869	FSP	2138	SG1	5313.9	SG2	961.9	THA	65.62	EL1	160.0	EL2	14.7	ALF	67.87

LAUNCH DATE AUG 1 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 29 1974

HELIOCENTRIC CONIC DISTANCE 543.005 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.856	GAL	.17	AZL	84.29	HCA	163.25	SMA	198.50	ECC	.23509	INC	5.7089
RP	242.33	LAP	1.64	LOP	111.94	VP	20.658	GAP	4.75	AZP	95.47	TAL	.88	TAP	164.13	RCA	151.84	APO	245.17
RC	251.989	GL	44.15	GP	-46.63	ZAL	86.15	ZAP	92.73	ETS	185.40	ZAE	115.06	ETE	213.53	ZAC	41.47	ETC	291.14

V1	29.342																		
V2	22.652																		
LVI	24.69																		

PLANETOCENTRIC CONIC

C3	22.015	VHL	4.692	DLA	52.71	RAL	7.94	RAD	6643.7	VEL	11.917	PTH	6.92	VHP	3.116	DPA	-33.30	RAP	44.15

ECC	1.3623																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.47	4 51 57	4528.47	-27.32	213.22	254.79	43.00	6 7 26	3528.5	-43.68	190.99
43.47	4 51 57	4528.47	-27.32	213.22	254.79	43.00	6 7 26	3528.5	-43.68	190.99
43.47	4 51 57	4528.47	-27.32	213.22	254.79	43.00	6 7 26	3528.5	-43.68	190.99
43.47	4 51 57	4528.47	-27.32	213.22	254.79	43.00	6 7 26	3528.5	-43.68	190.99
43.47	4 51 57	4528.47	-27.32	213.22	254.79	43.00	6 7 26	3528.5	-43.68	190.99
43.47	4 51 57	4528.47	-27.32	213.22	254.79	43.00	6 7 26	3528.5	-43.68	190.99
43.47	4 51 57	4528.47	-27.32	213.22	254.79	43.00	6 7 26	3528.5	-43.68	190.99

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0891	TRA	-.6037	TC3	-2.1164	BAU	1.3380	SGT	2682.1	SGR	4929.1	SG3	1173.3	ST	69.0	SR	157.7	SS	124.3
RDE	2.5797	RRA	-.1700	RC3	-4.0235	FAU	.26803	RRT	.9156	RRF	.9982	RTF	.9191	CRT	.9725	CRS	-.9999	CST	-.9746
FDE	7.5459	FRA	-.6429	FC	-10.5402	BSP	9336	SGB	5611.6	R23	.0769	R13	.9953	LSA	211.8	MSA	15.0	SSA	.4
BDE	2.8001	BRA	.6272	BC3	4.5462	FSP	2014	SG1	5528.6	SG2	961.4	THA	62.62	EL1	171.5	EL2	14.8	ALF	66.76

LAUNCH DATE AUG 1 1973 FLIGHT TIME 242.00 ARRIVAL DATE MAR 31 1974

HELIOCENTRIC CONIC DISTANCE 546.779 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.856	GAL	.14	AZL	83.92	HCA	164.17	SMA	198.50	ECC	.23507	INC	6.0810	V1	29.342
RP	242.60	LAP	1.66	LOP	112.86	VP	20.628	GAP	4.52	AZP	95.85	TAL	.75	TAP	164.92	RCA	151.84	APO	245.16	V2	22.625
RC	254.795	GL	46.15	GP	-48.04	ZAL	86.42	ZAP	91.63	ETS	184.38	ZAE	113.34	ETE	212.53	ZAC	40.27	ETC	291.73	LVI	25.99

PLANETOCENTRIC CONIC

C3	23.292	VHL	4.826	DLA	54.44	RAL	6.25	RAD	6644.3	VEL	11.970	PTH	6.97	VHP	3.216	DPA	-34.75	RAP	44.50	ECC	1.3833

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.33	4 38 55	4555.89	-27.29	216.21	254.62	40.87	5 54 51	3555.9	-44.39	194.69
41.33	4 38 55	4555.89	-27.29	216.21	254.62	40.87	5 54 51	3555.9	-44.39	194.69
41.33	4 38 55	4555.89	-27.29	216.21	254.62	40.87	5 54 51	3555.9	-44.39	194.69
41.33	4 38 55	4555.89	-27.29	216.21	254.62	40.87	5 54 51	3555.9	-44.39	194.69
41.33	4 38 55	4555.89	-27.29	216.21	254.62	40.87	5 54 51	3555.9	-44.39	194.69
41.33	4 38 55	4555.89	-27.29	216.21	254.62	40.87	5 54 51	3555.9	-44.39	194.69
41.33	4 38 55	4555.89	-27.29	216.21	254.62	40.87	5 54 51	3555.9	-44.39	194.69

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.2399	TRA	-.6399	TC3	-2.1405	BAU	1.3931	SGT	2853.4	SGR	5061.7	SG3	1089.8	ST	76.2	SR	166.0	SS	121.3
RDE	2.7925	RRA	-.2465	RC3	-3.9283	FAU	.25035	RRT	.9258	RRF	.9984	RTF	.9289	CRT	.9770	CRS	-1.0000	CST	-.9788
FDE	7.3427	FRA	-.7676	FC3	-9.3049	BSP	9658	SGB	5810.6	R23	.0771	R13	.9954	LSA	216.8	MSA	15.1	SSA	.4
BDE	3.0554	BRA	.6858	BC3	4.4736	FSP	1869	SG1	5732.0	SG2	952.6	THA	61.58	EL1	182.1	EL2	14.8	ALF	65.67

LAUNCH DATE AUG 1 1973 FLIGHT TIME 244.00 ARRIVAL DATE APR 2 1974

HELIOCENTRIC CONIC DISTANCE 550.552 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.856	GAL	.12	AZL	83.50	HCA	165.08	SMA	198.50	ECC	.23508	INC	6.4967	V1	29.342
RP	242.86	LAP	1.67	LOP	113.78	VP	20.600	GAP	4.30	AZP	96.28	TAL	.63	TAP	165.71	RCA	151.84	APO	245.17	V2	22.599
RC	257.584	GL	48.27	GP	-49.49	ZAL	86.69	ZAP	90.61	ETS	183.34	ZAE	111.65	ETE	211.54	ZAC	39.04	ETC	292.38	LVI	27.32

PLANETOCENTRIC CONIC

C3	24.818	VHL	4.982	DLA	56.23	RAL	4.27	RAD	6644.9	VEL	12.033	PTH	7.02	VHP	3.330	DPA	-36.20	RAP	44.93	ECC	1.4084

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.13	4 24 55	4584.29	-27.11	219.25	254.27	38.64	5 41 19	3584.3	-44.98	198.60
39.13	4 24 55	4584.29	-27.11	219.25	254.27	38.64	5 41 19	3584.3	-44.98	198.60
39.13	4 24 55	4584.29	-27.11	219.25	254.27	38.64	5 41 19	3584.3	-44.98	198.60
39.13	4 24 55	4584.29	-27.11	219.25	254.27	38.64	5 41 19	3584.3	-44.98	198.60
39.13	4 24 55	4584.29	-27.11	219.25	254.27	38.64	5 41 19	3584.3	-44.98	198.60
39.13	4 24 55	4584.29	-27.11	219.25	254.27	38.64	5 41 19	3584.3	-44.98	198.60
39.13	4 24 55	4584.29	-27.11	219.25	254.27	38.64	5 41 19	3584.3	-44.98	198.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.3995	TRA	-.6833	TC3	-2.1430	BAU	1.4465	SGT	3024.7	SGR	5186.2	SG3	1001.1	ST	83.3	SR	174.5	SS	117.7
RDE	3.0271	RRA	-.3301	RC3	-3.7966	FAU	.23090	RRT	.9337	RRF	.9985	RTF	.9364	CRT	.9803	CRS	-1.0000	CST	-.9817
FDE	7.0959	FRA	-.8709	FC3	-8.0547	BSP	10178	SGB	6003.8	R23	.0779	R13	.9955	LSA	225.8	MSA	15.2	SSA	.3
BDE	3.3350	BRA	.7588	BC3	4.3596	FSP	1760	SG1	5928.5	SG2	947.6	THA	60.61	EL1	192.8	EL2	14.9	ALF	64.76

LAUNCH DATE AUG 1 1973 FLIGHT TIME 246.00 ARRIVAL DATE APR 4 1974

HELIOCENTRIC CONIC DISTANCE 554.322 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.856	GAL	.09	AZL	83.04	HCA	166.00	SMA	198.51	ECC	.23511	INC	6.9643	V1	29.342
RP	243.12	LAP	1.68	LOP	114.70	VP	20.573	GAP	4.07	AZP	96.76	TAL	.49	TAP	166.49	RCA	151.84	APO	245.19	V2	22.573
RC	260.356	GL	50.50	GP	-50.96	ZAL	86.97	ZAP	89.68	ETS	182.30	ZAE	110.02	ETE	210.58	ZAC	37.77	ETC	293.08	LVI	28.70

PLANETOCENTRIC CONIC

C3	26.657	VHL	5.163	DLA	58.08	RAL	1.95	RAD	6645.7	VEL	12.109	PTH	7.08	VHP	3.463	DPA	-37.66	RAP	45.45	ECC	1.4387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.89	4 9 39	4613.94	-26.76	222.34	253.66	36.31	5 26 33	3613.9	-45.42	202.71
36.89	4 9 39	4613.94	-26.76	222.34	253.66	36.31	5 26 33	3613.9	-45.42	202.71
36.89	4 9 39	4613.94	-26.76	222.34	253.66	36.31	5 26 33	3613.9	-45.42	202.71
36.89	4 9 39	4613.94	-26.76	222.34	253.66	36.31	5 26 33	3613.9	-45.42	202.71
36.89	4 9 39	4613.94	-26.76	222.34	253.66	36.31	5 26 33	3613.9	-45.42	202.71
36.89	4 9 39	4613.94	-26.76	222.34	253.66	36.31	5 26 33	3613.9	-45.42	202.71
36.89	4 9 39	4613.94	-26.76	222.34	253.66	36.31	5 26 33	3613.9	-45.42	202.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.3671	TRA	-.7348	TC3	-2.1199	BAU	1.5078	SGT	3193.0	SGR	5336.3	SG3	914.2	ST	90.0	SR	183.1	SS	113.4
RDE	3.2897	RRA	-.4400	RC3	-3.6616	FAU	.21208	RRT	.9420	RRF	.9986	RTF	.9544	CRT	.9831	CRS	-1.0000	CST	-.9842
FDE	6.8080	FRA	-.9888	FC3	-8.8876	BSP	10386	SGB	6218.6	R23	.0764	R13	.9958	LSA	233.0	MSA	15.1	SSA	.3
BDE	3.6439	BRA	.8868	BC3	4.2310	FSP	1576	SG1	6148.6	SG2	930.4	THA	59.83	EL1	203.8	EL2	14.8	ALF	64.06

LAUNCH DATE AUG 1 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 6 1974

HELIOCENTRIC CONIC DISTANCE 558.089 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.887	GAL	.07	AZL	82.51	HCA	166.90	SMA	198.53	ECC	.23516	INC	7.4942	V1	29.342
RP	243.37	LAP	1.69	LOP	115.62	VP	20.546	GAP	3.85	AZP	97.30	TAL	.36	TAP	167.26	RCA	151.84	APO	245.21	V2	22.548
RC	263.112	GL	52.86	GP	-52.47	ZAL	87.24	ZAP	88.83	ETS	181.26	ZAE	108.44	ETE	209.63	ZAC	36.47	ETC	293.86	LVI	30.11

PLANETOCENTRIC CONIC

C3	28.699	VHL	5.376	DLA	59.98	RAL	359.19	RAD	6646.6	VEL	12.200	PTH	7.16	VHP	3.618	DPA	-39.12	RAP	46.07	ECC	1.4756

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.62	3 52 48	4645.14	-26.21	225.45	252.68	33.90	5 10 13	3645.1	-45.64	207.00
34.62	3 52 48	4645.14	-26.21	225.45	252.68	33.90	5 10 13	3645.1	-45.64	207.00
34.62	3 52 48	4645.14	-26.21	225.45	252.68	33.90	5 10 13	3645.1	-45.64	207.00
34.62	3 52 48	4645.14	-26.21	225.45	252.68	33.90	5 10 13	3645.1	-45.64	207.00
34.62	3 52 48	4645.14	-26.21	225.45	252.68	33.90	5 10 13	3645.1	-45.64	207.00
34.62	3 52 48	4645.14	-26.21	225.45	252.68	33.90	5 10 13	3645.1	-45.64	207.00
34.62	3 52 48	4645.14	-26.21	225.45	252.68	33.90	5 10 13	3645.1	-45.64	207.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.7336	TRA	-.7980	TC3	-2.0744	BAU	1.5747	SGT	3358.2	SGR	5493.9	SG3	825.6	ST	95.9	SR	190.5	SS	107.6
RDE	3.5545	RRA	-.5943	RC3	-3.5084	FAU	.19290	RRT	.9520	RRF	.9987	RTF	.9542	CRT	.9857	CRS	-1.0000	CST	-.9866
FDE	6.4218	FRA	-1.1366	FC3	-5.7789	BSP	10830	SGB	6439.0	R23	.0716	R13	.9962	LSA	238.4	MSA	14.7	SSA	.3
BDE	3.9547	BRA	.9950	BC3	4.0758	FSP	1434	SG1	6377.9	SG2	885.3	THA	59.14	EL1	212.7	EL2	14.5	ALF	63.47

LAUNCH DATE AUG 1 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 8 1974

HELIOCENTRIC CONIC DISTANCE 561.855 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.858	GAL	.04	AZL	81.90	HCA	167.81	SMA	198.55	ECC	.23523	INC	8.1002	V1	29.342
RP	243.62	LAP	1.71	LOP	116.53	VP	20.521	GAP	3.63	AZP	97.92	TAL	.22	TAP	168.03	RCA	151.84	APO	245.25	V2	22.523
RC	265.850	GL	55.36	GP	-54.00	ZAL	87.52	ZAP	88.08	ETS	180.23	ZAE	106.95	ETE	208.72	ZAC	35.14	ETC	294.72	LVI	31.56

PLANETOCENTRIC CONIC

C3	31.666	VHL	5.627	DLA	61.90	RAL	355.87	RAD	6647.6	VEL	12.312	PTH	7.24	VHP	3.802	DPA	-40.57	RAP	46.90	ECC	1.9211

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.34	3 33 55	4678.20	-25.41	228.56	251.19	31.43	4 51 53	3678.2	-45.61	211.45
32.34	3 33 55	4678.20	-25.41	228.56	251.19	31.43	4 51 53	3678.2	-45.61	211.45
32.34	3 33 55	4678.20	-25.41	228.56	251.19	31.43	4 51 53	3678.2	-45.61	211.45
32.34	3 33 55	4678.20	-25.41	228.56	251.19	31.43	4 51 53	3678.2	-45.61	211.45
32.34	3 33 55	4678.20	-25.41	228.56	251.19	31.43	4 51 53	3678.2	-45.61	211.45
32.34	3 33 55	4678.20	-25.41	228.56	251.19	31.43	4 51 53	3678.2	-45.61	211.45
32.34	3 33 55	4678.20	-25.41	228.56	251.19	31.43	4 51 53	3678.2	-45.61	211.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8985	TRA	-.8739	TC3	-2.0049	BAU	1.6295	SGT	3520.8	SGR	5625.2	SG3	730.7
RDE	3.8596	RRA	-.7351	RC3	-3.2859	FAU	.17047	RRT	.9564	RRF	.9988	RTF	.9579
FDE	6.0034	FRA	-1.1936	FC3	-4.6605	BSP	10992	SGB	6636.2	R23	.0725	R13	.9962
BDE	4.3013	BRA	1.1419	BC3	3.8492	FSP	1245	SG1	6577.7	SG2	879.3	THA	58.47

ST	100.8	SR	198.0	SS	101.2								
CRT	.9865	CRS	-1.0000	CST	-.9873								
LSA	243.7	MSA	15.0	SSA	.2								
EL1	221.7	EL2	14.7	ALF	63.21								

LAUNCH DATE AUG 1 1973 FLIGHT TIME 252.00 ARRIVAL DATE APR 10 1974

HELIOCENTRIC CONIC DISTANCE 565.614 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.859	GAL	.02	AZL	81.20	HCA	168.71	SMA	198.57	ECC	.23532	INC	8.8003	V1	29.342
RP	243.86	LAP	1.72	LOP	117.45	VP	20.496	GAP	3.40	AZP	98.63	TAL	.08	TAP	168.78	RCA	151.84	APO	245.30	V2	22.499
RC	268.570	GL	58.01	GP	-55.55	ZAL	87.80	ZAP	87.43	ETS	179.24	ZAE	105.49	ETE	207.84	ZAC	33.78	ETC	295.67	LVI	33.04

PLANETOCENTRIC CONIC

C3	35.129	VHL	5.927	DLA	63.81	RAL	351.85	RAD	6648.9	VEL	12.451	PTH	7.35	VHP	4.019	DPA	-42.00	RAP	47.64	ECC	1.5781

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.07	3 12 27	4713.47	-24.33	231.62	249.02	28.97	4 31 0	3713.5	-45.26	215.97
30.07	3 12 27	4713.47	-24.33	231.62	249.02	28.97	4 31 0	3713.5	-45.26	215.97
30.07	3 12 27	4713.47	-24.33	231.62	249.02	28.97	4 31 0	3713.5	-45.26	215.97
30.07	3 12 27	4713.47	-24.33	231.62	249.02	28.97	4 31 0	3713.5	-45.26	215.97
30.07	3 12 27	4713.47	-24.33	231.62	249.02	28.97	4 31 0	3713.5	-45.26	215.97
30.07	3 12 27	4713.47	-24.33	231.62	249.02	28.97	4 31 0	3713.5	-45.26	215.97
30.07	3 12 27	4713.47	-24.33	231.62	249.02	28.97	4 31 0	3713.5	-45.26	215.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.0430	TRA	-.9654	TC3	-1.9102	BAU	1.6913	SGT	3674.2	SGR	5816.5	SG3	642.6
RDE	4.1802	RRA	-.9583	RC3	-3.0528	FAU	.14849	RRT	.9646	RRF	.9988	RTF	.9653
FDE	5.5061	FRA	-1.3040	FC3	-4.6594	BSP	10978	SGB	6879.6	R23	.0678	R13	.9965
BDE	4.6527	BRA	1.3603	BC3	3.6012	FSP	1041	SG1	6830.1	SG2	825.3	THA	58.13

ST	103.8	SR	204.6	SS	93.6								
CRT	.9878	CRS	-1.0000	CST	-.9886								
LSA	247.3	MSA	14.6	SSA	.2								
EL1	228.9	EL2	14.4	ALF	63.27								

LAUNCH DATE AUG 1 1973 FLIGHT TIME 254.00 ARRIVAL DATE APR 12 1974

HELIOCENTRIC CONIC DISTANCE 569.372 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.860	GAL	-.01	AZL	80.38	HCA	169.61	SMA	198.60	ECC	.23542	INC	9.6181	V1	29.342
RP	244.10	LAP	1.73	LOP	118.36	VP	20.472	GAP	3.18	AZP	99.46	TAL	359.94	TAP	169.54	RCA	151.84	APO	245.35	V2	22.475
RC	271.273	GL	60.83	GP	-57.12	ZAL	88.06	ZAP	86.89	ETS	178.29	ZAE	104.13	ETE	207.02	ZAC	32.40	ETC	296.73	LVI	34.54

PLANETOCENTRIC CONIC

C3	39.539	VHL	6.288	DLA	65.69	RAL	346.92	RAD	6650.5	VEL	12.626	PTH	7.48	VHP	4.279	DPA	-43.41	RAP	48.60	ECC	1.6507

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.88	2 47 42	4751.33	-22.91	234.57	245.92	26.55	4 6 53	3751.3	-44.51	220.46
27.88	2 47 42	4751.33	-22.91	234.57	245.92	26.55	4 6 53	3751.3	-44.51	220.46
27.88	2 47 42	4751.33	-22.91	234.57	245.92	26.55	4 6 53	3751.3	-44.51	220.46
27.88	2 47 42	4751.33	-22.91	234.57	245.92	26.55	4 6 53	3751.3	-44.51	220.46
27.88	2 47 42	4751.33	-22.91	234.57	245.92	26.55	4 6 53	3751.3	-44.51	220.46
27.88	2 47 42	4751.33	-22.91	234.57	245.92	26.55	4 6 53	3751.3	-44.51	220.46
27.88	2 47 42	4751.33	-22.91	234.57	245.92	26.55	4 6 53	3751.3	-44.51	220.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.1149	TRA	-1.0579	TC3	-1.7888	BAU	1.7232	SGT	3775.6	SGR	5701.5	SG3	521.7
RDE	4.3948	RRA	-.9822	RC3	-2.7254	FAU	.12256	RRT	.9530	RRF	.9986	RTF	.9626
FDE	4.8042	FRA	-1.0978	FC3	-2.6836	BSP	13343	SGB	6838.3	R23	.0891	R13	.9947
BDE	4.8771	BRA	1.4436	BC3	3.2599	FSP	1093	SG1	6770.2	SG2	982.9	THA	56.99

ST	102.6	SR	202.9	SS	82.1								
CRT	.9824	CRS	-1.0000	CST	-.9830								
LSA	241.1	MSA	17.4	SSA	.2								
EL1	226.7	EL2	17.2	ALF	63.42								

LAUNCH DATE AUG 1 1973 FLIGHT TIME 302.00 ARRIVAL DATE MAY 30 1974

HELIOCENTRIC CONIC DISTANCE 660.246 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.940	GAL	-1.11	AZL	99.45	HCA	191.34	SMA	200.18	ECC	.24215	INC	9.4504	V1	29.342
RP	248.25	LAP	1.85	LOP	139.80	VP	20.154	GAP	-1.79	AZP	80.73	TAL	354.28	TAP	185.63	RCA	151.69	APO	248.63	V2	22.067
RC	329.241	GL	-59.59	GP	52.32	ZAL	93.84	ZAP	72.34	ETS	206.93	ZAE	87.43	ETE	185.46	ZAC	138.58	ETC	291.69	LVI	-72.50

PLANETOCENTRIC CONIC

C3	39.315	VHL	6.270	DLA	-40.23	RAL	62.69	RAD	6650.4	VEL	12.617	PTH	7.47	VHP	4.108	DPA	52.52	RAP	347.29	ECC	1.6470

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 12 17	2405.02	-2.64	62.42	295.74	137.52	18 52 22	1405.0	15.64	46.43
60.00	21 12 38	1919.99	14.19	34.76	311.27	128.13	21 44 38	920.0	28.37	13.81
60.11	21 29 19	1873.14	16.07	32.28	312.77	127.39	22 0 32	873.1	29.83	10.76
60.11	21 29 19	1873.14	16.07	32.28	312.77	127.39	22 0 32	873.1	29.83	10.76
60.11	21 29 19	1873.14	16.07	32.28	312.77	127.39	22 0 32	873.1	29.83	10.76
60.11	21 29 19	1873.14	16.07	32.28	312.77	127.39	22 0 32	873.1	29.83	10.76
60.11	21 29 19	1873.14	16.07	32.28	312.77	127.39	22 0 32	873.1	29.83	10.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-5.1337	TRA	3.4907	TC3	-3.9187	BAU	2.3645	SGT	7975.6	SGR	4976.7	SG3	571.1
RDE	2.6381	RRA	-2.7382	RC3	2.2857	FAU	.14792	RRT	-.9847	RRF	-.9973	RTF	.9769
FDE	-3.0668	FRA	3.6572	FC3	-3.2572	BSP	16356	SGB	9401.0	R23	.1547	R13	-.9856
BDE	5.7718	BRA	4.4365	BC3	4.5366	FSP	991	SG1	9372.0	SG2	737.2	THA	148.21

ST	242.9	SR	130.2	SS	54.9								
CRT	-.9921	CRS	.9987	CST	-.9843								
LSA	280.5	MSA	16.5	SSA	.3								
EL1	275.2	EL2	14.5	ALF	151.90								

LAUNCH DATE AUG 1 1973 FLIGHT TIME 304.00 ARRIVAL DATE JUN 1 1974

HELIOCENTRIC CONIC DISTANCE 663.980 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.945	GAL	-1.16	AZL	98.78	HCA	192.21	SMA	200.25	ECC	.24256	INC	8.7794	V1	29.342
RP	248.35	LAP	1.85	LOP	140.67	VP	20.150	GAP	-1.99	AZP	81.42	TAL	354.05	TAP	186.25	RCA	151.68	APO	248.83	V2	22.057
RC	331.317	GL	-57.18	GP	50.44	ZAL	94.30	ZAP	70.88	ETS	207.30	ZAE	86.34	ETE	186.44	ZAC	136.87	ETC	290.96	LVI	-70.95

PLANETOCENTRIC CONIC

C3	35.786	VHL	5.982	DLA	-37.91	RAL	61.81	RAD	6649.2	VEL	12.477	PTH	7.37	VHP	3.918	DPA	50.96	RAP	349.00	ECC	1.5889

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 47 49	2450.08	-4.90	64.31	291.69	137.38	18 28 39	1450.1	13.44	48.45
60.00	19 52 25	2117.67	5.69	44.53	301.76	129.97	20 27 42	1117.7	21.10	25.47
63.62	21 42 31	1801.53	16.19	26.40	309.90	124.76	22 12 33	801.5	28.96	4.27
63.62	21 42 31	1801.53	16.19	26.40	309.90	124.76	22 12 33	801.5	28.96	4.27
63.62	21 42 31	1801.53	16.19	26.40	309.90	124.76	22 12 33	801.5	28.96	4.27
63.62	21 42 31	1801.53	16.19	26.40	309.90	124.76	22 12 33	801.5	28.96	4.27
63.62	21 42 31	1801.53	16.19	26.40	309.90	124.76	22 12 33	801.5	28.96	4.27

DIFFERENTIAL CORRECTIONS

TDE	-4.9004	TRA	3.4382	TC3	-4.3427	BAU	2.3678												
RDE	2.3726	RRA	-2.5694	RC3	2.3739	FAU	.16409												
FDE	-3.2227	FRA	4.0320	FC3	-3.9698	BSP	16452												
BDE	5.4446	BRA	4.2922	BC3	4.9492	FSP	1123												

MID-COURSE EXECUTION ACCURACY

SGT	8151.5	SGR	4791.7	SG3	646.8						
RRT	-.9842	RRF	-.9972	RTF	.9766						
SGB	9455.6	R23	.1592	R13	-.9848						
SG1	9427.1	SG2	733.7	THA	149.75						

ORBIT DETERMINATION ACCURACY

ST	243.0	SR	123.0	SS	57.9						
CRT	-.9916	CRS	.9986	CST	-.9832						
LSA	277.9	MSA	16.8	SSA	.3						
EL1	272.0	EL2	14.2	ALF	153.28						

LAUNCH DATE AUG 1 1973 FLIGHT TIME 306.00 ARRIVAL DATE JUN 3 1974

HELIOCENTRIC CONIC DISTANCE 667.715 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.949	GAL	-1.21	AZL	98.20	HCA	193.08	SMA	200.35	ECC	.24297	INC	8.1969	V1	29.342
RP	248.45	LAP	1.85	LOP	141.55	VP	20.147	GAP	-2.20	AZP	82.01	TAL	353.80	TAP	186.88	RCA	151.67	APO	249.03	V2	22.048
RC	333.364	GL	-54.92	GP	48.61	ZAL	94.77	ZAP	69.44	ETS	207.56	ZAE	85.24	ETE	187.31	ZAC	135.18	ETC	290.30	LVI	-69.36

PLANETOCENTRIC CONIC

C3	32.943	VHL	5.740	DLA	-35.71	RAL	61.08	RAD	6648.1	VEL	12.364	PTH	7.28	VHP	3.761	DPA	49.44	RAP	350.60	ECC	1.5422

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 27 44	2489.29	-6.86	65.96	288.47	137.20	18 9 13	1489.3	11.51	50.18
60.00	19 14 42	2204.35	1.88	48.69	296.83	130.26	19 51 26	1204.4	17.63	30.17
67.22	21 58 36	1724.68	16.12	20.14	307.36	122.31	22 27 20	724.7	27.95	357.54
67.22	21 58 36	1724.68	16.12	20.14	307.36	122.31	22 27 20	724.7	27.95	357.54
67.22	21 58 36	1724.68	16.12	20.14	307.36	122.31	22 27 20	724.7	27.95	357.54
67.22	21 58 36	1724.68	16.12	20.14	307.36	122.31	22 27 20	724.7	27.95	357.54
67.22	21 58 36	1724.68	16.12	20.14	307.36	122.31	22 27 20	724.7	27.95	357.54

DIFFERENTIAL CORRECTIONS

TDE	-4.6832	TRA	3.4018	TC3	-4.7606	BAU	2.3563												
RDE	2.1386	RRA	-2.4195	RC3	2.4415	FAU	.17911												
FDE	-3.3247	FRA	4.3761	FC3	-4.7070	BSP	16599												
BDE	5.1484	BRA	4.1744	BC3	5.3502	FSP	1250												

MID-COURSE EXECUTION ACCURACY

SGT	8319.4	SGR	4611.0	SG3	718.5						
RRT	-.9838	RRF	-.9971	RTF	.9763						
SGB	9511.7	R23	.1628	R13	-.9840						
SG1	9484.0	SG2	725.9	THA	151.21						

ORBIT DETERMINATION ACCURACY

ST	242.2	SR	115.8	SS	60.0						
CRT	-.9911	CRS	.9984	CST	-.9819						
LSA	274.5	MSA	17.0	SSA	.3						
EL1	268.0	EL2	13.9	ALF	154.97						

LAUNCH DATE AUG 1 1973 FLIGHT TIME 308.00 ARRIVAL DATE JUN 5 1974

HELIOCENTRIC CONIC DISTANCE 671.452 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.954	GAL	-1.26	AZL	97.69	HCA	193.95	SMA	200.44	ECC	.24340	INC	7.6862	V1	29.342
RP	248.54	LAP	1.85	LOP	142.43	VP	20.145	GAP	-2.40	AZP	82.54	TAL	353.55	TAP	187.50	RCA	151.65	APO	249.23	V2	22.039
RC	335.380	GL	-52.78	GP	46.84	ZAL	95.25	ZAP	68.05	ETS	207.75	ZAE	84.13	ETE	188.08	ZAC	133.52	ETC	289.71	LVI	-67.78

PLANETOCENTRIC CONIC

C3	30.623	VHL	5.534	DLA	-33.62	RAL	60.49	RAD	6647.2	VEL	12.270	PTH	7.21	VHP	3.631	DPA	47.95	RAP	352.10	ECC	1.5040

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 10 47	2524.71	-8.63	67.47	285.88	136.97	17 52 52	1524.7	9.76	51.71
60.00	18 47 3	2268.44	-.94	51.76	293.22	130.29	19 24 51	1268.4	14.98	33.52
70.00	21 26 40	1797.42	11.16	22.62	302.14	122.49	21 56 37	797.4	23.46	1.01
71.01	22 18 25	1639.05	15.90	13.27	305.10	120.02	22 45 44	639.0	26.85	350.31
71.01	22 18 25	1639.05	15.90	13.27	305.10	120.02	22 45 44	639.0	26.85	350.31
71.01	22 18 25	1639.05	15.90	13.27	305.10	120.02	22 45 44	639.0	26.85	350.31
110.00	2 30 2	6132.28	11.16	289.45	302.14	122.49	4 12 14	5132.3	23.46	267.84

DIFFERENTIAL CORRECTIONS

TDE	-4.4842	TRA	3.3719	TC3	-5.1771	BAU	2.3525												
RDE	1.9319	RRA	-2.2816	RC3	2.4933	FAU	.19317												
FDE	-3.3775	FRA	4.6827	FC3	-5.4611	BSP	16696												
BDE	4.8827	BRA	4.0712	BC3	5.7462	FSP	1363												

MID-COURSE EXECUTION ACCURACY

SGT	8483.1	SGR	4434.3	SG3	785.5						
RRT	-.9834	RRF	-.9969	RTF	.9760						
SGB	9572.2	R23	.1662	R13	-.9832						
SG1	9545.4	SG2	715.7	THA	152.63						

ORBIT DETERMINATION ACCURACY

ST	240.7	SR	108.8	SS	61.4						
CRT	-.9905	CRS	.9981	CST	-.9803						
LSA	270.6	MSA	17.2	SSA	.4						
EL1	263.8	EL2	13.6	ALF	155.81						

LAUNCH DATE AUG 1 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 7 1974

HELIOCENTRIC CONIC DISTANCE 675.189 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.959	GAL	-1.31	AZL	97.23	HCA	194.82	SMA	200.53	ECC	.24383	INC	7.2348	V1	29.342
RP	248.63	LAP	1.85	LOP	143.31	VP	20.144	GAP	-2.60	AZP	83.00	TAL	353.29	TAP	188.11	RCA	151.64	APO	249.43	V2	22.030
RC	337.366	GL	-50.76	GP	45.12	ZAL	95.74	ZAP	66.69	ETS	207.87	ZAE	83.01	ETE	188.77	ZAC	131.91	ETC	289.18	LVI	-66.22

PLANETOCENTRIC CONIC

C3	28.707	VHL	5.358	DLA	-31.63	RAL	60.00	RAD	6646.5	VEL	12.192	PTH	7.15	VHP	3.522	DPA	46.52	RAP	353.50	ECC	1.4724

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 56 12	2557.44	-10.26	68.88	283.77	136.72	17 38 50	1557.4	8.13	53.12
60.00	18 24 55	2321.39	-3.27	54.29	290.43	130.19	19 3 36	1321.4	12.75	36.21
70.00	20 31 29	1948.80	5.51	30.71	297.03	123.76	21 3 58	948.8	18.71	10.19
75.21	22 43 53	1537.87	15.56	5.32	303.11	117.89	23 9 31	537.9	25.69	342.09
75.21	22 43 53	1537.87	15.56	5.32	303.11	117.89	23 9 31	537.9	25.69	342.09
75.21	22 43 53	1537.87	15.56	5.32	303.11	117.89	23 9 31	537.9	25.69	342.09
110.00	1 34 51	6283.66	5.51	297.53	297.03	123.76	3 19 35	5283.7	18.71	277.01

DIFFERENTIAL CORRECTIONS

TDE	-4.2971	TRA	3.3556	TC3	-5.5832	BAU	2.3517												
RDE	1.7474	RRA	-2.1599	RC3	2.5250	FAU	.20582												
FDE	-3.3837	FRA	4.9660	FC3	-6.2072	BSP	16853												
BDE	4.6388	BRA	3.9906	BC3	6.1276	FSP	1474												

MID-COURSE EXECUTION ACCURACY

SGT	8641.2	SGR	4262.7	SG3	847.6						
RRT	-.9829	RRF	-.9966	RTF	.9757						
SGB	9635.4	R23	.1695	R13	-.9824						
SG1	9609.5	SG2	705.3	THA	153.98						

ORBIT DETERMINATION ACCURACY

ST	238.5	SR	102.0	SS	62.1						
CRT	-.9899	CRS	.9978	CST	-.9783						
LSA	266.1	MSA	17.4	SSA	.4						
EL1	259.0	EL2	13.3	ALF	156.99						

LAUNCH DATE AUG 1 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 9 1974

HELIOCENTRIC CONIC DISTANCE 678.926 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.963	GAL	-1.37	AZL	96.83	HCA	195.69	SMA	200.63	ECC	.24428	INC	6.8325	V1	29.342
RP	248.71	LAP	1.84	LOP	144.19	VP	20.143	GAP	-2.80	AZP	83.42	TAL	353.03	TAP	188.72	RCA	151.62	APO	249.64	V2	22.023
RC	339.321	GL	-48.85	GP	43.47	ZAL	96.25	ZAP	65.37	ETS	207.93	ZAE	81.88	ETE	189.39	ZAC	130.34	ETC	288.71	LVI	-64.68

PLANETOCENTRIC CONIC

C3	27.109	VHL	5.207	DLA	-29.73	RAL	59.61	RAD	6645.9	VEL	12.127	PTH	7.10	VHP	3.430	DPA	45.15	RAP	354.81	ECC	1.4462

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 43 30	2588.14	-11.77	70.22	282.05	136.44	17 26 39	1588.1	6.60	54.42
60.00	18 6 26	2367.51	-5.29	56.50	288.21	130.01	18 45 54	1367.5	10.78	38.52
70.00	19 58 30	2037.84	2.13	35.38	293.80	124.10	20 32 28	1037.8	15.69	15.32
80.00	22 53 50	1487.86	12.92	.15	300.22	117.16	23 18 37	487.9	22.99	337.30
80.43	23 20 19	1403.19	15.12	355.00	301.36	115.91	23 43 42	403.2	24.49	331.56
100.00	1 40 37	6250.37	12.92	299.43	300.22	117.16	3 24 48	5250.4	22.99	276.57
110.00	1 1 53	1084.66	2.13	324.30	293.80	124.10	1 19 57	84.7	15.69	304.23

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.1265	TRA	3.3422	TC3	-5.9843	BAU	2.3564	SGT	8797.2	SGR	4095.5	SG3	904.2	ST	236.0	SR	95.6	SS	62.2
RDE	1.5856	RRA	-2.0461	RC3	2.5417	FAU	.21733	RRT	-.9825	RRF	-.9964	RTF	.9753	CRT	-.9893	CRS	.9973	CST	-.9760
FDE	-3.3577	FRA	5.2126	FC3	-6.9402	BSP	16951	SGB	9703.8	R23	.1723	R13	-.9815	LSA	261.5	MSA	17.6	SSA	.4
BDE	4.4206	BRA	3.9187	BC3	6.5017	FSP	1570	SG1	9679.0	SG2	693.2	THA	155.29	EL1	254.3	EL2	12.9	ALF	158.10

LAUNCH DATE AUG 1 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 11 1974

HELIOCENTRIC CONIC DISTANCE 682.663 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.968	GAL	-1.42	AZL	96.47	HCA	196.56	SMA	200.73	ECC	.24473	INC	6.4719	V1	29.342
RP	248.78	LAP	1.84	LOP	145.06	VP	20.143	GAP	-2.99	AZP	83.79	TAL	352.77	TAP	189.33	RCA	151.60	APO	249.85	V2	22.015
RC	341.246	GL	-47.04	GP	41.88	ZAL	96.76	ZAP	64.08	ETS	207.95	ZAE	80.76	ETE	189.94	ZAC	128.82	ETC	288.29	LVI	-63.19

PLANETOCENTRIC CONIC

C3	25.766	VHL	5.076	DLA	-27.92	RAL	59.30	RAD	6645.3	VEL	12.072	PTH	7.05	VHP	3.353	DPA	43.83	RAP	356.05	ECC	1.4240

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 32 19	2617.21	-13.20	71.50	280.65	136.14	17 15 56	1617.2	5.14	55.65
60.00	17 50 37	2408.95	-7.10	58.51	286.42	129.78	18 30 46	1409.0	8.99	40.56
70.00	19 33 29	2106.46	-.49	38.96	291.39	124.15	20 8 35	1106.5	13.26	19.15
80.00	21 45 41	1692.52	6.30	11.75	295.59	119.24	22 13 54	692.5	17.74	350.22
90.00	0 1 35	1266.92	11.03	342.95	298.10	116.20	0 22 42	266.9	20.89	320.26
100.00	0 32 29	1166.99	6.30	333.11	295.59	119.24	0 51 56	167.0	17.74	311.59
110.00	0 36 51	1153.28	-.49	327.88	291.39	124.15	0 56 4	153.3	13.26	308.07

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.9654	TRA	3.3400	TC3	-6.3706	BAU	2.3627	SGT	8948.0	SGR	3933.6	SG3	955.4	ST	233.0	SR	89.6	SS	61.9
RDE	1.4422	RRA	-1.9438	RC3	2.5416	FAU	.22741	RRT	-.9821	RRF	-.9960	RTF	.9750	CRT	-.9887	CRS	.9967	CST	-.9734
FDE	-3.3010	FRA	5.4357	FC3	-7.6408	BSP	17117	SGB	9774.4	R23	.1744	R13	-.9808	LSA	256.6	MSA	17.8	SSA	.5
BDE	4.2195	BRA	3.8644	BC3	6.8589	FSP	1662	SG1	9750.8	SG2	679.7	THA	156.53	EL1	249.3	EL2	12.6	ALF	159.13

LAUNCH DATE AUG 1 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 13 1974

HELIOCENTRIC CONIC DISTANCE 686.401 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.973	GAL	-1.47	AZL	96.15	HCA	197.43	SMA	200.83	ECC	.24518	INC	6.1464	V1	29.342
RP	248.85	LAP	1.84	LOP	145.94	VP	20.144	GAP	-3.19	AZP	84.13	TAL	352.50	TAP	189.93	RCA	151.59	APO	250.06	V2	22.009
RC	343.139	GL	-45.33	GP	40.37	ZAL	97.28	ZAP	62.84	ETS	207.92	ZAE	79.63	ETE	190.43	ZAC	127.36	ETC	287.92	LVI	-61.74

PLANETOCENTRIC CONIC

C3	24.629	VHL	4.963	DLA	-26.19	RAL	59.06	RAD	6644.8	VEL	12.025	PTH	7.01	VHP	3.288	DPA	42.57	RAP	357.21	ECC	1.4053

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 22 23	2644.93	-14.56	72.73	279.51	135.81	17 6 28	1644.9	3.75	56.81
60.00	17 36 49	2446.95	-8.75	60.36	284.97	129.50	18 17 36	1446.9	7.34	42.42
70.00	19 13 2	2164.06	-2.69	41.97	289.52	124.06	19 49 6	1164.1	11.18	22.31
80.00	21 11 11	1794.23	2.89	17.37	292.99	119.73	21 41 5	794.2	14.78	356.32
90.00	23 1 6	1439.80	5.68	352.83	294.52	117.75	23 25 5	439.8	16.59	331.11
100.00	23 54 2	1268.75	2.89	338.74	292.99	119.73	24 15 11	268.8	14.78	317.69
110.00	0 16 24	1210.88	-2.69	330.88	289.52	124.06	0 36 35	210.9	11.18	311.23

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.8149	TRA	3.3434	TC3	-6.7481	BAU	2.3730	SGT	9097.5	SGR	3778.4	SG3	1001.6	ST	229.7	SR	83.9	SS	61.2
RDE	1.3142	RRA	-1.8497	RC3	2.5309	FAU	.23649	RRT	-.9817	RRF	-.9956	RTF	.9747	CRT	-.9881	CRS	.9959	CST	-.9702
FDE	-3.2165	FRA	5.6324	FC3	-8.3129	BSP	17255	SGB	9851.0	R23	.1763	R13	-.9800	LSA	251.5	MSA	18.1	SSA	.5
BDE	4.0349	BRA	3.8210	BC3	7.2071	FSP	1741	SG1	9828.4	SG2	665.7	THA	157.71	EL1	244.2	EL2	12.2	ALF	160.10

LAUNCH DATE AUG 1 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 15 1974

HELIOCENTRIC CONIC DISTANCE 690.139 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.978	GAL	-1.53	AZL	95.85	HCA	198.30	SMA	200.92	ECC	.24565	INC	5.8512	V1	29.342
RP	248.92	LAP	1.83	LOP	146.82	VP	20.145	GAP	-3.39	AZP	84.44	TAL	352.23	TAP	190.53	RCA	151.57	APO	250.28	V2	22.003
RC	345.001	GL	-43.70	GP	36.92	ZAL	97.81	ZAP	61.64	ETS	207.86	ZAE	78.51	ETE	190.86	ZAC	125.95	ETC	287.58	LVI	-60.35

PLANETOCENTRIC CONIC

C3	23.659	VHL	4.864	DLA	-24.55	RAL	58.88	RAD	6644.4	VEL	11.985	PTH	6.98	VHP	3.234	DPA	41.38	RAP	358.31	ECC	1.3894

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 13 31	2671.47	-15.85	73.93	278.59	135.47	16 58 2	1671.5	2.42	57.93
60.00	17 24 39	2482.25	-10.27	62.10	283.80	129.19	18 6 2	1482.2	5.80	44.13
70.00	18 55 43	2214.55	-4.61	44.61	288.03	123.88	19 32 37	1214.6	9.32	25.04
80.00	20 45 28	1871.03	.29	21.58	291.08	119.86	21 16 39	871.0	12.42	.79
90.00	22 28 22	1539.17	2.51	358.40	292.31	118.18	22 54 1	539.2	13.83	337.10
100.00	23 28 20	1345.50	.29	342.95	291.08	119.86	23 50 46	345.5	12.42	322.16
110.00	23 55 9	1261.37	-4.61	333.53	288.03	123.88	24 16 10	261.4	9.32	313.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.6763	TRA	3.3501	TC3	-7.1170	BAU	2.3671	SGT	9247.1	SGR	3630.4	SG3	1043.1	ST	226.3	SR	78.8	SS	60.3
RDE	1.2029	RRA	-1.7618	RC3	2.5111	FAU	.24463	RRT	-.9814	RRF	-.9951	RTF	.9745	CRT	-.9876	CRS	.9949	CST	-.9669
FDE	-3.1200	FRA	5.8004	FC3	-8.9513	BSP	17384	SGB	9934.2	R23	.1771	R13	-.9793	LSA	246.4	MSA	18.2	SSA	.5
BDE	3.8681	BRA	3.7851	BC3	7.5470	FSP	1808	SG1	9912.9	SG2	650.2	THA	158.83	EL1	239.4	EL2	11.7	ALF	160.99

LAUNCH DATE AUG 1 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 17 1974

HELIOCENTRIC CONIC DISTANCE 693.876 EARTH TO MARS

RL	151.84	LAL	.00	LOL	308.61	VL	32.983	GAL	-1.59	AZL	95.58	HCA	199.17	SHA	201.02	ECC	.24613	INC	5.5021	V1	29.342
RP	249.97	LAP	1.83	LOP	147.69	VP	20.147	GAP	-3.58	AZP	84.73	TAL	351.96	TAP	191.13	RCA	151.55	APO	250.80	V2	21.997
RC	346.831	GL	-42.16	GP	37.53	ZAL	98.34	ZAP	60.49	ETS	207.77	ZAE	77.40	ETE	191.25	ZAC	124.60	ETC	267.28	LVI	-59.00

PLANETOCENTRIC CONIC

C3	22.829	VHL	4.778	DLA	-22.97	RAL	58.76	RAD	6644.1	VEL	11.951	PTH	6.95	VHP	3.188	DPA	40.24	RAP	359.36	ECC	1.3787

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 6 32	2696.98	-17.09	75.10	277.87	135.11	16 50 29	1697.0	1.14	58.99
60.00	17 13 49	2515.37	-11.69	63.74	282.87	128.85	17 55 44	1515.4	4.35	45.72
70.00	18 40 41	2260.01	-6.33	47.01	286.85	123.63	19 18 21	1260.0	7.62	27.47
80.00	20 24 35	1934.82	-1.87	25.09	289.61	119.80	20 56 50	934.8	10.39	4.45
90.00	22 3 33	1615.65	.04	2.67	290.67	118.28	22 30 28	615.6	11.59	341.60
100.00	23 7 27	1409.29	-1.87	346.45	289.61	119.80	23 30 56	409.3	10.39	325.82
110.00	23 40 7	1306.82	-6.33	335.92	286.85	123.63	24 1 54	306.8	7.62	316.38

DIFFERENTIAL CORRECTIONS

TDE	-3.5414	TRA	3.3659	TC3	-7.4654	BAU	2.4005												
RDE	1.1018	RRA	-1.6817	RC3	2.4762	FAU	.25115												
FDE	-2.9991	FRA	5.9495	FC3	-9.5244	BSP	17568												
BDE	3.7089	BRA	3.7626	BC3	7.8654	FSP	1872												

MID-COURSE EXECUTION ACCURACY

SGT	9388.6	SGR	3484.7	SG3	1078.5						
RRT	-.9810	RRF	-.9946	RTF	.9742						
SGB	10014.4	R23	.1776	R13	-.9786						
SG1	9994.3	SG2	635.2	THA	159.91						

ORBIT DETERMINATION ACCURACY

ST	222.5	SR	73.9	SS	59.1						
CRT	-.9871	CRS	.9936	CST	-.9628						
LSA	241.1	NSA	18.4	SSA	.6						
EL1	234.2	EL2	11.3	ALF	161.82						

LAUNCH DATE AUG 2 1973 FLIGHT TIME 104.00 ARRIVAL DATE NOV 14 1973

HELIOCENTRIC CONIC DISTANCE 304.156 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	35.635	GAL	-1.49	AZL	90.20	HCA	93.49	SMA	277.37	ECC	.45324	INC	.2027
RP	218.16	LAP	-.20	LOP	43.06	VP	27.169	GAP	24.16	AZP	89.99	TAL	355.21	TAP	88.71	RCA	151.66	APO	403.09
RC	74.953	GL	-1.15	GP	-5.00	ZAL	96.37	ZAP	174.60	ETS	249.49	ZAE	164.41	ETE	343.04	ZAC	78.70	ETC	282.96

V1	29.346	V2	25.188	LVI	-12.55														

PLANETOCENTRIC CONIC

C3	39.917	VHL	6.318	DLA	15.51	RAL	43.81	RAD	6650.6	VEL	12.641	PTH	7.49	VHP	9.069	DPA	10.17	RAP	40.40

ECC	1.6589																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 32 26	3617.48	-47.43	139.20	293.38	94.23	13 32 44	2617.5	-40.27	106.92
60.00	12 54 26	3558.95	-40.30	134.35	293.80	90.59	13 53 44	2558.9	-35.65	104.26
70.00	13 26 32	3464.45	-34.09	126.58	293.68	87.74	14 24 16	2464.5	-31.45	98.16
80.00	14 15 48	3310.04	-29.59	114.57	293.38	85.79	15 10 56	2310.0	-28.33	87.22
90.00	15 28 41	3074.81	-27.88	97.13	293.23	85.06	16 19 56	2074.8	-27.13	70.15
100.00	16 58 40	2784.52	-29.59	75.94	293.38	85.79	17 45 5	1784.5	-28.33	48.59
110.00	18 25 58	2511.27	-34.09	55.50	293.68	87.74	19 7 49	1511.3	-31.45	27.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3419	TRA	-1.1173	TC3	.1994	BAU	.1123	SGT	1124.9	SGR	618.2	SG3	133.4	ST	22.1	SR	28.7	SS	12.5
RDE	-.6292	RRA	.2361	RC3	-.0673	FAU	.05008	RRT	-.1124	RRF	.1288	RTF	-.6440	CRT	.6133	CRS	.6950	CST	.9870
FDE	.2723	FRA	.7031	FC3	-1.0861	BSP	1642	SGB	1283.6	R23	-.0260	R13	.6460	LSA	34.7	MSA	16.2	SSA	1.3
BDE	.7161	BRA	1.1419	BC3	.2104	FSP	161	SG1	1127.9	SG2	612.7	THA	174.98	EL1	32.9	EL2	15.3	ALF	56.65

LAUNCH DATE AUG 2 1973 FLIGHT TIME 106.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 306.138 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	35.480	GAL	-1.41	AZL	90.17	HCA	94.63	SMA	271.12	ECC	.44057	INC	.1662
RP	218.53	LAP	-.17	LOP	44.20	VP	26.928	GAP	23.78	AZP	89.99	TAL	355.39	TAP	90.02	RCA	151.67	APO	390.57
RC	76.362	GL	-.96	GP	-5.13	ZAL	96.02	ZAP	174.15	ETS	243.06	ZAE	163.70	ETE	343.00	ZAC	78.50	ETC	282.93

V1	29.346	V2	25.148	LVI	-12.32														

PLANETOCENTRIC CONIC

C3	37.930	VHL	6.159	DLA	15.59	RAL	43.41	RAD	6649.9	VEL	12.562	PTH	7.43	VHP	8.797	DPA	10.17	RAP	40.80

ECC	1.6242																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 30 31	3606.15	-47.37	138.11	291.76	95.07	13 30 37	2606.1	-39.91	106.08
60.00	12 52 24	3547.87	-40.29	133.40	292.30	91.23	13 51 32	2547.9	-35.39	103.44
70.00	13 24 23	3453.73	-34.11	125.74	292.27	88.24	14 21 57	2453.7	-31.27	97.38
80.00	14 13 33	3299.71	-29.64	113.81	292.01	86.18	15 8 32	2299.7	-28.20	86.48
90.00	15 26 22	3064.66	-27.94	96.39	291.87	85.42	16 17 27	2064.7	-27.03	69.42
100.00	16 56 24	2774.18	-29.64	75.18	292.01	86.18	17 42 39	1774.2	-28.20	47.84
110.00	18 23 50	2500.55	-34.11	54.66	292.27	88.24	19 5 30	1500.6	-31.27	26.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4229	TRA	-1.0796	TC3	.1721	BAU	.0953	SGT	1134.5	SGR	621.8	SG3	141.8	ST	25.1	SR	28.8	SS	13.1
RDE	-.6143	RRA	.2347	RC3	-.0754	FAU	.05198	RRT	-.0442	RRF	.1361	RTF	-.6138	CRT	.7036	CRS	.7072	CST	.9933
FDE	.2910	FRA	.7216	FC3	-1.1864	BSP	1494	SGB	1293.7	R23	-.0975	R13	.6157	LSA	37.3	MSA	15.5	SSA	1.3
BDE	.7458	BRA	1.1048	BC3	.1879	FSP	172	SG1	1135.0	SG2	620.9	THA	178.02	EL1	35.3	EL2	14.5	ALF	50.46

LAUNCH DATE AUG 2 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 308.301 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	35.333	GAL	-1.33	AZL	90.13	HCA	95.76	SMA	265.48	ECC	.42863	INC	.1297
RP	218.89	LAP	-.13	LOP	45.33	VP	26.696	GAP	23.41	AZP	89.99	TAL	355.57	TAP	91.34	RCA	151.69	APO	379.27
RC	77.855	GL	-.77	GP	-5.27	ZAL	95.65	ZAP	173.64	ETS	237.60	ZAE	163.04	ETE	342.89	ZAC	78.29	ETC	282.89

V1	29.346	V2	25.107	LVI	-12.09														

PLANETOCENTRIC CONIC

C3	36.097	VHL	6.008	DLA	15.67	RAL	42.99	RAD	6649.3	VEL	12.490	PTH	7.38	VHP	8.534	DPA	10.17	RAP	41.20

ECC	1.5941																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 28 30	3595.26	-47.30	137.06	290.17	95.67	13 28 26	2595.3	-39.55	105.28
60.00	12 50 18	3537.25	-40.27	132.50	290.82	91.84	13 49 15	2537.3	-35.13	102.66
70.00	13 22 9	3443.48	-34.13	124.94	290.86	88.71	14 19 33	2443.5	-31.09	96.63
80.00	14 11 11	3289.86	-29.68	113.08	290.65	86.57	15 6 0	2289.9	-28.08	85.77
90.00	15 23 56	3055.01	-27.99	95.69	290.52	85.77	16 14 51	2055.0	-26.93	68.73
100.00	16 54 2	2764.33	-29.68	74.45	290.65	86.57	17 40 7	1764.3	-28.08	47.14
110.00	18 21 35	2490.30	-34.13	53.86	290.86	88.71	19 3 6	1490.3	-31.09	25.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3445	TRA	-1.1035	TC3	.2540	BAU	.1292	SGT	1181.4	SGR	625.7	SG3	151.3	ST	23.2	SR	28.8	SS	13.5
RDE	-.6003	RRA	.2336	RC3	-.0845	FAU	.05422	RRT	-.1295	RRF	.1499	RTF	-.6581	CRT	.6175	CRS	.7078	CST	.9857
FDE	.3017	FRA	.7430	FC3	-1.3004	BSP	1758	SGB	1336.8	R23	-.0315	R13	.6674	LSA	35.7	MSA	16.6	SSA	1.3
BDE	.6921	BRA	1.1279	BC3	.2677	FSP	187	SG1	1185.2	SG2	618.5	THA	174.60	EL1	33.5	EL2	15.7	ALF	54.74

LAUNCH DATE AUG 2 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 310.624 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	35.194	GAL	-1.25	AZL	90.09	HCA	96.89	SMA	260.37	ECC	.41736	INC	.0933
RP	219.26	LAP	-.09	LOP	46.46	VP	26.474	GAP	23.03	AZP	89.99	TAL	355.77	TAP	92.66	RCA	151.70	APO	369.05
RC	79.428	GL	-.56	GP	-5.41	ZAL	95.27	ZAP	173.07	ETS	232.98	ZAE	162.44	ETE	342.72	ZAC	78.08	ETC	282.86

V1	29.346	V2	25.067	LVI	-11.88														

PLANETOCENTRIC CONIC

C3	34.406	VHL	5.866	DLA	15.75	RAL	42.54	RAD	6648.7	VEL	12.422	PTH	7.33	VHP	8.281	DPA	10.15	RAP	41.59

ECC	1.5662																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 24	3584.82	-47.22	136.07	288.60	96.63	13 26 9	2584.8	-39.20	104.52
60.00	12 48 5	3527.11	-40.24	131.64	289.37	92.43	13 46 52	2527.1	-34.88	101.92
70.00	13 19 49	3433.72	-34.14	124.18	289.47	89.16	14 17 3	2433.7	-30.92	95.93
80.00	14 8 42	3280.51	-29.71	112.39	289.29	86.93	15 3 23	2280.5	-27.96	85.10
90.00	15 21 24	3045.86	-28.03	95.03	289.18	86.10	16 12 10	2045.9	-26.83	68.08
100.00	16 51 34	2754.98	-29.71	73.76	289.29	86.93	17 37 29	1755.0	-27.96	46.47
110.00	18 19 15	2480.54	-34.14	53.10	289.47	89.16	19 0 36	1480.5	-30.92	24.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3452	TRA	-1.0937	TC3	.2851	BAU	.1381	SGT	1207.3	SGR	629.2	SG3	161.1	ST	23.7	SR	28.9	SS	14.0
RDE	-.5863	RRA	.2325	RC3	-.0944	FAU	.05649	RRT	-.1394	RRF	.1615	RTF	-.6762	CRT	.6196	CRS	.7146	CST	.9850
FDE	.3181	FRA	.7632	FC3	-1.4214	BSP	1820	SGB	1361.4	R23	-.0337	R13	.6787	LSA	36.1	MSA	16.8	SSA	1.4
BDE	.6803	BRA	1.1181	BC3	.3003	FSP	202	SG1	1211.6	SG2	620.8	THA	174.36	EL1	33.8	EL2	15.9	ALF	53.86

LAUNCH DATE AUG 2 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 313.088 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 35.062 GAL -1.17 AZL 90.06 HCA 98.02 SMA 255.74 ECC .40677 INC .0555 V1 29.346
RP 219.63 LAP -.06 LOP 47.58 VP 26.260 GAP 22.66 AZP 89.99 TAL 355.97 TAP 93.98 RCA 151.71 APO 359.77 V2 25.026
RC 81.081 GL -.35 GP -5.56 ZAL 94.87 ZAP 172.45 ETS 229.09 ZAE 161.89 ETE 342.50 ZAC 77.87 ETC 282.83 LVI -11.60

PLANETOCENTRIC CONIC

C3 32.844 VHL 5.731 DLA 15.84 RAL 42.08 RAD 6648.1 VEL 12.360 PTH 7.28 VHP 8.036 DPA 10.12 RAP 41.98 ECC 1.5405

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 24 14	3574.86	-47.14	135.12	287.06	97.36	13 23 48	2574.9	-38.87	103.80
60.00	12 45 48	3517.44	-40.21	130.82	287.93	92.98	13 44 25	2517.4	-34.63	101.21
70.00	13 17 23	3424.46	-34.15	123.46	288.10	89.59	14 14 28	2424.5	-30.75	95.26
80.00	14 6 8	3271.68	-29.74	111.73	287.96	87.27	15 0 40	2271.7	-27.85	84.47
90.00	15 16 46	3037.26	-28.07	94.40	287.85	86.41	16 9 23	2037.3	-26.73	67.47
100.00	16 49 0	2746.16	-29.74	73.10	287.96	87.27	17 34 46	1746.2	-27.85	45.84
110.00	18 16 49	2471.27	-34.15	52.38	288.10	89.59	18 58 1	1471.3	-30.75	24.17

DIFFERENTIAL CORRECTIONS

TDE -.3463 TRA-1.0856 TC3 .3170 BAU .1466
RDE -.5725 RRA .2316 RC3 -.1051 FAU .05887
FDE .3353 FRA .7831 FC3-1.5516 BSP 1874
BDE .6691 BRA 1.1100 BC3 .3340 FSP 218

MID-COURSE EXECUTION ACCURACY

SGT 1234.7 SGR 632.5 SG3 171.4
RRT -.1500 RRF .1739 RTF -.6858
SGB 1387.3 R23 -.0363 R13 .6886
SG1 1239.6 SG2 622.9 THA 174.12

ORBIT DETERMINATION ACCURACY

ST 24.2 SR 28.6 SS 14.5
CRT .6217 CRS .7216 C3T .9841
LSA 36.6 MSA 16.9 SSA 1.4
EL1 34.1 EL2 16.1 ALF 92.90

LAUNCH DATE AUG 2 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 315.678 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 34.938 GAL -1.09 AZL 90.02 HCA 99.14 SMA 251.82 ECC .39876 INC .0171 V1 29.346
RP 220.00 LAP -.02 LOP 48.70 VP 26.084 GAP 22.30 AZP 90.00 TAL 356.17 TAP 95.31 RCA 151.73 APO 351.31 V2 24.985
RC 82.809 GL -.13 GP -5.71 ZAL 94.46 ZAP 171.79 ETS 225.79 ZAE 161.41 ETE 342.22 ZAC 77.65 ETC 282.80 LVI -11.35

PLANETOCENTRIC CONIC

C3 31.401 VHL 5.604 DLA 15.93 RAL 41.61 RAD 6647.5 VEL 12.301 PTH 7.24 VHP 7.800 DPA 10.09 RAP 42.36 ECC 1.5168

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 21 58	3565.39	-47.05	134.22	285.56	98.05	13 21 23	2565.4	-38.54	103.13
60.00	12 43 25	3508.29	-40.17	130.04	286.52	93.51	13 41 53	2508.3	-34.40	100.55
70.00	13 14 52	3415.72	-34.15	122.78	286.75	89.99	14 11 47	2415.7	-30.59	94.63
80.00	14 3 28	3263.40	-29.77	111.12	286.64	87.59	14 57 51	2263.4	-27.74	83.88
90.00	15 16 2	3029.21	-28.10	93.81	286.55	86.70	16 6 31	2029.2	-26.64	66.90
100.00	16 46 20	2737.88	-29.77	72.49	286.64	87.59	17 31 58	1737.9	-27.74	45.25
110.00	18 14 18	2462.54	-34.15	51.69	286.75	89.99	18 55 21	1462.5	-30.59	23.55

DIFFERENTIAL CORRECTIONS

TDE -.3479 TRA-1.0766 TC3 .3503 BAU .1550
RDE -.5590 RRA .2308 RC3 -.1168 FAU .06136
FDE .3543 FRA .8026 FC3-1.6917 BSP 1930
BDE .6584 BRA 1.1011 BC3 .3693 FSP 234

MID-COURSE EXECUTION ACCURACY

SGT 1261.4 SGR 635.6 SG3 182.3
RRT -.1609 RRF .1867 RTF -.6950
SGB 1412.5 R23 -.0390 R13 .6980
SG1 1266.9 SG2 624.6 THA 173.87

ORBIT DETERMINATION ACCURACY

ST 24.7 SR 28.8 SS 15.1
CRT .6244 CRS .7294 C3T .9831
LSA 37.1 MSA 17.0 SSA 1.4
EL1 34.3 EL2 16.2 ALF 91.91

LAUNCH DATE AUG 2 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 318.379 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 34.820 GAL -1.01 AZL 89.98 HCA 100.26 SMA 247.66 ECC .38731 INC .0099 V1 29.346
RP 220.38 LAP .02 LOP 49.82 VP 25.856 GAP 21.94 AZP 90.00 TAL 356.39 TAP 96.64 RCA 151.74 APO 343.58 V2 24.944
RC 84.610 GL .10 GP -5.88 ZAL 94.04 ZAP 171.11 ETS 222.99 ZAE 160.99 ETE 341.88 ZAC 77.43 ETC 282.77 LVI -11.10

PLANETOCENTRIC CONIC

C3 30.067 VHL 5.483 DLA 16.02 RAL 41.12 RAD 6647.0 VEL 12.248 PTH 7.19 VHP 7.573 DPA 10.04 RAP 42.73 ECC 1.4948

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 19 38	3556.42	-46.98	133.37	284.09	98.70	13 18 54	2556.4	-38.23	102.80
60.00	12 40 57	3499.64	-40.14	129.31	285.13	94.00	13 39 17	2499.6	-34.17	98.93
70.00	13 12 15	3407.52	-34.15	122.14	285.42	90.37	14 9 3	2407.5	-30.43	94.04
80.00	14 0 42	3255.69	-29.79	110.55	285.34	87.89	14 54 58	2255.7	-27.63	83.33
90.00	15 13 11	3021.73	-28.13	93.27	285.26	86.98	16 3 33	2021.7	-26.55	66.37
100.00	16 43 34	2730.16	-29.79	71.91	285.34	87.89	17 29 4	1730.2	-27.63	44.70
110.00	18 11 41	2454.33	-34.15	51.05	285.42	90.37	18 52 36	1454.3	-30.43	22.96

DIFFERENTIAL CORRECTIONS

TDE -.3499 TRA-1.0681 TC3 .3848 BAU .1632
RDE -.5458 RRA .2302 RC3 -.1293 FAU .06393
FDE .3741 FRA .8235 FC3-1.8408 BSP 1994
BDE .6483 BRA 1.0927 BC3 .4060 FSP 253

MID-COURSE EXECUTION ACCURACY

SGT 1288.5 SGR 638.7 SG3 193.8
RRT -.1724 RRF .2006 RTF -.7041
SGB 1438.1 R23 -.0423 R13 .7074
SG1 1294.6 SG2 626.2 THA 173.61

ORBIT DETERMINATION ACCURACY

ST 25.3 SR 28.8 SS 15.6
CRT .6274 CRS .7363 C3T .9823
LSA 37.6 MSA 17.1 SSA 1.5
EL1 34.6 EL2 16.3 ALF 90.87

LAUNCH DATE AUG 2 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 321.179 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 34.708 GAL -.93 AZL 89.95 HCA 101.37 SMA 244.12 ECC .37839 INC .0304 V1 29.346
RP 220.76 LAP .05 LOP 50.94 VP 25.666 GAP 21.58 AZP 90.01 TAL 356.60 TAP 97.97 RCA 151.75 APO 336.50 V2 24.902
RC 86.480 GL .34 GP -6.05 ZAL 93.61 ZAP 170.39 ETS 220.59 ZAE 160.63 ETE 341.49 ZAC 77.21 ETC 282.74 LVI -10.85

PLANETOCENTRIC CONIC

C3 28.833 VHL 5.370 DLA 16.12 RAL 40.81 RAD 6646.5 VEL 12.197 PTH 7.15 VHP 7.353 DPA 9.99 RAP 43.09 ECC 1.4745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 17 13	3547.95	-46.87	132.57	282.65	99.30	13 16 21	2548.0	-37.93	101.90
60.00	12 38 25	3491.52	-40.09	128.62	283.78	94.47	13 36 36	2491.5	-33.95	99.35
70.00	13 9 33	3399.86	-34.15	121.54	284.11	90.72	14 6 13	2399.9	-30.29	93.49
80.00	13 57 50	3248.55	-29.81	110.02	284.07	88.17	14 51 59	2248.5	-27.53	82.82
90.00	15 10 14	3014.84	-28.15	92.77	283.99	87.23	16 0 29	2014.8	-26.47	65.89
100.00	16 40 42	2723.02	-29.81	71.38	284.07	88.17	17 26 5	1723.0	-27.53	44.19
110.00	18 8 59	2446.68	-34.15	50.46	284.11	90.72	18 49 46	1446.7	-30.29	22.41

DIFFERENTIAL CORRECTIONS

TDE -.3515 TRA-1.0594 TC3 .4224 BAU .1719
RDE -.5328 RRA .2297 RC3 -.1432 FAU .06675
FDE .3954 FRA .8448 FC3-2.0042 BSP 2057
BDE .6383 BRA 1.0840 BC3 .4460 FSP 272

MID-COURSE EXECUTION ACCURACY

SGT 1315.7 SGR 641.8 SG3 206.1
RRT -.1858 RRF .2158 RTF -.7133
SGB 1463.9 R23 -.0452 R13 .7169
SG1 1322.6 SG2 627.4 THA 173.32

ORBIT DETERMINATION ACCURACY

ST 25.8 SR 28.7 SS 16.2
CRT .6298 CRS .7434 C3T .9812
LSA 38.1 MSA 17.2 SSA 1.5
EL1 34.9 EL2 16.5 ALF 49.85

LAUNCH DATE AUG 2 1973 FLIGHT TIME 120.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 324.068 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	34.602	GAL	-.86	AZL	89.91	HCA	102.48	SMA	240.87	ECC	.36996	INC	.0885
RP	221.14	LAP	.09	LOP	52.05	VP	25.482	GAP	21.22	AZP	90.02	TAL	356.83	TAP	99.31	RCA	151.76	APO	329.98
RC	88.416	GL	.59	GP	-6.22	ZAL	93.17	ZAP	169.65	ETS	218.53	ZAE	160.32	ETE	341.03	ZAC	76.97	ETC	282.72

V1	29.346	V2	24.861	LVI	-10.59														

PLANETOCENTRIC CONIC

C3	27.689	VHL	5.262	DLA	16.22	RAL	40.10	RAD	6646.1	VEL	12.151	PTH	7.12	VHP	7.140	DPA	9.92	RAP	43.44

ECC	1.4557																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 44	3539.97	-46.78	131.82	281.24	99.88	13 13 44	2540.0	-37.65	101.35
60.00	12 35 47	3483.90	-40.05	127.98	282.44	94.90	13 33 51	2483.9	-33.75	98.81
70.00	13 6 46	3392.73	-34.14	120.98	282.83	91.05	14 3 18	2392.7	-30.15	92.98
80.00	13 54 53	3241.95	-29.82	109.53	282.81	88.43	14 48 55	2242.0	-27.44	82.36
90.00	15 7 12	3008.52	-28.17	92.30	282.74	87.46	15 57 20	2008.5	-26.39	65.44
100.00	16 37 44	2716.42	-29.82	70.69	282.81	88.43	17 23 1	1716.4	-27.44	43.72
110.00	18 6 12	2439.55	-34.14	49.90	282.83	91.05	18 46 52	1439.5	-30.15	21.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3402	TRA	-1.0373	TC3	.4787	BAU	.1866	SGT	1332.2	SGR	644.7	SG3	218.8	ST	25.6	SR	28.6	SS	17.0
RDE	-.5198	RRA	.2297	RC3	-.1577	FAU	.06949	RRT	-.2099	RRF	.2306	RTF	-.7361	CRT	.6224	CRS	.7514	CST	.9779
FDE	.4219	FRA	.8707	FC3	-2.1725	BSP	1951	SGB	1480.0	R23	-.0329	R13	.7395	LSA	38.2	MSA	17.2	SSA	1.5
BDE	.6212	BRA	1.0624	BC3	.5040	FSP	298	SG1	1341.0	SG2	626.2	THA	172.57	EL1	34.6	EL2	16.5	ALF	50.02

LAUNCH DATE AUG 2 1973 FLIGHT TIME 122.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 327.038 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	34.502	GAL	-.78	AZL	89.87	HCA	103.59	SMA	237.89	ECC	.36201	INC	.1253
RP	221.52	LAP	.12	LOP	53.15	VP	25.305	GAP	20.87	AZP	90.03	TAL	357.05	TAP	100.64	RCA	151.77	APO	324.00
RC	90.414	GL	.84	GP	-6.41	ZAL	92.72	ZAP	168.89	ETS	216.75	ZAE	160.08	ETE	340.52	ZAC	76.74	ETC	282.69

V1	29.346	V2	24.819	LVI	-10.33														

PLANETOCENTRIC CONIC

C3	26.633	VHL	5.161	DLA	16.33	RAL	39.57	RAD	6645.7	VEL	12.107	PTH	7.08	VHP	6.935	DPA	9.84	RAP	43.79

ECC	1.4383																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 12 11	3532.55	-46.69	131.13	279.88	100.40	13 11 4	2532.6	-37.39	100.84
60.00	12 33 6	3476.87	-40.01	127.39	281.15	95.30	13 31 3	2476.9	-33.56	98.31
70.00	13 3 54	3386.22	-34.13	120.47	281.58	91.35	14 0 20	2386.2	-30.02	92.52
80.00	13 51 50	3236.02	-29.83	109.09	281.58	88.66	14 45 46	2236.0	-27.35	81.94
90.00	15 4 3	3002.88	-28.19	91.89	281.52	87.66	15 54 6	2002.9	-26.32	65.04
100.00	16 34 41	2710.50	-29.83	70.45	281.58	88.66	17 19 52	1710.5	-27.35	43.30
110.00	18 3 20	2433.04	-34.13	49.39	281.58	91.35	18 43 53	1433.0	-30.02	21.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3470	TRA	-1.0309	TC3	.5106	BAU	.1921	SGT	1359.7	SGR	647.8	SG3	232.5	ST	26.3	SR	28.4	SS	17.6
RDE	-.5073	RRA	.2291	RC3	-.1739	FAU	.07265	RRT	-.2200	RRF	.2476	RTF	-.7378	CRT	.6298	CRS	.7591	CST	.9775
FDE	.4449	FRA	.8873	FC3	-2.3617	BSP	2055	SGB	1506.1	R23	-.0422	R13	.7418	LSA	38.9	MSA	17.2	SSA	1.6
BDE	.6146	BRA	1.0561	BC3	.5395	FSP	317	SG1	1369.1	SG2	627.6	THA	172.41	EL1	35.0	EL2	16.6	ALF	48.55

LAUNCH DATE AUG 2 1973 FLIGHT TIME 124.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 330.080 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	34.408	GAL	-.71	AZL	89.84	HCA	104.69	SMA	235.13	ECC	.35451	INC	.1631
RP	221.90	LAP	.16	LOP	54.25	VP	25.135	GAP	20.52	AZP	90.04	TAL	357.28	TAP	101.97	RCA	151.78	APO	318.49
RC	92.473	GL	1.11	GP	-6.60	ZAL	92.27	ZAP	168.11	ETS	215.20	ZAE	159.88	ETE	339.95	ZAC	76.50	ETC	282.67

V1	29.346	V2	24.778	LVI	-10.06														

PLANETOCENTRIC CONIC

C3	25.654	VHL	5.065	DLA	16.44	RAL	39.04	RAD	6645.3	VEL	12.067	PTH	7.05	VHP	6.737	DPA	9.75	RAP	44.12

ECC	1.4222																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 9 35	3525.66	-46.61	130.49	278.56	100.89	13 8 21	2525.7	-37.14	100.37
60.00	12 30 21	3470.39	-39.97	126.84	279.88	95.67	13 28 11	2470.4	-33.38	97.85
70.00	13 0 57	3380.30	-34.12	120.01	280.35	91.63	13 57 17	2380.3	-29.90	92.10
80.00	13 48 41	3230.71	-29.84	108.69	280.37	88.87	14 42 32	2230.7	-27.27	81.56
90.00	15 0 49	2997.87	-28.20	91.53	280.32	87.84	15 50 47	1997.9	-26.25	64.69
100.00	16 31 33	2705.18	-29.84	70.06	280.37	88.87	17 16 38	1705.2	-27.27	42.93
110.00	18 0 24	2427.11	-34.12	48.93	280.35	91.63	18 40 51	1427.1	-29.90	21.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3523	TRA	-1.0251	TC3	.5475	BAU	.1989	SGT	1388.6	SGR	651.3	SG3	247.2	ST	27.0	SR	28.3	SS	18.2
RDE	-.4950	RRA	.2290	RC3	-.1916	FAU	.07602	RRT	-.2333	RRF	.2664	RTF	-.7421	CRT	.6349	CRS	.7653	CST	.9769
FDE	.4695	FRA	.9081	FC3	-2.3655	BSP	2160	SGB	1533.7	R23	-.0499	R13	.7466	LSA	39.5	MSA	17.2	SSA	1.6
BDE	.6076	BRA	1.0503	BC3	.5801	FSP	339	SG1	1399.0	SG2	628.6	THA	172.16	EL1	35.3	EL2	16.7	ALF	47.17

LAUNCH DATE AUG 2 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 333.187 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	34.318	GAL	-.64	AZL	89.80	HCA	105.79	SMA	232.59	ECC	.34741	INC	.2006
RP	222.26	LAP	.19	LOP	55.35	VP	24.970	GAP	20.18	AZP	90.05	TAL	357.51	TAP	103.30	RCA	151.78	APO	313.39
RC	94.587	GL	1.39	GP	-6.80	ZAL	91.81	ZAP	167.31	ETS	213.84	ZAE	159.74	ETE	339.31	ZAC	76.25	ETC	282.64

V1	29.346	V2	24.736	LVI	-9.79														

PLANETOCENTRIC CONIC

C3	24.746	VHL	4.975	DLA	16.57	RAL	38.50	RAD	6644.9	VEL	12.030	PTH	7.02	VHP	6.545	DPA	9.64	RAP	44.45

ECC	1.4073																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 6 56	3519.29	-46.52	129.89	277.27	101.34	13 5 35	2519.3	-36.90	99.94
60.00	12 27 32	3464.45	-39.93	126.34	278.65	96.01	13 25 16	2464.5	-33.21	97.44
70.00	12 57 56	3374.95	-34.11	119.59	279.15	91.87	13 54 11	2375.0	-29.79	91.72
80.00	13 45 27	3226.02	-29.84	108.34	279.19	89.05	14 39 13	2226.0	-27.20	81.23
90.00	14 57 29	2993.51	-28.22	91.21	279.15	88.00	15 47 23	1993.5	-26.20	64.38
100.00	16 28 19	2700.49	-29.84	69.71	279.19	89.05	17 13 20	1700.5	-27.20	42.60
110.00	17 57 22	2421.77	-34.11	48.51	279.15	91.87	18 37 44	1421.8	-29.79	20.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3564	TRA	-1.0156	TC3	.5858	BAU	.2059	SGT	1413.4	SGR	654.7	SG3	262.2	ST	27.5	SR	28.1	SS	18.9
RDE	-.4828	RRA	.2288	RC3	-.2103	FAU	.07940	RRT	-.2477	RRF	.2852	RTF	-.7475	CRT	.6399	CRS	.7724	CST	.9761
FDE	.4966	FRA	.9276	FC3	-2.7778	BSP	2223	SGB	1557.6	R23	-.0560	R13	.7525	LSA	40.1	MSA	17.2	SSA	1.6
BDE	.6001	BRA	1.0411	BC3	.6224	FSP	362	SG1	1424.9	SG2	629.1	THA	171.86	EL1	35.6	EL2	16.7	ALF	45.95

LAUNCH DATE AUG 2 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 336.354 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	34.233	GAL	-.57	AZL	89.76	HCA	106.88	SMA	230.24	ECC	.34071	INC	.2386
RP	222.67	LAP	.23	LOP	56.45	VP	24.811	GAP	19.83	AZP	90.07	TAL	357.75	TAP	104.63	RCA	151.79	APO	308.68
RC	96.756	GL	1.67	GP	-7.01	ZAL	91.35	ZAP	166.50	ETS	212.65	ZAE	159.65	ETE	338.60	ZAC	76.00	ETC	282.62

V1 29.346
V2 24.694
LVI -9.51

PLANETOCENTRIC CONIC

C3 23.906 VHL 4.889 DLA 16.69 RAL 37.95 RAD 6644.5 VEL 11.995 PTH 6.99 VHP 6.360 DPA 9.53 RAP 44.76 ECC 1.3934

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 13	3513.46	-46.44	129.35	276.03	101.75	13 2 46	2513.5	-36.69	99.54
60.00	12 24 38	3459.08	-39.89	125.89	277.45	96.31	13 22 18	2459.1	-33.06	97.06
70.00	12 54 50	3370.20	-34.10	119.22	277.99	92.09	13 51 0	2370.2	-29.69	91.39
80.00	13 42 8	3221.96	-29.85	108.04	278.04	89.21	14 35 50	2222.0	-27.14	80.95
90.00	14 54 4	2989.80	-28.22	90.94	278.00	88.14	15 43 53	1989.8	-26.15	64.12
100.00	16 25 0	2696.43	-29.85	69.41	278.04	89.21	17 9 56	1696.4	-27.14	42.31
110.00	17 54 16	2417.02	-34.10	48.14	277.99	92.09	18 34 33	1417.0	-29.69	20.31

DIFFERENTIAL CORRECTIONS

TDE	-.3602	TRA	-1.0069	TC3	.6257	BAU	.2131	SGT	1438.8	SGR	658.4
RDE	-.4707	RRA	.2288	RC3	-.2307	FAU	.08311	RRT	-.2639	RRF	.3056
FDE	.5260	FRA	.9478	FC3	-3.0097	BSP	2307	SGB	1582.3	R23	-.0621
BDE	.5927	BRA	1.0325	BC3	.6669	FSP	388	SG1	1451.7	SG2	629.4

MID-COURSE EXECUTION ACCURACY

SGT	1438.8	SGR	658.4	SG3	278.4						
RRT	-.2639	RRF	.3056	RTF	-.7525						
SGB	1582.3	R23	-.0621	R13	.7581						
SG1	1451.7	SG2	629.4	THA	171.51						

ORBIT DETERMINATION ACCURACY

ST	28.1	SR	27.9	SS	19.6
CRT	.6439	CRS	.7794	CST	.9750
LSA	40.7	MSA	17.1	SSA	1.7
EL1	35.9	EL2	16.7	ALF	44.73

LAUNCH DATE AUG 2 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 339.574 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	34.152	GAL	-.51	AZL	89.72	HCA	107.97	SMA	228.05	ECC	.33438	INC	.2769
RP	223.06	LAP	.26	LOP	57.54	VP	24.658	GAP	19.50	AZP	90.09	TAL	357.98	TAP	105.95	RCA	151.80	APO	304.31
RC	98.976	GL	1.97	GP	-7.23	ZAL	90.89	ZAP	165.66	ETS	211.59	ZAE	159.62	ETE	337.82	ZAC	75.74	ETC	282.81

V1 29.346
V2 24.652
LVI -9.23

PLANETOCENTRIC CONIC

C3 23.126 VHL 4.809 DLA 16.83 RAL 37.40 RAD 6644.2 VEL 11.963 PTH 6.98 VHP 6.181 DPA 9.39 RAP 45.06 ECC 1.3806

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 1 27	3508.16	-46.37	128.86	274.82	102.12	12 59 55	2508.2	-36.50	99.19
60.00	12 21 42	3454.27	-39.85	125.48	276.29	96.58	13 19 16	2454.3	-32.93	96.73
70.00	12 51 40	3366.06	-34.09	118.90	276.85	92.28	13 47 46	2366.1	-29.60	91.10
80.00	13 38 44	3218.55	-29.85	107.79	276.92	89.34	14 32 22	2218.6	-27.09	80.71
90.00	14 50 32	2986.77	-28.23	90.72	276.88	88.25	15 40 19	1986.8	-26.11	63.91
100.00	16 21 36	2693.02	-29.85	69.16	276.92	89.34	17 6 29	1693.0	-27.09	42.07
110.00	17 51 6	2412.88	-34.09	47.82	276.85	92.28	18 31 19	1412.9	-29.60	20.01

DIFFERENTIAL CORRECTIONS

TDE	-.3636	TRA	-.9971	TC3	.6667	BAU	.2204	SGT	1462.7	SGR	662.4
RDE	-.4588	RRA	.2288	RC3	-.2524	FAU	.08690	RRT	-.2811	RRF	.3267
FDE	.5571	FRA	.9669	FC3	-3.2531	BSP	2364	SGB	1605.7	R23	-.0678
BDE	.5854	BRA	1.0231	BC3	.7129	FSP	415	SG1	1477.1	SG2	629.5

MID-COURSE EXECUTION ACCURACY

SGT	1462.7	SGR	662.4	SG3	295.3						
RRT	-.2811	RRF	.3267	RTF	-.7578						
SGB	1605.7	R23	-.0678	R13	.7640						
SG1	1477.1	SG2	629.5	THA	171.12						

ORBIT DETERMINATION ACCURACY

ST	28.6	SR	27.7	SS	20.3
CRT	.6477	CRS	.7864	CST	.9738
LSA	41.2	MSA	17.1	SSA	1.7
EL1	36.1	EL2	16.7	ALF	43.56

LAUNCH DATE AUG 2 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 342.843 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	34.076	GAL	-.44	AZL	89.68	HCA	109.06	SMA	226.03	ECC	.32839	INC	.3153
RP	223.44	LAP	.30	LOP	58.63	VP	24.510	GAP	19.16	AZP	90.10	TAL	358.21	TAP	107.27	RCA	151.80	APO	300.26
RC	101.244	GL	2.27	GP	-7.45	ZAL	90.44	ZAP	164.81	ETS	210.65	ZAE	159.62	ETE	336.96	ZAC	75.47	ETC	282.59

V1 29.346
V2 24.611
LVI -8.98

PLANETOCENTRIC CONIC

C3 22.403 VHL 4.733 DLA 16.97 RAL 36.84 RAD 6643.9 VEL 11.933 PTH 6.94 VHP 6.008 DPA 9.25 RAP 45.38 ECC 1.3887

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 58 39	3503.40	-46.30	128.43	273.66	102.45	12 57 2	2503.4	-36.32	98.87
60.00	12 18 42	3450.02	-39.82	125.13	275.17	96.82	13 16 12	2450.0	-32.80	96.43
70.00	12 48 25	3362.52	-34.08	118.62	275.75	92.45	13 44 28	2362.5	-29.53	90.85
80.00	13 35 14	3215.80	-29.85	107.58	275.83	89.45	14 28 50	2215.8	-27.04	80.81
90.00	14 46 55	2984.41	-28.24	90.54	275.79	88.34	15 36 39	1984.4	-26.08	63.74
100.00	16 18 6	2690.27	-29.85	68.95	275.83	89.45	17 2 56	1690.3	-27.04	41.88
110.00	17 47 51	2409.34	-34.08	47.54	275.75	92.45	18 28 1	1409.3	-29.53	19.77

DIFFERENTIAL CORRECTIONS

TDE	-.3672	TRA	-.9870	TC3	.7095	BAU	.2280	SGT	1486.3	SGR	666.8
RDE	-.4467	RRA	.2291	RC3	-.2758	FAU	.09092	RRT	-.2999	RRF	.3487
FDE	.5933	FRA	.9891	FC3	-3.5136	BSP	2407	SGB	1629.0	R23	-.0728
BDE	.5783	BRA	1.0132	BC3	.7612	FSP	443	SG1	1502.6	SG2	629.2

MID-COURSE EXECUTION ACCURACY

SGT	1486.3	SGR	666.8	SG3	313.3						
RRT	-.2999	RRF	.3487	RTF	-.7640						
SGB	1629.0	R23	-.0728	R13	.7708						
SG1	1502.6	SG2	629.2	THA	170.69						

ORBIT DETERMINATION ACCURACY

ST	29.1	SR	27.4	SS	21.2
CRT	.6516	CRS	.7935	CST	.9725
LSA	41.9	MSA	16.9	SSA	1.8
EL1	36.3	EL2	16.6	ALF	42.35

LAUNCH DATE AUG 2 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 346.156 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	34.003	GAL	-.38	AZL	89.65	HCA	110.14	SMA	224.15	ECC	.32273	INC	.3544
RP	223.83	LAP	.33	LOP	59.71	VP	24.367	GAP	18.83	AZP	90.12	TAL	358.45	TAP	108.59	RCA	151.81	APO	296.49
RC	103.560	GL	2.59	GP	-7.69	ZAL	89.98	ZAP	163.93	ETS	209.82	ZAE	159.67	ETE	336.01	ZAC	75.20	ETC	282.58

V1 29.346
V2 24.569
LVI -8.66

PLANETOCENTRIC CONIC

C3 21.733 VHL 4.662 DLA 17.12 RAL 36.26 RAD 6643.6 VEL 11.905 PTH 6.91 VHP 5.841 DPA 9.09 RAP 45.63 ECC 1.3577

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 55 47	3499.18	-46.24	128.04	272.54	102.75	12 54 7	2499.2	-36.16	98.59
60.00	12 15 38	3446.35	-39.79	124.82	274.08	97.03	13 13 4	2446.3	-32.70	96.18
70.00	12 45 6	3359.59	-34.07	118.40	274.68	92.58	13 41 6	2359.6	-29.47	90.64
80.00	13 31 39	3213.72	-29.85	107.43	274.77	89.53	14 25 13	2213.7	-27.01	80.37
90.00	14 43 12	2982.76	-28.24	90.42	274.73	88.40	15 32 55	1982.8	-26.05	63.63
100.00	16 14 31	2688.19	-29.85	68.80	274.77	89.53	16 59 19	1688.2	-27.01	41.73
110.00	17 44 33	2406.41	-34.07	47.31	274.68	92.58	18 24 39	1406.4	-29.47	19.56

DIFFERENTIAL CORRECTIONS

TDE	-.3692	TRA	-.9755	TC3	.7500	BAU	.2348	SGT	1506.2	SGR	672.0
RDE	-.4351	RRA	.2293	RC3	-.3010	FAU	.09521	RRT	-.3197	RRF	.3730
FDE	.6261	FRA	1.0089	FC3	-3.7926	BSP	2478	SGB	1649.4	R23	-.0794
BDE	.5706	BRA	1.0021	BC3	.8081	FSP	478	SG1	1524.7	SG2	629.1

MID-COURSE EXECUTION ACCURACY

SGT	1506.2	SGR	672.0	SG3	332.2						
RRT	-.3197	RRF	.3730	RTF	-.7684						
SGB	1649.4	R23	-.0794	R13	.7760						
SG1	1524.7	SG2	629.1	THA	170.20						

ORBIT DETERMINATION ACCURACY

ST	29.5	SR	27.1	SS	21.9
CRT	.6541	CRS	.7986	CST	.9714
LSA	42.4	MSA	16.8	SSA	1.8
EL1	36.5	EL2	16.6	ALF	41.31

LAUNCH DATE AUG 2 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 349.510 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.935	GAL	-.32	AZL	89.61	HCA	111.22	SMA	222.40	ECC	.31739	INC	.3934	V1	29.346
RP	224.22	LAP	.37	LOP	60.79	VP	24.229	GAP	18.50	AZP	90.14	TAL	350.68	TAP	109.90	RCA	151.81	APO	292.98	V2	24.527
RC	105.921	GL	2.91	GP	-7.94	ZAL	89.53	ZAP	163.04	ETS	209.07	ZAE	159.76	ETE	334.97	ZAC	74.92	ETC	282.57	LVI	-8.36

PLANETOCENTRIC CONIC

C3	21.111	VHL	4.595	DLA	17.28	RAL	35.73	RAD	6643.3	VEL	11.879	PTH	6.89	VHP	5.679	DPA	8.92	RAP	45.89	ECC	1.3474

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 52 54	3495.49	-46.18	127.70	271.46	103.00	12 51 9	2495.5	-36.02	98.35
60.00	12 12 31	3443.24	-39.76	124.56	273.02	97.20	13 9 55	2443.2	-32.61	95.96
70.00	12 41 43	3357.29	-34.06	118.22	273.64	92.69	13 37 41	2357.3	-29.42	90.48
80.00	13 27 59	3212.31	-29.86	107.32	273.74	89.59	14 21 31	2212.3	-26.99	80.27
90.00	14 39 23	2981.81	-28.24	90.35	273.71	88.43	15 29 5	1981.8	-26.04	63.56
100.00	16 10 51	2686.78	-29.86	68.69	273.74	89.59	16 55 37	1686.8	-26.99	41.64
110.00	17 41 10	2404.11	-34.06	47.13	273.64	92.69	18 21 14	1404.1	-29.42	19.40

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3740	TRA	-.9628	TC3	.7886	BAU	.2410	SGT	1524.3	SGR	677.2	SG3	351.5			ST	30.0	SR	26.8	SS	22.8
RDE	-.4230	RRA	.2295	RC3	-.3274	FAU	.09950	RRT	-.3380	RRF	.3961	RTF	-.7727			CRT	.6596	CRS	.8061	CST	.9704
FDE	.6671	FRA	1.0273	FC3	-4.0804	BSP	2517	SGB	1668.0	R23	-.0862	R13	.7812			LSA	43.1	MSA	16.7	SSA	1.9
BDE	.5646	BRA	.9898	BC3	.8538	FSP	509	SG1	1544.9	SG2	628.9	THA	169.74			EL1	36.7	EL2	16.5	ALF	40.06

LAUNCH DATE AUG 2 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 352.901 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.870	GAL	-.26	AZL	89.57	HCA	112.30	SMA	220.77	ECC	.31233	INC	.4334	V1	29.346
RP	224.61	LAP	.40	LOP	61.86	VP	24.095	GAP	18.17	AZP	90.16	TAL	358.91	TAP	111.21	RCA	151.81	APO	289.72	V2	24.485
RC	108.326	GL	3.24	GP	-8.19	ZAL	89.08	ZAP	162.13	ETS	208.40	ZAE	159.89	ETE	333.83	ZAC	74.63	ETC	282.56	LVI	-8.06

PLANETOCENTRIC CONIC

C3	20.534	VHL	4.531	DLA	17.45	RAL	35.17	RAD	6643.1	VEL	11.855	PTH	6.87	VHP	5.523	DPA	8.73	RAP	46.15	ECC	1.3379

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 49 58	3492.35	-46.13	127.41	270.42	103.22	12 48 10	2492.3	-35.90	98.14
60.00	12 9 22	3440.71	-39.74	124.35	272.01	97.35	13 6 42	2440.7	-32.54	95.79
70.00	12 38 16	3355.61	-34.06	118.09	272.64	92.76	13 34 12	2355.6	-29.38	90.36
80.00	13 24 13	3211.59	-29.86	107.27	272.74	89.61	14 17 45	2211.6	-26.98	80.22
90.00	14 35 29	2981.58	-28.24	90.34	272.71	88.44	15 25 10	1981.6	-26.04	63.54
100.00	16 7 5	2686.06	-29.86	68.64	272.74	89.61	16 51 51	1686.1	-26.98	41.58
110.00	17 37 42	2402.43	-34.06	47.00	272.64	92.76	18 17 45	1402.4	-29.38	19.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3768	TRA	-.9528	TC3	.8339	BAU	.2489	SGT	1546.9	SGR	683.5	SG3	372.6			ST	30.5	SR	26.4	SS	23.8
RDE	-.4110	RRA	.2300	RC3	-.3563	FAU	.10421	RRT	-.3607	RRF	.4213	RTF	-.7784			CRT	.6618	CRS	.8124	CST	.9687
FDE	.7112	FRA	1.0484	FC3	-4.3938	BSP	2579	SGB	1691.2	R23	-.0910	R13	.7876			LSA	43.8	MSA	16.5	SSA	1.9
BDE	.5576	BRA	.9802	BC3	.9068	FSP	545	SG1	1570.3	SG2	628.0	THA	169.20			EL1	36.8	EL2	16.4	ALF	38.86

LAUNCH DATE AUG 2 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 356.326 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.808	GAL	-.20	AZL	89.53	HCA	113.37	SMA	219.25	ECC	.30756	INC	.4734	V1	29.346
RP	225.00	LAP	.43	LOP	62.94	VP	23.966	GAP	17.85	AZP	90.19	TAL	359.14	TAP	112.51	RCA	151.82	APO	286.68	V2	24.443
RC	110.773	GL	3.58	GP	-8.46	ZAL	88.63	ZAP	161.21	ETS	207.79	ZAE	160.05	ETE	332.58	ZAC	74.34	ETC	282.55	LVI	-7.76

PLANETOCENTRIC CONIC

C3	19.999	VHL	4.472	DLA	17.63	RAL	34.61	RAD	6642.8	VEL	11.833	PTH	6.85	VHP	5.372	DPA	8.52	RAP	46.38	ECC	1.3291

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 47 0	3489.74	-46.09	127.17	269.43	103.40	12 45 10	2489.7	-35.81	97.97
60.00	12 6 9	3438.76	-39.72	124.19	271.03	97.46	13 3 28	2438.8	-32.48	95.65
70.00	12 34 45	3354.56	-34.05	118.00	271.67	92.81	13 30 39	2354.6	-29.36	90.29
80.00	13 20 22	3211.57	-29.86	107.27	271.77	89.61	14 13 54	2211.6	-26.98	80.21
90.00	14 31 28	2982.09	-28.24	90.37	271.74	88.42	15 21 10	1982.1	-26.05	63.58
100.00	16 3 14	2686.04	-29.86	68.64	271.77	89.61	16 48 0	1686.0	-26.98	41.58
110.00	17 34 11	2401.38	-34.05	46.92	271.67	92.81	18 14 13	1401.4	-29.36	19.21

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3827	TRA	-.9409	TC3	.8739	BAU	.2556	SGT	1565.6	SGR	690.8	SG3	395.3			ST	31.0	SR	26.0	SS	24.9
RDE	-.3987	RRA	.2307	RC3	-.3875	FAU	.10931	RRT	-.3816	RRF	.4478	RTF	-.7826			CRT	.6670	CRS	.8185	CST	.9679
FDE	.7605	FRA	1.0706	FC3	-4.7319	BSP	2664	SGB	1711.3	R23	-.0992	R13	.7929			LSA	44.6	MSA	16.3	SSA	2.0
BDE	.5526	BRA	.9688	BC3	.9559	FSP	587	SG1	1591.9	SG2	628.1	THA	168.65			EL1	37.1	EL2	16.2	ALF	37.50

LAUNCH DATE AUG 2 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 359.782 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.750	GAL	-.15	AZL	89.49	HCA	114.44	SMA	217.83	ECC	.30304	INC	.5142	V1	29.346
RP	225.39	LAP	.47	LOP	64.01	VP	23.841	GAP	17.53	AZP	90.21	TAL	359.36	TAP	113.80	RCA	151.82	APO	283.84	V2	24.401
RC	113.259	GL	3.93	GP	-8.74	ZAL	88.20	ZAP	160.26	ETS	207.25	ZAE	160.25	ETE	331.20	ZAC	74.04	ETC	282.55	LVI	-7.45

PLANETOCENTRIC CONIC

C3	19.503	VHL	4.416	DLA	17.82	RAL	34.06	RAD	6642.6	VEL	11.812	PTH	6.83	VHP	5.226	DPA	8.30	RAP	46.61	ECC	1.3210

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 44 0	3487.67	-46.06	126.98	268.48	103.54	12 42 8	2487.7	-35.73	97.83
60.00	12 2 53	3437.38	-39.71	124.07	270.09	97.53	13 0 11	2437.4	-32.44	95.56
70.00	12 31 10	3354.15	-34.05	117.97	270.73	92.83	13 27 4	2354.1	-29.35	90.26
80.00	13 16 26	3212.25	-29.86	107.32	270.84	89.59	14 9 58	2212.3	-26.99	80.26
90.00	14 27 21	2983.33	-28.24	90.47	270.81	88.38	15 17 4	1983.3	-26.06	63.67
100.00	15 59 18	2686.72	-29.86	68.69	270.84	89.59	16 44 5	1686.7	-26.99	41.63
110.00	17 30 36	2400.97	-34.05	46.89	270.73	92.83	18 10 37	1401.0	-29.35	19.18

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3849	TRA	-.9307	TC3	.9168	BAU	.2630	SGT	1585.5	SGR	699.7	SG3	419.0			ST	31.4	SR	25.5	SS	25.9
RDE	-.3868	RRA	.2315	RC3	-.4209	FAU	.11463	RRT	-.4062	RRF	.4762	RTF	-.7873			CRT	.6677	CRS	.8223	CST	.9666
FDE	.8072	FRA	1.0943	FC3	-5.0884	BSP	2690	SGB	1733.0	R23	-.1057	R13	.7987			LSA	45.2	MSA	16.1	SSA	2.0
BDE	.5456	BRA	.9591	BC3	1.0088	FSP	618	SG1	1615.4	SG2	627.5	THA	168.00			EL1	37.2	EL2	16.1	ALF	36.33

LAUNCH DATE AUG 2 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 363.267 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.695	GAL	-.10	AZL	89.44	HCA	115.51	SMA	216.51	ECC	.29877	INC	.5555	V1	29.348
RP	225.78	LAP	.50	LOP	65.07	VP	23.720	GAP	17.22	AZP	90.24	TAL	359.58	TAP	115.09	RCA	151.82	APO	281.19	V2	24.359
RC	115.782	GL	4.29	GP	-9.04	ZAL	87.77	ZAP	159.30	ETS	206.75	ZAE	160.47	ETE	329.69	ZAC	73.73	ETC	282.55	LVI	-7.13

PLANETOCENTRIC CONIC

C3 19.042 VHL 4.364 DLA 18.01 RAL 33.50 RAD 6642.4 VEL 11.792 PTH 6.82 VHP 5.085 DPA 8.06 RAP 46.82 ECC 1.3134

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 40 58	3486.13	-46.04	126.84	267.57	103.65	12 39 4	2486.1	-35.67	97.73
60.00	11 59 35	3436.59	-39.70	124.00	269.19	97.58	12 56 51	2436.6	-32.42	95.51
70.00	12 27 30	3354.37	-34.05	117.99	269.84	92.82	13 23 24	2354.4	-29.36	90.28
80.00	13 12 24	3213.65	-29.85	107.42	269.94	89.53	14 5 58	2213.7	-27.01	80.36
90.00	14 23 8	2985.34	-28.23	90.61	269.90	88.30	15 12 53	1985.3	-26.09	63.81
100.00	15 55 16	2688.12	-29.85	68.79	269.94	89.53	16 40 4	1688.1	-27.01	41.73
110.00	17 26 56	2401.19	-34.05	46.91	269.84	92.82	18 6 58	1401.2	-29.36	19.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3896	TRA	-.9215	TC3	.9394	BAU	.2656	SGT	1597.7	SGR	707.6	SG3	441.2	ST	31.9	SR	25.0	SS	27.1
RDE	-.3741	RRA	.2323	RC3	-.4534	FAU	.11931	RRT	-.4257	RRF	.5007	RTF	-.7873	CRT	.6700	CRS	.8281	CST	.9650
FDE	.8659	FRA	1.1163	FC3	-5.4243	BSP	2714	SGB	1747.4	R23	-.1150	R13	.8001	LSA	46.1	MSA	15.9	SSA	2.1
BDE	.5401	BRA	.9504	BC3	1.0431	FSP	662	SG1	1630.9	SG2	627.2	THA	167.43	EL1	37.3	EL2	15.9	ALF	34.92

LAUNCH DATE AUG 2 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 366.777 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.642	GAL	-.05	AZL	89.40	HCA	116.57	SMA	215.27	ECC	.29474	INC	.5974	V1	29.346
RP	226.17	LAP	.53	LOP	66.13	VP	23.602	GAP	16.90	AZP	90.27	TAL	359.80	TAP	116.36	RCA	151.82	APO	278.72	V2	24.318
RC	118.341	GL	4.66	GP	-9.34	ZAL	87.35	ZAP	158.31	ETS	206.30	ZAE	160.72	ETE	328.04	ZAC	73.41	ETC	282.56	LVI	-6.81

PLANETOCENTRIC CONIC

C3 18.616 VHL 4.315 DLA 18.22 RAL 32.98 RAD 6642.2 VEL 11.774 PTH 6.80 VHP 4.949 DPA 7.80 RAP 47.01 ECC 1.3064

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 37 54	3485.13	-46.02	126.75	266.71	103.72	12 36 0	2485.1	-35.63	97.67
60.00	11 56 13	3436.37	-39.70	123.99	268.33	97.59	12 53 30	2436.4	-32.41	95.49
70.00	12 23 47	3355.25	-34.05	118.06	268.97	92.78	13 19 42	2355.2	-29.38	90.34
80.00	13 8 16	3215.78	-29.85	107.58	269.07	89.45	14 1 52	2215.8	-27.04	80.51
90.00	14 18 48	2988.13	-28.23	90.82	269.03	88.20	15 8 36	1988.1	-26.13	64.00
100.00	15 51 8	2690.25	-29.85	68.95	269.07	89.45	16 35 58	1690.3	-27.04	41.88
110.00	17 23 13	2402.07	-34.05	46.98	268.97	92.78	18 3 15	1402.1	-29.38	19.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3993	TRA	-.9146	TC3	.9682	BAU	.2699	SGT	1616.9	SGR	717.5	SG3	465.8	ST	32.7	SR	24.5	SS	28.7
RDE	-.3607	RRA	.2347	RC3	-.4885	FAU	.12437	RRT	-.4463	RRF	.5274	RTF	-.7912	CRT	.6740	CRS	.8305	CST	.9656
FDE	.9347	FRA	1.1578	FC3	-5.7838	BSP	2619	SGB	1768.9	R23	-.1243	R13	.8053	LSA	47.4	MSA	15.7	SSA	2.1
BDE	.5381	BRA	.9442	BC3	1.0845	FSP	688	SG1	1653.8	SG2	627.7	THA	166.87	EL1	37.7	EL2	15.7	ALF	33.14

LAUNCH DATE AUG 2 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE .000 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.593	GAL	.00	AZL	89.36	HCA	117.62	SMA	214.11	ECC	.29093	INC	.6397	V1	29.346
RP	226.56	LAP	.57	LOP	67.19	VP	23.489	GAP	16.59	AZP	90.30	TAL	.01	TAP	117.63	RCA	151.82	APO	276.41	V2	24.276
RC	120.933	GL	5.04	GP	-9.66	ZAL	86.94	ZAP	157.30	ETS	205.89	ZAE	160.98	ETE	326.24	ZAC	73.08	ETC	282.57	LVI	-6.48

PLANETOCENTRIC CONIC

C3 18.220 VHL 4.269 DLA 18.44 RAL 32.41 RAD 6642.0 VEL 11.758 PTH 6.79 VHP 4.818 DPA 7.52 RAP 47.19 ECC 1.2999

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 34 49	3484.67	-46.01	126.71	265.89	103.75	12 32 54	2484.7	-35.61	97.63
60.00	11 52 49	3436.73	-39.70	124.02	267.51	97.57	12 50 6	2436.7	-32.42	95.52
70.00	12 19 59	3356.78	-34.06	118.18	268.15	92.71	13 15 53	2356.8	-29.41	90.44
80.00	13 4 3	3218.65	-29.85	107.80	268.23	89.34	13 57 41	2218.7	-27.09	80.71
90.00	14 14 21	2991.70	-28.22	91.08	268.19	88.07	15 4 13	1991.7	-26.17	64.25
100.00	15 46 54	2693.13	-29.85	69.16	268.23	89.34	16 31 48	1693.1	-27.09	42.08
110.00	17 19 25	2403.59	-34.06	47.09	268.15	92.71	17 59 29	1403.6	-29.41	19.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4133	TRA	-.9116	TC3	1.3984	BAU	.3704	SGT	1843.0	SGR	768.5	SG3	594.7	ST	33.9	SR	24.0	SS	29.6
RDE	-.3490	RRA	.2351	RC3	-.5978	FAU	.14941	RRT	-.5496	RRF	.6136	RTF	-.8041	CRT	.6800	CRS	.8299	CST	.9669
FDE	.9816	FRA	1.1724	FC3	-7.0993	BSP	757	SGB	1896.8	R23	-.0998	R13	.8056	LSA	48.5	MSA	15.5	SSA	2.3
BDE	.5410	BRA	.9414	BC3	1.5208	FSP	374	SG1	1896.9	SG2	623.8	THA	165.49	EL1	38.5	EL2	15.5	ALF	31.29

LAUNCH DATE AUG 2 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 373.870 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.546	GAL	.05	AZL	89.32	HCA	118.68	SMA	213.03	ECC	.28733	INC	.6829	V1	29.346
RP	226.95	LAP	.60	LOP	68.24	VP	23.378	GAP	16.28	AZP	90.33	TAL	.22	TAP	118.89	RCA	151.82	APO	274.24	V2	24.234
RC	123.556	GL	5.43	GP	-9.99	ZAL	86.54	ZAP	156.28	ETS	205.51	ZAE	161.26	ETE	324.26	ZAC	72.74	ETC	282.58	LVI	-6.15

PLANETOCENTRIC CONIC

C3 17.854 VHL 4.225 DLA 18.67 RAL 31.88 RAD 6641.9 VEL 11.742 PTH 6.77 VHP 4.691 DPA 7.23 RAP 47.35 ECC 1.2938

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 31 42	3484.74	-46.01	126.72	265.12	103.74	12 29 47	2484.7	-35.62	97.64
60.00	11 49 22	3437.68	-39.71	124.10	266.73	97.52	12 46 40	2437.7	-32.45	95.58
70.00	12 16 6	3358.96	-34.07	118.35	267.36	92.61	13 12 5	2359.0	-29.45	90.60
80.00	12 59 43	3222.28	-29.85	108.07	267.43	89.20	13 53 25	2222.3	-27.14	80.97
90.00	14 9 47	2996.09	-28.21	91.40	267.39	87.91	14 59 43	1996.1	-26.23	64.56
100.00	15 42 35	2696.75	-29.85	69.43	267.43	89.20	16 27 31	1696.8	-27.14	42.34
110.00	17 15 33	2405.78	-34.07	47.27	267.36	92.61	17 55 38	1405.8	-29.45	19.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3700	TRA	-.8683	TC3	1.0698	BAU	.2898	SGT	1616.7	SGR	749.2	SG3	519.8	ST	31.3	SR	23.8	SS	28.5
RDE	-.3424	RRA	.2318	RC3	-.5744	FAU	.13766	RRT	-.5105	RRF	.5925	RTF	-.8001	CRT	.6575	CRS	.8327	CST	.9578
FDE	.9660	FRA	1.1379	FC3	-6.6750	BSP	2678	SGB	1781.9	R23	-.1302	R13	.8179	LSA	46.0	MSA	15.5	SSA	2.2
BDE	.5041	BRA	.8988	BC3	1.2143	FSP	774	SG1	1669.0	SG2	624.0	THA	164.46	EL1	36.1	EL2	15.5	ALF	33.51

LAUNCH DATE AUG 2 1973 FLIGHT TIME 152.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 377.446 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.501	GAL	.09	AZL	89.27	HCA	119.73	SMA	212.02	ECC	.28392	INC	.7268	V1	29.346
RP	227.34	LAP	.63	LOP	69.29	VP	23.272	GAP	18.98	AZP	90.36	TAL	.42	TAP	120.15	RCA	151.82	APO	272.21	V2	24.193
RC	126.208	GL	5.83	GP	-10.34	ZAL	86.15	ZAP	155.23	ETS	205.16	ZAE	161.54	ETE	322.09	ZAC	72.40	ETC	282.60	LVI	-5.81

PLANETOCENTRIC CONIC

C3	17.514	VHL	4.185	DLA	18.91	RAL	31.35	RAD	6641.7	VEL	11.726	PTH	6.76	VHP	4.568	DPA	6.91	RAP	47.50	ECC	1.2882

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 28 32	3485.32	-46.02	126.77	264.38	103.70	12 26 38	2485.3	-35.64	97.68
60.00	11 45 52	3439.19	-39.73	124.22	265.98	97.43	12 43 11	2439.2	-32.49	95.66
70.00	12 12 9	3361.79	-34.07	118.57	266.60	92.48	13 8 11	2361.8	-29.51	90.80
80.00	12 55 16	3226.64	-29.84	108.39	266.66	89.03	13 49 3	2226.6	-27.21	81.27
90.00	14 5 5	3001.27	-28.20	91.78	266.61	87.72	14 55 6	2001.3	-26.30	64.93
100.00	15 38 8	2701.12	-29.84	69.76	266.66	89.03	16 23 9	1701.1	-27.21	42.64
110.00	17 11 36	2408.60	-34.07	47.48	266.60	92.48	17 51 44	1408.6	-29.51	19.71

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3767	TRA	-.8414	TC3	1.1385	BAU	.3040	SGT	1629.9	SGR	764.9	SG3	553.6	ST	31.6	SR	22.9	SS	30.8
RDE	-.3264	RRA	.2320	RC3	-.6238	FAU	.14530	RRT	-.5422	RRF	.6207	RTF	-.8147	CRT	.6663	CRS	.8425	CST	.9565
FDE	1.0705	FRA	1.1485	FC3	-7.1822	BSP	2516	SGB	1800.5	R23	-.1234	R13	.8330	LSA	47.3	MSA	15.0	SSA	2.3
BDE	.4985	BRA	.8728	BC3	1.2982	FSP	804	SG1	1690.5	SG2	619.7	THA	163.44	EL1	36.1	EL2	15.0	ALF	31.91

LAUNCH DATE AUG 2 1973 FLIGHT TIME 154.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 381.042 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.459	GAL	.13	AZL	89.23	HCA	120.77	SMA	211.07	ECC	.28071	INC	.7714	V1	29.346
RP	227.73	LAP	.66	LOP	70.34	VP	23.168	GAP	15.68	AZP	90.39	TAL	.61	TAP	121.39	RCA	151.82	APO	270.32	V2	24.152
RC	128.887	GL	6.24	GP	-10.70	ZAL	85.78	ZAP	154.16	ETS	204.83	ZAE	161.82	ETE	319.73	ZAC	72.04	ETC	282.62	LVI	-5.46

PLANETOCENTRIC CONIC

C3	17.201	VHL	4.147	DLA	19.17	RAL	30.82	RAD	6641.6	VEL	11.715	PTH	6.75	VHP	4.450	DPA	6.57	RAP	47.63	ECC	1.2831

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 25 22	3486.47	-46.04	126.87	263.70	103.62	12 23 29	2486.5	-35.68	97.75
60.00	11 42 19	3441.34	-39.74	124.40	265.28	97.31	12 39 40	2441.3	-32.55	95.83
70.00	12 8 8	3365.33	-34.08	118.84	265.88	92.32	13 4 13	2365.3	-29.59	91.05
80.00	12 50 43	3231.85	-29.84	108.78	265.93	88.82	13 44 35	2231.9	-27.29	81.64
90.00	14 0 15	3007.37	-28.18	92.22	265.87	87.50	14 50 23	2007.4	-26.37	65.36
100.00	15 33 35	2706.33	-29.84	70.14	265.93	88.82	16 18 41	1706.3	-27.29	43.01
110.00	17 7 34	2412.15	-34.08	47.76	265.88	92.32	17 47 46	1412.2	-29.59	19.96

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3911	TRA	-.8354	TC3	1.1395	BAU	.3039	SGT	1636.5	SGR	780.3	SG3	583.1	ST	32.7	SR	22.1	SS	32.8
RDE	-.3109	RRA	.2329	RC3	-.6695	FAU	.15156	RRT	-.5553	RRF	.6458	RTF	-.8092	CRT	.6723	CRS	.8473	CST	.9564
FDE	1.1691	FRA	1.1663	FC3	-7.6283	BSP	2767	SGB	1813.0	R23	-.1435	R13	.8306	LSA	49.1	MSA	14.6	SSA	2.3
BDE	.4996	BRA	.8672	BC3	1.3216	FSP	889	SG1	1702.2	SG2	623.9	THA	162.79	EL1	36.6	EL2	14.6	ALF	29.58

LAUNCH DATE AUG 2 1973 FLIGHT TIME 156.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 384.654 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.420	GAL	.17	AZL	89.18	HCA	121.82	SMA	210.18	ECC	.27768	INC	.8169	V1	29.346
RP	228.12	LAP	.69	LOP	71.38	VP	23.068	GAP	15.38	AZP	90.43	TAL	.80	TAP	122.62	RCA	151.82	APO	268.54	V2	24.110
RC	131.592	GL	6.65	GP	-11.07	ZAL	85.42	ZAP	153.07	ETS	204.53	ZAE	162.10	ETE	317.16	ZAC	71.67	ETC	282.64	LVI	-5.10

PLANETOCENTRIC CONIC

C3	16.911	VHL	4.112	DLA	19.43	RAL	30.31	RAD	6641.4	VEL	11.702	PTH	6.74	VHP	4.336	DPA	6.21	RAP	47.74	ECC	1.2783

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 22 10	3488.16	-46.07	127.03	263.05	103.51	12 20 18	2488.2	-35.75	97.86
60.00	11 38 43	3444.07	-39.77	124.63	264.62	97.16	12 36 7	2444.1	-32.63	96.02
70.00	12 4 1	3369.57	-34.10	119.17	265.20	92.12	13 0 11	2369.6	-29.68	91.34
80.00	12 46 2	3237.87	-29.83	109.22	265.23	88.59	13 40 0	2237.9	-27.38	82.07
90.00	13 55 17	3014.35	-28.16	92.73	265.16	87.24	14 45 31	2014.3	-26.46	65.83
100.00	15 28 54	2712.34	-29.83	70.59	265.23	88.59	16 14 6	1712.3	-27.38	43.44
110.00	17 3 28	2416.39	-34.10	48.09	265.20	92.12	17 43 44	1416.4	-29.68	20.26

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3925	TRA	-.8271	TC3	1.1631	BAU	.3093	SGT	1645.5	SGR	801.9	SG3	614.8	ST	32.9	SR	21.4	SS	33.8
RDE	-.2983	RRA	.2339	RC3	-.7202	FAU	.15866	RRT	-.5773	RRF	.6747	RTF	-.8088	CRT	.6681	CRS	.8461	CST	.9583
FDE	1.2301	FRA	1.1848	FC3	-8.1227	BSP	2770	SGB	1830.5	R23	-.1566	R13	.8331	LSA	49.7	MSA	14.5	SSA	2.4
BDE	.4930	BRA	.8596	BC3	1.3681	FSP	930	SG1	1719.9	SG2	626.4	THA	161.79	EL1	36.6	EL2	14.4	ALF	28.22

LAUNCH DATE AUG 2 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 388.282 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.382	GAL	.21	AZL	89.14	HCA	122.86	SMA	209.35	ECC	.27481	INC	.8633	V1	29.346
RP	228.51	LAP	.73	LOP	72.42	VP	22.970	GAP	15.08	AZP	90.47	TAL	.99	TAP	123.84	RCA	151.82	APO	266.88	V2	24.069
RC	134.321	GL	7.08	GP	-11.46	ZAL	85.07	ZAP	151.95	ETS	204.25	ZAE	162.36	ETE	314.37	ZAC	71.29	ETC	282.67	LVI	-4.74

PLANETOCENTRIC CONIC

C3	16.643	VHL	4.080	DLA	19.71	RAL	29.80	RAD	6641.3	VEL	11.691	PTH	6.73	VHP	4.227	DPA	5.83	RAP	47.84	ECC	1.2739

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 56	3490.38	-46.10	127.23	262.45	103.36	12 17 6	2490.4	-35.83	98.01
60.00	11 35 4	3447.41	-39.80	124.91	264.00	96.97	12 32 31	2447.4	-32.73	96.25
70.00	11 59 50	3374.50	-34.11	119.56	264.55	91.89	12 56 4	2374.5	-29.78	91.69
80.00	12 41 13	3244.72	-29.81	109.73	264.56	88.32	13 35 18	2244.7	-27.48	82.55
90.00	13 50 8	3022.24	-28.13	93.31	264.48	86.96	14 40 31	2022.2	-26.56	66.41
100.00	15 24 5	2719.19	-29.81	71.10	264.56	88.32	16 9 24	1719.2	-27.48	43.92
110.00	16 59 16	2421.32	-34.11	48.48	264.55	91.89	17 39 37	1421.3	-29.78	20.61

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3988	TRA	-.8184	TC3	1.1670	BAU	.3113	SGT	1646.5	SGR	823.6	SG3	646.7	ST	33.5	SR	20.6	SS	35.4
RDE	-.2834	RRA	.2356	RC3	-.7716	FAU	.16548	RRT	-.5941	RRF	.7007	RTF	-.8058	CRT	.6656	CRS	.8449	CST	.9550
FDE	1.3187	FRA	1.2106	FC3	-8.6078	BSP	2842	SGB	1841.0	R23	-.1722	R13	.8341	LSA	50.9	MSA	14.2	SSA	2.4
BDE	.4892	BRA	.8517	BC3	1.3990	FSP	994	SG1	1729.6	SG2	630.7	THA	160.80	EL1	36.7	EL2	14.0	ALF	26.41

LAUNCH DATE AUG 2 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 391.925 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.347	GAL	.25	AZL	89.09	HCA	123.89	SMA	208.87	ECC	.27211	INC	.9106	V1	29.346
RP	228.90	LAP	.76	LOP	73.46	VP	22.875	GAP	14.79	AZP	90.51	TAL	1.16	TAP	125.05	RCA	151.81	APO	265.32	V2	24.028
RC	137.073	GL	7.52	GP	-11.87	ZAL	84.74	ZAP	150.61	ETS	203.99	ZAE	162.60	ETE	311.35	ZAC	70.90	ETC	282.71	LVI	-4.36

PLANETOCENTRIC CONIC

C3	16.397	VHL	4.049	DLA	20.00	RAL	29.30	RAD	6641.2	VEL	11.681	PTH	6.72	VHP	4.121	DPA	5.43	RAP	47.91	ECC	1.2698

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 15 40	3493.14	-46.15	127.48	261.90	103.17	12 13 53	2493.1	-35.93	98.19
60.00	11 31 21	3451.35	-39.83	125.24	263.42	96.75	12 28 53	2451.3	-32.84	96.52
70.00	11 55 32	3380.14	-34.12	120.00	263.94	91.63	12 51 52	2380.1	-29.89	92.09
80.00	12 36 16	3252.43	-29.80	110.30	263.92	88.02	13 30 29	2252.4	-27.58	83.10
90.00	13 44 50	3031.08	-28.10	93.95	263.83	86.64	14 35 21	2031.1	-26.66	67.03
100.00	15 19 8	2726.90	-29.80	71.67	263.92	88.02	16 4 35	1726.9	-27.58	44.47
110.00	16 54 58	2426.96	-34.12	48.92	263.94	91.63	17 35 25	1427.0	-29.89	21.01

DIFFERENTIAL CORRECTIONS

TDE	-.4014	TRA	-.8060	TC3	1.1863	BAU	.3173
RDE	-.2684	RRA	.2366	RC3	-.8294	FAU	.17338
FDE	1.4081	FRA	1.2260	FC3	-9.1544	BSP	2925
BDE	.4829	BRA	.8401	BC3	1.4475	FSP	1069

MID-COURSE EXECUTION ACCURACY

SGT	1648.9	SGR	849.9	SG3	682.2
RRT	-.6151	RRF	.7273	RTF	-.8061
SGB	1855.0	R23	-.1829	R13	.8382
SG1	1743.4	SG2	633.8	THA	159.59

ORBIT DETERMINATION ACCURACY

ST	33.8	SR	19.8	SS	37.0
CRT	.6605	CRS	.8434	CST	.9539
LSA	52.0	MSA	14.0	SSA	2.5
EL1	36.7	EL2	13.7	ALF	24.80

LAUNCH DATE AUG 2 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 395.581 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.313	GAL	.28	AZL	89.04	HCA	124.92	SMA	207.84	ECC	.26956	INC	.9588	V1	29.346
RP	229.28	LAP	.79	LOP	74.49	VP	22.784	GAP	14.50	AZP	90.55	TAL	1.33	TAP	126.25	RCA	151.81	APO	263.86	V2	23.988
RC	139.847	GL	7.97	GP	-12.30	ZAL	84.42	ZAP	149.65	ETS	203.74	ZAE	162.80	ETE	308.10	ZAC	70.50	ETC	282.75	LVI	-3.98

PLANETOCENTRIC CONIC

C3	16.170	VHL	4.021	DLA	20.31	RAL	28.81	RAD	6641.1	VEL	11.671	PTH	6.71	VHP	4.019	DPA	5.00	RAP	47.97	ECC	1.2661

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 12 21	3496.45	-46.20	127.79	261.39	102.94	12 10 38	2496.4	-36.06	98.41
60.00	11 27 35	3455.90	-39.86	125.62	262.87	96.49	12 25 11	2455.9	-32.97	96.84
70.00	11 51 9	3386.51	-34.13	120.50	263.36	91.34	12 47 35	2386.5	-30.02	92.54
80.00	12 31 10	3261.03	-29.78	110.94	263.32	87.69	13 25 31	2261.0	-27.70	83.71
90.00	13 39 21	3040.92	-28.05	94.67	263.21	86.28	14 30 2	2040.9	-26.77	67.73
100.00	15 14 2	2735.50	-29.78	72.31	263.32	87.69	15 59 38	1735.5	-27.70	45.08
110.00	16 50 35	2433.33	-34.13	49.41	263.36	91.34	17 31 8	1433.3	-30.02	21.46

DIFFERENTIAL CORRECTIONS

TDE	-.4062	TRA	-.7928	TC3	1.2010	BAU	.3232
RDE	-.2525	RRA	.2371	RC3	-.8906	FAU	.18158
FDE	1.5071	FRA	1.2343	FC3	-9.7218	BSP	2962
BDE	.4782	BRA	.8275	BC3	1.4952	FSP	1130

MID-COURSE EXECUTION ACCURACY

SGT	1648.9	SGR	878.7	SG3	719.0
RRT	-.6332	RRF	.7525	RTF	-.8055
SGB	1868.4	R23	-.1948	R13	.8420
SG1	1755.8	SG2	638.6	THA	158.35

ORBIT DETERMINATION ACCURACY

ST	34.1	SR	18.8	SS	38.8
CRT	.6559	CRS	.8414	CST	.9531
LSA	53.2	MSA	13.7	SSA	2.5
EL1	36.7	EL2	13.2	ALF	23.03

LAUNCH DATE AUG 2 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 399.249 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.281	GAL	.31	AZL	88.99	HCA	125.95	SMA	207.15	ECC	.26715	INC	1.0082	V1	29.346
RP	229.67	LAP	.82	LOP	75.52	VP	22.694	GAP	14.21	AZP	90.59	TAL	1.49	TAP	127.44	RCA	151.81	APO	262.49	V2	23.947
RC	142.641	GL	8.43	GP	-12.74	ZAL	84.12	ZAP	148.46	ETS	203.50	ZAE	162.96	ETE	304.63	ZAC	70.08	ETC	282.80	LVI	-3.89

PLANETOCENTRIC CONIC

C3	15.961	VHL	3.995	DLA	20.63	RAL	28.33	RAD	6641.0	VEL	11.662	PTH	6.70	VHP	3.921	DPA	4.55	RAP	48.01	ECC	1.2627

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 9 1	3500.30	-46.26	128.14	260.92	102.67	12 7 21	2500.3	-36.20	98.66
60.00	11 23 45	3461.08	-39.90	126.06	262.37	96.20	12 21 26	2461.1	-33.12	97.20
70.00	11 46 39	3393.63	-34.14	121.05	262.82	91.01	12 43 12	2393.6	-30.16	93.05
80.00	12 25 54	3270.56	-29.75	111.65	262.74	87.31	13 20 25	2270.6	-27.83	84.39
90.00	13 33 40	3051.81	-28.00	95.46	262.63	85.89	14 24 31	2051.8	-26.89	68.51
100.00	15 8 46	2745.03	-29.75	73.02	262.74	87.31	15 54 31	1745.0	-27.83	45.76
110.00	16 46 5	2440.45	-34.14	49.97	262.82	91.01	17 26 46	1440.4	-30.16	21.97

DIFFERENTIAL CORRECTIONS

TDE	-.4093	TRA	-.7810	TC3	1.2059	BAU	.3260
RDE	-.2358	RRA	.2384	RC3	-.9530	FAU	.18957
FDE	1.6121	FRA	1.2517	FC3	-10.2825	BSP	2966
BDE	.4724	BRA	.8166	BC3	1.5370	FSP	1190

MID-COURSE EXECUTION ACCURACY

SGT	1644.8	SGR	909.8	SG3	755.8
RRT	-.6498	RRF	.7759	RTF	-.8041
SGB	1879.7	R23	-.2064	R13	.8456
SG1	1765.9	SG2	644.1	THA	157.00

ORBIT DETERMINATION ACCURACY

ST	34.4	SR	17.8	SS	40.6
CRT	.6461	CRS	.8358	CST	.9523
LSA	54.4	MSA	13.5	SSA	2.5
EL1	36.6	EL2	12.8	ALF	21.19

LAUNCH DATE AUG 2 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 402.929 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.251	GAL	.34	AZL	88.94	HCA	126.98	SMA	206.51	ECC	.26487	INC	1.0587	V1	29.346
RP	230.05	LAP	.85	LOP	76.55	VP	22.608	GAP	13.92	AZP	90.64	TAL	1.64	TAP	128.62	RCA	151.81	APO	261.21	V2	23.907
RC	145.456	GL	8.90	GP	-13.20	ZAL	83.83	ZAP	147.24	ETS	203.28	ZAE	163.06	ETE	300.95	ZAC	69.65	ETC	282.85	LVI	-3.19

PLANETOCENTRIC CONIC

C3	15.770	VHL	3.971	DLA	20.97	RAL	27.86	RAD	6640.9	VEL	11.654	PTH	6.69	VHP	3.827	DPA	4.07	RAP	48.04	ECC	1.2595

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 5 38	3504.71	-46.32	128.55	260.50	102.36	12 4 3	2504.7	-36.37	98.96
60.00	11 19 50	3466.89	-39.94	126.55	261.90	95.87	12 17 37	2466.9	-33.28	97.61
70.00	11 42 2	3401.52	-34.15	121.67	262.31	90.65	12 38 44	2401.5	-30.32	93.61
80.00	12 20 27	3281.07	-29.71	112.43	262.20	86.91	13 15 8	2281.1	-27.97	85.14
90.00	13 27 45	3063.80	-27.94	96.33	262.07	85.45	14 18 49	2063.8	-27.02	69.36
100.00	15 3 19	2755.54	-29.71	73.80	262.20	86.91	15 49 14	1755.5	-27.97	46.51
110.00	16 41 28	2448.34	-34.15	50.58	262.31	90.65	17 22 17	1448.3	-30.32	22.53

DIFFERENTIAL CORRECTIONS

TDE	-.4113	TRA	-.7680	TC3	1.2051	BAU	.3328
RDE	-.2187	RRA	.2393	RC3	-1.0195	FAU	.19797
FDE	1.7206	FRA	1.2627	FC-1	0.8677	BSP	2974
BDE	.4658	BRA	.8044	BC3	1.5785	FSP	1254

MID-COURSE EXECUTION ACCURACY

SGT	1635.9	SGR	944.4	SG3	794.1
RRT	-.6644	RRF	.7981	RTF	-.8014
SGB	1889.0	R23	-.2182	R13	.8491
SG1	1773.2	SG2	651.2	THA	155.50

ORBIT DETERMINATION ACCURACY

ST	34.6	SR	16.8	SS	42.4
CRT	.6332	CRS	.8283	CST	.9512
LSA	55.6	MSA	13.3	SSA	2.6
EL1	36.4	EL2	12.3	ALF	19.35

LAUNCH DATE AUG 2 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 406.619 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.223	GAL	.37	AZL	88.89	HCA	128.00	SMA	205.90	ECC	.26273	INC	1.1103	V1	29.346
RP	230.44	LAP	.87	LOP	77.57	VP	22.523	GAP	13.64	AZP	90.68	TAL	1.79	TAP	129.79	RCA	151.81	APO	260.00	V2	23.867
RC	148.289	GL	9.38	GP	-13.68	ZAL	83.56	ZAP	146.00	ETS	203.05	ZAE	163.09	ETE	297.07	ZAC	69.21	ETC	282.91	LVI	-2.77

PLANETOCENTRIC CONIC

C3	15.596	VHL	3.949	DLA	21.32	RAL	27.40	RAD	6640.8	VEL	11.647	PTH	6.68	VHP	3.737	DPA	3.57	RAP	48.04	ECC	1.2567

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 2 13	3509.67	-46.39	129.00	260.12	102.02	12 0 43	2509.7	-36.55	99.29
60.00	11 15 51	3473.35	-39.99	127.09	261.47	95.50	12 13 45	2473.3	-33.46	98.06
70.00	11 37 18	3410.20	-34.15	122.35	261.84	90.25	12 34 8	2410.2	-30.48	94.23
80.00	12 14 48	3292.59	-29.67	113.28	261.69	86.46	13 9 41	2292.6	-28.12	85.96
90.00	13 21 35	3076.97	-27.87	97.29	261.53	84.98	14 12 52	2077.0	-27.15	70.30
100.00	14 57 40	2767.06	-29.67	74.65	261.69	86.46	15 43 47	1767.1	-28.12	47.33
110.00	16 36 44	2457.02	-34.15	51.26	261.84	90.25	17 17 41	1457.0	-30.48	23.15

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4148	TRA	-.7547	TC3	1.2059	BAU	.3391	SGT	1628.2	SGR	983.6	SG3	835.2			ST	34.9	SR	15.6	SS	44.4
RDE	-.2002	RRA	.2400	RC3	-1.0915	FAU	.20704	RRT	-.6780	RRF	.8193	RTF	-.7993			CRT	.6166	CRS	.6174	CST	.9505
FDE	1.8414	FRA	1.2706	FC	-11.4926	BSP	2996	SGB	1902.2	R23	-.2288	R13	.8537			LSA	57.1	MSA	13.0	SSA	2.6
BDE	.4606	BRA	.7919	BC3	1.6266	FSP	1323	SG1	1784.1	SG2	659.8	THA	153.89			EL1	36.4	EL2	11.8	ALF	17.31

LAUNCH DATE AUG 2 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 410.319 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.196	GAL	.40	AZL	88.84	HCA	129.02	SMA	205.34	ECC	.26071	INC	1.1633	V1	29.346
RP	230.82	LAP	.90	LOP	78.59	VP	22.442	GAP	13.36	AZP	90.73	TAL	1.93	TAP	130.95	RCA	151.80	APO	258.87	V2	23.827
RC	151.140	GL	9.88	GP	-14.18	ZAL	83.31	ZAP	144.74	ETS	202.84	ZAE	163.05	ETE	293.03	ZAC	68.75	ETC	282.97	LVI	-2.35

PLANETOCENTRIC CONIC

C3	15.438	VHL	3.929	DLA	21.69	RAL	26.94	RAD	6640.7	VEL	11.640	PTH	6.68	VHP	3.651	DPA	3.04	RAP	48.03	ECC	1.2541

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 58 45	3515.20	-46.47	129.51	259.78	101.63	11 57 20	2515.2	-36.75	99.66
60.00	11 11 47	3480.46	-40.03	127.69	261.08	95.10	12 9 48	2480.5	-33.66	98.56
70.00	11 32 25	3419.70	-34.15	123.09	261.40	89.81	12 29 25	2419.7	-30.66	94.91
80.00	12 8 56	3305.19	-29.61	114.21	261.20	85.97	13 4 1	2305.2	-28.27	86.87
90.00	13 15 9	3091.39	-27.78	98.33	261.03	84.46	14 6 41	2091.4	-27.29	71.34
100.00	14 51 48	2779.66	-29.61	75.58	261.20	85.97	15 38 8	1779.7	-28.27	48.24
110.00	16 31 51	2466.52	-34.15	52.00	261.40	89.81	17 12 58	1466.5	-30.66	23.83

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4139	TRA	-.7409	TC3	1.1933	BAU	.3441	SGT	1611.1	SGR	1024.4	SG3	874.8			ST	34.9	SR	14.5	SS	46.3
RDE	-.1816	RRA	.2407	RC3	-1.1641	FAU	.21568	RRT	-.6889	RRF	.8381	RTF	-.7949			CRT	.5922	CRS	.6020	CST	.9489
FDE	1.9603	FRA	1.2763	FC	-12.0951	BSP	3012	SGB	1909.2	R23	-.2387	R13	.8576			LSA	58.3	MSA	12.8	SSA	2.6
BDE	.4520	BRA	.7790	BC3	1.6670	FSP	1395	SG1	1788.1	SG2	669.0	THA	152.10			EL1	36.0	EL2	11.3	ALF	15.34

LAUNCH DATE AUG 2 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 414.027 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.171	GAL	.42	AZL	88.78	HCA	130.03	SMA	204.81	ECC	.25881	INC	1.2177	V1	29.346
RP	231.20	LAP	.93	LOP	79.60	VP	22.362	GAP	13.08	AZP	90.78	TAL	2.06	TAP	132.09	RCA	151.80	APO	257.82	V2	23.787
RC	154.008	GL	10.38	GP	-14.70	ZAL	83.08	ZAP	143.44	ETS	202.62	ZAE	162.92	ETE	288.87	ZAC	68.28	ETC	283.04	LVI	-1.92

PLANETOCENTRIC CONIC

C3	15.295	VHL	3.911	DLA	22.07	RAL	26.50	RAD	6640.7	VEL	11.634	PTH	6.67	VHP	3.568	DPA	2.49	RAP	47.99	ECC	1.2517

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 55 13	3521.31	-46.55	130.08	259.49	101.20	11 53 55	2521.3	-36.98	100.07
60.00	11 7 38	3488.26	-40.08	128.35	260.73	94.65	12 5 46	2488.3	-33.87	99.12
70.00	11 27 23	3430.06	-34.15	123.90	260.99	89.33	12 24 33	2430.1	-30.85	95.66
80.00	12 2 50	3318.94	-29.54	115.23	260.74	85.44	12 58 9	2318.9	-28.43	87.86
90.00	13 8 25	3107.18	-27.67	99.47	260.54	83.90	14 0 12	2107.2	-27.43	72.47
100.00	14 45 41	2793.41	-29.54	76.60	260.74	85.44	15 32 15	1793.4	-28.43	49.23
110.00	16 26 50	2476.88	-34.15	52.81	260.99	89.33	17 8 7	1476.9	-30.85	24.58

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4146	TRA	-.7294	TC3	1.1731	BAU	.3490	SGT	1593.8	SGR	1069.1	SG3	915.8			ST	35.0	SR	13.2	SS	48.4
RDE	-.1615	RRA	.2420	RC3	-1.2401	FAU	.22451	RRT	-.6968	RRF	.8956	RTF	-.[illegible]91			CRT	.5578	CRS	.7781	CST	.9477
FDE	2.0915	FRA	1.2882	FC	-12.7082	BSP	3040	SGB	1919.2	R23	-.2492	R13	.8615			LSA	59.8	MSA	12.7	SSA	2.6
BDE	.4449	BRA	.7684	BC3	1.7070	FSP	1474	SG1	1794.3	SG2	681.2	THA	150.24			EL1	35.8	EL2	10.7	ALF	13.10

LAUNCH DATE AUG 2 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 417.744 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.147	GAL	.45	AZL	88.73	HCA	131.05	SMA	204.31	ECC	.25702	INC	1.2735	V1	29.346
RP	231.58	LAP	.96	LOP	80.62	VP	22.285	GAP	12.81	AZP	90.84	TAL	2.18	TAP	133.22	RCA	151.80	APO	256.82	V2	23.748
RC	156.890	GL	10.90	GP	-15.23	ZAL	82.86	ZAP	142.13	ETS	202.41	ZAE	162.70	ETE	284.63	ZAC	67.80	ETC	283.11	LVI	-1.47

PLANETOCENTRIC CONIC

C3	15.166	VHL	3.894	DLA	22.47	RAL	26.06	RAD	6640.6	VEL	11.628	PTH	6.67	VHP	3.489	DPA	1.91	RAP	47.94	ECC	1.2496

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 51 38	3528.00	-46.64	130.70	259.24	100.73	11 50 26	2528.0	-37.22	100.53
60.00	11 3 23	3496.74	-40.12	129.06	260.42	94.17	12 1 39	2496.7	-34.09	99.72
70.00	11 22 12	3441.30	-34.14	124.77	260.61	88.81	12 19 33	2441.3	-31.05	96.47
80.00	11 56 27	3333.89	-29.45	116.33	260.31	84.87	12 52 1	2333.9	-28.59	88.94
90.00	13 1 19	3124.42	-27.54	100.72	260.08	83.29	13 53 24	2124.4	-27.57	73.71
100.00	14 39 18	2808.37	-29.45	77.70	260.31	84.87	15 26 7	1808.4	-28.59	50.31
110.00	16 21 38	2488.12	-34.14	53.69	260.61	88.81	17 3 6	1488.1	-31.05	25.39

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4115	TRA	-.7109	TC3	1.1724	BAU	.3589	SGT	1575.2	SGR	1121.5	SG3	961.7			ST	34.7	SR	11.9	SS	50.5
RDE	-.1403	RRA	.2418	RC3	-1.3262	FAU	.23478	RRT	-.7099	RRF	.8725	RTF	-.7887			CRT	.5122	CRS	.7461	CST	.9460
FDE	2.2295	FRA	1.2827	FC	-13.4025	BSP	3026	SGB	1933.7	R23	-.2491	R13	.8701			LSA	61.1	MSA	12.5	SSA	2.6
BDE	.4347	BRA	.7509	BC3	1.7701	FSP	1550	SG1	1806.9	SG2	688.7	THA	148.00			EL1	35.3	EL2	10.1	ALF	10.87

LAUNCH DATE AUG 2 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 421.468 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.125	GAL	.47	AZL	88.67	HCA	132.05	SMA	203.85	ECC	.25534	INC	1.3308	V1	29.346
RP	231.95	LAP	.99	LOP	81.63	VP	22.210	GAP	12.53	AZP	90.89	TAL	2.29	TAP	134.34	RCA	151.80	APO	255.90	V2	23.708
RC	159.785	GL	11.44	GP	-15.79	ZAL	82.65	ZAP	140.78	ETS	202.20	ZAE	162.38	ETE	280.36	ZAC	67.30	ETC	283.20	LVI	-1.01

PLANETOCENTRIC CONIC

C3	15.051	VHL	3.880	DLA	22.89	RAL	25.63	RAD	6640.6	VEL	11.623	PTH	6.66	VHP	3.413	DPA	1.29	RAP	47.87	ECC	1.2477

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 48 0	3535.31	-46.73	131.39	259.04	100.21	11 46 55	2535.3	-37.48	101.03
60.00	10 59 1	3505.96	-40.16	129.85	260.14	93.64	11 57 27	2506.0	-34.34	100.38
70.00	11 16 49	3453.50	-34.11	125.73	260.27	88.25	12 14 23	2453.5	-31.26	97.36
80.00	11 49 45	3350.20	-29.35	117.53	259.90	84.25	12 45 36	2350.2	-28.76	90.12
90.00	12 53 50	3143.32	-27.38	102.08	259.64	82.63	13 46 13	2143.3	-27.71	75.08
100.00	14 32 37	2824.67	-29.35	78.90	259.90	84.25	15 19 42	1824.7	-28.76	51.49
110.00	16 16 16	2500.31	-34.11	54.64	260.27	88.25	16 57 56	1500.3	-31.26	26.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.4126	TRA	-.7012	TC3	1.1297	BAU	.3633	SGT 1550.3 SGR 1173.2 SG3 1003.5	ST	34.8	SR	10.6	SS	52.7
RDE	-.1178	RRA	.2430	RC3	-1.4084	FAU	.24370	RRT -.7092 RRF .8867 RTF -.7774	CRT	.4447	CRS	.6945	CST	.9446
FDE	2.3752	FRA	1.2909	FC	-14.0181	BSP	3085	SGB 1944.1 R23 -.2604 R13 .8734	LSA	62.8	MSA	12.4	SSA	2.6
BDE	.4291	BRA	.7421	BC3	1.8055	FSP	1632	SG1 1810.6 SG2 708.2 THA 145.85	EL1	35.2	EL2	9.4	ALF	8.31

LAUNCH DATE AUG 2 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 425.198 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.104	GAL	.48	AZL	88.61	HCA	133.06	SMA	203.41	ECC	.25375	INC	1.3698	V1	29.346
RP	232.33	LAP	1.02	LOP	82.63	VP	22.137	GAP	12.26	AZP	90.95	TAL	2.39	TAP	135.45	RCA	151.79	APO	255.03	V2	23.670
RC	162.693	GL	11.99	GP	-16.38	ZAL	82.47	ZAP	139.41	ETS	201.98	ZAE	161.94	ETE	276.13	ZAC	66.78	ETC	283.28	LVI	-.54

PLANETOCENTRIC CONIC

C3	14.949	VHL	3.866	DLA	23.33	RAL	25.21	RAD	6640.5	VEL	11.619	PTH	6.66	VHP	3.341	DPA	.66	RAP	47.79	ECC	1.2460

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 44 17	3543.22	-46.82	132.13	258.89	99.64	11 43 20	2543.2	-37.77	101.58
60.00	10 54 32	3515.91	-40.20	130.69	259.90	93.07	11 53 8	2515.9	-34.59	101.10
70.00	11 11 15	3466.67	-34.08	126.75	259.95	87.64	12 9 1	2466.7	-31.49	98.33
80.00	11 42 43	3367.94	-29.22	118.84	259.51	83.57	12 38 51	2367.9	-28.93	91.41
90.00	12 45 52	3164.02	-27.19	103.56	259.22	81.91	13 38 36	2164.0	-27.84	76.57
100.00	14 25 35	2842.41	-29.22	80.20	259.51	83.57	15 12 58	1842.4	-28.93	52.78
110.00	16 10 41	2513.48	-34.08	55.67	259.95	87.64	16 52 35	1513.5	-31.49	27.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.4123	TRA	-.6869	TC3	1.0967	BAU	.3711	SGT 1523.6 SGR 1231.1 SG3 1048.8	ST	34.8	SR	9.2	SS	55.2
RDE	-.0932	RRA	.2427	RC3	-1.4987	FAU	.25356	RRT -.7105 RRF .9000 RTF -.7688	CRT	.3457	CRS	.6153	CST	.9433
FDE	2.5376	FRA	1.2810	FC	-14.6841	BSP	3114	SGB 1958.8 R23 -.2639 R13 .8799	LSA	64.7	MSA	12.3	SSA	2.6
BDE	.4227	BRA	.7285	BC3	1.8571	FSP	1716	SG1 1819.5 SG2 725.4 THA 143.41	EL1	35.0	EL2	8.6	ALF	5.58

LAUNCH DATE AUG 2 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 428.935 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.084	GAL	.50	AZL	88.55	HCA	134.06	SMA	203.00	ECC	.25226	INC	1.4506	V1	29.346
RP	232.70	LAP	1.04	LOP	83.63	VP	22.066	GAP	11.99	AZP	91.01	TAL	2.49	TAP	136.55	RCA	151.79	APO	254.21	V2	23.631
RC	165.610	GL	12.55	GP	-16.98	ZAL	82.30	ZAP	138.01	ETS	201.76	ZAE	161.40	ETE	271.97	ZAC	66.25	ETC	283.38	LVI	-.05

PLANETOCENTRIC CONIC

C3	14.860	VHL	3.855	DLA	23.78	RAL	24.80	RAD	6640.5	VEL	11.615	PTH	6.66	VHP	3.273	DPA	-.01	RAP	47.68	ECC	1.2446

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 40 29	3551.77	-46.92	132.93	258.78	99.03	11 39 41	2551.8	-38.07	102.17
60.00	10 49 55	3526.63	-40.24	131.60	259.70	92.45	11 48 42	2526.6	-34.86	101.88
70.00	11 5 27	3480.88	-34.04	127.86	259.66	86.99	12 3 28	2480.9	-31.71	99.37
80.00	11 35 18	3387.25	-29.06	120.25	259.14	82.85	12 31 45	2387.2	-29.10	92.82
90.00	12 37 22	3186.78	-26.96	105.19	258.81	81.13	13 30 29	2186.8	-27.97	78.23
100.00	14 16 9	2861.72	-29.06	81.62	259.14	82.85	15 5 51	1861.7	-29.10	54.19
110.00	16 4 53	2527.70	-34.04	56.78	259.66	86.99	16 47 1	1527.7	-31.71	28.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.4080	TRA	-.6752	TC3	1.0549	BAU	.3793	SGT 1494.0 SGR 1293.2 SG3 1093.4	ST	34.5	SR	8.0	SS	57.5
RDE	-.0686	RRA	.2438	RC3	-1.5913	FAU	.26322	RRT -.7092 RRF .9119 RTF -.7680	CRT	.1971	CRS	.4905	CST	.9410
FDE	2.6917	FRA	1.2852	FC	-15.3347	BSP	3108	SGB 1975.9 R23 -.2651 R13 .8867	LSA	66.4	MSA	12.2	SSA	2.6
BDE	.4137	BRA	.7179	BC3	1.9091	FSP	1783	SG1 1830.5 SG2 744.1 THA 140.77	EL1	34.6	EL2	7.9	ALF	2.77

LAUNCH DATE AUG 2 1973 FLIGHT TIME 182.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 432.678 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	33.065	GAL	.52	AZL	88.49	HCA	135.06	SMA	202.62	ECC	.25086	INC	1.5132	V1	29.346
RP	233.07	LAP	1.07	LOP	84.63	VP	21.997	GAP	11.72	AZP	91.07	TAL	2.58	TAP	137.64	RCA	151.79	APO	253.45	V2	23.593
RC	168.537	GL	13.13	GP	-17.60	ZAL	82.15	ZAP	136.59	ETS	201.53	ZAE	160.75	ETE	287.93	ZAC	65.71	ETC	283.48	LVI	.45

PLANETOCENTRIC CONIC

C3	14.784	VHL	3.845	DLA	24.26	RAL	24.40	RAD	6640.4	VEL	11.612	PTH	6.65	VHP	3.208	DPA	-.71	RAP	47.56	ECC	1.2433

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 36 36	3560.96	-47.01	133.80	258.71	98.37	11 35 57	2561.0	-38.39	102.82
60.00	10 45 9	3538.15	-40.27	132.58	259.54	91.79	11 44 8	2538.2	-35.15	102.72
70.00	10 59 24	3496.20	-33.96	129.05	259.40	86.29	11 57 40	2496.2	-31.95	100.50
80.00	11 27 24	3408.32	-28.88	121.79	258.79	82.06	12 24 13	2408.3	-29.26	94.37
90.00	12 28 14	3211.90	-26.68	106.97	258.41	80.27	13 21 46	2211.9	-28.09	80.05
100.00	14 10 16	2882.79	-28.88	83.15	258.79	82.06	14 58 19	1882.8	-29.26	55.74
110.00	15 58 50	2543.02	-33.98	57.97	259.40	86.29	16 41 13	1543.0	-31.95	29.42

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY			
TDE	-.4053	TRA	-.6612	TC3	1.0116	BAU	.3893	SGT 1462.1 SGR 1360.9 SG3 1140.5	ST	34.3	SR	7.0	SS	60.2
RDE	-.0406	RRA	.2439	RC3	-1.6902	FAU	.27339	RRT -.7063 RRF .9227 RTF -.7471	CRT	-.0328	CRS	.2800	CST	.9392
FDE	2.8732	FRA	1.2775	FC	-16.0088	BSP	3147	SGB 1997.4 R23 -.2613 R13 .8951	LSA	68.5	MSA	12.1	SSA	2.5
BDE	.4073	BRA	.7047	BC3	1.9698	FSP	1874	SG1 1845.9 SG2 763.1 THA 137.90	EL1	34.3	EL2	7.0	ALF	179.60

LAUNCH DATE AUG 2 1973 FLIGHT TIME 184.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 436.426 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 33.048 GAL .53 AZL 88.42 HCA 136.06 SMA 202.26 ECC .24955 INC 1.5779 V1 29.346
RP 233.44 LAP 1.09 LOP 85.63 VP 21.929 GAP 11.46 AZP 91.14 TAL 2.66 TAP 138.71 RCA 151.79 APO 252.74 V2 23.554
RC 171.472 GL 13.72 GP -18.25 ZAL 82.02 ZAP 135.14 ETS 201.29 ZAE 159.99 ETE 264.06 ZAC 65.15 ETC 283.59 LVI .96

PLANETOCENTRIC CONIC

C3 14.721 VHL 3.837 DLA 24.75 RAL 24.00 RAD 6640.4 VEL 11.609 PTH 6.65 VHP 3.146 DPA -1.44 RAP 47.42 ECC 1.2423

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 32 37	3570.82	-47.10	134.73	258.68	97.65	11 32 7	2570.8	-38.73	103.51
60.00	10 40 14	3550.50	-40.29	133.63	259.40	91.08	11 39 25	2550.5	-35.45	103.64
70.00	10 53 4	3512.70	-33.90	130.33	259.17	85.53	11 51 36	2512.7	-32.19	101.73
80.00	11 18 59	3431.35	-28.65	123.46	258.45	81.21	12 16 11	2431.3	-29.42	96.06
90.00	12 18 16	3239.80	-26.35	108.95	258.01	79.34	13 12 18	2239.8	-28.18	82.09
100.00	14 1 51	2905.82	-28.65	84.83	258.45	81.21	14 50 17	1905.8	-29.42	57.43
110.00	15 52 30	2559.52	-33.90	59.25	259.17	85.53	16 35 10	1559.5	-32.19	30.64

DIFFERENTIAL CORRECTIONS

TDE -.3960 TRA -.6426 TC3 .9657 BAU .4006
RDE -.0125 RRA .2424 RC3-1.7920 FAU .28338
FDE 3.0456 FRA 1.2524 FC-16.6655 BSP 3123
BDE .3962 BRA .6868 BC3 2.0356 FSP 1942

MID-COURSE EXECUTION ACCURACY

SGT 1419.7 SGR 1431.8 SG3 1186.1
RRT -.7031 RRF .9321 RTF -.7359
SGB 2016.3 R23 -.2507 R13 .9048
SG1 1860.7 SG2 776.9 THA 134.66

ORBIT DETERMINATION ACCURACY

ST 33.6 SR 6.4 SS 62.6
CRT -.3240 CRS -.0084 CST .9359
LSA 70.2 MSA 12.1 SSA 2.5
EL1 33.6 EL2 6.0 ALF 176.35

LAUNCH DATE AUG 2 1973 FLIGHT TIME 186.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 440.178 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 33.031 GAL .54 AZL 88.36 HCA 137.05 SMA 201.93 ECC .24832 INC 1.6448 V1 29.346
RP 233.80 LAP 1.12 LOP 86.62 VP 21.864 GAP 11.19 AZP 91.20 TAL 2.72 TAP 139.77 RCA 151.79 APO 252.07 V2 23.517
RC 174.413 GL 14.33 GP -18.92 ZAL 81.91 ZAP 133.66 ETS 201.05 ZAE 159.13 ETE 260.37 ZAC 64.57 ETC 283.71 LVI 1.49

PLANETOCENTRIC CONIC

C3 14.670 VHL 3.830 DLA 25.27 RAL 23.61 RAD 6640.4 VEL 11.607 PTH 6.65 VHP 3.088 DPA -2.20 RAP 47.27 ECC 1.2414

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 28 31	3581.40	-47.19	135.74	258.71	96.88	11 28 13	2581.4	-39.09	104.27
60.00	10 35 8	3563.76	-40.30	134.76	259.31	90.31	11 34 32	2563.8	-35.76	104.62
70.00	10 46 25	3530.52	-33.79	131.71	258.95	84.72	11 45 15	2530.5	-32.44	103.06
80.00	11 9 56	3456.71	-28.37	125.29	258.12	80.28	12 7 33	2456.7	-29.57	97.93
90.00	12 7 23	3271.17	-25.93	111.15	257.60	78.31	13 1 54	2271.2	-28.25	84.38
100.00	13 52 48	2931.18	-28.37	86.66	258.12	80.28	14 41 39	1931.2	-29.57	59.30
110.00	15 45 51	2577.34	-33.79	60.63	258.95	84.72	16 28 48	1577.3	-32.44	31.98

DIFFERENTIAL CORRECTIONS

TDE -.3956 TRA -.6364 TC3 .8899 BAU .4104
RDE .0197 RRA .2436 RC3-1.8942 FAU .29278
FDE 3.2470 FRA 1.2543 FC-17.2787 BSP 3254
BDE .3961 BRA .6815 BC3 2.0928 FSP 2052

MID-COURSE EXECUTION ACCURACY

SGT 1386.8 SGR 1506.2 SG3 1231.3
RRT -.6850 RRF .9403 RTF -.7125
SGB 2047.4 R23 -.2474 R13 .9120
SG1 1880.7 SG2 809.1 THA 131.56

ORBIT DETERMINATION ACCURACY

ST 33.6 SR 6.6 SS 65.5
CRT -.6386 CRS -.3636 CST .9339
LSA 72.9 MSA 12.1 SSA 2.4
EL1 33.6 EL2 5.0 ALF 172.69

LAUNCH DATE AUG 2 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 443.934 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 33.016 GAL .55 AZL 88.29 HCA 138.04 SMA 201.62 ECC .24716 INC 1.7139 V1 29.346
RP 234.17 LAP 1.15 LOP 87.61 VP 21.800 GAP 10.93 AZP 91.27 TAL 2.79 TAP 140.82 RCA 151.79 APO 251.45 V2 23.479
RC 177.360 GL 14.96 GP -19.62 ZAL 81.81 ZAP 132.17 ETS 200.79 ZAE 158.16 ETE 256.89 ZAC 63.97 ETC 283.84 LVI 2.04

PLANETOCENTRIC CONIC

C3 14.630 VHL 3.825 DLA 25.80 RAL 23.22 RAD 6640.3 VEL 11.605 PTH 6.65 VHP 3.034 DPA -2.99 RAP 47.10 ECC 1.2408

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 24 18	3592.69	-47.28	136.82	258.78	96.06	11 24 11	2592.7	-39.46	105.09
60.00	10 29 50	3577.93	-40.30	135.96	259.24	89.49	11 29 28	2577.9	-36.09	105.68
70.00	10 39 24	3549.73	-33.66	133.20	258.76	83.85	11 38 34	2549.7	-32.69	104.50
80.00	11 0 7	3484.72	-28.03	127.31	257.79	79.27	11 58 12	2484.7	-29.69	100.00
90.00	11 55 11	3306.84	-25.42	113.63	257.18	77.17	12 50 18	2306.8	-28.28	86.99
100.00	13 42 59	2959.20	-28.03	88.67	257.79	79.27	14 32 18	1959.2	-29.69	61.37
110.00	15 38 51	2596.55	-33.66	62.12	258.76	83.85	16 22 7	1596.5	-32.69	33.42

DIFFERENTIAL CORRECTIONS

TDE -.3871 TRA -.6248 TC3 .8214 BAU .4235
RDE .0520 RRA .2439 RC3-2.0033 FAU .30265
FDE 3.4378 FRA 1.2491 FC-17.9090 BSP 3281
BDE .3906 BRA .6707 BC3 2.1652 FSP 2126

MID-COURSE EXECUTION ACCURACY

SGT 1346.0 SGR 1587.3 SG3 1277.2
RRT -.6694 RRF .9478 RTF -.7210
SGB 2081.2 R23 -.2342 R13 .9215
SG1 1907.6 SG2 832.1 THA 128.05

ORBIT DETERMINATION ACCURACY

ST 32.9 SR 7.6 SS 68.2
CRT -.8410 CRS -.6282 CST .9301
LSA 75.1 MSA 12.1 SSA 2.4
EL1 33.6 EL2 4.0 ALF 168.88

LAUNCH DATE AUG 2 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 447.695 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 33.002 GAL .56 AZL 88.21 HCA 139.02 SMA 201.33 ECC .24608 INC 1.7855 V1 29.346
RP 234.53 LAP 1.17 LOP 88.60 VP 21.738 GAP 10.67 AZP 91.35 TAL 2.84 TAP 141.86 RCA 151.78 APO 250.87 V2 23.442
RC 180.313 GL 15.61 GP -20.33 ZAL 81.73 ZAP 130.64 ETS 200.51 ZAE 157.09 ETE 253.62 ZAC 63.36 ETC 283.97 LVI 2.60

PLANETOCENTRIC CONIC

C3 14.603 VHL 3.821 DLA 26.36 RAL 22.84 RAD 6640.3 VEL 11.604 PTH 6.65 VHP 2.983 DPA -3.81 RAP 46.92 ECC 1.2403

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 19 57	3604.73	-47.36	137.97	258.89	95.17	11 20 1	2604.7	-39.86	105.97
60.00	10 24 19	3593.09	-40.28	137.25	259.21	88.62	11 24 12	2593.1	-36.42	106.83
70.00	10 31 59	3570.48	-33.50	134.80	258.59	82.92	11 31 29	2570.5	-32.93	106.07
80.00	10 49 21	3515.96	-27.62	129.53	257.45	78.17	11 47 57	2516.0	-29.79	102.32
90.00	11 41 13	3348.37	-24.76	116.50	256.72	75.88	12 37 2	2348.4	-28.24	90.02
100.00	13 32 13	2990.44	-27.62	90.90	257.45	78.17	14 22 3	1990.4	-29.79	63.69
110.00	15 31 25	2617.30	-33.50	63.71	258.59	82.92	16 15 3	1617.3	-32.93	34.99

DIFFERENTIAL CORRECTIONS

TDE -.3787 TRA -.6122 TC3 .7420 BAU .4374
RDE .0878 RRA .2428 RC3-2.1139 FAU .31203
FDE 3.6479 FRA 1.2211 FC-18.4979 BSP 3332
BDE .3888 BRA .6586 BC3 2.2403 FSP 2204

MID-COURSE EXECUTION ACCURACY

SGT 1301.4 SGR 1671.1 SG3 1321.6
RRT -.6471 RRF .9542 RTF -.6639
SGB 2118.0 R23 -.2173 R13 .9312
SG1 1937.5 SG2 855.8 THA 124.34

ORBIT DETERMINATION ACCURACY

ST 32.3 SR 9.3 SS 71.1
CRT -.9418 CRS -.7948 CST .9259
LSA 77.7 MSA 12.2 SSA 2.3
EL1 33.5 EL2 3.0 ALF 164.71

LAUNCH DATE AUG 2 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 451.498 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.868	GAL	.57	AZL	88.14	HCA	140.01	SMA	201.06	ECC	.24507	INC	1.8598
RP	234.88	LAP	1.20	LOP	89.59	VP	21.678	GAP	10.41	AZP	91.43	TAL	2.88	TAP	142.89	RCA	151.78	APO	250.33
RC	183.270	GL	16.28	GP	-21.07	ZAL	81.67	ZAP	129.10	ETS	200.22	ZAE	155.93	ETE	250.56	ZAC	62.73	ETC	284.11

PLANETOCENTRIC CONIC

C3	14.589	VHL	3.819	DLA	26.95	RAL	22.46	RAD	6640.3	VEL	11.604	PTH	6.65	VHP	2.935	DPA	-4.66	RAP	46.73

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 15 26	3617.57	-47.43	139.21	259.04	94.23	11 15 44	2617.6	-40.27	108.93
60.00	10 18 32	3609.31	-40.25	138.63	259.21	87.68	11 18 42	2609.3	-36.77	108.07
70.00	10 24 5	3592.95	-33.30	136.52	258.42	81.92	11 23 58	2592.9	-33.17	107.78
80.00	10 37 22	3551.25	-27.10	132.03	257.09	76.96	11 36 33	2551.3	-29.85	104.94
90.00	11 24 36	3398.62	-23.88	119.92	256.18	74.39	12 21 14	2398.6	-28.09	93.69
100.00	13 20 13	3025.73	-27.10	93.40	257.09	76.96	14 10 39	2025.7	-29.85	66.31
110.00	15 23 32	2639.77	-33.30	65.44	258.42	81.92	16 7 31	1639.8	-33.17	36.70

DIFFERENTIAL CORRECTIONS

TDE	-.3674	TRA	-.5991	TC3	.6589	BAU	.4534												
RDE	.1253	RRA	.2412	RC3	-2.2291	FAU	.32142												
FDE	3.8585	FRA	1.1916	FC	-19.0743	BSP	3402												
BDE	.3882	BRA	.6458	BC3	2.3245	FSP	2285												

MID-COURSE EXECUTION ACCURACY

SGT	1254.3	SGR	1760.6	SG3	1365.7				
RRT	-.6203	RRF	.9600	RTF	-.6328				
SGB	2161.7	R23	-.1961	R13	.9409				
SG1	1976.0	SG2	876.6	THA	120.44				

ORBIT DETERMINATION ACCURACY

ST	31.4	SR	11.5	SS	74.0				
CRT	-.9775	CRS	-.8830	CST	.9206				
LSA	80.3	MSA	12.2	SSA	2.2				
EL1	33.4	EL2	2.3	ALF	160.25				

LAUNCH DATE AUG 2 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 455.226 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.976	GAL	.57	AZL	88.06	HCA	140.99	SMA	200.80	ECC	.24413	INC	1.9369
RP	235.24	LAP	1.22	LOP	90.57	VP	21.620	GAP	10.16	AZP	91.51	TAL	2.92	TAP	143.91	RCA	151.78	APO	249.83
RC	186.232	GL	16.97	GP	-21.84	ZAL	81.62	ZAP	127.54	ETS	199.91	ZAE	154.69	ETE	247.71	ZAC	62.09	ETC	284.26

PLANETOCENTRIC CONIC

C3	14.586	VHL	3.819	DLA	27.56	RAL	22.08	RAD	6640.3	VEL	11.604	PTH	6.65	VHP	2.891	DPA	-5.54	RAP	46.52

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 10 45	3631.24	-47.49	140.52	259.25	93.21	11 11 17	2631.2	-40.70	107.96
60.00	10 12 29	3626.64	-40.19	140.10	259.24	86.69	11 12 56	2626.6	-37.12	109.41
70.00	10 15 38	3617.35	-33.05	138.38	258.27	80.85	11 15 55	2617.3	-33.41	109.64
80.00	10 23 44	3591.90	-26.44	134.87	256.68	75.60	11 23 36	2591.9	-29.85	107.96
90.00	11 3 8	3464.54	-22.60	124.32	255.48	72.54	12 0 52	2464.5	-27.74	98.48
100.00	13 6 36	3066.37	-26.44	96.24	256.68	75.60	13 57 42	2066.4	-29.85	69.33
110.00	15 15 4	2664.17	-33.05	67.30	258.27	80.85	15 59 29	1664.2	-33.41	38.56

DIFFERENTIAL CORRECTIONS

TDE	-.3531	TRA	-.5875	TC3	.5681	BAU	.4706												
RDE	.1645	RRA	.2398	RC3	-2.3468	FAU	.33043												
FDE	4.0672	FRA	1.1643	FC	-19.6120	BSP	3501												
BDE	.3695	BRA	.6345	BC3	2.4145	FSP	2374												

MID-COURSE EXECUTION ACCURACY

SGT	1207.1	SGR	1854.4	SG3	1407.9				
RRT	-.5861	RRF	.9649	RTF	-.5944				
SGB	2212.7	R23	-.1732	R13	.9499				
SG1	2022.9	SG2	896.6	THA	116.47				

ORBIT DETERMINATION ACCURACY

ST	30.4	SR	14.0	SS	76.8				
CRT	-.9839	CRS	-.9295	CST	.9135				
LSA	82.8	MSA	12.3	SSA	2.1				
EL1	33.4	EL2	2.3	ALF	155.48				

LAUNCH DATE AUG 2 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 458.996 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.964	GAL	.58	AZL	87.98	HCA	141.96	SMA	200.57	ECC	.24325	INC	2.0171
RP	235.59	LAP	1.24	LOP	91.54	VP	21.563	GAP	9.90	AZP	91.59	TAL	2.95	TAP	144.91	RCA	151.78	APO	249.36
RC	189.197	GL	17.68	GP	-22.63	ZAL	81.60	ZAP	125.95	ETS	199.58	ZAE	153.36	ETE	245.05	ZAC	61.43	ETC	284.42

PLANETOCENTRIC CONIC

C3	14.597	VHL	3.821	DLA	28.19	RAL	21.71	RAD	6640.3	VEL	11.604	PTH	6.65	VHP	2.851	DPA	-6.45	RAP	46.30

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 5 53	3645.79	-47.54	141.93	259.49	92.13	11 6 39	2645.8	-41.15	109.07
60.00	10 6 7	3645.20	-40.10	141.67	259.29	85.62	11 6 52	2645.2	-37.48	110.85
70.00	10 6 32	3643.96	-32.74	140.39	258.11	79.69	11 7 16	2644.0	-33.63	111.69
80.00	10 7 43	3640.23	-25.58	138.20	256.20	74.05	11 8 23	2640.2	-29.74	111.55
90.00	10 25 25	3582.92	-19.98	132.01	254.20	69.56	11 25 8	2582.9	-26.64	106.96
100.00	12 50 35	3114.70	-25.58	99.57	256.20	74.05	13 42 29	2114.7	-29.74	72.92
110.00	15 5 58	2690.78	-32.74	69.31	258.11	79.69	15 50 49	1690.8	-33.63	40.61

DIFFERENTIAL CORRECTIONS

TDE	-.3369	TRA	-.5738	TC3	.4743	BAU	.4906												
RDE	.2072	RRA	.2368	RC3	-2.4691	FAU	.33939												
FDE	4.2898	FRA	1.1218	FC	-20.1293	BSP	3562												
BDE	.3955	BRA	.6207	BC3	2.5143	FSP	2433												

MID-COURSE EXECUTION ACCURACY

SGT	1157.5	SGR	1954.1	SG3	1449.9				
RRT	-.5456	RRF	.9694	RTF	-.5503				
SGB	2271.2	R23	-.1475	R13	.9584				
SG1	2080.4	SG2	911.1	THA	112.44				

ORBIT DETERMINATION ACCURACY

ST	29.2	SR	16.9	SS	79.7				
CRT	-.9771	CRS	-.9564	CST	.9050				
LSA	85.7	MSA	12.3	SSA	2.0				
EL1	33.6	EL2	3.1	ALF	150.21				

LAUNCH DATE AUG 2 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 462.768 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.953	GAL	.58	AZL	87.90	HCA	142.94	SMA	200.35	ECC	.24243	INC	2.1007
RP	235.94	LAP	1.27	LOP	92.52	VP	21.507	GAP	9.65	AZP	91.68	TAL	2.97	TAP	145.90	RCA	151.78	APO	248.92
RC	192.185	GL	18.42	GP	-23.44	ZAL	81.58	ZAP	124.35	ETS	199.23	ZAE	151.96	ETE	242.58	ZAC	60.75	ETC	284.59

PLANETOCENTRIC CONIC

C3	14.620	VHL	3.824	DLA	28.85	RAL	21.33	RAD	6640.3	VEL	11.605	PTH	6.65	VHP	2.814	DPA	-7.39	RAP	46.07

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 0 48	3661.27	-47.57	143.42	259.77	90.98	11 1 49	2661.3	-41.61	110.26
60.00	9 59 23	3665.06	-39.99	143.35	259.36	84.49	11 0 28	2665.1	-37.84	112.41
70.00	9 56 38	3673.14	-32.37	142.59	257.94	78.45	10 57 51	2673.1	-33.83	113.94
80.00	9 47 40	3701.36	-24.37	142.34	255.57	72.20	10 49 22	2701.4	-29.45	116.07
84.05	9 14 31	3808.07	-18.73	147.99	253.35	67.65	10 17 59	2808.1	-26.31	123.39
100.00	12 30 32	3175.83	-24.37	103.71	255.57	72.20	13 23 28	2175.8	-29.45	77.44
110.00	14 56 5	2719.96	-32.37	71.50	257.94	78.45	15 41 25	1720.0	-33.83	42.86

DIFFERENTIAL CORRECTIONS

TDE	-.3153	TRA	-.5591	TC3	.3826	BAU	.5132												
RDE	.2516	RRA	.2331	RC3	-2.5974	FAU	.34840												
FDE	4.5059	FRA	1.0735	FC	-20.6307	BSP	3639												
BDE	.4033	BRA	.6057	BC3	2.6254	FSP	2492												

MID-COURSE EXECUTION ACCURACY

SGT	1106.2	SGR	2060.7	SG3	1491.2				
RRT	-.5004	RRF	.9733	RTF	-.5009				
SGB	2338.8	R23	-.1218	R13	.9658				
SG1	2151.4	SG2	917.4	THA	108.52				

ORBIT DETERMINATION ACCURACY

ST	27.6	SR	20.0	SS	82.6				
CRT	-.9631	CRS	-.9718	CST	.8929				
LSA	88.4	MSA	12.4	SSA	1.9				
EL1	33.8	EL2	4.4	ALF	144.44				

LAUNCH DATE AUG 2 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 466.542 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.943	GAL	.58	AZL	87.81	HCA	143.91	SMA	200.15	ECC	.24167	INC	2.1878	V1	29.346
RP	236.29	LAP	1.29	LOP	93.49	VP	21.453	GAP	9.40	AZP	91.77	TAL	2.98	TAP	146.89	RCA	151.78	APO	248.52	V2	23.261
RC	195.134	GL	19.18	GP	-24.27	ZAL	81.59	ZAP	122.74	ETS	198.86	ZAE	150.50	ETE	240.28	ZAC	60.05	ETC	284.76	LVI	5.69

PLANETOCENTRIC CONIC

C3	14.657	VHL	3.828	DLA	29.54	RAL	20.96	RAD	6640.4	VEL	11.607	PTH	6.65	VHP	2.781	DPA	-8.36	RAP	45.84	ECC	1.2412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 55 29	3677.76	-47.58	145.02	260.10	89.75	10 56 46	2677.8	-42.09	111.56
60.00	9 52 14	3686.41	-39.83	145.14	259.45	83.28	10 53 41	2686.4	-36.21	114.11
70.00	9 45 47	3705.48	-31.90	144.99	257.78	77.10	10 47 32	2705.5	-33.99	116.45
80.00	9 17 48	3793.68	-22.31	148.42	254.55	69.63	10 21 2	2793.7	-28.70	122.82
81.10	8 49 32	3884.16	-19.14	153.78	253.20	67.07	9 54 16	2884.2	-26.92	129.16
100.00	12 0 40	3268.15	-22.31	109.79	254.55	69.63	12 55 8	2268.2	-28.70	84.19
110.00	14 45 13	2752.30	-31.90	73.91	257.76	77.10	15 31 5	1752.3	-33.99	45.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3043	TRA	-.5555	TC3	.2479	BAU	.5336	SGT	1075.4	SGR	2163.4	SG3	1525.3	ST	26.9	SR	23.8	SS	86.3
RDE	.3050	RRA	.2325	RC3	-2.7119	FAU	.35468	RRT	-.4230	RRF	.9765	RTF	-.4229	CRT	-.9470	CRS	-.9817	CST	.8829
FDE	4.7753	FRA	1.0518	FC	-20.9495	BSP	3813	SGB	2415.9	R23	-.0972	R13	.9717	LSA	92.6	MSA	12.6	SSA	1.9
BDE	.4308	BRA	.6022	BC3	2.7233	FSP	2576	SG1	2221.8	SG2	948.8	THA	104.59	EL1	35.5	EL2	5.8	ALF	138.70

LAUNCH DATE AUG 2 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 470.318 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.934	GAL	.58	AZL	87.72	HCA	144.88	SMA	199.97	ECC	.24096	INC	2.2789	V1	29.346
RP	236.63	LAP	1.31	LOP	94.46	VP	21.401	GAP	9.15	AZP	91.86	TAL	2.98	TAP	147.86	RCA	151.78	APO	248.15	V2	23.226
RC	198.104	GL	19.97	GP	-25.13	ZAL	81.61	ZAP	121.11	ETS	198.46	ZAE	148.97	ETE	238.14	ZAC	59.34	ETC	284.95	LVI	6.37

PLANETOCENTRIC CONIC

C3	14.708	VHL	3.835	DLA	30.25	RAL	20.58	RAD	6640.4	VEL	11.609	PTH	6.65	VHP	2.751	DPA	-9.35	RAP	45.60	ECC	1.2421

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 49 53	3695.31	-47.56	146.71	260.47	88.45	10 51 28	2695.3	-42.57	112.96
60.00	9 44 37	3709.33	-39.63	147.06	259.56	82.00	10 46 27	2709.3	-36.57	115.95
70.00	9 33 42	3741.61	-31.32	147.65	257.54	75.62	10 36 3	2741.6	-34.11	119.27
78.78	8 30 19	3941.46	-19.56	158.23	253.07	66.45	9 36 1	2941.5	-27.55	133.58
78.78	8 30 19	3941.46	-19.56	158.23	253.07	66.45	9 36 1	2941.5	-27.55	133.58
78.78	8 30 19	3941.46	-19.56	158.23	253.07	66.45	9 36 1	2941.5	-27.55	133.58
110.00	14 33 8	2788.42	-31.32	76.57	257.54	75.62	15 19 36	1788.4	-34.11	48.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2815	TRA	-.5455	TC3	.1290	BAU	.5584	SGT	1037.6	SGR	2275.1	SG3	1559.1	ST	25.3	SR	27.5	SS	89.3
RDE	.3572	RRA	.2285	RC3	-2.8370	FAU	.36167	RRT	-.3442	RRF	.9794	RTF	-.3417	CRT	-.9250	CRS	-.9875	CST	.8648
FDE	5.0090	FRA	1.0017	FC	-21.2880	BSP	3966	SGB	2500.5	R23	-.0727	R13	.9767	LSA	96.0	MSA	12.7	SSA	1.8
BDE	.4548	BRA	.5914	BC3	2.8399	FSP	2645	SG1	2308.9	SG2	960.0	THA	100.81	EL1	36.7	EL2	7.2	ALF	132.45

LAUNCH DATE AUG 2 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 474.096 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.925	GAL	.58	AZL	87.63	HCA	145.84	SMA	199.79	ECC	.24031	INC	2.3741	V1	29.346
RP	236.98	LAP	1.33	LOP	95.43	VP	21.350	GAP	8.90	AZP	91.96	TAL	2.98	TAP	148.82	RCA	151.78	APO	247.80	V2	23.191
RC	201.073	GL	20.78	GP	-26.01	ZAL	81.65	ZAP	119.47	ETS	198.04	ZAE	147.38	ETE	236.14	ZAC	58.61	ETC	285.14	LVI	7.07

PLANETOCENTRIC CONIC

C3	14.775	VHL	3.844	DLA	31.00	RAL	20.19	RAD	6640.4	VEL	11.612	PTH	6.65	VHP	2.725	DPA	-10.38	RAP	45.36	ECC	1.2432

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 43 58	3713.99	-47.51	148.52	260.87	87.06	10 45 52	2714.0	-43.07	114.48
60.00	9 36 28	3734.03	-39.38	149.11	259.67	80.63	10 38 42	2734.0	-36.92	117.96
70.00	9 20 0	3782.69	-30.59	150.62	257.25	74.00	10 23 3	2782.7	-34.15	122.48
76.74	8 13 58	3989.47	-19.98	162.03	252.97	65.80	9 20 27	2989.5	-28.20	137.35
76.74	8 13 58	3989.47	-19.98	162.03	252.97	65.80	9 20 27	2989.5	-28.20	137.35
76.74	8 13 58	3989.47	-19.98	162.03	252.97	65.80	9 20 27	2989.5	-28.20	137.35
110.00	14 19 26	2829.51	-30.59	79.54	257.25	74.00	15 6 36	1829.5	-34.15	51.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2558	TRA	-.5371	TC3	.0043	BAU	.5852	SGT	1008.8	SGR	2391.7	SG3	1590.1	ST	23.7	SR	31.6	SS	92.5
RDE	.4135	RRA	.2248	RC3	-2.9627	FAU	.36799	RRT	-.2520	RRF	.9820	RTF	-.2473	CRT	-.8970	CRS	-.9913	CST	.8402
FDE	5.2480	FRA	.9552	FC	-21.5622	BSP	4123	SGB	2595.8	R23	-.0304	R13	.9807	LSA	99.7	MSA	12.8	SSA	1.7
BDE	.4862	BRA	.5822	BC3	2.9627	FSP	2700	SG1	2407.8	SG2	969.7	THA	97.25	EL1	38.5	EL2	8.6	ALF	125.99

LAUNCH DATE AUG 2 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 477.876 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.917	GAL	.57	AZL	87.53	HCA	146.80	SMA	199.64	ECC	.23970	INC	2.4738	V1	29.346
RP	237.31	LAP	1.35	LOP	96.39	VP	21.300	GAP	8.85	AZP	92.07	TAL	2.98	TAP	149.77	RCA	151.78	APO	247.49	V2	23.157
RC	204.040	GL	21.63	GP	-26.92	ZAL	81.71	ZAP	117.83	ETS	197.59	ZAE	145.74	ETE	234.27	ZAC	57.86	ETC	285.34	LVI	7.78

PLANETOCENTRIC CONIC

C3	14.857	VHL	3.855	DLA	31.78	RAL	19.80	RAD	6640.5	VEL	11.615	PTH	6.66	VHP	2.703	DPA	-11.43	RAP	45.12	ECC	1.2445

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 37 43	3733.91	-47.42	150.44	261.31	85.58	10 39 57	2733.9	-43.58	116.12
60.00	9 27 40	3760.75	-39.06	151.31	259.77	79.16	10 30 21	2760.8	-39.25	120.15
70.00	9 4 2	3830.66	-29.64	154.04	256.86	72.19	10 7 52	2830.7	-34.09	126.22
74.86	7 59 18	4031.92	-20.42	165.45	252.89	65.10	9 6 30	3031.9	-28.88	140.74
74.86	7 59 18	4031.92	-20.42	165.45	252.89	65.10	9 6 30	3031.9	-28.88	140.74
74.86	7 59 18	4031.92	-20.42	165.45	252.89	65.10	9 6 30	3031.9	-28.88	140.74
110.00	14 3 28	2877.48	-29.64	82.95	256.86	72.19	14 51 25	1877.5	-34.09	55.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2275	TRA	-.5283	TC3	-.1278	BAU	.6134	SGT	988.6	SGR	2510.0	SG3	1616.2	ST	21.9	SR	35.9	SS	95.6
RDE	.4738	RRA	.2190	RC3	-3.0854	FAU	.37312	RRT	-.1441	RRF	.9842	RTF	-.1379	CRT	-.8604	CRS	-.9939	CST	.8066
FDE	5.4885	FRA	.8935	FC	-21.7415	BSP	4284	SGB	2697.6	R23	-.0295	R13	.9837	LSA	103.6	MSA	13.0	SSA	1.6
BDE	.5255	BRA	.5719	BC3	3.0880	FSP	2740	SG1	2514.7	SG2	976.4	THA	93.83	EL1	40.8	EL2	9.8	ALF	119.54

LAUNCH DATE AUG 2 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 481.656 EARTH TO MARS

RL	181.82	LAL	.00	LOL	309.56	VL	32.909	GAL	.57	AZL	87.42	HCA	147.76	SMA	199.49	ECC	.23914	INC	2.5786
RP	237.65	LAP	1.38	LOP	97.35	VP	21.252	GAP	8.41	AZP	92.18	TAL	2.94	TAP	150.71	RCA	151.78	APO	247.20
RC	207.005	GL	22.51	GP	-27.85	ZAL	81.78	ZAP	116.18	ETS	197.11	ZAE	144.06	ETE	232.51	ZAC	57.10	ETC	285.55

V1	29.346	V2	23.123	LVI	8.52														

PLANETOCENTRIC CONIC

C3	14.957	VHL	3.867	DLA	32.59	RAL	19.40	RAD	6640.5	VEL	11.619	PTH	6.66	VHP	2.685	DPA	-12.51	RAP	44.87

ECC	1.2462																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 31 5	3755.16	-47.29	152.48	261.77	84.02	10 33 40	2755.2	-44.09	117.91
60.00	9 18 7	3789.78	-38.66	153.68	259.86	77.60	10 21 17	2789.8	-39.57	122.55
70.00	8 44 28	3889.39	-28.34	158.12	256.29	70.09	9 49 18	2889.4	-33.84	130.79
73.08	7 45 50	4070.42	-20.86	168.61	252.84	64.37	8 53 40	3070.4	-29.57	143.88
73.08	7 45 50	4070.42	-20.86	168.61	252.84	64.37	8 53 40	3070.4	-29.57	143.88
73.08	7 45 50	4070.42	-20.86	168.61	252.84	64.37	8 53 40	3070.4	-29.57	143.88
110.00	13 43 55	2936.20	-28.34	87.03	256.29	70.09	14 32 51	1936.2	-33.84	59.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1952	TRA	-.5204	TC3	-.2628	BAU	.6435	SGT	980.9	SGR	2632.6	SG3	1638.6	ST	19.9	SR	40.4	SS	98.7
RDE	.5381	RRA	.2129	RC3	-3.2075	FAU	.37744	RRT	-.0266	RRF	.9861	RTF	-.0191	CRT	-.8092	CRS	-.9956	CST	.7574
FDE	5.7267	FRA	.8311	FC	-21.8468	BSP	4485	SGB	2809.4	R23	-.0114	R13	.9861	LSA	107.7	MSA	13.1	SSA	1.5
BDE	.5724	BRA	.5622	BC3	3.2183	FSP	2787	SG1	2632.8	SG2	980.5	THA	90.66	EL1	43.8	EL2	10.8	ALF	113.26

LAUNCH DATE AUG 2 1973 FLIGHT TIME 210.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 485.438 EARTH TO MARS

RL	181.82	LAL	.00	LOL	309.56	VL	32.903	GAL	.56	AZL	87.31	HCA	148.72	SMA	199.36	ECC	.23863	INC	2.6887
RP	237.98	LAP	1.40	LOP	98.31	VP	21.205	GAP	8.17	AZP	92.30	TAL	2.92	TAP	151.64	RCA	151.78	APO	246.93
RC	209.965	GL	23.42	GP	-28.80	ZAL	81.87	ZAP	114.53	ETS	196.59	ZAE	142.34	ETE	230.85	ZAC	56.32	ETC	285.77

V1	29.346	V2	23.090	LVI	9.29														

PLANETOCENTRIC CONIC

C3	15.075	VHL	3.883	DLA	33.44	RAL	18.99	RAD	6640.6	VEL	11.624	PTH	6.66	VHP	2.670	DPA	-13.62	RAP	44.63

ECC	1.2481																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 23 59	3777.87	-47.11	154.64	262.25	82.36	10 26 57	2777.9	-44.60	119.86
60.00	9 7 39	3821.48	-38.17	156.22	259.92	75.94	10 11 21	2821.5	-39.85	125.20
70.00	8 17 45	3969.60	-26.37	163.51	255.32	67.46	9 23 54	2969.6	-33.21	136.96
71.37	7 33 16	4105.95	-21.31	171.58	252.80	63.60	8 41 42	3105.9	-30.29	146.83
71.37	7 33 16	4105.95	-21.31	171.58	252.80	63.60	8 41 42	3105.9	-30.29	146.83
71.37	7 33 16	4105.95	-21.31	171.58	252.80	63.60	8 41 42	3105.9	-30.29	146.83
110.00	13 17 11	3016.42	-26.37	92.43	255.32	67.46	14 7 27	2016.4	-33.21	65.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1563	TRA	-.5106	TC3	-.3910	BAU	.6774	SGT	980.2	SGR	2764.7	SG3	1659.6	ST	17.8	SR	45.1	SS	101.4
RDE	.6041	RRA	.2036	RC3	-3.3381	FAU	.38207	RRT	.0946	RRF	.9878	RTF	.1038	CRT	-.7300	CRS	-.9968	CST	.6792
FDE	5.9434	FRA	.7488	FC	-21.9409	BSP	4667	SGB	2933.3	R23	.0029	R13	.9879	LSA	111.6	MSA	13.2	SSA	1.4
BDE	.6240	BRA	.5497	BC3	3.3609	FSP	2804	SG1	2766.5	SG2	975.2	THA	87.81	EL1	47.0	EL2	11.7	ALF	107.17

LAUNCH DATE AUG 2 1973 FLIGHT TIME 212.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 489.220 EARTH TO MARS

RL	181.82	LAL	.00	LOL	309.56	VL	32.897	GAL	.55	AZL	87.20	HCA	149.68	SMA	199.24	ECC	.23817	INC	2.8047
RP	238.30	LAP	1.42	LOP	99.27	VP	21.159	GAP	7.92	AZP	92.42	TAL	2.88	TAP	152.56	RCA	151.78	APO	246.69
RC	212.919	GL	24.37	GP	-29.77	ZAL	81.97	ZAP	112.88	ETS	196.05	ZAE	140.58	ETE	229.29	ZAC	55.52	ETC	286.00

V1	29.346	V2	23.056	LVI	10.07														

PLANETOCENTRIC CONIC

C3	15.214	VHL	3.901	DLA	34.32	RAL	18.57	RAD	6640.6	VEL	11.630	PTH	6.67	VHP	2.659	DPA	-14.75	RAP	44.40

ECC	1.2504																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 16 22	3802.22	-46.86	156.94	262.74	80.60	10 19 44	2802.2	-48.11	121.98
60.00	8 56 5	3856.44	-37.55	158.99	259.93	74.15	10 0 21	2856.4	-40.08	128.15
69.69	7 21 22	4139.21	-21.77	174.42	252.80	62.78	8 30 21	3139.2	-31.04	149.65
69.69	7 21 22	4139.21	-21.77	174.42	252.80	62.78	8 30 21	3139.2	-31.04	149.65
69.69	7 21 22	4139.21	-21.77	174.42	252.80	62.78	8 30 21	3139.2	-31.04	149.65
69.69	7 21 22	4139.21	-21.77	174.42	252.80	62.78	8 30 21	3139.2	-31.04	149.65
69.69	7 21 22	4139.21	-21.77	174.42	252.80	62.78	8 30 21	3139.2	-31.04	149.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1209	TRA	-.5096	TC3	-.5450	BAU	.7102	SGT	1018.7	SGR	2891.9	SG3	1671.5	ST	16.3	SR	50.4	SS	104.8
RDE	.6808	RRA	.1989	RC3	-3.4487	FAU	.38354	RRT	.2195	RRF	.9893	RTF	.2263	CRT	-.6265	CRS	-.9976	CST	.5772
FDE	6.1963	FRA	.7013	FC	-21.8250	BSP	4934	SGB	3065.5	R23	.0180	R13	.9892	LSA	116.7	MSA	13.4	SSA	1.3
BDE	.6915	BRA	.5470	BC3	3.4915	FSP	2852	SG1	2901.7	SG2	988.6	THA	85.01	EL1	51.5	EL2	12.4	ALF	102.12

LAUNCH DATE AUG 2 1973 FLIGHT TIME 214.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 493.003 EARTH TO MARS

RL	181.82	LAL	.00	LOL	309.56	VL	32.891	GAL	.55	AZL	87.07	HCA	150.63	SMA	199.13	ECC	.23774	INC	2.9272
RP	238.63	LAP	1.44	LOP	100.22	VP	21.115	GAP	7.68	AZP	92.55	TAL	2.84	TAP	153.47	RCA	151.79	APO	246.47
RC	215.868	GL	25.36	GP	-30.77	ZAL	82.09	ZAP	111.24	ETS	195.48	ZAE	138.79	ETE	227.80	ZAC	54.70	ETC	286.25

V1	29.346	V2	23.024	LVI	10.88														

PLANETOCENTRIC CONIC

C3	15.375	VHL	3.921	DLA	35.25	RAL	18.13	RAD	6640.7	VEL	11.637	PTH	6.68	VHP	2.653	DPA	-15.91	RAP	44.18

ECC	1.2530																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 8 9	3828.35	-46.54	159.38	263.24	78.75	10 11 58	2828.4	-45.61	124.30
60.00	8 43 6	3895.35	-36.79	162.01	259.86	72.23	9 48 1	2895.4	-40.24	131.45
68.03	7 9 59	4170.70	-22.23	177.15	252.81	61.92	8 19 30	3170.7	-31.80	152.39
68.03	7 9 59	4170.70	-22.23	177.15	252.81	61.92	8 19 30	3170.7	-31.80	152.39
68.03	7 9 59	4170.70	-22.23	177.15	252.81	61.92	8 19 30	3170.7	-31.80	152.39
68.03	7 9 59	4170.70	-22.23	177.15	252.81	61.92	8 19 30	3170.7	-31.80	152.39
68.03	7 9 59	4170.70	-22.23	177.15	252.81	61.92	8 19 30	3170.7	-31.80	152.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0771	TRA	-.5036	TC3	-.6940	BAU	.7448	SGT	1058.6	SGR	3020.6	SG3	1677.4	ST	14.7	SR	55.9	SS	107.8
RDE	.7600	RRA	.1876	RC3	-3.5564	FAU	.38405	RRT	.3410	RRF	.9906	RTF	.3496	CRT	-.4603	CRS	-.9983	CST	.4125
FDE	6.4239	FRA	.6123	FC	-21.6253	BSP	5184	SGB	3200.8	R23	.0304	R13	.9902	LSA	121.6	MSA	13.5	SSA	1.2
BDE	.7639	BRA	.5374	BC3	3.6234	FSP	2873	SG1	3044.7	SG2	987.3	THA	82.38	EL1	56.3	EL2	12.9	ALF	97.27

LAUNCH DATE AUG 2 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 6 1974

DISTANCE 496.786

HELIOCENTRIC CONIC — EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.886	GAL	.53	AZL	86.94	HCA	151.58	SMA	199.03	ECC	.23735	INC	3.0568	V1	29.348
RP	238.95	LAP	1.45	LOP	101.17	VP	21.072	GAP	7.44	AZP	92.69	TAL	2.79	TAP	154.36	RCA	151.79	APO	246.27	V2	22.991
RC	218.810	GL	26.39	GP	-31.79	ZAL	82.22	ZAP	109.61	ETS	194.87	ZAE	136.98	ETE	226.39	ZAC	53.67	ETC	286.50	LVI	11.72

PLANETOCENTRIC CONIC

C3	15.561	VHL	3.945	DLA	36.21	RAL	17.67	RAD	6640.8	VEL	11.645	PTH	6.68	VHP	2.651	DPA	-17.09	RAP	43.97	ECC	1.2561

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 59 14	3856.50	-46.13	161.98	263.71	76.78	10 3 31	2856.5	-46.09	126.85
60.00	8 28 15	3939.40	-35.82	165.35	259.66	70.14	9 33 55	2939.4	-40.30	135.19
66.38	6 59 1	4200.70	-22.69	179.82	252.85	61.00	8 9 1	3200.7	-32.60	155.05
66.38	6 59 1	4200.70	-22.69	179.82	252.85	61.00	8 9 1	3200.7	-32.60	155.05
66.38	6 59 1	4200.70	-22.69	179.82	252.85	61.00	8 9 1	3200.7	-32.60	155.05
66.38	6 59 1	4200.70	-22.69	179.82	252.85	61.00	8 9 1	3200.7	-32.60	155.05
66.38	6 59 1	4200.70	-22.69	179.82	252.85	61.00	8 9 1	3200.7	-32.60	155.05

DIFFERENTIAL CORRECTIONS

TDE	-.0275	TRA	-.5003	TC3	-.8374	BAU	.7832				
RDE	.8417	RRA	.1764	RC3	-3.6707	FAU	.38472				
FDE	6.6252	FRA	.5295	FC	-21.4046	BSP	5436				
BDE	.8422	BRA	.5305	BC3	3.7650	FSP	2875				

MID-COURSE EXECUTION ACCURACY

SGT	1117.7	SGR	3159.4	SG3	1681.3		
RRT	.4470	RRF	.9917	RTF	.4558		
SGB	3351.3	R23	.0394	R13	.9910		
SG1	3202.9	SG2	986.2	THA	80.06		

ORBIT DETERMINATION ACCURACY

ST	13.7	SR	61.5	SS	110.4
CRT	-.2166	CRS	-.9987	CST	.1713
LSA	126.4	MSA	13.7	SSA	1.2
EL1	61.5	EL2	13.4	ALF	92.90

LAUNCH DATE AUG 2 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 8 1974

DISTANCE 500.570

HELIOCENTRIC CONIC — EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.881	GAL	.52	AZL	86.81	HCA	152.52	SMA	198.94	ECC	.23700	INC	3.1941	V1	29.346
RP	239.26	LAP	1.47	LOP	102.12	VP	21.030	GAP	7.20	AZP	92.83	TAL	2.73	TAP	155.25	RCA	151.79	APO	246.09	V2	22.960
RC	221.744	GL	27.47	GP	-32.83	ZAL	82.37	ZAP	107.99	ETS	194.23	ZAE	135.14	ETE	225.04	ZAC	53.02	ETC	286.77	LVI	12.58

PLANETOCENTRIC CONIC

C3	15.774	VHL	3.972	DLA	37.21	RAL	17.18	RAD	6640.9	VEL	11.654	PTH	6.69	VHP	2.653	DPA	-18.29	RAP	43.77	ECC	1.2596

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 49 30	3886.92	-45.62	164.74	264.16	74.71	9 54 17	2886.9	-46.53	129.65
60.00	8 10 49	3990.54	-34.57	169.11	259.27	67.85	9 17 20	2990.5	-40.20	139.54
64.73	6 48 20	4229.58	-23.16	182.44	252.92	60.02	7 58 49	3229.6	-33.41	157.68
64.73	6 48 20	4229.58	-23.16	182.44	252.92	60.02	7 58 49	3229.6	-33.41	157.68
64.73	6 48 20	4229.58	-23.16	182.44	252.92	60.02	7 58 49	3229.6	-33.41	157.68
64.73	6 48 20	4229.58	-23.16	182.44	252.92	60.02	7 58 49	3229.6	-33.41	157.68
64.73	6 48 20	4229.58	-23.16	182.44	252.92	60.02	7 58 49	3229.6	-33.41	157.68

DIFFERENTIAL CORRECTIONS

TDE	.0262	TRA	-.4979	TC3	-.9880	BAU	.8210				
RDE	.9313	RRA	.1631	RC3	-3.7657	FAU	.38267				
FDE	6.8279	FRA	.4396	FC	-21.0030	BSP	5711				
BDE	.9316	BRA	.5240	BC3	3.8931	FSP	2872				

MID-COURSE EXECUTION ACCURACY

SGT	1196.2	SGR	3292.3	SG3	1675.3		
RRT	.5412	RRF	.9927	RTF	.5495		
SGB	3502.9	R23	.0482	R13	.9916		
SG1	3361.5	SG2	985.1	THA	77.81		

ORBIT DETERMINATION ACCURACY

ST	13.7	SR	67.5	SS	113.1
CRT	.0781	CRS	-.9990	CST	-.1181
LSA	131.7	MSA	13.8	SSA	1.1
EL1	67.5	EL2	13.7	ALF	89.05

LAUNCH DATE AUG 2 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 10 1974

DISTANCE 504.353

HELIOCENTRIC CONIC — EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.877	GAL	.51	AZL	86.66	HCA	153.47	SMA	198.86	ECC	.23669	INC	3.3400	V1	29.346
RP	239.57	LAP	1.49	LOP	103.07	VP	20.989	GAP	6.97	AZP	92.99	TAL	2.67	TAP	156.13	RCA	151.79	APO	245.92	V2	22.928
RC	224.672	GL	28.59	GP	-33.90	ZAL	82.54	ZAP	106.39	ETS	193.55	ZAE	133.30	ETE	223.75	ZAC	52.14	ETC	287.04	LVI	13.47

PLANETOCENTRIC CONIC

C3	16.018	VHL	4.002	DLA	38.27	RAL	16.67	RAD	6641.0	VEL	11.664	PTH	6.70	VHP	2.660	DPA	-19.51	RAP	43.59	ECC	1.2636

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 38 46	3919.99	-44.99	167.67	264.54	72.53	9 44 6	2920.0	-46.93	132.75
60.00	7 49 19	4052.69	-32.89	173.52	258.55	65.26	8 56 52	3052.7	-39.84	144.78
63.07	6 37 54	4257.46	-23.63	185.02	253.00	58.98	7 48 51	3257.5	-34.25	160.29
63.07	6 37 54	4257.46	-23.63	185.02	253.00	58.98	7 48 51	3257.5	-34.25	160.29
63.07	6 37 54	4257.46	-23.63	185.02	253.00	58.98	7 48 51	3257.5	-34.25	160.29
63.07	6 37 54	4257.46	-23.63	185.02	253.00	58.98	7 48 51	3257.5	-34.25	160.29
63.07	6 37 54	4257.46	-23.63	185.02	253.00	58.98	7 48 51	3257.5	-34.25	160.29

DIFFERENTIAL CORRECTIONS

TDE	.0842	TRA	-.4981	TC3	-1.1331	BAU	.8622				
RDE	1.0288	RRA	.1489	RC3	-3.8638	FAU	.38048				
FDE	7.0273	FRA	.3506	FC	-20.5648	BSP	6015				
BDE	1.0322	BRA	.5199	BC3	4.0266	FSP	2867				

MID-COURSE EXECUTION ACCURACY

SGT	1289.2	SGR	3436.3	SG3	1667.7		
RRT	.6176	RRF	.9938	RTF	.6454		
SGB	3670.2	R23	.0548	R13	.9921		
SG1	3538.4	SG2	985.5	THA	75.83		

ORBIT DETERMINATION ACCURACY

ST	15.0	SR	73.9	SS	115.8
CRT	.3572	CRS	-.9993	CST	-.3898
LSA	137.4	MSA	14.0	SSA	1.0
EL1	74.1	EL2	13.9	ALF	85.71

LAUNCH DATE AUG 2 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 12 1974

DISTANCE 508.137

HELIOCENTRIC CONIC — EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.874	GAL	.50	AZL	86.50	HCA	154.41	SMA	198.79	ECC	.23641	INC	3.4955	V1	29.348
RP	239.88	LAP	1.51	LOP	104.01	VP	20.950	GAP	6.73	AZP	93.15	TAL	2.60	TAP	157.01	RCA	151.79	APO	245.78	V2	22.897
RC	227.591	GL	29.77	GP	-34.99	ZAL	82.72	ZAP	104.82	ETS	192.84	ZAE	131.44	ETE	222.50	ZAC	51.25	ETC	287.33	LVI	14.38

PLANETOCENTRIC CONIC

C3	16.296	VHL	4.037	DLA	39.36	RAL	16.12	RAD	6641.1	VEL	11.676	PTH	6.71	VHP	2.672	DPA	-20.76	RAP	43.44	ECC	1.2682

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 26 51	3956.15	-44.20	170.79	264.83	70.23	9 32 47	2956.2	-47.25	136.18
60.00	7 19 47	4136.70	-30.35	179.19	257.16	62.10	8 28 43	3136.7	-38.94	151.74
61.39	6 27 38	4284.55	-24.09	187.59	253.10	57.88	7 39 2	3284.5	-35.11	162.89
61.39	6 27 38	4284.55	-24.09	187.59	253.10	57.88	7 39 2	3284.5	-35.11	162.89
61.39	6 27 38	4284.55	-24.09	187.59	253.10	57.88	7 39 2	3284.5	-35.11	162.89
61.39	6 27 38	4284.55	-24.09	187.59	253.10	57.88	7 39 2	3284.5	-35.11	162.89
61.39	6 27 38	4284.55	-24.09	187.59	253.10	57.88	7 39 2	3284.5	-35.11	162.89

DIFFERENTIAL CORRECTIONS

TDE	.1492	TRA	-.4989	TC3	-1.2791	BAU	.9034				
RDE	1.1298	RRA	.1309	RC3	-3.9445	FAU	.37603				
FDE	7.1929	FRA	.2479	FC	-19.9766	BSP	6285				
BDE	1.1397	BRA	.5158	BC3	4.1467	FSP	2827				

MID-COURSE EXECUTION ACCURACY

SGT	1396.5	SGR	3573.7	SG3	1649.7		
RRT	.6830	RRF	.9943	RTF	.6901		
SGB	3836.9	R23	.0607	R13	.9925		
SG1	3708.8	SG2	982.9	THA	73.90		

ORBIT DETERMINATION ACCURACY

ST	17.4	SR	80.4	SS	118.0
CRT	.5762	CRS	-.9994	CST	-.6009
LSA	143.1	MSA	14.1	SSA	.9
EL1	81.0	EL2	14.1	ALF	82.66

LAUNCH DATE AUG 2 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC DISTANCE 511.920 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 32.871 GAL .48 AZL 86.34 HCA 155.34 SMA 198.73 ECC .23616 INC 3.6616 V1 29.346
RP 240.18 LAP 1.53 LOP 104.95 VP 20.911 GAP 6.50 AZP 93.33 TAL 2.52 TAP 157.87 RCA 151.79 APO 245.66 V2 22.866
RC 230.502 GL 31.00 GP -36.10 ZAL 82.91 ZAP 103.27 ETS 192.10 ZAE 129.58 ETE 221.29 ZAC 50.33 ETC 287.64 LVI 15.33

PLANETOCENTRIC CONIC

C3 16.614 VHL 4.076 DLA 40.51 RAL 15.52 RAD 6641.3 VEL 11.690 PTH 6.72 VHP 2.689 DPA -22.02 RAP 43.31 ECC 1.2734

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 13 26	3996.05	-43.23	174.14	264.97	67.80	9 20 2	2996.0	-47.48	140.01
59.69	6 17 28	4311.00	-24.55	190.15	253.23	56.70	7 29 19	3311.0	-35.98	165.52
59.69	6 17 28	4311.00	-24.55	190.15	253.23	56.70	7 29 19	3311.0	-35.98	165.52
59.69	6 17 28	4311.00	-24.55	190.15	253.23	56.70	7 29 19	3311.0	-35.98	165.52
59.69	6 17 28	4311.00	-24.55	190.15	253.23	56.70	7 29 19	3311.0	-35.98	165.52
59.69	6 17 28	4311.00	-24.55	190.15	253.23	56.70	7 29 19	3311.0	-35.98	165.52
59.69	6 17 28	4311.00	-24.55	190.15	253.23	56.70	7 29 19	3311.0	-35.98	165.52

DIFFERENTIAL CORRECTIONS

TDE .2202 TRA -.5019 TC3-1.4162 BAU .9470
RDE 1.2393 RRA .1110 RC3-4.0205 FAU .37078
FDE 7.3468 FRA .1451 FC-19.3203 BSP 6591
BDE 1.2587 BRA .5140 BC3 4.2633 FSP 2788

MID-COURSE EXECUTION ACCURACY

SGT 1514.4 SGR 3717.5 SG3 1627.4
RRT .7350 RRF .9950 RTF .7417
SGB 4014.1 R23 .0652 R13 .9929
SG1 3892.4 SG2 980.7 THA 72.16

ORBIT DETERMINATION ACCURACY

ST 20.9 SR 87.3 SS 120.1
CRT .7204 CRS -.9996 CST -.7387
LSA 149.2 MSA 14.3 SSA .9
EL1 88.6 EL2 14.3 ALF 79.96

LAUNCH DATE AUG 2 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 16 1974

HELIOCENTRIC CONIC DISTANCE 515.703 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 32.868 GAL .47 AZL 86.16 HCA 156.26 SMA 198.67 ECC .23595 INC 3.8396 V1 29.346
RP 240.46 LAP 1.54 LOP 105.89 VP 20.874 GAP 6.26 AZP 93.52 TAL 2.44 TAP 158.72 RCA 151.80 APO 245.55 V2 22.836
RC 233.405 GL 32.29 GP -37.24 ZAL 83.12 ZAP 101.75 ETS 191.32 ZAE 127.71 ETE 220.13 ZAC 49.40 ETC 287.96 LVI 16.30

PLANETOCENTRIC CONIC

C3 16.978 VHL 4.120 DLA 41.71 RAL 14.88 RAD 6641.5 VEL 11.705 PTH 6.74 VHP 2.712 DPA -23.30 RAP 43.21 ECC 1.2794

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 58 6	4040.60	-42.02	177.73	264.91	65.24	9 5 26	3040.6	-47.58	144.31
57.96	6 7 21	4336.97	-24.99	192.71	253.36	55.45	7 19 38	3337.0	-36.88	168.17
57.96	6 7 21	4336.97	-24.99	192.71	253.36	55.45	7 19 38	3337.0	-36.88	168.17
57.96	6 7 21	4336.97	-24.99	192.71	253.36	55.45	7 19 38	3337.0	-36.88	168.17
57.96	6 7 21	4336.97	-24.99	192.71	253.36	55.45	7 19 38	3337.0	-36.88	168.17
57.96	6 7 21	4336.97	-24.99	192.71	253.36	55.45	7 19 38	3337.0	-36.88	168.17
57.96	6 7 21	4336.97	-24.99	192.71	253.36	55.45	7 19 38	3337.0	-36.88	168.17

DIFFERENTIAL CORRECTIONS

TDE .2978 TRA -.5071 TC3-1.5548 BAU .9907
RDE 1.3580 RRA .0899 RC3-4.0784 FAU .36350
FDE 7.4861 FRA .0462 FC-18.5355 BSP 6922
BDE 1.3903 BRA .5150 BC3 4.3647 FSP 2744

MID-COURSE EXECUTION ACCURACY

SGT 1644.8 SGR 3858.8 SG3 1597.1
RRT .7768 RRF .9955 RTF .7828
SGB 4194.7 R23 .0693 R13 .9932
SG1 4078.6 SG2 980.0 THA 70.51

ORBIT DETERMINATION ACCURACY

ST 25.2 SR 94.6 SS 122.1
CRT .8105 CRS -.9997 CST -.8240
LSA 155.8 MSA 14.4 SSA .8
EL1 96.8 EL2 14.4 ALF 77.55

LAUNCH DATE AUG 2 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 18 1974

HELIOCENTRIC CONIC DISTANCE 519.486 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 32.865 GAL .45 AZL 85.97 HCA 157.21 SMA 198.63 ECC .23576 INC 4.0308 V1 29.346
RP 240.78 LAP 1.56 LOP 106.83 VP 20.838 GAP 6.03 AZP 93.72 TAL 2.35 TAP 159.56 RCA 151.80 APO 245.46 V2 22.807
RC 236.297 GL 33.64 GP -38.41 ZAL 83.34 ZAP 100.26 ETS 190.50 ZAE 125.85 ETE 218.99 ZAC 48.44 ETC 288.31 LVI 17.30

PLANETOCENTRIC CONIC

C3 17.394 VHL 4.171 DLA 42.96 RAL 14.19 RAD 6641.7 VEL 11.723 PTH 6.75 VHP 2.740 DPA -24.61 RAP 43.14 ECC 1.2863

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 40 11	4091.29	-40.50	181.64	264.54	62.52	8 48 22	3091.3	-47.47	149.21
56.20	5 57 13	4362.57	-25.42	195.30	253.52	54.12	7 9 55	3362.6	-37.79	170.87
56.20	5 57 13	4362.57	-25.42	195.30	253.52	54.12	7 9 55	3362.6	-37.79	170.87
56.20	5 57 13	4362.57	-25.42	195.30	253.52	54.12	7 9 55	3362.6	-37.79	170.87
56.20	5 57 13	4362.57	-25.42	195.30	253.52	54.12	7 9 55	3362.6	-37.79	170.87
56.20	5 57 13	4362.57	-25.42	195.30	253.52	54.12	7 9 55	3362.6	-37.79	170.87
56.20	5 57 13	4362.57	-25.42	195.30	253.52	54.12	7 9 55	3362.6	-37.79	170.87

DIFFERENTIAL CORRECTIONS

TDE .3828 TRA -.5141 TC3-1.6830 BAU 1.0358
RDE 1.4840 RRA .0626 RC3-4.1241 FAU .35493
FDE 7.5954 FRA -.0698 FC-17.6656 BSP 7247
BDE 1.5326 BRA .5179 BC3 4.4542 FSP 2682

MID-COURSE EXECUTION ACCURACY

SGT 1782.9 SGR 4000.4 SG3 1560.0
RRT .8115 RRF .9960 RTF .7.69
SGB 4379.7 R23 .0725 R13 .9935
SG1 4269.6 SG2 976.2 THA 68.97

ORBIT DETERMINATION ACCURACY

ST 30.1 SR 102.1 SS 123.6
CRT .8678 CRS -.9997 CST -.8778
LSA 162.5 MSA 14.5 SSA .7
EL1 105.4 EL2 14.5 ALF 75.37

LAUNCH DATE AUG 2 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 20 1974

HELIOCENTRIC CONIC DISTANCE 523.268 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 32.864 GAL .43 AZL 85.76 HCA 158.14 SMA 198.59 ECC .23561 INC 4.2369 V1 29.346
RP 241.07 LAP 1.58 LOP 107.76 VP 20.803 GAP 5.80 AZP 93.93 TAL 2.26 TAP 160.40 RCA 151.80 APO 245.38 V2 22.777
RC 239.179 GL 35.05 GP -39.60 ZAL 83.57 ZAP 98.82 ETS 189.65 ZAE 124.00 ETE 217.88 ZAC 47.45 ETC 288.67 LVI 18.34

PLANETOCENTRIC CONIC

C3 17.871 VHL 4.227 DLA 44.27 RAL 13.42 RAD 6641.9 VEL 11.743 PTH 6.77 VHP 2.775 DPA -25.92 RAP 43.12 ECC 1.2941

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 18 32	4150.74	-38.54	185.99	263.70	59.60	8 27 42	3150.7	-47.05	154.89
54.40	5 47 0	4387.94	-25.83	197.91	253.67	52.70	7 0 8	3387.9	-38.71	173.64
54.40	5 47 0	4387.94	-25.83	197.91	253.67	52.70	7 0 8	3387.9	-38.71	173.64
54.40	5 47 0	4387.94	-25.83	197.91	253.67	52.70	7 0 8	3387.9	-38.71	173.64
54.40	5 47 0	4387.94	-25.83	197.91	253.67	52.70	7 0 8	3387.9	-38.71	173.64
54.40	5 47 0	4387.94	-25.83	197.91	253.67	52.70	7 0 8	3387.9	-38.71	173.64
54.40	5 47 0	4387.94	-25.83	197.91	253.67	52.70	7 0 8	3387.9	-38.71	173.64

DIFFERENTIAL CORRECTIONS

TDE .4753 TRA -.5245 TC3-1.8026 BAU 1.0832
RDE 1.6145 RRA .0340 RC3-4.1600 FAU .34541
FDE 7.6580 FRA -.1767 FC-16.7335 BSP 7588
BDE 1.6830 BRA .5256 BC3 4.5338 FSP 2613

MID-COURSE EXECUTION ACCURACY

SGT 1929.6 SGR 4142.9 SG3 1516.3
RRT .8389 RRF .9965 RTF .8440
SGB 4570.2 R23 .0749 R13 .9938
SG1 4465.1 SG2 974.5 THA 67.53

ORBIT DETERMINATION ACCURACY

ST 35.6 SR 109.5 SS 124.5
CRT .9041 CRS -.9998 CST -.9117
LSA 169.0 MSA 14.7 SSA .7
EL1 114.2 EL2 14.6 ALF 73.36

LAUNCH DATE AUG 2 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 22 1974

HELIOCENTRIC CONIC DISTANCE 527.048 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.862	GAL	.41	AZL	85.54	HCA	159.07	SMA	198.56	ECC	.23548	INC	4.4598
RP	241.36	LAP	1.59	LOP	108.69	VP	20.769	GAP	5.57	AZP	94.17	TAL	2.16	TAP	161.23	RCA	151.80	APO	245.31
RC	242.049	GL	36.54	GP	-40.82	ZAL	83.82	ZAP	97.42	ETS	188.77	ZAE	122.16	ETE	216.80	ZAC	46.44	ETC	289.09

V1	29.346																		
V2	22.749																		
LVI	19.41																		

PLANETOCENTRIC CONIC

C3	18.418	VHL	4.292	DLA	45.64	RAL	12.57	RAD	6642.1	VEL	11.766	PTH	6.79	VHP	2.817	DPA	-27.26	RAP	43.14

ECC	1.3031																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 50 34	4224.93	-35.86	191.05	262.07	56.35	8 0 58	3224.9	-46.12	161.81
52.55	5 36 38	4413.21	-26.20	200.56	253.83	51.19	6 50 11	3413.2	-39.63	176.50
52.55	5 36 38	4413.21	-26.20	200.56	253.83	51.19	6 50 11	3413.2	-39.63	176.50
52.55	5 36 38	4413.21	-26.20	200.56	253.83	51.19	6 50 11	3413.2	-39.63	176.50
52.55	5 36 38	4413.21	-26.20	200.56	253.83	51.19	6 50 11	3413.2	-39.63	176.50
52.55	5 36 38	4413.21	-26.20	200.56	253.83	51.19	6 50 11	3413.2	-39.63	176.50
52.55	5 36 38	4413.21	-26.20	200.56	253.83	51.19	6 50 11	3413.2	-39.63	176.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.5762	TRA	-.5372	TC3	-1.9117	BAU	1.1304	SGT	2082.4	SGR	4281.3	SG3	1464.9	ST	41.5	SR	117.3	SS	125.1
RDE	1.7559	RRA	-.0011	RC3	-4.1738	FAU	.33398	RRT	.8618	RRF	.9969	RTF	.8665	CRT	.9287	CRS	-.9998	CST	-.9344
FDE	7.6962	FRA	-.2954	FC	-15.6985	BSP	7907	SGB	4760.9	R23	.0769	R13	.9940	LSA	175.9	MSA	14.8	SSA	.6
BDE	1.8481	BRA	.5372	BC3	4.5907	FSP	2520	SG1	4661.0	SG2	970.1	THA	66.16	EL1	123.6	EL2	14.6	ALF	71.55

LAUNCH DATE AUG 2 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 24 1974

HELIOCENTRIC CONIC DISTANCE 530.828 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.861	GAL	.39	AZL	85.30	HCA	160.00	SMA	198.53	ECC	.23538	INC	4.7019
RP	241.64	LAP	1.61	LOP	109.62	VP	20.736	GAP	5.34	AZP	94.42	TAL	2.05	TAP	162.05	RCA	151.80	APO	245.26
RC	244.907	GL	38.11	GP	-42.07	ZAL	84.07	ZAP	96.08	ETS	187.86	ZAE	120.33	ETE	215.73	ZAC	45.40	ETC	289.46

V1	29.346																		
V2	22.720																		
LVI	20.52																		

PLANETOCENTRIC CONIC

C3	19.050	VHL	4.365	DLA	47.07	RAL	11.63	RAD	6642.4	VEL	11.793	PTH	6.82	VHP	2.866	DPA	-28.61	RAP	43.20

ECC	1.3135																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 6 32	4337.25	-31.39	198.04	258.49	52.21	7 18 49	3337.3	-43.88	171.69
50.66	5 26 2	4438.51	-26.53	203.25	253.98	49.57	6 40 1	3438.5	-40.54	179.46
50.66	5 26 2	4438.51	-26.53	203.25	253.98	49.57	6 40 1	3438.5	-40.54	179.46
50.66	5 26 2	4438.51	-26.53	203.25	253.98	49.57	6 40 1	3438.5	-40.54	179.46
50.66	5 26 2	4438.51	-26.53	203.25	253.98	49.57	6 40 1	3438.5	-40.54	179.46
50.66	5 26 2	4438.51	-26.53	203.25	253.98	49.57	6 40 1	3438.5	-40.54	179.46
50.66	5 26 2	4438.51	-26.53	203.25	253.98	49.57	6 40 1	3438.5	-40.54	179.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.6851	TRA	-.5542	TC3	-2.0084	BAU	1.1799	SGT	2241.3	SGR	4429.3	SG3	1410.4	ST	47.8	SR	125.9	SS	125.8
RDE	1.9168	RRA	-.0370	RC3	-4.1750	FAU	.32165	RRT	.8792	RRF	.9972	RTF	.8834	CRT	.9449	CRS	-.9999	CST	-.9493
FDE	7.7338	FRA	-.3987	FC	-14.6176	BSP	8279	SGB	4964.1	R23	.0788	R13	.9942	LSA	183.7	MSA	14.9	SSA	.6
BDE	2.0355	BRA	.5554	BC3	4.6330	FSP	2435	SG1	4868.1	SG2	971.4	THA	64.95	EL1	133.9	EL2	14.7	ALF	70.01

LAUNCH DATE AUG 2 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 26 1974

HELIOCENTRIC CONIC DISTANCE 534.607 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.860	GAL	.37	AZL	85.03	HCA	160.92	SMA	198.52	ECC	.23530	INC	4.9657
RP	241.92	LAP	1.62	LOP	110.55	VP	20.704	GAP	5.11	AZP	94.69	TAL	1.94	TAP	162.86	RCA	151.81	APO	245.23
RC	247.751	GL	39.76	GP	-43.35	ZAL	84.34	ZAP	94.79	ETS	186.92	ZAE	118.53	ETE	214.69	ZAC	44.33	ETC	289.90

V1	29.346																		
V2	22.692																		
LVI	21.66																		

PLANETOCENTRIC CONIC

C3	19.782	VHL	4.448	DLA	48.56	RAL	10.57	RAD	6642.7	VEL	11.823	PTH	6.84	VHP	2.924	DPA	-29.98	RAP	43.32

ECC	1.3256																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.72	5 15 7	4463.99	-26.81	206.01	254.10	47.86	6 29 31	3464.0	-41.44	182.55
48.72	5 15 7	4463.99	-26.81	206.01	254.10	47.86	6 29 31	3464.0	-41.44	182.55
48.72	5 15 7	4463.99	-26.81	206.01	254.10	47.86	6 29 31	3464.0	-41.44	182.55
48.72	5 15 7	4463.99	-26.81	206.01	254.10	47.86	6 29 31	3464.0	-41.44	182.55
48.72	5 15 7	4463.99	-26.81	206.01	254.10	47.86	6 29 31	3464.0	-41.44	182.55
48.72	5 15 7	4463.99	-26.81	206.01	254.10	47.86	6 29 31	3464.0	-41.44	182.55
48.72	5 15 7	4463.99	-26.81	206.01	254.10	47.86	6 29 31	3464.0	-41.44	182.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8031	TRA	-.5747	TC3	-2.0909	BAU	1.2313	SGT	2404.4	SGR	4571.9	SG3	1348.0	ST	54.5	SR	134.2	SS	125.8
RDE	2.0806	RRA	-.0834	RC3	-4.1598	FAU	.30822	RRT	.8948	RRF	.9975	RTF	.8907	CRT	.9567	CRS	-.9999	CST	-.9601
FDE	7.7013	FRA	-.5193	FC	-13.4890	BSP	8563	SGB	5165.6	R23	.0798	R13	.9944	LSA	191.0	MSA	15.0	SSA	.5
BDE	2.2302	BRA	.5807	BC3	4.6557	FSP	2307	SG1	5074.3	SG2	967.1	THA	63.77	EL1	144.0	EL2	14.8	ALF	68.54

LAUNCH DATE AUG 2 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 28 1974

HELIOCENTRIC CONIC DISTANCE 538.385 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.859	GAL	.35	AZL	84.75	HCA	161.84	SMA	198.50	ECC	.23525	INC	5.2547
RP	242.19	LAP	1.64	LOP	111.48	VP	20.673	GAP	4.88	AZP	94.99	TAL	1.82	TAP	163.66	RCA	151.81	APO	245.20
RC	250.580	GL	41.49	GP	-44.66	ZAL	84.62	ZAP	93.56	ETS	185.95	ZAE	116.76	ETE	213.66	ZAC	43.23	ETC	290.38

V1	29.346																		
V2	22.668																		
LVI	22.84																		

PLANETOCENTRIC CONIC

C3	20.634	VHL	4.542	DLA	50.12	RAL	9.38	RAD	6643.1	VEL	11.859	PTH	6.87	VHP	2.992	DPA	-31.37	RAP	43.50

ECC	1.3398																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.72	5 3 48	4489.75	-27.02	208.81	254.17	46.03	6 18 38	3489.8	-42.31	185.78
46.72	5 3 48	4489.75	-27.02	208.81	254.17	46.03	6 18 38	3489.8	-42.31	185.78
46.72	5 3 48	4489.75	-27.02	208.81	254.17	46.03	6 18 38	3489.8	-42.31	185.78
46.72	5 3 48	4489.75	-27.02	208.81	254.17	46.03	6 18 38	3489.8	-42.31	185.78
46.72	5 3 48	4489.75	-27.02	208.81	254.17	46.03	6 18 38	3489.8	-42.31	185.78
46.72	5 3 48	4489.75	-27.02	208.81	254.17	46.03	6 18 38	3489.8	-42.31	185.78
46.72	5 3 48	4489.75	-27.02	208.81	254.17	46.03	6 18 38	3489.8	-42.31	185.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9306	TRA	-.5997	TC3	-2.1569	BAU	1.2832	SGT	2570.9	SGR	4710.5	SG3	1278.8	ST	61.4	SR	142.5	SS	124.5
RDE	2.2561	RRA	-.1351	RC3	-4.1216	FAU	.29332	RRT	.9076	RRF	.9978	RTF	.9111	CRT	.9652	CRS	-.9999	CST	-.9679
FDE	7.6255	FRA	-.6334	FC	-12.3070	BSP	8962	SGB	5366.4	R23	.0806	R13	.9946	LSA	198.3	MSA	15.1	SSA	.5
BDE	2.4405	BRA	.6147	BC3	4.6519	FSP	2207	SG1	5279.3	SG2	963.1	THA	62.66	EL1	154.4	EL2	14.8	ALF	67.20

LAUNCH DATE AUG 2 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 30 1974

HELIOCENTRIC CONIC DISTANCE 542.161 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 32.859 GAL .32 AZL 84.43 HCA 162.76 SMA 198.50 ECC .23522 INC 5.5726 V1 29.346
RP 242.46 LAP 1.68 LOP 112.40 VP 20.643 GAP 4.66 AZP 95.32 TAL 1.70 TAP 164.46 RCA 151.81 APO 245.19 V2 22.638
RC 253.394 GL 43.32 GP -46.00 ZAL 84.91 ZAP 92.39 ETS 184.95 ZAE 115.01 ETE 212.65 ZAC 42.09 ETC 290.89 LVI 24.06

PLANETOCENTRIC CONIC

C3 21.631 VHL 4.651 DLA 51.74 RAL 8.01 RAD 6643.6 VEL 11.901 PTH 6.91 VHP 3.071 DPA -32.76 RAP 43.75 ECC 1.3560

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.68	4 51 57	4516.02	-27.15	211.68	254.18	44.09	6 7 13	3516.0	-43.13	189.17
44.68	4 51 57	4516.02	-27.15	211.68	254.18	44.09	6 7 13	3516.0	-43.13	189.17
44.68	4 51 57	4516.02	-27.15	211.68	254.18	44.09	6 7 13	3516.0	-43.13	189.17
44.68	4 51 57	4516.02	-27.15	211.68	254.18	44.09	6 7 13	3516.0	-43.13	189.17
44.68	4 51 57	4516.02	-27.15	211.68	254.18	44.09	6 7 13	3516.0	-43.13	189.17
44.68	4 51 57	4516.02	-27.15	211.68	254.18	44.09	6 7 13	3516.0	-43.13	189.17
44.68	4 51 57	4516.02	-27.15	211.68	254.18	44.09	6 7 13	3516.0	-43.13	189.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.0673 TRA -.6300 TC3-2.2066 BAU 1.3350 SGT 2740.9 SGR 4844.3 SG3 1203.4 ST 38.4 SR 151.0 SS 123.0
RDE 2.4475 RRA -.1937 RC3-4.0551 FAU .27675 RRT .9180 RRF .9980 RTF .9212 CRT .9713 CRS -.9999 CST -.9735
FDE 7.5126 FRA -.7417 FC-11.0766 BSP 9295 SGB 5566.0 R23 .0816 R13 .9947 LSA 205.8 MSA 15.2 SSA .4
BDE 2.6701 BRA .6591 BC3 4.6166 FSP 2076 SG1 5482.5 SG2 960.3 THA 61.60 EL1 165.1 EL2 14.9 ALF 66.03

LAUNCH DATE AUG 2 1973 FLIGHT TIME 242.00 ARRIVAL DATE APR 1 1974

HELIOCENTRIC CONIC DISTANCE 545.936 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 32.859 GAL .30 AZL 84.08 HCA 163.68 SMA 198.50 ECC .23521 INC 5.9245 V1 29.346
RP 242.73 LAP 1.66 LOP 113.32 VP 20.614 GAP 4.43 AZP 95.69 TAL 1.57 TAP 165.25 RCA 151.81 APO 245.19 V2 22.612
RC 256.191 GL 45.25 GP -47.37 ZAL 85.21 ZAP 91.30 ETS 183.94 ZAE 113.30 ETE 211.66 ZAC 40.92 ETC 291.44 LVI 25.32

PLANETOCENTRIC CONIC

C3 22.807 VHL 4.776 DLA 53.43 RAL 6.45 RAD 6644.1 VEL 11.950 PTH 6.95 VHP 3.162 DPA -34.17 RAP 44.07 ECC 1.3753

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.58	4 39 25	4542.94	-27.17	214.61	254.08	42.05	5 55 8	3542.9	-43.87	192.75
42.58	4 39 25	4542.94	-27.17	214.61	254.08	42.05	5 55 8	3542.9	-43.87	192.75
42.58	4 39 25	4542.94	-27.17	214.61	254.08	42.05	5 55 8	3542.9	-43.87	192.75
42.58	4 39 25	4542.94	-27.17	214.61	254.08	42.05	5 55 8	3542.9	-43.87	192.75
42.58	4 39 25	4542.94	-27.17	214.61	254.08	42.05	5 55 8	3542.9	-43.87	192.75
42.58	4 39 25	4542.94	-27.17	214.61	254.08	42.05	5 55 8	3542.9	-43.87	192.75
42.58	4 39 25	4542.94	-27.17	214.61	254.08	42.05	5 55 8	3542.9	-43.87	192.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.2139 TRA -.6654 TC3-2.2341 BAU 1.3890 SGT 2910.2 SGR 4980.3 SG3 1124.0 ST 75.6 SR 159.6 SS 120.8
RDE 2.6549 RRA -.2622 RC3-3.9702 FAU .25945 RRT .9271 RRF .9982 RTF .9299 CRT .9760 CRS-1.0000 CST -.9777
FDE 7.3534 FRA -.8471 FC3-9.8487 BSP 9618 SGB 5768.3 R23 .0819 R13 .9949 LSA 213.4 MSA 15.3 SSA .4
BDE 2.9192 BRA .7152 BC3 4.5556 FSP 1934 SG1 5688.7 SG2 954.7 THA 60.65 EL1 175.9 EL2 14.9 ALF 64.99

LAUNCH DATE AUG 2 1973 FLIGHT TIME 244.00 ARRIVAL DATE APR 3 1974

HELIOCENTRIC CONIC DISTANCE 549.709 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 32.859 GAL .27 AZL 83.68 HCA 164.59 SMA 198.51 ECC .23523 INC 6.3161 V1 29.346
RP 242.99 LAP 1.68 LOP 114.24 VP 20.586 GAP 4.21 AZP 96.09 TAL 1.44 TAP 166.03 RCA 151.81 APO 245.20 V2 22.586
RC 258.972 GL 47.29 GP -48.78 ZAL 85.52 ZAP 90.28 ETS 182.91 ZAE 111.64 ETE 210.68 ZAC 39.72 ETC 292.05 LVI 26.62

PLANETOCENTRIC CONIC

C3 24.203 VHL 4.920 DLA 55.18 RAL 4.64 RAD 6644.7 VEL 12.008 PTH 7.00 VHP 3.268 DPA -35.59 RAP 44.47 ECC 1.3983

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.42	4 26 0	4570.73	-27.07	217.61	253.83	39.89	5 42 11	3570.7	-44.52	196.52
40.42	4 26 0	4570.73	-27.07	217.61	253.83	39.89	5 42 11	3570.7	-44.52	196.52
40.42	4 26 0	4570.73	-27.07	217.61	253.83	39.89	5 42 11	3570.7	-44.52	196.52
40.42	4 26 0	4570.73	-27.07	217.61	253.83	39.89	5 42 11	3570.7	-44.52	196.52
40.42	4 26 0	4570.73	-27.07	217.61	253.83	39.89	5 42 11	3570.7	-44.52	196.52
40.42	4 26 0	4570.73	-27.07	217.61	253.83	39.89	5 42 11	3570.7	-44.52	196.52
40.42	4 26 0	4570.73	-27.07	217.61	253.83	39.89	5 42 11	3570.7	-44.52	196.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.3693 TRA -.7075 TC3-2.2407 BAU 1.4455 SGT 3080.0 SGR 5116.2 SG3 1040.4 ST 82.7 SR 168.0 SS 117.7
RDE 2.8775 RRA -.3419 RC3-3.8645 FAU .24136 RRT .9350 RRF .9984 RTF .9[illegible]79 CRT .9795 CRS-1.0000 CST -.9809
FDE 7.1386 FRA -.9482 FC3-8.6332 BSP 9971 SGB 5971.7 R23 .0818 R13 .9951 LSA 220.6 MSA 15.3 SSA .4
BDE 3.1887 BRA .7858 BC3 4.4672 FSP 1792 SG1 5896.1 SG2 947.7 THA 59.76 EL1 186.6 EL2 15.0 ALF 64.08

LAUNCH DATE AUG 2 1973 FLIGHT TIME 246.00 ARRIVAL DATE APR 5 1974

HELIOCENTRIC CONIC DISTANCE 553.479 EARTH TO MARS

RL 151.82 LAL .00 LOL 309.56 VL 32.860 GAL .25 AZL 83.25 HCA 165.50 SMA 198.52 ECC .23526 INC 6.7546 V1 29.346
RP 243.24 LAP 1.69 LOP 115.16 VP 20.559 GAP 3.98 AZP 96.54 TAL 1.31 TAP 166.81 RCA 151.81 APO 245.22 V2 22.560
RC 261.736 GL 49.44 GP -50.22 ZAL 85.84 ZAP 89.35 ETS 181.87 ZAE 110.02 ETE 209.72 ZAC 38.48 ETC 292.71 LVI 27.96

PLANETOCENTRIC CONIC

C3 25.877 VHL 5.087 DLA 56.98 RAL 2.52 RAD 6645.4 VEL 12.076 PTH 7.06 VHP 3.391 DPA -37.02 RAP 44.96 ECC 1.4259

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.22	4 11 31	4599.61	-26.81	220.65	253.36	37.63	5 28 10	3599.6	-45.03	200.49
38.22	4 11 31	4599.61	-26.81	220.65	253.36	37.63	5 28 10	3599.6	-45.03	200.49
38.22	4 11 31	4599.61	-26.81	220.65	253.36	37.63	5 28 10	3599.6	-45.03	200.49
38.22	4 11 31	4599.61	-26.81	220.65	253.36	37.63	5 28 10	3599.6	-45.03	200.49
38.22	4 11 31	4599.61	-26.81	220.65	253.36	37.63	5 28 10	3599.6	-45.03	200.49
38.22	4 11 31	4599.61	-26.81	220.65	253.36	37.63	5 28 10	3599.6	-45.03	200.49
38.22	4 11 31	4599.61	-26.81	220.65	253.36	37.63	5 28 10	3599.6	-45.03	200.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.5298 TRA -.7585 TC3-2.2253 BAU 1.5018 SGT 3248.5 SGR 5242.8 SG3 951.7 ST 89.4 SR 175.8 SS 113.5
RDE 3.1109 RRA -.4403 RC3-3.7275 FAU .22191 RRT .9424 RRF .9985 RTF .9445 CRT .9822 CRS-1.0000 CST -.9834
FDE 6.8532 FRA-1.0480 FC3-7.4241 BSP 10339 SGB 6167.7 R23 .0813 R13 .9952 LSA 227.1 MSA 15.3 SSA .3
BDE 3.4667 BRA .8770 BC3 4.3412 FSP 1647 SG1 6096.4 SG2 934.6 THA 58.91 EL1 196.7 EL2 15.0 ALF 63.30

LAUNCH DATE AUG 2 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 7 1974

HELIOCENTRIC CONIC DISTANCE 557.248 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.861	GAL	.22	AZL	82.75	HCA	166.41	SMA	198.53	ECC	.23531	INC	7.2494	V1	29.346
RP	243.50	LAP	1.70	LOP	116.08	VP	20.533	GAP	3.76	AZP	97.05	TAL	1.17	TAP	167.57	RCA	151.82	APO	245.25	V2	22.538
RC	264.483	GL	51.72	GP	-51.69	ZAL	86.15	ZAP	88.50	ETS	180.84	ZAE	108.46	ETE	208.79	ZAC	37.21	ETC	293.44	LVI	29.34

PLANETOCENTRIC CONIC

C3	27.903	VHL	5.282	DLA	58.84	RAL	.01	RAD	6646.2	VEL	12.159	PTH	7.12	VHP	3.535	DPA	-38.45	RAP	45.54	ECC	1.4592

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.99	3 55 38	4629.86	-26.37	223.73	252.58	35.28	5 12 48	3629.9	-45.37	204.65
35.99	3 55 38	4629.86	-26.37	223.73	252.58	35.28	5 12 48	3629.9	-45.37	204.65
35.99	3 55 38	4629.86	-26.37	223.73	252.58	35.28	5 12 48	3629.9	-45.37	204.65
35.99	3 55 38	4629.86	-26.37	223.73	252.58	35.28	5 12 48	3629.9	-45.37	204.65
35.99	3 55 38	4629.86	-26.37	223.73	252.58	35.28	5 12 48	3629.9	-45.37	204.65
35.99	3 55 38	4629.86	-26.37	223.73	252.58	35.28	5 12 48	3629.9	-45.37	204.65
35.99	3 55 38	4629.86	-26.37	223.73	252.58	35.28	5 12 48	3629.9	-45.37	204.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6960	TRA	-.8189	TC3	-2.1864	BAU	1.5601	SGT	3415.6	SGR	5379.5	SG3	862.1	ST	95.6	SR	184.2	SS	108.9
RDE	3.3791	RRA	-.5481	RC3	-3.5651	FAU	.20168	RRT	.9478	RRF	.9986	RTF	.9495	CRT	.9840	CRS	-1.0000	CST	-.9849
FDE	6.5407	FRA	-1.1223	FC3	-6.2573	BSP	10663	SGB	6372.3	R23	.0816	R13	.9953	LSA	233.8	MSA	15.5	SSA	.3
BDE	3.7809	BRA	.9854	BC3	4.1821	FSP	1489	SG1	6304.1	SG2	929.7	THA	58.19	EL1	206.9	EL2	15.2	ALF	62.79

LAUNCH DATE AUG 2 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 9 1974

HELIOCENTRIC CONIC DISTANCE 561.013 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.862	GAL	.20	AZL	82.19	HCA	167.31	SMA	198.55	ECC	.23539	INC	7.8125	V1	29.346
RP	243.74	LAP	1.71	LOP	116.99	VP	20.508	GAP	3.54	AZP	97.62	TAL	1.03	TAP	168.34	RCA	151.82	APO	245.29	V2	22.511
RC	267.212	GL	54.13	GP	-53.19	ZAL	86.48	ZAP	87.75	ETS	179.81	ZAE	106.95	ETE	207.88	ZAC	35.90	ETC	294.25	LVI	30.76

PLANETOCENTRIC CONIC

C3	30.384	VHL	5.512	DLA	60.73	RAL	357.03	RAD	6647.2	VEL	12.260	PTH	7.20	VHP	3.703	DPA	-39.88	RAP	46.23	ECC	1.5000

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.73	3 38 0	4661.76	-25.70	226.81	251.39	32.87	4 55 42	3661.8	-45.47	208.98
33.73	3 38 0	4661.76	-25.70	226.81	251.39	32.87	4 55 42	3661.8	-45.47	208.98
33.73	3 38 0	4661.76	-25.70	226.81	251.39	32.87	4 55 42	3661.8	-45.47	208.98
33.73	3 38 0	4661.76	-25.70	226.81	251.39	32.87	4 55 42	3661.8	-45.47	208.98
33.73	3 38 0	4661.76	-25.70	226.81	251.39	32.87	4 55 42	3661.8	-45.47	208.98
33.73	3 38 0	4661.76	-25.70	226.81	251.39	32.87	4 55 42	3661.8	-45.47	208.98
33.73	3 38 0	4661.76	-25.70	226.81	251.39	32.87	4 55 42	3661.8	-45.47	208.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8570	TRA	-.8874	TC3	-2.1208	BAU	1.6216	SGT	3570.8	SGR	5500.8	SG3	768.0	ST	100.6	SR	190.6	SS	102.5
RDE	3.6426	RRA	-.6689	RC3	-3.3821	FAU	.18108	RRT	.9524	RRF	.9987	RTF	.9538	CRT	.9851	CRS	-1.0000	CST	-.9858
FDE	6.1198	FRA	-1.1712	FC3	-5.1596	BSP	11049	SGB	6558.2	R23	.0813	R13	.9954	LSA	238.1	MSA	15.7	SSA	.3
BDE	4.0886	BRA	1.1113	BC3	3.9920	FSP	1336	SG1	6493.0	SG2	922.0	THA	57.54	EL1	215.0	EL2	15.4	ALF	62.37

LAUNCH DATE AUG 2 1973 FLIGHT TIME 252.00 ARRIVAL DATE APR 11 1974

HELIOCENTRIC CONIC DISTANCE 564.776 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.863	GAL	.17	AZL	81.54	HCA	168.21	SMA	198.58	ECC	.23548	INC	8.4588	V1	29.346
RP	243.98	LAP	1.72	LOP	117.90	VP	20.484	GAP	3.32	AZP	98.28	TAL	.88	TAP	169.09	RCA	151.82	APO	245.34	V2	22.487
RC	269.924	GL	56.69	GP	-54.72	ZAL	86.80	ZAP	87.09	ETS	178.81	ZAE	105.52	ETE	207.00	ZAC	34.56	ETC	295.14	LVI	32.22

PLANETOCENTRIC CONIC

C3	33.463	VHL	5.785	DLA	62.63	RAL	353.42	RAD	6648.3	VEL	12.384	PTH	7.30	VHP	3.901	DPA	-41.30	RAP	47.03	ECC	1.5507

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.47	3 18 8	4695.67	-24.78	229.88	249.61	30.43	4 36 24	3695.7	-45.29	213.42
31.47	3 18 8	4695.67	-24.78	229.88	249.61	30.43	4 36 24	3695.7	-45.29	213.42
31.47	3 18 8	4695.67	-24.78	229.88	249.61	30.43	4 36 24	3695.7	-45.29	213.42
31.47	3 18 8	4695.67	-24.78	229.88	249.61	30.43	4 36 24	3695.7	-45.29	213.42
31.47	3 18 8	4695.67	-24.78	229.88	249.61	30.43	4 36 24	3695.7	-45.29	213.42
31.47	3 18 8	4695.67	-24.78	229.88	249.61	30.43	4 36 24	3695.7	-45.29	213.42
31.47	3 18 8	4695.67	-24.78	229.88	249.61	30.43	4 36 24	3695.7	-45.29	213.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.0003	TRA	-.9721	TC3	-2.0335	BAU	1.6906	SGT	3721.0	SGR	5640.5	SG3	875.6	ST	104.0	SR	195.9	SS	94.9
RDE	3.9174	RRA	-.8279	RC3	-3.1852	FAU	.16057	RRT	.9573	RRF	.9987	RTF	.9582	CRT	.9856	CRS	-1.0000	CST	-.9862
FDE	5.6285	FRA	-1.2249	FC3	-4.1540	BSP	11355	SGB	6757.3	R23	.0800	R13	.9955	LSA	240.7	MSA	15.8	SSA	.2
BDE	4.3986	BRA	1.2769	BC3	3.7790	FSP	1170	SG1	6696.2	SG2	906.2	THA	57.05	EL1	221.3	EL2	15.6	ALF	62.24

LAUNCH DATE AUG 2 1973 FLIGHT TIME 254.00 ARRIVAL DATE APR 13 1974

HELIOCENTRIC CONIC DISTANCE 568.534 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.865	GAL	.14	AZL	80.79	HCA	169.11	SMA	198.61	ECC	.23559	INC	9.2088	V1	29.346
RP	244.22	LAP	1.73	LOP	118.81	VP	20.460	GAP	3.10	AZP	99.05	TAL	.73	TAP	169.84	RCA	151.82	APO	245.40	V2	22.464
RC	272.618	GL	59.39	GP	-56.27	ZAL	87.12	ZAP	86.54	ETS	177.85	ZAE	104.17	ETE	206.18	ZAC	33.20	ETC	296.13	LVI	33.70

PLANETOCENTRIC CONIC

C3	37.343	VHL	6.111	DLA	64.50	RAL	349.04	RAD	6649.7	VEL	12.539	PTH	7.42	VHP	4.137	DPA	-42.70	RAP	47.94	ECC	1.6146

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.26	2 55 24	4731.96	-23.55	232.87	247.05	28.01	4 14 16	3732.0	-44.76	217.89
29.26	2 55 24	4731.96	-23.55	232.87	247.05	28.01	4 14 16	3732.0	-44.76	217.89
29.26	2 55 24	4731.96	-23.55	232.87	247.05	28.01	4 14 16	3732.0	-44.76	217.89
29.26	2 55 24	4731.96	-23.55	232.87	247.05	28.01	4 14 16	3732.0	-44.76	217.89
29.26	2 55 24	4731.96	-23.55	232.87	247.05	28.01	4 14 16	3732.0	-44.76	217.89
29.26	2 55 24	4731.96	-23.55	232.87	247.05	28.01	4 14 16	3732.0	-44.76	217.89
29.26	2 55 24	4731.96	-23.55	232.87	247.05	28.01	4 14 16	3732.0	-44.76	217.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.1021	TRA	-1.0740	TC3	-1.9227	BAU	1.7623	SGT	3857.4	SGR	5779.8	SG3	582.6	ST	104.7	SR	198.4	SS	85.6
RDE	4.1701	RRA	-1.0295	RC3	-2.9603	FAU	.13936	RRT	.9623	RRF	.9987	RTF	.9625	CRT	.9853	CRS	-1.0000	CST	-.9858
FDE	5.0321	FRA	-1.2675	FC3	-3.2309	BSP	11609	SGB	6948.8	R23	.0781	R13	.9956	LSA	239.6	MSA	16.1	SSA	.2
BDE	4.6700	BRA	1.4877	BC3	3.5299	FSP	1000	SG1	6892.9	SG2	879.8	THA	56.68	EL1	223.8	EL2	15.9	ALF	62.39

LAUNCH DATE AUG 2 1973 FLIGHT TIME 304.00 ARRIVAL DATE JUN 2 1974

HELIOCENTRIC CONIC DISTANCE 663.144 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.951	GAL	-1.02	AZL	99.16	HCA	191.70	SMA	200.31	ECC	.24266	INC	9.1587	V1	29.346
RP	248.40	LAP	1.85	LOP	141.11	VP	20.149	GAP	-2.07	AZP	81.03	TAL	354.79	TAP	186.48	RCA	151.70	APO	248.91	V2	22.052
RC	332.344	GL	-58.60	GP	51.47	ZAL	93.34	ZAP	71.34	ETS	207.64	ZAE	86.33	ETE	186.66	ZAC	137.75	ETC	291.32	LVI	-71.71

PLANETOCENTRIC CONIC

C3	37.745	VHL	6.144	DLA	-39.38	RAL	62.09	RAD	6649.9	VEL	12.555	PTH	7.43	VHP	4.039	DPA	51.95	RAP	348.32	ECC	1.6212

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 37 34	2421.78	-3.48	63.12	293.81	137.48	18 37 55	1421.8	14.83	47.19
60.00	20 23 29	2031.47	9.44	40.34	305.98	129.37	20 57 20	1031.5	24.39	20.57
61.42	21 29 1	1845.73	16.18	30.06	311.35	126.37	21 59 47	845.7	29.55	8.28
61.42	21 29 1	1845.73	16.18	30.06	311.35	126.37	21 59 47	845.7	29.55	8.28
61.42	21 29 1	1845.73	16.18	30.06	311.35	126.37	21 59 47	845.7	29.55	8.28
61.42	21 29 1	1845.73	16.18	30.06	311.35	126.37	21 59 47	845.7	29.55	8.28
61.42	21 29 1	1845.73	16.18	30.06	311.35	126.37	21 59 47	845.7	29.55	8.28

DIFFERENTIAL CORRECTIONS

TDE-5.1853	TRA 3.4013	TC3-4.1664	BAU 2.4063		
RDE 2.5680	RRA-2.5931	RC3 2.3194	FAU .15271		
FDE-3.1598	FRA 3.6893	FC3-3.5026	BSP 16493		
BDE 5.7864	BRA 4.2770	BC3 4.7685	FSP 1022		

MID-COURSE EXECUTION ACCURACY

SGT 8149.8	SGR 4861.8	SG3 592.3			
RRT -.9843	RRF -.9971	RTF .9760			
SGB 9489.8	R23 .1611	R13 -.9845			
SG1 9460.9	SG2 740.3	THA 149.37			

ORBIT DETERMINATION ACCURACY

ST 249.6	SR 128.7	SS 56.5			
CRT -.9923	CRS .9986	CST -.9845			
LSA 286.0	MSA 16.4	SSA .3			
EL1 280.5	EL2 14.2	ALF 152.83			

LAUNCH DATE AUG 2 1973 FLIGHT TIME 306.00 ARRIVAL DATE JUN 4 1974

HELIOCENTRIC CONIC DISTANCE 666.879 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.955	GAL	-1.07	AZL	98.53	HCA	192.56	SMA	200.40	ECC	.24308	INC	8.5251	V1	29.346
RP	248.50	LAP	1.85	LOP	141.99	VP	20.147	GAP	-2.27	AZP	81.68	TAL	354.54	TAP	187.10	RCA	151.69	APO	249.11	V2	22.043
RC	334.376	GL	-56.25	GP	49.61	ZAL	93.78	ZAP	69.88	ETS	207.95	ZAE	85.22	ETE	187.56	ZAC	136.04	ETC	290.62	LVI	-70.14

PLANETOCENTRIC CONIC

C3	34.512	VHL	5.875	DLA	-37.07	RAL	61.29	RAD	6648.7	VEL	12.426	PTH	7.33	VHP	3.865	DPA	50.40	RAP	350.00	ECC	1.5680

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 34 58	2464.37	-5.62	64.91	290.12	137.32	18 16 2	1464.4	12.74	49.08
60.00	19 31 37	2153.39	4.12	46.25	299.40	130.13	20 7 30	1153.4	19.68	27.43
64.96	21 43 20	1772.39	16.23	24.04	308.62	123.80	22 12 52	772.4	28.62	1.71
64.96	21 43 20	1772.39	16.23	24.04	308.62	123.80	22 12 52	772.4	28.62	1.71
64.96	21 43 20	1772.39	16.23	24.04	308.62	123.80	22 12 52	772.4	28.62	1.71
64.96	21 43 20	1772.39	16.23	24.04	308.62	123.80	22 12 52	772.4	28.62	1.71
64.96	21 43 20	1772.39	16.23	24.04	308.62	123.80	22 12 52	772.4	28.62	1.71

DIFFERENTIAL CORRECTIONS

TDE-4.9471	TRA 3.3537	TC3-4.5946	BAU 2.3915		
RDE 2.3075	RRA-2.4348	RC3 2.3992	FAU .16829		
FDE-3.2897	FRA 4.0365	FC3-4.2216	BSP 16640		
BDE 5.4588	BRA 4.1444	BC3 5.1833	FSP 1151		

MID-COURSE EXECUTION ACCURACY

SGT 8320.4	SGR 4676.5	SG3 665.0			
RRT -.9837	RRF -.9970	RTF .9757			
SGB 9544.6	R23 .1651	R13 -.9837			
SG1 9516.3	SG2 734.2	THA 150.87			

ORBIT DETERMINATION ACCURACY

ST 249.!	SR 121.1	SS 59.1			
CRT -.9918	CRS .9985	CST -.9833			
LSA 282.7	MSA 16.6	SSA .3			
EL1 276.6	EL2 13.9	ALF 154.18			

LAUNCH DATE AUG 2 1973 FLIGHT TIME 308.00 ARRIVAL DATE JUN 6 1974

HELIOCENTRIC CONIC DISTANCE 670.614 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.960	GAL	-1.12	AZL	97.97	HCA	193.43	SMA	200.49	ECC	.24350	INC	7.9726	V1	29.346
RP	248.59	LAP	1.85	LOP	142.87	VP	20.145	GAP	-2.47	AZP	82.24	TAL	354.29	TAP	187.72	RCA	151.67	APO	249.31	V2	22.034
RC	336.377	GL	-54.03	GP	47.80	ZAL	94.23	ZAP	68.46	ETS	208.16	ZAE	84.09	ETE	188.36	ZAC	134.36	ETC	290.00	LVI	-68.56

PLANETOCENTRIC CONIC

C3	31.892	VHL	5.647	DLA	-34.91	RAL	60.62	RAD	6647.7	VEL	12.321	PTH	7.25	VHP	3.720	DPA	48.90	RAP	351.56	ECC	1.5249

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 16 12	2502.07	-7.50	66.51	287.17	137.12	17 57 54	1502.1	10.88	50.73
60.00	18 58 37	2229.35	.78	49.89	295.08	130.29	19 35 46	1229.4	16.60	31.49
68.62	22 0 45	1692.70	16.09	17.58	306.19	121.41	22 28 58	692.7	27.57	354.83
68.62	22 0 45	1692.70	16.09	17.58	306.19	121.41	22 28 58	692.7	27.57	354.83
68.62	22 0 45	1692.70	16.09	17.58	306.19	121.41	22 28 58	692.7	27.57	354.83
68.62	22 0 45	1692.70	16.09	17.58	306.19	121.41	22 28 58	692.7	27.57	354.83
68.62	22 0 45	1692.70	16.09	17.58	306.19	121.41	22 28 58	692.7	27.57	354.83

DIFFERENTIAL CORRECTIONS

TDE-4.7296	TRA 3.3158	TC3-5.0218	BAU 2.3844		
RDE 2.0789	RRA-2.2928	RC3 2.4611	FAU .18283		
FDE-3.3676	FRA 4.3523	FC3-4.9631	BSP 16776		
BDE 5.1663	BRA 4.0313	BC3 5.5925	FSP 1274		

MID-COURSE EXECUTION ACCURACY

SGT 8486.8	SGR 4496.9	SG3 733.6			
RRT -.9832	RRF -.9969	RTF .9753			
SGB 9604.6	R23 .1690	R13 -.9828			
SG1 9577.1	SG2 726.8	THA 152.31			

ORBIT DETERMINATION ACCURACY

ST 247.8	SR 113.8	SS 60.8			
CRT -.9913	CRS .9983	CST -.9819			
LSA 278.9	MSA 16.9	SSA .3			
EL1 272.4	EL2 13.7	ALF 155.46			

LAUNCH DATE AUG 2 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 8 1974

HELIOCENTRIC CONIC DISTANCE 674.350 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.965	GAL	-1.17	AZL	97.49	HCA	194.30	SMA	200.59	ECC	.24393	INC	7.4864	V1	29.346
RP	248.67	LAP	1.84	LOP	143.75	VP	20.144	GAP	-2.67	AZP	82.74	TAL	354.03	TAP	188.33	RCA	151.66	APO	249.52	V2	22.026
RC	338.347	GL	-51.94	GP	46.05	ZAL	94.69	ZAP	67.07	ETS	208.30	ZAE	82.96	ETE	189.07	ZAC	132.71	ETC	289.44	LVI	-68.98

PLANETOCENTRIC CONIC

C3	29.743	VHL	5.454	DLA	-32.85	RAL	60.08	RAD	6646.9	VEL	12.234	PTH	7.18	VHP	3.599	DPA	47.44	RAP	353.03	ECC	1.4895

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 0 15	2536.46	-9.21	67.98	284.78	136.89	17 42 31	1536.5	9.17	52.22
60.00	18 33 23	2288.59	-1.82	52.72	291.63	130.27	19 11 31	1288.6	14.13	34.55
70.00	20 55 37	1869.47	8.49	26.50	299.52	123.21	21 26 46	869.5	21.27	5.46
72.54	22 22 29	1602.15	15.82	10.37	304.05	119.18	22 49 11	602.2	26.44	347.29
72.54	22 22 29	1602.15	15.82	10.37	304.05	119.18	22 49 11	602.2	26.44	347.29
72.54	22 22 29	1602.15	15.82	10.37	304.05	119.18	22 49 11	602.2	26.44	347.29
110.00	1 58 59	6204.32	8.49	293.33	299.52	123.21	3 42 23	5204.3	21.27	272.28

DIFFERENTIAL CORRECTIONS

TDE-4.5289	TRA 3.2896	TC3-5.4414	BAU 2.3816		
RDE 1.8784	RRA-2.1656	RC3 2.5033	FAU .19607		
FDE-3.4020	FRA 4.6394	FC3-5.7070	BSP 16876		
BDE 4.9030	BRA 3.9384	BC3 5.9896	FSP 1381		

MID-COURSE EXECUTION ACCURACY

SGT 8648.1	SGR 4322.6	SG3 797.4			
RRT -.9827	RRF -.9967	RTF .9750			
SGB 9668.2	R23 .1724	R13 -.9820			
SG1 9641.6	SG2 717.1	THA 153.68			

ORBIT DETERMINATION ACCURACY

ST 245.9	SR 106.8	SS 61.9			
CRT -.9907	CRS .9980	CST -.9802			
LSA 274.6	MSA 17.1	SSA .4			
EL1 267.8	EL2 13.4	ALF 156.66			

LAUNCH DATE AUG 2 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 10 1974

HELIOCENTRIC CONIC DISTANCE 678.087 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.970	GAL	-1.22	AZL	97.06	HCA	195.17	SMA	200.69	ECC	.24436	INC	7.0551	V1	29.346
RP	248.75	LAP	1.84	LOP	144.63	VP	20.143	GAP	-2.87	AZP	83.19	TAL	353.77	TAP	188.94	RCA	151.65	APO	249.73	V2	22.019
RC	340.287	GL	-49.97	GP	44.36	ZAL	95.17	ZAP	65.72	ETS	208.38	ZAE	81.83	ETE	189.70	ZAC	131.11	ETC	288.94	LVI	-65.43

PLANETOCENTRIC CONIC

C3	27.960	VHL	5.288	DLA	-30.89	RAL	59.65	RAD	6646.2	VEL	12.162	PTH	7.13	VHP	3.497	DPA	46.04	RAP	354.41	ECC	1.4602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 46 27	2568.43	-10.80	69.36	282.84	136.62	17 29 16	1568.4	7.58	53.59
60.00	18 12 48	2338.69	-4.03	55.12	289.28	130.13	18 51 46	1338.7	12.01	37.08
70.00	20 12 52	1985.34	4.13	32.63	295.42	123.93	20 45 58	985.3	17.49	12.32
77.02	22 51 11	1491.48	15.43	1.75	302.16	117.10	23 16 2	491.5	25.26	338.42
77.02	22 51 11	1491.48	15.43	1.75	302.16	117.10	23 16 2	491.5	25.26	338.42
77.02	22 51 11	1491.48	15.43	1.75	302.16	117.10	23 16 2	491.5	25.26	338.42
110.00	1 16 15	1032.16	4.13	321.55	295.42	123.93	1 33 27	32.2	17.49	301.23

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.3407	TRA	3.2740	TC3	-5.8500	BAU	2.3821	SGT	6802.7	SGR	4152.3	SG3	856.0	ST	243.4	SR	100.1	SS	62.3
RDE	1.7005	RRA	-2.0502	RC3	2.5276	FAU	.20801	RRT	-.9823	RRF	-.9964	RTF	.9747	CRT	-.9901	CRS	.9976	CST	-.9782
FDE	-3.3946	FRA	4.8969	FC3	-6.4405	BSP	17052	SGB	9732.9	R23	.1752	R13	-.9811	LSA	269.9	MSA	17.3	SSA	.4
BDE	4.6619	BRA	3.8629	BC3	6.3727	FSP	1487	SG1	9707.3	SG2	704.8	THA	155.00	EL1	262.8	EL2	13.0	ALF	157.79

LAUNCH DATE AUG 2 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 12 1974

HELIOCENTRIC CONIC DISTANCE 681.825 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.975	GAL	-1.28	AZL	96.67	HCA	196.04	SMA	200.78	ECC	.24481	INC	6.6698	V1	29.346
RP	248.82	LAP	1.84	LOP	145.50	VP	20.144	GAP	-3.06	AZP	83.59	TAL	353.51	TAP	189.55	RCA	151.63	APO	249.94	V2	22.012
RC	342.196	GL	-48.10	GP	42.74	ZAL	95.66	ZAP	64.42	ETS	208.41	ZAE	80.69	ETE	190.27	ZAC	129.57	ETC	288.49	LVI	-63.91

PLANETOCENTRIC CONIC

C3	26.468	VHL	5.145	DLA	-29.03	RAL	59.30	RAD	6645.6	VEL	12.101	PTH	7.08	VHP	3.412	DPA	44.70	RAP	355.70	ECC	1.4356

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 34 23	2598.54	-12.29	70.67	281.25	136.34	17 17 42	1598.5	6.08	54.86
60.00	17 55 26	2382.94	-5.96	57.25	287.24	129.93	18 35 8	1382.9	10.12	39.28
70.00	19 43 33	2064.92	1.09	36.79	292.56	124.14	20 17 58	1064.9	14.74	16.84
80.00	22 12 44	1597.57	9.43	6.43	297.64	118.46	22 39 22	597.6	20.31	344.34
83.18	23 36 45	1327.86	14.96	349.35	300.50	115.17	23 58 53	327.9	24.05	325.84
100.00	0 59 32	1072.05	9.43	327.80	297.64	118.46	1 17 24	72.0	20.31	305.71
110.00	0 46 55	1111.73	1.09	325.71	292.56	124.14	1 5 27	111.7	14.74	305.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.1699	TRA	3.2618	TC3	-6.2554	BAU	2.3890	SGT	8958.4	SGR	3989.7	SG3	909.8	ST	240.6	SR	93.8	SS	62.3
RDE	1.5450	RRA	-1.9437	RC3	2.5397	FAU	.21897	RRT	-.9819	RRF	-.9961	RTF	.9743	CRT	-.9895	CRS	.9972	CST	-.9759
FDE	-3.3581	FRA	5.1238	FC3	-7.1623	BSP	17149	SGB	9806.7	R23	.1776	R13	-.9803	LSA	265.1	MSA	17.5	SSA	.4
BDE	4.4469	BRA	3.7970	BC3	6.7513	FSP	1576	SG1	9782.2	SG2	692.0	THA	156.25	EL1	257.9	EL2	12.7	ALF	158.86

LAUNCH DATE AUG 2 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 14 1974

HELIOCENTRIC CONIC DISTANCE 685.562 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.979	GAL	-1.33	AZL	96.32	HCA	196.91	SMA	200.88	ECC	.24526	INC	6.3233	V1	29.346
RP	248.88	LAP	1.84	LOP	146.38	VP	20.145	GAP	-3.26	AZP	83.95	TAL	353.24	TAP	190.15	RCA	151.61	APO	250.15	V2	22.006
RC	344.074	GL	-46.32	GP	41.18	ZAL	96.16	ZAP	63.15	ETS	208.39	ZAE	79.56	ETE	190.77	ZAC	128.07	ETC	288.09	LVI	-62.43

PLANETOCENTRIC CONIC

C3	25.209	VHL	5.021	DLA	-27.24	RAL	59.03	RAD	6645.1	VEL	12.049	PTH	7.03	VHP	3.340	DPA	43.41	RAP	356.92	ECC	1.4149

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 23 43	2627.12	-13.69	71.94	279.96	136.03	17 7 30	1627.1	4.65	56.07
60.00	17 40 27	2423.04	-7.71	59.19	285.60	129.68	18 20 50	1423.0	8.38	41.25
70.00	19 20 31	2128.78	-1.35	40.12	290.39	124.13	19 56 0	1128.8	12.46	20.38
80.00	21 26 12	1735.34	4.87	14.12	294.24	119.49	21 55 7	735.3	16.52	352.81
90.00	23 25 5	1351.95	8.44	347.85	296.17	117.09	23 47 37	352.0	18.87	325.67
100.00	0 13 0	1209.81	4.87	335.49	294.24	119.49	0 33 10	209.8	16.52	314.18
110.00	0 23 53	1175.60	-1.35	329.04	290.39	124.13	0 43 29	175.6	12.46	309.30

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.0063	TRA	3.2607	TC3	-6.6435	BAU	2.3965	SGT	9106.2	SGR	3830.9	SG3	957.9	ST	237.3	SR	87.8	SS	61.8
RDE	1.4051	RRA	-1.8475	RC3	2.5353	FAU	.22852	RRT	-.9815	RRF	-.9957	RTF	.9740	CRT	-.9889	CRS	.9965	CST	-.9731
FDE	-3.2875	FRA	5.3270	FC3	-7.8476	BSP	17308	SGB	9879.2	R23	.1795	R13	-.9795	LSA	259.8	MSA	17.7	SSA	.5
BDE	4.2456	BRA	3.7477	BC3	7.1108	FSP	1659	SG1	9855.9	SG2	677.7	THA	157.45	EL1	252.7	EL2	12.3	ALF	159.85

LAUNCH DATE AUG 2 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 16 1974

HELIOCENTRIC CONIC DISTANCE 689.300 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.984	GAL	-1.39	AZL	96.01	HCA	197.78	SMA	200.98	ECC	.24572	INC	6.0100	V1	29.346
RP	248.94	LAP	1.83	LOP	147.25	VP	20.147	GAP	-3.46	AZP	84.28	TAL	352.97	TAP	190.75	RCA	151.60	APO	250.37	V2	22.000
RC	345.920	GL	-44.64	GP	39.70	ZAL	96.67	ZAP	61.93	ETS	208.33	ZAE	78.43	ETE	191.21	ZAC	126.63	ETC	287.73	LVI	-61.01

PLANETOCENTRIC CONIC

C3	24.140	VHL	4.913	DLA	-25.54	RAL	58.82	RAD	6644.6	VEL	12.005	PTH	7.00	VHP	3.280	DPA	42.18	RAP	358.07	ECC	1.3973

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 14 14	2654.43	-15.02	73.16	278.92	135.69	16 58 28	1654.4	3.28	57.21
60.00	17 27 19	2460.01	-9.31	61.00	284.27	129.39	18 8 19	1460.0	6.76	43.05
70.00	19 1 23	2183.44	-3.43	42.98	288.68	124.00	19 37 47	1183.4	10.47	23.36
80.00	20 55 51	1825.19	1.85	19.07	291.96	119.81	21 26 16	825.2	13.84	358.13
90.00	22 42 26	1481.48	4.35	355.17	293.35	117.97	23 7 7	481.5	15.45	333.64
100.00	23 38 43	1299.67	1.85	340.44	291.96	119.81	24 0 23	299.7	13.84	319.50
110.00	0 4 46	1230.26	-3.43	331.90	288.68	124.00	0 25 16	230.3	10.47	312.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.8546	TRA	3.2652	TC3	-7.0226	BAU	2.4079	SGT	9253.9	SGR	3679.1	SG3	1001.2	ST	233.7	SR	82.2	SS	60.9
RDE	1.2816	RRA	-1.7594	RC3	2.5198	FAU	.23697	RRT	-.9811	RRF	-.9953	RTF	.9737	CRT	-.9882	CRS	.9957	CST	-.9699
FDE	-3.1951	FRA	5.5073	FC3	-8.4985	BSP	17466	SGB	9958.4	R23	.1811	R13	-.9788	LSA	254.5	MSA	17.9	SSA	.5
BDE	4.0621	BRA	3.7090	BC3	7.4609	FSP	1735	SG1	9936.3	SG2	663.6	THA	158.59	EL1	247.5	EL2	11.9	ALF	160.78

LAUNCH DATE AUG 2 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 18 1974

HELIOCENTRIC CONIC DISTANCE 693.037 EARTH TO MARS

RL	151.82	LAL	.00	LOL	309.56	VL	32.989	GAL	-1.44	AZL	85.73	HCA	198.68	SMA	201.08	ECC	.24619	INC	5.7251	VI	29.346
RP	249.00	LAP	1.83	LOP	148.13	VP	20.149	GAP	-3.65	AZP	84.57	TAL	352.69	TAP	191.34	RCA	151.58	APO	250.59	V2	21.995
RC	347.734	GL	-43.05	GP	38.27	ZAL	97.19	ZAP	60.75	ETS	208.24	ZAE	77.31	ETE	191.61	ZAC	125.24	ETC	287.41	LVI	-59.63

PLANETOCENTRIC CONIC

C3	23.226	VHL	4.819	DLA	-23.92	RAL	58.67	RAD	6644.2	VEL	11.967	PTH	6.97	VHP	3.229	DPA	41.02	RAP	359.16	ECC	1.3822

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 5 43	2680.61	-16.30	74.35	278.08	135.34	16 50 24	1660.6	1.96	58.31
60.00	17 15 42	2494.50	-10.80	62.70	283.20	129.07	17 57 17	1494.5	5.27	44.72
70.00	18 45 1	2231.92	-5.27	45.53	287.32	123.79	19 22 13	1231.9	8.67	25.97
80.00	20 32 16	1896.27	-.56	22.97	290.25	119.85	21 3 52	896.3	11.62	2.25
90.00	22 13 24	1570.08	1.51	.13	291.40	118.24	22 39 34	570.1	12.93	338.93
100.00	23 15 8	1370.74	-.56	344.34	290.25	119.85	23 37 59	370.7	11.62	323.62
110.00	23 44 28	1278.74	-5.27	334.44	287.32	123.79	24 5 46	278.7	8.67	314.89

DIFFERENTIAL CORRECTIONS

TDE	-3.7121	TRA	3.2759	TC3	-7.3879	BAU	2.4211
RDE	1.1727	RRA	-1.6785	RC3	2.4929	FAU	.24423
FDE	-3.0866	FRA	5.6658	FC3	-9.1034	BSP	17629
BDE	3.8929	BRA	3.6809	BC3	7.7972	FSP	1800

MID-COURSE EXECUTION ACCURACY

SGT	9398.8	SGR	3533.2	SG3	1039.5		
RRT	-.9806	RRF	-.9948	RTF	.9734		
SGB	10040.9	R23	.1819	R13	-.9780		
SG	110020.0	SG2	648.9	THA	159.68		

ORBIT DETERMINATION ACCURACY

ST	230.0	SR	77.1	SS	59.9		
CRT	-.9877	CRS	.9946	CST	-.9663		
LSA	249.2	MSA	18.2	SSA	.6		
EL1	242.3	EL2	11.4	ALF	161.64		

LAUNCH DATE AUG 3 1973 FLIGHT TIME 104.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 302.669 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	35.595	GAL	-1.24	AZL	90.18	HCA	93.11	SMA	275.60	ECC	.44962	INC	.1841
RP	218.35	LAP	-.18	LOP	43.63	VP	27.094	GAP	24.06	AZP	89.99	TAL	355.99	TAP	89.10	RCA	151.69	APO	399.52
RC	75.647	GL	-1.05	GP	-5.05	ZAL	94.92	ZAP	174.48	ETS	247.75	ZAE	163.88	ETE	343.30	ZAC	78.58	ETC	282.93

V1	29.350	V2	25.168	LVI	-12.40														

PLANETOCENTRIC CONIC

C3	39.210	VHL	6.262	DLA	15.46	RAL	43.30	RAD	6650.4	VEL	12.613	PTH	7.47	VHP	8.987	DPA	10.25	RAP	40.77

ECC	1.6483																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 26 39	3611.93	-47.40	138.66	292.36	94.64	13 26 51	2611.9	-40.09	106.51
60.00	12 48 42	3553.22	-40.29	133.86	292.84	90.92	13 47 55	2553.2	-35.52	103.84
70.00	13 20 53	3458.49	-34.10	126.11	292.76	86.02	14 18 32	2458.5	-31.35	97.73
80.00	14 10 15	3303.83	-29.62	114.11	292.49	86.03	15 5 18	2303.8	-28.25	86.77
90.00	15 23 10	3068.46	-27.92	96.67	292.34	85.29	16 14 18	2068.5	-27.07	69.69
100.00	16 53 6	2778.30	-29.62	75.48	292.49	86.03	17 39 25	1778.3	-28.25	48.14
110.00	18 20 19	2505.31	-34.10	55.03	292.76	88.02	19 2 5	1505.3	-31.35	26.64

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3397	TRA	-1.0970	TC3	.2122	BAU	.1172	SGT	1118.9	SGR	619.8	SG3	134.9	ST	22.0	SR	28.8	SS	12.2
RDE	-.6247	RRA	.2349	RC3	-.0703	FAU	.05068	RRT	-.1125	RRF	.1308	RTF	-.6406	CRT	.6178	CRS	.7020	CST	.9860
FDE	.2686	FRA	.6783	FC3	-1.1190	BSP	1624	SGB	1279.1	R23	-.0278	R13	.6428	LSA	34.7	MSA	16.1	SSA	1.3
BDE	.7110	BRA	1.1219	BC3	.2236	FSP	163	SG1	1122.0	SG2	614.2	THA	174.90	EL1	32.9	EL2	15.1	ALF	56.80

LAUNCH DATE AUG 3 1973 FLIGHT TIME 106.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 304.710 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	35.442	GAL	-1.16	AZL	90.15	HCA	94.24	SMA	269.50	ECC	.43712	INC	.1475
RP	218.71	LAP	-.15	LOP	44.76	VP	26.855	GAP	23.68	AZP	89.99	TAL	356.18	TAP	90.42	RCA	151.70	APO	387.31
RC	77.098	GL	-.86	GP	-5.18	ZAL	94.55	ZAP	174.01	ETS	241.57	ZAE	163.20	ETE	343.22	ZAC	78.38	ETC	282.89

V1	29.350	V2	25.127	LVI	-12.17														

PLANETOCENTRIC CONIC

C3	37.275	VHL	6.105	DLA	15.54	RAL	42.87	RAD	6649.7	VEL	12.536	PTH	7.41	VHP	8.717	DPA	10.25	RAP	41.16

ECC	1.6135																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 24 39	3600.64	-47.34	137.58	290.73	95.47	13 24 40	2600.6	-39.73	105.67
60.00	12 46 37	3542.18	-40.28	132.92	291.33	91.56	13 45 39	2542.2	-35.25	103.02
70.00	13 18 41	3447.78	-34.13	125.28	291.33	88.51	14 16 9	2447.8	-31.17	96.95
80.00	14 7 55	3293.49	-29.66	113.35	291.10	86.43	15 2 49	2293.5	-28.13	86.03
90.00	15 20 47	3058.30	-27.97	95.93	290.97	85.65	16 11 45	2058.3	-26.96	68.97
100.00	16 50 47	2767.96	-29.66	74.72	291.10	86.43	17 36 55	1768.0	-28.13	47.40
110.00	18 18 7	2494.60	-34.13	54.20	291.33	88.51	18 59 42	1494.6	-31.17	25.86

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3406	TRA	-1.0898	TC3	.2394	BAU	.1256	SGT	1146.5	SGR	623.7	SG3	143.7	ST	22.6	SR	28.8	SS	12.7
RDE	-.6103	RRA	.2335	RC3	-.0788	FAU	.05272	RRT	-.1209	RRF	.1403	RTF	-.6514	CRT	.6198	CRS	.7102	CST	.9851
FDE	.2838	FRA	.6963	FC3	-1.2244	BSP	1657	SGB	1305.2	R23	-.0296	R13	.6536	LSA	35.2	MSA	16.3	SSA	1.3
BDE	.6989	BRA	1.1145	BC3	.2520	FSP	176	SG1	1150.0	SG2	617.2	THA	174.71	EL1	33.2	EL2	15.4	ALF	55.89

LAUNCH DATE AUG 3 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 306.926 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	35.297	GAL	-1.08	AZL	90.11	HCA	95.37	SMA	264.00	ECC	.42535	INC	.1110
RP	219.08	LAP	-.11	LOP	45.89	VP	26.625	GAP	23.30	AZP	89.99	TAL	356.37	TAP	91.74	RCA	151.71	APO	376.30
RC	78.631	GL	-.66	GP	-5.32	ZAL	94.16	ZAP	173.48	ETS	236.32	ZAE	162.57	ETE	343.08	ZAC	78.18	ETC	282.86

V1	29.350	V2	25.087	LVI	-11.94														

PLANETOCENTRIC CONIC

C3	35.492	VHL	5.958	DLA	15.61	RAL	42.42	RAD	6649.1	VEL	12.466	PTH	7.36	VHP	8.457	DPA	10.24	RAP	41.56

ECC	1.5841																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 22 34	3589.80	-47.26	136.54	289.12	96.27	13 22 24	2589.8	-39.37	104.88
60.00	12 44 26	3531.60	-40.25	132.02	289.84	92.17	13 43 17	2531.6	-34.99	102.24
70.00	13 16 23	3437.56	-34.14	124.48	289.91	88.98	14 13 40	2437.6	-30.99	96.20
80.00	14 5 30	3283.64	-29.70	112.62	289.72	86.81	15 0 14	2283.6	-28.00	85.32
90.00	15 18 18	3048.64	-28.02	95.23	289.60	86.00	16 9 7	2048.6	-26.86	68.28
100.00	16 48 22	2758.11	-29.70	73.99	289.72	86.81	17 34 20	1758.1	-28.00	46.69
110.00	18 15 49	2484.37	-34.14	53.40	289.91	88.98	18 57 14	1484.4	-30.99	25.12

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3412	TRA	-1.0808	TC3	.2699	BAU	.1347	SGT	1173.0	SGR	627.5	SG3	153.1	ST	23.1	SR	28.9	SS	13.2
RDE	-.5963	RRA	.2323	RC3	-.0881	FAU	.05490	RRT	-.1304	RRF	.1518	RTF	-.6632	CRT	.6217	CRS	.7158	CST	.9845
FDE	.2980	FRA	.7155	FC3	-1.3393	BSP	1742	SGB	1330.3	R23	-.0321	R13	.6657	LSA	35.6	MSA	16.4	SSA	1.4
BDE	.6870	BRA	1.1055	BC3	.2639	FSP	190	SG1	1177.0	SG2	620.1	THA	174.47	EL1	33.5	EL2	15.6	ALF	55.05

LAUNCH DATE AUG 3 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 309.296 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	35.159	GAL	-1.00	AZL	90.08	HCA	96.50	SMA	259.02	ECC	.41425	INC	.0743
RP	219.45	LAP	-.08	LOP	47.02	VP	26.404	GAP	22.93	AZP	89.99	TAL	356.57	TAP	93.07	RCA	151.72	APO	366.32
RC	80.245	GL	-.46	GP	-5.46	ZAL	93.76	ZAP	172.89	ETS	231.89	ZAE	162.00	ETE	342.88	ZAC	77.97	ETC	282.83

V1	29.350	V2	25.046	LVI	-11.70														

PLANETOCENTRIC CONIC

C3	33.847	VHL	5.818	DLA	15.69	RAL	41.96	RAD	6648.5	VEL	12.400	PTH	7.31	VHP	8.205	DPA	10.22	RAP	41.94

ECC	1.5570																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 24	3579.43	-47.18	135.55	287.54	97.03	13 20 3	2579.4	-39.02	104.13
60.00	12 42 10	3521.50	-40.22	131.16	288.37	92.75	13 40 51	2521.5	-34.74	101.51
70.00	13 13 59	3427.62	-34.15	123.72	288.51	89.43	14 11 7	2427.6	-30.81	95.50
80.00	14 2 59	3274.30	-29.74	111.93	288.36	87.17	14 57 33	2274.3	-27.88	84.66
90.00	15 15 43	3039.50	-28.06	94.56	288.25	86.33	16 6 23	2039.5	-26.76	67.63
100.00	16 45 50	2748.77	-29.74	73.30	288.36	87.17	17 31 39	1748.8	-27.88	46.02
110.00	18 13 25	2474.64	-34.15	52.64	288.51	89.43	18 54 40	1474.6	-30.81	24.42

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3420	TRA	-1.0724	TC3	.3029	BAU	.1441	SGT	1200.4	SGR	631.1	SG3	163.0	ST	23.6	SR	28.9	SS	13.7
RDE	-.5826	RRA	.2312	RC3	-.0982	FAU	.05721	RRT	-.1406	RRF	.1635	RTF	-.6746	CRT	.6238	CRS	.7230	CST	.9836
FDE	.3141	FRA	.7335	FC3	-1.4634	BSP	1807	SGB	1356.2	R23	-.0341	R13	.6772	LSA	36.1	MSA	16.6	SSA	1.4
BDE	.6756	BRA	1.0970	BC3	.3184	FSP	205	SG1	1204.9	SG2	622.5	THA	174.23	EL1	33.8	EL2	15.7	ALF	54.15

LAUNCH DATE AUG 3 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 311.803 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	38.029	GAL	-.93	AZL	90.04	HCA	97.62	SMA	264.49	ECC	.40379	INC	.0370	V1	29.350
RP	219.82	LAP	-.04	LOP	48.14	VP	26.192	GAP	22.56	AZP	89.99	TAL	356.78	TAP	94.41	RCA	151.73	APO	357.26	V2	25.805
RC	81.936	GL	-.24	GP	-5.61	ZAL	93.34	ZAP	172.26	ETS	228.15	ZAE	161.49	ETE	342.62	ZAC	77.76	ETC	282.80	LVI	-11.45

PLANETOCENTRIC CONIC

C3	32.328	VHL	5.686	DLA	15.77	RAL	41.48	RAD	6647.9	VEL	12.339	PTH	7.27	VHP	7.983	DPA	10.19	RAP	42.32	ECC	1.5320

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 18 9	3569.54	-47.09	134.61	286.00	97.75	13 17 39	2569.5	-38.66	103.42
60.00	12 39 48	3511.89	-40.19	130.35	286.92	93.30	13 38 20	2511.9	-34.49	100.61
70.00	13 11 30	3418.60	-34.15	123.00	287.13	89.86	14 8 28	2418.6	-30.64	94.83
80.00	14 0 21	3265.50	-29.76	111.27	287.01	87.51	14 54 47	2265.5	-27.76	84.03
90.00	15 13 2	3030.90	-28.10	93.94	286.91	86.64	16 3 33	2030.9	-26.66	67.02
100.00	16 43 13	2739.97	-29.76	72.64	287.01	87.51	17 28 53	1740.0	-27.76	45.40
110.00	18 10 56	2465.42	-34.15	51.92	287.13	89.86	18 52 2	1465.4	-30.64	25.75

DIFFERENTIAL CORRECTIONS

TDE	-.3436	TRA	-1.0637	TC3	.3355	BAU	.1525
RDE	-.5691	RRA	.2303	RC3	-.1093	FAU	.05964
FDE	.3320	FRA	.7514	FC3	-1.5972	BSP	1857
BDE	.6648	BRA	1.0883	BC3	.3529	FSP	221

MID-COURSE EXECUTION ACCURACY

SGT	1227.2	SGR	634.4	SG3	173.4
RRT	-.1508	RRF	.1755	RTF	-.6841
SGB	1381.5	R23	-.0367	R13	.6870
SG1	1232.2	SG2	624.6	THA	174.00

ORBIT DETERMINATION ACCURACY

ST	24.1	SR	28.9	SS	14.2
CRT	.6267	CRS	.7312	CST	.9825
LSA	36.5	MSA	16.7	SSA	1.4
EL1	34.1	EL2	15.9	ALF	53.19

LAUNCH DATE AUG 3 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 314.430 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	34.906	GAL	-.85	AZL	90.00	HCA	98.74	SMA	250.37	ECC	.39392	INC	.0000	V1	29.350
RP	220.19	LAP	-.00	LOP	49.26	VP	25.988	GAP	22.20	AZP	90.00	TAL	357.00	TAP	95.74	RCA	151.74	APO	348.99	V2	24.964
RC	83.701	GL	-.02	GP	-5.77	ZAL	92.91	ZAP	171.60	ETS	224.98	ZAE	161.05	ETE	342.32	ZAC	77.54	ETC	282.77	LVI	-11.21

PLANETOCENTRIC CONIC

C3	30.926	VHL	5.561	DLA	15.86	RAL	40.98	RAD	6647.4	VEL	12.282	PTH	7.22	VHP	7.729	DPA	10.15	RAP	42.69	ECC	1.5090

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 15 49	3560.14	-47.00	133.72	284.49	98.43	13 15 10	2560.1	-38.36	102.76
60.00	12 37 22	3502.80	-40.15	129.58	285.50	93.82	13 35 45	2502.8	-34.25	100.16
70.00	13 8 55	3409.91	-34.15	122.32	285.77	90.26	14 5 45	2409.9	-30.48	94.21
80.00	13 57 38	3257.24	-29.79	110.66	285.68	87.83	14 51 56	2257.2	-27.65	83.44
90.00	15 10 15	3022.67	-28.13	93.35	285.60	86.93	16 0 38	2022.9	-26.56	66.45
100.00	16 40 30	2731.71	-29.79	72.03	285.68	87.83	17 26 2	1731.7	-27.65	44.81
110.00	18 8 22	2456.73	-34.15	51.24	285.77	90.26	18 49 18	1456.7	-30.48	23.13

DIFFERENTIAL CORRECTIONS

TDE	-.3451	TRA	-1.0544	TC3	.3695	BAU	.1608
RDE	-.5559	RRA	.2294	RC3	-.1212	FAU	.06219
FDE	.3508	FRA	.7693	FC3	-1.7409	BSP	1918
BDE	.6543	BRA	1.0790	BC3	.3888	FSP	239

MID-COURSE EXECUTION ACCURACY

SGT	1253.2	SGR	637.7	SG3	184.5
RRT	-.1618	RRF	.1884	RTF	-.6931
SGB	1406.1	R23	-.0394	R13	.6963
SG1	1258.8	SG2	626.5	THA	173.74

ORBIT DETERMINATION ACCURACY

ST	24.6	SR	28.9	SS	14.7
CRT	.6296	CRS	.7392	CST	.9814
LSA	37.0	MSA	16.8	SSA	1.5
EL1	34.3	EL2	16.0	ALF	52.24

LAUNCH DATE AUG 3 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 317.165 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	34.790	GAL	-.77	AZL	89.97	HCA	99.86	SMA	246.59	ECC	.38461	INC	.0305	V1	29.350
RP	220.57	LAP	.03	LOP	50.38	VP	25.792	GAP	21.83	AZP	90.01	TAL	357.22	TAP	97.08	RCA	151.75	APO	341.44	V2	24.923
RC	85.536	GL	.22	GP	-5.93	ZAL	92.47	ZAP	170.90	ETS	222.28	ZAE	160.66	ETE	341.95	ZAC	77.32	ETC	282.74	LVI	-10.96

PLANETOCENTRIC CONIC

C3	29.630	VHL	5.443	DLA	15.95	RAL	40.47	RAD	6646.9	VEL	12.230	PTH	7.18	VHP	7.503	DPA	10.10	RAP	43.06	ECC	1.4876

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 13 25	3551.25	-46.91	132.88	283.01	99.07	13 12 37	2551.3	-38.05	102.13
60.00	12 34 51	3494.22	-40.11	128.65	284.11	94.31	13 33 5	2494.2	-34.03	99.54
70.00	13 6 16	3401.76	-34.15	121.69	284.43	90.64	14 2 57	2401.8	-30.32	93.63
80.00	13 54 50	3249.55	-29.80	110.09	284.38	88.13	14 48 59	2249.6	-27.54	82.89
90.00	15 7 22	3015.41	-28.15	92.81	284.30	87.21	15 57 38	2015.4	-26.47	65.93
100.00	16 37 42	2724.02	-29.80	71.46	284.38	88.13	17 23 6	1724.0	-27.54	44.26
110.00	18 5 42	2448.57	-34.15	50.60	284.43	90.64	18 46 31	1448.6	-30.32	22.54

DIFFERENTIAL CORRECTIONS

TDE	-.3464	TRA	-1.0452	TC3	.4048	BAU	.1690
RDE	-.5430	RRA	.2267	RC3	-.1343	FAU	.06488
FDE	.3704	FRA	.7879	FC3	-1.8958	BSP	1979
BDE	.6441	BRA	1.0699	BC3	.4265	FSP	257

MID-COURSE EXECUTION ACCURACY

SGT	1279.2	SGR	640.9	SG3	196.2
RRT	-.1738	RRF	.2026	RTF	-.7019
SGB	1430.8	R23	-.0424	R13	.7084
SG1	1285.6	SG2	628.0	THA	173.45

ORBIT DETERMINATION ACCURACY

ST	25.0	SR	28.8	SS	15.3
CRT	.6322	CRS	.7465	CST	.9803
LSA	37.5	MSA	16.9	SSA	1.6
EL1	34.6	EL2	16.2	ALF	51.29

LAUNCH DATE AUG 3 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 319.996 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	34.680	GAL	-.70	AZL	89.93	HCA	100.97	SMA	243.14	ECC	.37583	INC	.0689	V1	29.350
RP	220.95	LAP	.07	LOP	51.49	VP	25.603	GAP	21.48	AZP	90.01	TAL	357.45	TAP	98.41	RCA	151.76	APO	334.51	V2	24.882
RC	87.440	GL	.46	GP	-6.10	ZAL	92.02	ZAP	170.18	ETS	219.97	ZAE	160.33	ETE	341.53	ZAC	77.09	ETC	282.71	LVI	-10.70

PLANETOCENTRIC CONIC

C3	28.431	VHL	5.332	DLA	16.04	RAL	39.95	RAD	6646.4	VEL	12.181	PTH	7.14	VHP	7.285	DPA	10.04	RAP	43.41	ECC	1.4679

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 57	3542.88	-46.82	132.10	281.57	99.67	13 10 0	2542.9	-37.75	101.55
60.00	12 32 15	3486.18	-40.07	128.17	282.74	94.77	13 30 21	2486.2	-33.81	98.97
70.00	13 3 31	3394.16	-34.14	121.09	283.12	90.99	14 0 5	2394.2	-30.17	93.09
80.00	13 51 56	3242.44	-29.82	109.56	283.09	88.41	14 45 58	2242.4	-27.44	82.39
90.00	15 4 24	3008.54	-28.17	92.31	283.02	87.46	15 54 32	2008.5	-26.39	65.44
100.00	16 34 48	2716.92	-29.82	70.93	283.09	88.41	17 20 4	1716.9	-27.44	43.76
110.00	18 2 57	2440.98	-34.14	50.01	283.12	90.99	18 43 38	1441.0	-30.17	22.00

DIFFERENTIAL CORRECTIONS

TDE	-.3480	TRA	-1.0369	TC3	.4426	BAU	.1774
RDE	-.5303	RRA	.2282	RC3	-.1484	FAU	.06773
FDE	.3915	FRA	.8077	FC3	-2.0624	BSP	2031
BDE	.6343	BRA	1.0617	BC3	.4668	FSP	276

MID-COURSE EXECUTION ACCURACY

SGT	1306.3	SGR	644.1	SG3	208.6
RRT	-.1872	RRF	.2179	RTF	-.7109
SGB	1456.5	R23	-.0453	R13	.7147
SG1	1313.6	SG2	629.3	THA	173.15

ORBIT DETERMINATION ACCURACY

ST	25.5	SR	28.7	SS	15.9
CRT	.6345	CRS	.7535	CST	.9792
LSA	38.0	MSA	17.0	SSA	1.5
EL1	34.8	EL2	16.3	ALF	50.29

LAUNCH DATE AUG 3 1973 FLIGHT TIME 120.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 322.913 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	34.675	GAL	-.62	AZL	89.89	HCA	102.08	SMA	239.96	ECC	.36752	INC	.1063	V1	29.350
RP	221.33	LAP	.10	LOP	52.60	VP	25.420	GAP	21.12	AZP	90.02	TAL	357.68	TAP	99.75	RCA	151.77	APO	328.15	V2	24.840
RC	89.407	GL	.71	GP	-6.28	ZAL	91.56	ZAP	169.43	ETS	217.98	ZAE	160.05	ETE	341.06	ZAC	76.86	ETC	282.68	LVI	-10.45

PLANETOCENTRIC CONIC

C3	27.321	VHL	5.227	DLA	16.14	RAL	39.42	RAD	6645.9	VEL	12.136	PTH	7.11	VHP	7.074	DPA	9.96	RAP	43.76	ECC	1.4496

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 8 25	3534.99	-46.72	131.36	280.16	100.23	13 7 20	2535.0	-37.47	101.01
60.00	12 29 35	3478.64	-40.02	127.53	281.41	95.20	13 27 34	2478.6	-33.61	98.43
70.00	13 0 41	3387.09	-34.13	120.54	281.83	91.31	13 57 8	2387.1	-30.03	92.58
80.00	13 48 56	3235.89	-29.83	109.08	281.83	88.67	14 42 52	2235.9	-27.35	81.93
90.00	15 1 19	3002.25	-28.19	91.85	281.77	87.69	15 51 21	2002.2	-26.31	65.00
100.00	16 31 48	2710.36	-29.83	70.44	281.83	88.67	17 16 58	1710.4	-27.35	43.30
110.00	18 0 7	2433.90	-34.13	49.46	281.83	91.31	18 40 41	1433.9	-30.03	21.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3384	TRA-1.0157	TC3	.4978	BAU	.1914	SGT	1323.5	SGR 647.1 SG3 221.5	ST	25.4	SR	28.6 SS 16.6
RDE	-.5176	RRA .2281	RC3	-.1633	FAU	.07055	RRT	-.2103	RRF .2327 RTF -.7326	CRT	.6289	CRS	.7620 CST .9759
FDE	.4179	FRA .8312	FC3	-2.2354	BSP	1941	SGB	1473.3	R23 -.0345 R13 .7362	LSA	38.1	MSA	17.0 SSA 1.5
BDE	.6184	BRA 1.0410	BC3	.5239	FSP	302	SG1	1332.5	SG2 628.4 THA 172.44	EL1	34.6	EL2	16.3 ALF 50.35

LAUNCH DATE AUG 3 1973 FLIGHT TIME 122.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 325.908 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	34.477	GAL	-.55	AZL	89.86	HCA	103.18	SMA	237.03	ECC	.35969	INC	.1435	V1	29.350
RP	221.71	LAP	.14	LOP	53.70	VP	25.245	GAP	20.77	AZP	90.03	TAL	357.91	TAP	101.09	RCA	151.77	APO	322.29	V2	24.799
RC	91.436	GL	.97	GP	-6.46	ZAL	91.10	ZAP	168.66	ETS	216.25	ZAE	159.84	ETE	340.52	ZAC	76.63	ETC	282.66	LVI	-10.18

PLANETOCENTRIC CONIC

C3	26.296	VHL	5.128	DLA	16.25	RAL	38.88	RAD	6645.5	VEL	12.094	PTH	7.07	VHP	6.871	DPA	9.88	RAP	44.10	ECC	1.4328

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 5 49	3527.67	-46.63	130.67	278.79	100.75	13 4 37	2527.7	-37.21	100.51
60.00	12 26 51	3471.69	-39.98	126.95	280.11	95.60	13 24 43	2471.7	-33.41	97.94
70.00	12 57 47	3380.64	-34.12	120.04	280.57	91.61	13 54 8	2380.6	-29.90	92.13
80.00	13 45 51	3230.00	-29.84	108.64	280.59	88.90	14 39 41	2230.0	-27.26	81.51
90.00	14 58 9	2996.63	-28.21	91.44	280.54	87.89	15 48 6	1996.6	-26.24	64.60
100.00	16 28 43	2704.47	-29.84	70.01	280.59	88.90	17 13 48	1704.5	-27.26	42.88
110.00	17 57 13	2427.46	-34.12	48.96	280.57	91.61	18 37 41	1427.5	-29.90	21.04

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3446	TRA-1.0082	TC3	.5313	BAU	.1972	SGT	1349.7	SGR 650.4 SG3 235.1	ST	26.1	SR	28.5 SS 17.2
RDE	-.5054	RRA .2275	RC3	-.1798	FAU	.07370	RRT	-.2206	RRF .2497 RTF -.7352	CRT	.6362	CRS	.7694 CST .9755
FDE	.4399	FRA .8456	FC3	-2.4265	BSP	2049	SGB	1498.3	R23 -.0433 R13 .7394	LSA	38.7	MSA	17.0 SSA 1.6
BDE	.6117	BRA 1.0335	BC3	.5609	FSP	320	SG1	1359.4	SG2 629.8 THA 172.26	EL1	35.0	EL2	16.4 ALF 48.97

LAUNCH DATE AUG 3 1973 FLIGHT TIME 124.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 328.973 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	34.383	GAL	-.48	AZL	89.82	HCA	104.28	SMA	234.34	ECC	.35230	INC	.1810	V1	29.350
RP	222.09	LAP	.18	LOP	54.80	VP	25.076	GAP	20.42	AZP	90.04	TAL	358.15	TAP	102.43	RCA	151.78	APO	316.90	V2	24.757
RC	93.523	GL	1.24	GP	-6.66	ZAL	90.63	ZAP	167.87	ETS	214.75	ZAE	159.67	ETE	339.92	ZAC	76.38	ETC	282.63	LVI	-9.92

PLANETOCENTRIC CONIC

C3	25.346	VHL	5.035	DLA	16.36	RAL	38.33	RAD	6645.1	VEL	12.055	PTH	7.04	VHP	6.874	DPA	9.79	RAP	44.42	ECC	1.4171

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 3 11	3520.87	-46.55	130.04	277.47	101.23	13 1 51	2520.9	-36.96	100.04
60.00	12 24 3	3465.29	-39.93	126.41	278.84	95.96	13 21 49	2465.3	-33.24	97.50
70.00	12 54 48	3374.77	-34.11	119.58	279.34	91.88	13 51 3	2374.8	-29.78	91.71
80.00	13 42 41	3224.72	-29.85	108.25	279.38	89.10	14 36 26	2224.7	-27.18	81.14
90.00	14 54 54	2991.64	-28.22	91.07	279.34	88.07	15 44 45	1991.6	-26.17	64.25
100.00	16 25 33	2699.19	-29.85	69.61	279.38	89.10	17 10 32	1699.2	-27.18	42.51
110.00	17 54 15	2421.59	-34.11	48.50	279.34	91.88	18 34 36	1421.6	-29.78	20.63

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3510	TRA-1.0009	TC3	.5673	BAU	.2036	SGT	1376.6	SGR 653.8 SG3 249.7	ST	26.8	SR	28.4 SS 17.8
RDE	-.4933	RRA .2271	RC3	-.1977	FAU	.07708	RRT	-.2325	RRF .2676 RTF -.[illegible]90	CRT	.6433	CRS	.7772 CST .9748
FDE	.4658	FRA .8628	FC3	-2.6327	BSP	2143	SGB	1524.0	R23 -.0514 R13 .7438	LSA	39.3	MSA	17.0 SSA 1.6
BDE	.6054	BRA 1.0264	BC3	.6008	FSP	347	SG1	1387.2	SG2 631.0 THA 172.04	EL1	35.4	EL2	16.4 ALF 47.57

LAUNCH DATE AUG 3 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 332.102 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	34.295	GAL	-.41	AZL	89.78	HCA	105.38	SMA	231.85	ECC	.34532	INC	.2184	V1	29.350
RP	222.48	LAP	.21	LOP	55.90	VP	24.913	GAP	20.07	AZP	90.06	TAL	358.38	TAP	103.76	RCA	151.79	APO	311.91	V2	24.715
RC	95.665	GL	1.52	GP	-6.86	ZAL	90.17	ZAP	167.07	ETS	213.43	ZAE	159.56	ETE	339.26	ZAC	76.14	ETC	282.61	LVI	-9.65

PLANETOCENTRIC CONIC

C3	24.467	VHL	4.946	DLA	16.47	RAL	37.77	RAD	6644.8	VEL	12.018	PTH	7.01	VHP	6.484	DPA	9.68	RAP	44.74	ECC	1.4027

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 0 29	3514.61	-46.46	129.46	276.19	101.67	12 59 3	2514.6	-36.73	99.62
60.00	12 21 12	3459.44	-39.89	125.92	277.61	96.29	13 18 51	2459.4	-33.07	97.09
70.00	12 51 45	3369.49	-34.10	119.17	278.14	92.12	13 47 55	2369.5	-29.67	91.34
80.00	13 39 26	3220.06	-29.85	107.90	278.20	89.28	14 33 6	2220.1	-27.11	80.81
90.00	14 51 33	2987.30	-28.23	90.76	278.16	88.23	15 41 20	1987.3	-26.12	63.95
100.00	16 22 18	2694.53	-29.85	69.27	278.20	89.28	17 7 13	1694.5	-27.11	42.18
110.00	17 51 12	2416.31	-34.10	48.09	278.14	92.12	18 31 28	1416.3	-29.67	20.26

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3551	TRA -.9915	TC3	.6054	BAU	.2104	SGT	1400.8	SGR 657.2 SG3 265.1	ST	27.3	SR	28.2 SS 18.5
RDE	-.4813	RRA .2267	RC3	-.2169	FAU	.08062	RRT	-.2468	RRF .2861 RTF -.7436	CRT	.6484	CRS	.7858 CST .9735
FDE	.4943	FRA .8784	FC3	-2.8525	BSP	2235	SGB	1547.3	R23 -.0574 R13 .7489	LSA	39.9	MSA	16.9 SSA 1.7
BDE	.5981	BRA 1.0171	BC3	.6431	FSP	372	SG1	1412.5	SG2 631.6 THA 171.73	EL1	35.6	EL2	16.4 ALF 46.37

LAUNCH DATE AUG 3 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 335.287 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	34.211	GAL	-.35	AZL	89.74	HCA	106.47	SMA	228.54	ECC	.33872	INC	.2563	V1	29.350
RP	222.86	LAP	.25	LOP	56.99	VP	24.755	GAP	19.73	AZP	90.07	TAL	358.62	TAP	105.09	RCA	151.79	APO	307.29	V2	24.673
RC	97.860	GL	1.81	GP	-7.07	ZAL	89.69	ZAP	166.24	ETS	212.27	ZAE	159.51	ETE	338.83	ZAC	75.89	ETC	282.59	LVI	-9.37

PLANETOCENTRIC CONIC

C3	23.652	VHL	4.863	DLA	16.60	RAL	37.21	RAD	6644.4	VEL	11.985	PTH	6.98	VHP	6.301	DPA	9.56	RAP	45.05	ECC	1.3893

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 57 44	3508.87	-46.38	128.93	274.94	102.07	12 56 12	2508.9	-36.52	99.24
60.00	12 18 17	3454.14	-39.85	125.47	276.41	96.59	13 15 51	2454.1	-32.92	96.72
70.00	12 48 38	3364.80	-34.08	118.80	276.97	92.34	13 44 43	2364.8	-29.58	91.01
80.00	13 36 6	3216.04	-29.85	107.60	277.05	89.44	14 29 42	2216.0	-27.05	80.51
90.00	14 48 6	2983.62	-28.24	90.49	277.02	88.37	15 37 50	1983.6	-26.07	63.69
100.00	16 18 58	2690.51	-29.85	68.97	277.05	89.44	17 3 49	1690.5	-27.05	41.90
110.00	17 48 4	2411.62	-34.08	47.72	276.97	92.34	18 28 16	1411.6	-29.58	19.93

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3578	TRA	-.9843	TC3	.6466	BAU	.2178	SGT	1427.4	SGR	661.4	SG3	281.5			ST	27.8	SR	28.0	SS	19.1
RDE	-.4697	RRA	.2268	RC3	-.2376	FAU	.08434	RRT	-.2642	RRF	.3077	RTF	-.7493			CRT	.6509	CRS	.7903	CST	.9727
FDE	.5204	FRA	.8993	FC3	-3.0870	BSP	2313	SGB	1573.2	R23	-.0635	R13	.7552			LSA	40.4	MSA	16.9	SSA	1.7
BDE	.5905	BRA	1.0101	BC3	.6888	FSP	400	SG1	1440.7	SG2	632.0	THA	171.34			EL1	35.9	EL2	16.5	ALF	45.24

LAUNCH DATE AUG 3 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 338.525 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	34.131	GAL	-.28	AZL	89.71	HCA	107.56	SMA	227.40	ECC	.33249	INC	.2943	V1	29.350
RP	223.25	LAP	.28	LOP	58.08	VP	24.603	GAP	19.39	AZP	90.09	TAL	358.86	TAP	106.42	RCA	151.79	APO	303.01	V2	24.631
RC	100.104	GL	2.10	GP	-7.29	ZAL	89.22	ZAP	165.40	ETS	211.24	ZAE	159.49	ETE	337.72	ZAC	75.63	ETC	282.58	LVI	-9.09

PLANETOCENTRIC CONIC

C3	22.897	VHL	4.785	DLA	16.73	RAL	36.64	RAD	6644.1	VEL	11.953	PTH	6.95	VHP	6.123	DPA	9.42	RAP	45.34	ECC	1.3768

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 56	3503.67	-46.31	128.45	273.74	102.44	12 53 20	2503.7	-36.33	98.89
60.00	12 15 19	3449.42	-39.81	125.08	275.25	96.86	13 12 48	2449.4	-32.79	96.39
70.00	12 45 27	3360.71	-34.07	118.48	275.84	92.53	13 41 27	2360.7	-29.49	90.72
80.00	13 32 41	3212.66	-29.85	107.35	275.93	89.57	14 26 14	2212.7	-26.99	80.29
90.00	14 44 35	2980.60	-28.24	90.27	275.90	88.48	15 34 15	1980.6	-26.03	63.48
100.00	16 15 33	2687.13	-29.85	68.72	275.93	89.57	17 0 20	1687.1	-26.99	41.66
110.00	17 44 53	2407.53	-34.07	47.40	275.84	92.53	18 25 0	1407.5	-29.49	19.64

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3613	TRA	-.9758	TC3	.6895	BAU	.2256	SGT	1452.9	SGR	665.7	SG3	299.1			ST	28.4	SR	27.7	SS	19.9
RDE	-.4580	RRA	.2270	RC3	-.2601	FAU	.08836	RRT	-.2825	RRF	.3295	RTF	-.7554			CRT	.6544	CRS	.7968	CST	.9715
FDE	.5527	FRA	.9202	FC3	-3.3406	BSP	2362	SGB	1598.2	R23	-.0690	R13	.7620			LSA	41.0	MSA	16.8	SSA	1.8
BDE	.5833	BRA	1.0018	BC3	.7369	FSP	424	SG1	1467.9	SG2	632.1	THA	170.93			EL1	36.1	EL2	16.5	ALF	44.06

LAUNCH DATE AUG 3 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 341.810 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	34.056	GAL	-.22	AZL	89.67	HCA	108.65	SMA	225.42	ECC	.32660	INC	.3327	V1	29.350
RP	223.64	LAP	.32	LOP	59.17	VP	24.457	GAP	19.06	AZP	90.11	TAL	359.10	TAP	107.75	RCA	151.80	APO	299.04	V2	24.590
RC	102.397	GL	2.41	GP	-7.51	ZAL	88.75	ZAP	164.53	ETS	210.33	ZAE	159.53	ETE	336.83	ZAC	75.36	ETC	282.56	LVI	-8.81

PLANETOCENTRIC CONIC

C3	22.198	VHL	4.711	DLA	16.87	RAL	36.08	RAD	6643.8	VEL	11.924	PTH	6.93	VHP	5.952	DPA	9.27	RAP	45.82	ECC	1.3653

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 52 6	3499.01	-46.24	128.02	272.58	102.76	12 50 25	2499.0	-36.15	98.58
60.00	12 12 17	3445.25	-39.78	124.73	274.12	97.09	13 9 42	2445.3	-32.67	96.10
70.00	12 42 11	3357.23	-34.06	118.21	274.74	92.69	13 38 8	2357.2	-29.42	90.48
80.00	13 29 11	3209.94	-29.86	107.15	274.84	89.68	14 22 41	2209.9	-26.95	80.10
90.00	14 40 58	2978.26	-28.25	90.09	274.81	88.56	15 30 36	1978.3	-25.99	63.31
100.00	16 12 3	2684.41	-29.86	68.52	274.84	89.68	16 56 47	1684.4	-26.95	41.47
110.00	17 41 37	2404.05	-34.06	47.13	274.74	92.69	18 21 41	1404.0	-29.42	19.39

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3636	TRA	-.9627	TC3	.7237	BAU	.2306	SGT	1468.8	SGR	669.9	SG3	316.2			ST	28.8	SR	27.5	SS	20.7
RDE	-.4463	RRA	.2267	RC3	-.2831	FAU	.09217	RRT	-.2991	RRF	.3501	RTF	-.7686			CRT	.6585	CRS	.8049	CST	.9698
FDE	.5868	FRA	.9340	FC3	-3.5948	BSP	2396	SGB	1614.3	R23	-.0749	R13	.7659			LSA	41.6	MSA	16.7	SSA	1.8
BDE	.5787	BRA	.9890	BC3	.7771	FSP	452	SG1	1485.4	SG2	632.0	THA	170.90			EL1	36.2	EL2	16.4	ALF	43.04

LAUNCH DATE AUG 3 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 345.139 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.984	GAL	-.16	AZL	89.63	HCA	109.73	SMA	223.57	ECC	.32104	INC	.3713	V1	29.350
RP	224.03	LAP	.35	LOP	60.25	VP	24.315	GAP	18.73	AZP	90.13	TAL	359.34	TAP	109.07	RCA	151.80	APO	295.35	V2	24.548
RC	104.735	GL	2.72	GP	-7.75	ZAL	88.29	ZAP	163.65	ETS	209.51	ZAE	159.60	ETE	335.85	ZAC	75.09	ETC	282.55	LVI	-8.52

PLANETOCENTRIC CONIC

C3	21.549	VHL	4.642	DLA	17.01	RAL	35.51	RAD	6643.5	VEL	11.897	PTH	6.91	VHP	5.786	DPA	9.11	RAP	45.89	ECC	1.3546

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 49 13	3494.88	-46.17	127.64	271.46	103.05	12 47 28	2494.9	-36.00	98.31
60.00	12 9 12	3441.65	-39.75	124.43	273.04	97.29	13 6 34	2441.7	-32.56	95.85
70.00	12 38 52	3354.36	-34.05	117.99	273.67	92.82	13 34 46	2354.4	-29.36	90.28
80.00	13 25 36	3207.87	-29.86	106.99	273.78	89.76	14 19 4	2207.9	-26.92	79.96
90.00	14 37 15	2976.61	-28.25	89.97	273.75	88.62	15 26 52	1976.6	-25.97	63.20
100.00	16 8 28	2682.35	-29.86	68.36	273.78	89.76	16 53 10	1682.3	-26.92	41.32
110.00	17 38 18	2401.17	-34.05	46.91	273.67	92.82	18 18 19	1401.2	-29.36	19.19

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3690	TRA	-.9539	TC3	.7684	BAU	.2386	SGT	1494.2	SGR	675.0	SG3	336.4			ST	29.3	SR	27.2	SS	21.7
RDE	-.4341	RRA	.2272	RC3	-.3093	FAU	.09676	RRT	-.3192	RRF	.3735	RTF	-.7651			CRT	.6633	CRS	.8128	CST	.9684
FDE	.6308	FRA	.9573	FC3	-3.8873	BSP	2425	SGB	1639.6	R23	-.0801	R13	.7730			LSA	42.3	MSA	16.6	SSA	1.9
BDE	.5698	BRA	.9806	BC3	.8284	FSP	484	SG1	1513.0	SG2	631.7	THA	170.04			EL1	36.5	EL2	16.3	ALF	41.66

LAUNCH DATE AUG 3 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 348.506 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.917	GAL	-.10	AZL	89.59	HCA	110.81	SMA	221.86	ECC	.31578	INC	.4108	V1	29.350
RP	224.42	LAP	.38	LOP	61.33	VP	24.178	GAP	18.40	AZP	90.15	TAL	359.58	TAP	110.38	RCA	151.80	APO	291.92	V2	24.506
RC	107.119	GL	3.05	GP	-8.00	ZAL	87.82	ZAP	162.76	ETS	208.78	ZAE	159.72	ETE	334.78	ZAC	74.81	ETC	282.54	LVI	-8.23

PLANETOCENTRIC CONIC

C3	20.947	VHL	4.577	DLA	17.17	RAL	34.94	RAD	6643.3	VEL	11.872	PTH	6.89	VHP	5.626	DPA	8.93	RAP	46.15	ECC	1.3447

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 46 18	3491.28	-46.12	127.31	270.39	103.29	12 44 30	2491.3	-35.86	98.07
60.00	12 6 5	3438.62	-39.72	124.17	271.99	97.46	13 3 24	2438.6	-32.48	95.64
70.00	12 35 29	3352.10	-34.04	117.81	272.63	92.92	13 31 21	2352.1	-29.31	90.12
80.00	13 21 56	3206.48	-29.86	106.89	272.75	89.81	14 15 23	2206.5	-26.90	79.86
90.00	14 33 27	2975.66	-28.25	89.90	272.73	88.66	15 23 3	1975.7	-25.96	63.13
100.00	16 4 48	2680.96	-29.86	68.26	272.75	89.81	16 49 29	1681.0	-26.90	41.23
110.00	17 34 55	2398.92	-34.04	46.73	272.63	92.92	18 14 54	1398.9	-29.31	19.04

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3719	TRA	-.9459	TC3	.8026	BAU	.2435	SGT	1514.1	SGR	680.0	SG3	354.5	ST	29.8	SR	26.8	SS	22.6
RDE	-.4225	RRA	.2274	RC3	-.3346	FAU	.10066	RRT	-.3381	RRF	.3957	RTF	-.7681	CRT	.6653	CRS	.8187	CST	.9667
FDE	.6694	FRA	.9759	FC3	-4.1601	BSP	2590	SGB	1659.8	R23	-.0862	R13	.7768	LSA	42.9	MSA	16.5	SSA	1.9
BDE	.5629	BRA	.9729	BC3	.8695	FSP	527	SG1	1535.1	SG2	631.2	THA	169.59	EL1	36.6	EL2	16.3	ALF	40.49

LAUNCH DATE AUG 3 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 351.910 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.853	GAL	-.05	AZL	89.55	HCA	111.88	SMA	220.26	ECC	.31081	INC	.4503	V1	29.350
RP	224.81	LAP	.42	LOP	62.40	VP	24.045	GAP	18.07	AZP	90.17	TAL	359.81	TAP	111.69	RCA	151.80	APO	288.72	V2	24.464
RC	109.544	GL	3.38	GP	-8.26	ZAL	87.37	ZAP	161.84	ETS	208.13	ZAE	159.87	ETE	333.60	ZAC	74.53	ETC	282.53	LVI	-7.93

PLANETOCENTRIC CONIC

C3	20.390	VHL	4.516	DLA	17.33	RAL	34.37	RAD	6643.0	VEL	11.849	PTH	6.87	VHP	5.472	DPA	8.74	RAP	46.39	ECC	1.3356

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 43 22	3488.22	-46.07	127.03	269.36	103.50	12 41 30	2488.2	-35.75	97.87
60.00	12 2 55	3436.16	-39.70	123.97	270.98	97.60	13 0 11	2436.2	-32.40	95.48
70.00	12 32 1	3350.46	-34.04	117.68	271.63	93.00	13 27 52	2350.5	-29.27	90.00
80.00	13 18 11	3205.77	-29.86	106.84	271.76	89.84	14 11 37	2205.8	-26.89	79.81
90.00	14 29 33	2975.42	-28.25	89.89	271.73	88.66	15 19 9	1975.4	-25.95	63.11
100.00	16 1 3	2680.24	-29.86	68.21	271.76	89.84	16 45 44	1680.2	-26.89	41.18
110.00	17 31 28	2397.28	-34.04	46.60	271.63	93.00	18 11 25	1397.3	-29.27	18.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3822	TRA	-.9378	TC3	.8510	BAU	.2525	SGT	1542.7	SGR	686.4	SG3	378.2	ST	30.6	SR	26.4	SS	24.0
RDE	-.4095	RRA	.2283	RC3	-.3656	FAU	.10604	RRT	-.3589	RRF	.4211	RTF	-.7751	CRT	.6733	CRS	.8276	CST	.9658
FDE	.7299	FRA	1.0018	FC3	-4.5022	BSP	2790	SGB	1688.5	R23	-.0929	R13	.7846	LSA	44.1	MSA	16.2	SSA	2.0
BDE	.5602	BRA	.9652	BC3	.9262	FSP	586	SG1	1566.1	SG2	631.1	THA	169.14	EL1	37.1	EL2	16.1	ALF	38.71

LAUNCH DATE AUG 3 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 355.353 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.792	GAL	.01	AZL	89.51	HCA	112.95	SMA	218.77	ECC	.30612	INC	.4900	V1	29.350
RP	225.20	LAP	.45	LOP	63.47	VP	23.917	GAP	17.75	AZP	90.19	TAL	.04	TAP	112.99	RCA	151.80	APO	285.74	V2	24.422
RC	112.011	GL	3.72	GP	-8.53	ZAL	86.92	ZAP	160.90	ETS	207.53	ZAE	160.05	ETE	332.31	ZAC	74.24	ETC	282.53	LVI	-7.63

PLANETOCENTRIC CONIC

C3	19.873	VHL	4.458	DLA	17.51	RAL	33.81	RAD	6642.8	VEL	11.827	PTH	6.85	VHP	5.322	DPA	8.53	RAP	46.62	ECC	1.3271

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 40 23	3485.70	-46.03	126.80	268.37	103.68	12 38 29	2485.7	-35.65	97.70
60.00	11 59 42	3434.27	-39.68	123.80	270.00	97.71	12 56 56	2434.3	-32.35	95.35
70.00	12 28 31	3349.45	-34.03	117.61	270.67	93.05	13 24 20	2349.4	-29.25	89.93
80.00	13 14 22	3205.75	-29.86	106.84	270.79	89.84	14 7 47	2205.7	-26.89	79.81
90.00	14 25 34	2975.90	-28.25	89.92	270.77	88.65	15 15 10	1975.9	-25.96	63.15
100.00	15 57 14	2680.22	-29.86	68.20	270.79	89.84	16 41 54	1680.2	-26.89	41.17
110.00	17 27 57	2396.26	-34.03	46.52	270.67	93.05	18 7 53	1396.3	-29.25	18.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2234	TRA	-.9345	TC3	1.0613	BAU	.3030	SGT	1601.2	SGR	733.8	SG3	414.0	ST	23.8	SR	28.0	SS	14.4
RDE	-.4294	RRA	.2288	RC3	-.4179	FAU	.11760	RRT	-.4958	RRF	.5340	RTF	-.6962	CRT	.4629	CRS	.5959	CST	.9715
FDE	.3507	FRA	1.0220	FC3	-5.1233	BSP	1161	SGB	1761.3	R23	-.0735	R13	.8176	LSA	34.1	MSA	19.7	SSA	2.1
BDE	.4840	BRA	.9621	BC3	1.1406	FSP	331	SG1	1649.0	SG2	618.8	THA	165.05	EL1	31.6	EL2	18.6	ALF	54.75

LAUNCH DATE AUG 3 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 358.814 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.735	GAL	.06	AZL	89.47	HCA	114.02	SMA	217.38	ECC	.30168	INC	.5306	V1	29.350
RP	225.59	LAP	.48	LOP	64.54	VP	23.793	GAP	17.43	AZP	90.22	TAL	.27	TAP	114.29	RCA	151.80	APO	282.96	V2	24.380
RC	114.516	GL	4.07	GP	-8.81	ZAL	86.47	ZAP	159.95	ETS	206.99	ZAE	160.27	ETE	330.90	ZAC	73.93	ETC	282.53	LVI	-7.32

PLANETOCENTRIC CONIC

C3	19.394	VHL	4.404	DLA	17.69	RAL	33.25	RAD	6642.6	VEL	11.807	PTH	6.83	VHP	5.178	DPA	8.30	RAP	46.84	ECC	1.3192

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 37 23	3483.70	-46.00	126.62	267.43	103.81	12 35 26	2483.7	-35.58	97.57
60.00	11 56 26	3432.95	-39.67	123.70	269.07	97.78	12 53 39	2432.9	-32.31	95.26
70.00	12 24 56	3349.06	-34.03	117.58	269.74	93.06	13 20 45	2349.1	-29.24	89.91
80.00	13 10 27	3206.42	-29.86	106.89	269.87	89.82	14 3 53	2206.4	-26.90	79.85
90.00	14 21 29	2977.12	-28.25	90.01	269.84	88.60	15 11 6	1977.1	-25.98	63.23
100.00	15 53 19	2680.89	-29.86	68.26	269.87	89.82	16 38 0	1680.9	-26.90	41.22
110.00	17 24 22	2395.88	-34.03	46.49	269.74	93.06	18 4 18	1395.9	-29.24	18.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3742	TRA	-.8934	TC3	.9561	BAU	.2721	SGT	1560.3	SGR	705.2	SG3	423.6	ST	30.5	SR	25.8	SS	24.8
RDE	-.3898	RRA	.2259	RC3	-.4323	FAU	.11705	RRT	-.4090	RRF	.4806	RTF	-.7873	CRT	.6768	CRS	.8344	CST	.9632
FDE	.7725	FRA	.9949	FC3	-5.2252	BSP	2573	SGB	1712.3	R23	-.1045	R13	.7994	LSA	44.0	MSA	15.8	SSA	2.1
BDE	.5403	BRA	.9215	BC3	1.0493	FSP	615	SG1	1591.9	SG2	630.8	THA	167.54	EL1	36.7	EL2	15.8	ALF	38.02

LAUNCH DATE AUG 3 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 362.308 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.680	GAL	.11	AZL	89.43	HCA	115.08	SMA	216.08	ECC	.29749	INC	.5717
RP	225.98	LAP	.52	LOP	65.60	VP	23.673	GAP	17.11	AZP	90.24	TAL	.49	TAP	115.57	RCA	151.80	APO	280.36
RC	117.057	GL	4.43	GP	-9.10	ZAL	86.04	ZAP	158.98	ETS	206.50	ZAE	160.51	ETE	329.34	ZAC	73.63	ETC	282.53

VI	29.380	V2	24.338	LVI	-7.01														

PLANETOCENTRIC CONIC

C3	18.949	VHL	4.353	DLA	17.88	RAL	32.69	RAD	6642.4	VEL	11.788	PTH	6.81	VHP	5.038	DPA	8.06	RAP	47.03

ECC	1.3119																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 34 21	3462.24	-45.97	126.49	266.53	103.91	12 32 23	2482.2	-35.52	97.48
60.00	11 53 8	3432.20	-39.66	123.64	268.18	97.82	12 50 21	2432.2	-32.29	95.20
70.00	12 21 18	3349.30	-34.03	117.60	268.85	93.05	13 17 7	2349.3	-29.25	89.92
80.00	13 6 27	3207.80	-29.86	106.99	268.97	89.76	13 59 54	2207.8	-26.92	79.95
90.00	14 17 18	2979.08	-28.24	90.16	268.94	88.53	15 6 57	1979.1	-26.00	63.37
100.00	15 49 19	2682.27	-29.86	68.36	268.97	89.76	16 34 1	1682.3	-26.92	41.32
110.00	17 20 44	2396.12	-34.03	46.51	268.85	93.05	18 0 40	1396.1	-29.25	18.84

DIFFERENTIAL CORRECTIONS

TDE	-.3741	TRA	-.8819	TC3	.9737	BAU	.2734												
RDE	-.3768	RRA	.2259	RC3	-.4651	FAU	.12181												
FDE	.8385	FRA	1.0073	FC3	-5.5652	BSP	2631												
BDE	.5309	BRA	.9104	BC3	1.0791	FSP	666												

MID-COURSE EXECUTION ACCURACY

SGT	1564.9	SGR	712.5	SG3	445.9														
RRT	-.4308	RRF	.5032	RTF	-.7863														
SGB	1719.4	R23	-.1095	R13	.7997														
SG1	1600.3	SG2	628.7	THA	166.84														

ORBIT DETERMINATION ACCURACY

ST	30.7	SR	25.2	SS	25.9														
CRT	.6761	CRS	.8436	CST	.9589														
LSA	44.7	MSA	15.6	SSA	2.1														
EL1	36.5	EL2	15.6	ALF	36.88														

LAUNCH DATE AUG 3 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 365.828 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.629	GAL	.16	AZL	89.39	HCA	116.14	SMA	214.87	ECC	.29353	INC	.6133
RP	226.37	LAP	.55	LOP	66.66	VP	23.556	GAP	16.80	AZP	90.27	TAL	.71	TAP	116.85	RCA	151.80	APO	277.94
RC	119.633	GL	4.80	GP	-9.41	ZAL	85.62	ZAP	157.98	ETS	206.06	ZAE	160.77	ETE	327.64	ZAC	73.31	ETC	282.54

VI	29.350	V2	24.297	LVI	-6.69														

PLANETOCENTRIC CONIC

C3	18.538	VHL	4.306	DLA	16.08	RAL	32.14	RAD	6642.2	VEL	11.771	PTH	6.80	VHP	4.903	DPA	7.80	RAP	47.22

ECC	1.3051																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 31 17	3481.30	-45.96	126.40	265.67	103.98	12 29 19	2481.3	-35.49	97.42
60.00	11 49 48	3432.03	-39.66	123.62	267.33	97.83	12 47 0	2432.0	-32.28	95.19
70.00	12 17 36	3350.19	-34.04	117.66	267.99	93.01	13 13 26	2350.2	-29.27	89.98
80.00	13 2 21	3209.90	-29.86	107.15	268.11	89.68	13 55 51	2209.9	-26.95	80.10
90.00	14 13 1	2981.81	-28.24	90.35	268.08	88.43	15 2 43	1981.8	-26.04	63.56
100.00	15 45 13	2684.37	-29.86	68.51	268.11	89.68	16 29 57	1684.4	-26.95	41.47
110.00	17 17 2	2397.01	-34.04	46.58	267.99	93.01	17 56 59	1397.0	-29.27	18.90

DIFFERENTIAL CORRECTIONS

TDE	-.3769	TRA	-.8729	TC3	1.0133	BAU	.2805												
RDE	-.3651	RRA	.2270	RC3	-.5041	FAU	.12798												
FDE	.8883	FRA	1.0327	FC3	-5.9770	BSP	2630												
BDE	.5247	BRA	.9019	BC3	1.1318	FSP	700												

MID-COURSE EXECUTION ACCURACY

SGT	1583.0	SGR	724.9	SG3	473.1														
RRT	-.4561	RRF	.5340	RTF	-.7904														
SGB	1741.1	R23	-.1184	R13	.8054														
SG1	1623.5	SG2	629.0	THA	166.07														

ORBIT DETERMINATION ACCURACY

ST	31.1	SR	24.8	SS	26.9														
CRT	.6767	CRS	.8451	CST	.9583														
LSA	45.4	MSA	15.5	SSA	2.2														
EL1	36.6	EL2	15.5	ALF	35.64														

LAUNCH DATE AUG 3 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 369.370 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.580	GAL	.21	AZL	89.34	HCA	117.19	SMA	213.73	ECC	.28979	INC	.6554
RP	226.76	LAP	.58	LOP	67.72	VP	23.444	GAP	16.49	AZP	90.30	TAL	.93	TAP	118.12	RCA	151.80	APO	275.67
RC	122.240	GL	5.17	GP	-9.72	ZAL	85.20	ZAP	156.97	ETS	205.65	ZAE	161.05	ETE	325.78	ZAC	72.98	ETC	282.55

VI	29.350	V2	24.255	LVI	-6.36														

PLANETOCENTRIC CONIC

C3	18.156	VHL	4.261	DLA	18.30	RAL	31.59	RAD	6642.0	VEL	11.755	PTH	6.78	VHP	4.773	DPA	7.52	RAP	47.39

ECC	1.2988																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 28 12	3480.90	-45.95	126.37	264.86	104.01	12 26 13	2480.9	-35.47	97.39
60.00	11 46 25	3432.43	-39.66	123.66	266.51	97.81	12 43 37	2432.4	-32.29	95.22
70.00	12 13 49	3351.72	-34.04	117.78	267.17	92.94	13 9 41	2351.7	-29.30	90.09
80.00	12 58 10	3212.72	-29.85	107.36	267.28	89.57	13 51 43	2212.7	-27.00	80.30
90.00	14 8 37	2985.31	-28.23	90.61	267.25	88.30	14 58 22	1985.3	-26.09	63.81
100.00	15 41 2	2687.19	-29.85	68.72	267.28	89.57	16 25 49	1687.2	-27.00	41.66
110.00	17 13 16	2398.53	-34.04	46.70	267.17	92.94	17 53 14	1398.5	-29.30	19.01

DIFFERENTIAL CORRECTIONS

TDE	-.3838	TRA	-.8638	TC3	1.0610	BAU	.2697												
RDE	-.3526	RRA	.2277	RC3	-.5460	FAU	.13454												
FDE	.9502	FRA	1.0515	FC3	-6.4154	BSP	2691												
BDE	.5212	BRA	.8933	BC3	1.1933	FSP	747												

MID-COURSE EXECUTION ACCURACY

SGT	1606.4	SGR	738.5	SG3	501.9														
RRT	-.4810	RRF	.5639	RTF	-.8157														
SGB	1768.0	R23	-.1267	R13	.8123														
SG1	1652.1	SG2	629.5	THA	165.36														

ORBIT DETERMINATION ACCURACY

ST	31.7	SR	24.2	SS	28.1														
CRT	.6805	CRS	.8488	CST	.9579														
LSA	46.3	MSA	15.3	SSA	2.3														
EL1	36.8	EL2	15.3	ALF	34.07														

LAUNCH DATE AUG 3 1973 FLIGHT TIME 150.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 372.935 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.534	GAL	.25	AZL	89.30	HCA	118.25	SMA	212.67	ECC	.28625	INC	.6983
RP	227.15	LAP	.62	LOP	68.77	VP	23.334	GAP	16.18	AZP	90.33	TAL	1.14	TAP	119.38	RCA	151.79	APO	273.55
RC	124.878	GL	5.56	GP	-10.06	ZAL	84.80	ZAP	155.93	ETS	205.27	ZAE	161.35	ETE	323.74	ZAC	72.65	ETC	282.56

VI	29.350	V2	24.214	LVI	-6.03														

PLANETOCENTRIC CONIC

C3	17.803	VHL	4.219	DLA	18.52	RAL	31.05	RAD	6641.8	VEL	11.740	PTH	6.77	VHP	4.647	DPA	7.22	RAP	47.54

ECC	1.2930																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 25 6	3481.02	-45.95	126.38	264.10	104.00	12 23 7	2481.0	-35.48	97.40
60.00	11 42 59	3433.40	-39.67	123.74	265.74	97.76	12 40 12	2433.4	-32.32	95.29
70.00	12 9 59	3353.89	-34.05	117.95	266.39	92.84	13 5 53	2353.9	-29.35	90.24
80.00	12 53 53	3216.29	-29.85	107.62	266.49	89.43	13 47 30	2216.3	-27.05	80.55
90.00	14 4 6	2989.61	-28.22	90.92	266.45	88.15	14 53 56	1989.6	-26.15	64.11
100.00	15 36 45	2690.76	-29.85	68.99	266.49	89.43	16 21 36	1690.8	-27.05	41.91
110.00	17 9 26	2400.71	-34.05	46.87	266.39	92.84	17 49 26	1400.7	-29.35	19.16

DIFFERENTIAL CORRECTIONS

TDE	-.3891	TRA	-.8487	TC3	1.0864	BAU	.2941												
RDE	-.3395	RRA	.2279	RC3	-.5885	FAU	.14083												
FDE	1.0195	FRA	1.0624	FC3	-6.8483	BSP	2749												
BDE	.5164	BRA	.8787	BC3	1.2356	FSP	802												

MID-COURSE EXECUTION ACCURACY

SGT	1611.5	SGR	752.1	SG3	530.0														
RRT	-.5019	RRF	.5913	RTF	-.7970														
SGB	1778.4	R23	-.1368	R13	.8158														
SG1	1662.9	SG2	630.4	THA	164.54														

ORBIT DETERMINATION ACCURACY

ST	32.1	SR	23.6	SS	29.5														
CRT	.6848	CRS	.8538	CST	.9570														
LSA	47.2	MSA	15.0	SSA	2.3														
EL1	36.9	EL2	14.9	ALF	32.67														

LAUNCH DATE AUG 3 1973 FLIGHT TIME 152.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 376.519 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.490	GAL	.30	AZL	89.26	HCA	119.29	SMA	211.68	ECC	.28291	INC	.7419	V1	29.350
RP	227.54	LAP	.65	LOP	69.82	VP	23.228	GAP	15.88	AZP	90.36	TAL	1.34	TAP	120.64	RCA	151.79	APO	271.56	V2	24.172
RC	127.544	GL	5.96	GP	-10.40	ZAL	84.41	ZAP	154.88	ETS	204.93	ZAE	161.64	ETE	321.51	ZAC	72.30	ETC	282.58	LVI	-5.69

PLANETOCENTRIC CONIC

C3	17.476	VHL	4.180	DLA	18.76	RAL	30.52	RAD	6641.7	VEL	11.726	PTH	6.76	VHP	4.526	DPA	6.89	RAP	47.67	ECC	1.2876

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 21 58	3481.64	-45.96	126.43	263.37	103.95	12 19 59	2481.6	-35.50	97.44
60.00	11 39 30	3434.93	-39.69	123.87	265.00	97.67	12 36 45	2434.9	-32.37	95.39
70.00	12 6 5	3356.69	-34.06	118.17	265.64	92.71	13 2 1	2356.7	-29.41	90.44
80.00	12 49 30	3220.58	-29.85	107.94	265.73	89.26	13 43 11	2220.6	-27.12	80.85
90.00	13 59 29	2994.69	-28.21	91.29	265.68	87.96	14 49 23	1994.7	-26.21	64.46
100.00	15 32 22	2695.05	-29.85	69.31	265.73	89.26	16 17 17	1695.0	-27.12	42.22
110.00	17 5 31	2403.51	-34.06	47.09	265.64	92.71	17 45 34	1403.5	-29.41	19.36

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3774	TRA	-.8259	TC3	1.1358	BAU	.3038	SGT	1612.0	SGR	768.6	SG3	558.6			ST	31.5	SR	23.0	SS	30.4
RDE	-.3276	RRA	.2280	RC3	-.6332	FAU	.14730	RRT	-.5368	RRF	.6198	RTF	-.8070			CRT	.6771	CRS	.8558	CST	.9529
FDE	1.0756	FRA	1.0721	FC3	-7.2972	BSP	2631	SGB	1785.8	R23	-.1296	R13	.8267			LSA	47.2	MSA	14.8	SSA	2.3
BDE	.4997	BRA	.8568	BC3	1.3004	FSP	844	SG1	1672.9	SG2	624.9	THA	163.24			EL1	36.1	EL2	14.8	ALF	32.36

LAUNCH DATE AUG 3 1973 FLIGHT TIME 154.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 380.121 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.449	GAL	.34	AZL	89.21	HCA	120.34	SMA	210.75	ECC	.27976	INC	.7861	V1	29.350
RP	227.93	LAP	.68	LOP	70.86	VP	23.126	GAP	15.58	AZP	90.40	TAL	1.54	TAP	121.88	RCA	151.79	APO	269.71	V2	24.131
RC	130.237	GL	6.36	GP	-10.76	ZAL	84.04	ZAP	153.80	ETS	204.60	ZAE	161.94	ETE	319.07	ZAC	71.94	ETC	282.60	LVI	-5.35

PLANETOCENTRIC CONIC

C3	17.174	VHL	4.144	DLA	19.01	RAL	30.00	RAD	6641.6	VEL	11.714	PTH	6.75	VHP	4.409	DPA	6.55	RAP	47.79	ECC	1.2826

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 49	3482.82	-45.98	126.54	262.69	103.87	12 16 51	2482.8	-35.54	97.51
60.00	11 35 59	3437.08	-39.71	124.05	264.31	97.55	12 33 17	2437.1	-32.43	95.54
70.00	12 2 6	3360.20	-34.07	118.44	264.93	92.55	12 58 6	2360.2	-29.48	90.69
80.00	12 45 1	3225.69	-29.84	108.32	265.00	89.06	13 38 46	2225.7	-27.19	81.21
90.00	13 54 43	3000.66	-28.20	91.73	264.95	87.74	14 44 44	2000.7	-26.29	64.88
100.00	15 27 52	2700.16	-29.84	69.69	265.00	89.06	16 12 53	1700.2	-27.19	42.58
110.00	17 1 32	2407.02	-34.07	47.36	264.93	92.55	17 41 39	1407.0	-29.48	19.60

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3864	TRA	-.8185	TC3	1.1527	BAU	.3075	SGT	1622.0	SGR	787.3	SG3	590.2			ST	32.2	SR	22.3	SS	31.8
RDE	-.3143	RRA	.2285	RC3	-.6819	FAU	.15440	RRT	-.5543	RRF	.6483	RTF	-.8044			CRT	.6805	CRS	.8578	CST	.9530
FDE	1.1488	FRA	1.0860	FC3	-7.7833	BSP	2742	SGB	1803.0	R23	-.1474	R13	.8274			LSA	48.3	MSA	14.5	SSA	2.4
BDE	.4981	BRA	.8498	BC3	1.3393	FSP	903	SG1	1689.7	SG2	629.1	THA	162.43			EL1	36.4	EL2	14.5	ALF	30.55

LAUNCH DATE AUG 3 1973 FLIGHT TIME 156.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 383.739 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.410	GAL	.37	AZL	89.17	HCA	121.38	SMA	209.88	ECC	.27679	INC	.8313	V1	29.350
RP	228.32	LAP	.71	LOP	71.90	VP	23.026	GAP	15.28	AZP	90.43	TAL	1.73	TAP	123.11	RCA	151.79	APO	267.97	V2	24.090
RC	132.954	GL	6.77	GP	-11.14	ZAL	83.68	ZAP	152.70	ETS	204.31	ZAE	162.22	ETE	316.43	ZAC	71.58	ETC	282.63	LVI	-4.99

PLANETOCENTRIC CONIC

C3	16.895	VHL	4.110	DLA	19.27	RAL	29.48	RAD	6641.4	VEL	11.702	PTH	6.73	VHP	4.297	DPA	6.19	RAP	47.89	ECC	1.2781

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 15 38	3484.53	-46.01	126.70	262.06	103.76	12 13 43	2484.5	-35.61	97.63
60.00	11 32 26	3439.80	-39.73	124.27	263.66	97.40	12 29 46	2439.8	-32.51	95.73
70.00	11 58 3	3364.38	-34.08	118.77	264.26	92.36	12 54 7	2364.4	-29.57	90.98
80.00	12 40 24	3231.59	-29.84	108.76	264.31	88.83	13 34 16	2231.6	-27.28	81.62
90.00	13 49 50	3007.48	-28.18	92.23	264.25	87.49	14 39 57	2007.5	-26.38	65.37
100.00	15 23 16	2706.07	-29.84	70.13	264.31	88.83	16 8 22	1706.1	-27.28	42.99
110.00	16 57 29	2411.20	-34.08	47.69	264.26	92.36	17 37 40	1411.2	-29.57	19.90

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3919	TRA	-.8085	TC3	1.1678	BAU	.3113	SGT	1626.5	SGR	807.3	SG3	621.7			ST	32.7	SR	21.6	SS	33.2
RDE	-.3005	RRA	.2269	RC3	-.7319	FAU	.16139	RRT	-.5730	RRF	.6751	RTF	-.8029			CRT	.6807	CRS	.8594	CST	.9522
FDE	1.2275	FRA	1.0978	FC3	-8.2696	BSP	2800	SGB	1818.8	R23	-.1613	R13	.8292			LSA	49.3	MSA	14.3	SSA	2.8
BDE	.4938	BRA	.8403	BC3	1.3782	FSP	957	SG1	1702.2	SG2	632.2	THA	161.48			EL1	36.5	EL2	14.1	ALF	28.91

LAUNCH DATE AUG 3 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 387.373 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.373	GAL	.41	AZL	89.12	HCA	122.42	SMA	209.06	ECC	.27398	INC	.8773	V1	29.350
RP	228.70	LAP	.74	LOP	72.94	VP	22.930	GAP	14.98	AZP	90.47	TAL	1.91	TAP	124.33	RCA	151.78	APO	266.34	V2	24.049
RC	135.694	GL	7.20	GP	-11.53	ZAL	83.33	ZAP	151.57	ETS	204.02	ZAE	162.49	ETE	313.55	ZAC	71.20	ETC	282.66	LVI	-4.63

PLANETOCENTRIC CONIC

C3	16.638	VHL	4.079	DLA	19.54	RAL	28.98	RAD	6641.3	VEL	11.691	PTH	6.73	VHP	4.188	DPA	5.81	RAP	47.98	ECC	1.2738

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 12 26	3486.76	-46.05	126.90	261.47	103.60	12 10 32	2486.8	-35.69	97.77
60.00	11 28 49	3443.12	-39.76	124.55	263.04	97.21	12 26 12	2443.1	-32.61	95.95
70.00	11 53 54	3369.24	-34.10	119.15	263.62	92.14	12 50 4	2369.2	-29.67	91.32
80.00	12 35 41	3238.31	-29.83	109.26	263.65	88.57	13 29 39	2238.3	-27.38	82.10
90.00	13 44 47	3015.19	-28.15	92.79	263.58	87.21	14 35 3	2015.2	-26.47	65.91
100.00	15 18 32	2712.78	-29.83	70.62	263.65	88.57	16 3 45	1712.8	-27.38	43.47
110.00	16 53 21	2416.06	-34.10	48.07	263.62	92.14	17 33 37	1416.1	-29.67	20.24

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3966	TRA	-.7982	TC3	1.1785	BAU	.3150	SGT	1627.9	SGR	829.8	SG3	654.9			ST	33.1	SR	20.8	SS	34.8
RDE	-.2860	RRA	.2295	RC3	-.7851	FAU	.16875	RRT	-.5915	RRF	.7015	RTF	-.8010			CRT	.6789	CRS	.8598	CST	.9512
FDE	1.3144	FRA	1.1107	FC3	-8.7805	BSP	2823	SGB	1827.2	R23	-.1751	R13	.8311			LSA	50.4	MSA	14.0	SSA	2.5
BDE	.4889	BRA	.8305	BC3	1.4161	FSP	1010	SG1	1713.0	SG2	635.9	THA	160.42			EL1	36.6	EL2	13.8	ALF	27.24

LAUNCH DATE AUG 3 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 391.021 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 33.338 GAL .45 AZL 89.08 HCA 123.45 SMA 208.30 ECC .27133 INC .9241 V1 29.350
RP 229.09 LAP .77 LOP 73.98 VP 22.836 GAP 14.69 AZP 90.51 TAL 2.09 TAP 125.54 RCA 151.78 APO 264.81 V2 24.008
RC 138.457 GL 7.63 GP -11.94 ZAL 83.00 ZAP 150.42 ETS 203.76 ZAE 162.72 ETE 310.45 ZAC 70.81 ETC 282.70 LVI -4.26

PLANETOCENTRIC CONIC

C3 16.401 VHL 4.050 DLA 19.83 RAL 28.48 RAD 6641.2 VEL 11.681 PTH 6.72 VHP 4.083 DPA 5.40 RAP 48.04 ECC 1.2699

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 9 12	3489.52	-46.09	127.15	260.92	103.41	12 7 21	2489.5	-35.80	97.95
60.00	11 25 9	3447.02	-39.79	124.88	262.47	96.99	12 22 36	2447.0	-32.72	96.22
70.00	11 49 41	3374.80	-34.11	119.58	263.02	91.88	12 45 56	2374.8	-29.78	91.71
80.00	12 30 49	3245.85	-29.81	109.82	263.02	88.28	13 24 55	2245.9	-27.49	82.63
90.00	13 39 35	3023.83	-28.12	93.42	262.94	86.90	14 29 59	2023.8	-26.57	66.52
100.00	15 13 41	2720.33	-29.81	71.18	263.02	88.28	15 59 1	1720.3	-27.49	44.00
110.00	16 49 7	2421.62	-34.11	48.50	263.02	91.88	17 29 29	1421.6	-29.78	20.63

DIFFERENTIAL CORRECTIONS

TDE -.4008 TRA -.7836 TC3 1.1906 BAU .3197
RDE -.2711 RRA .2292 RC3 -.8419 FAU .17650
FDE 1.4049 FRA 1.1121 FC3-9.3185 BSP 2872
BDE .4639 BRA .8165 BC3 1.4582 FSP 1076

MID-COURSE EXECUTION ACCURACY

SGT 1625.0 SGR 854.9 SG3 689.5
RRT -.6093 RRF .7270 RTF -.8000
SGB 1836.2 R23 -.1873 R13 .8344
SG1 1720.9 SG2 640.1 THA 159.22

ORBIT DETERMINATION ACCURACY

ST 33.4 SR 19.9 SS 36.4
CRT .6778 CRS .8604 CST .9504
LSA 51.4 MSA 13.8 SSA 2.6
EL1 36.5 EL2 13.4 ALF 25.84

LAUNCH DATE AUG 3 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 394.682 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 33.305 GAL .48 AZL 89.03 HCA 124.48 SMA 207.58 ECC .26882 INC .9720 V1 29.350
RP 229.48 LAP .80 LOP 75.01 VP 22.745 GAP 14.40 AZP 90.55 TAL 2.26 TAP 126.74 RCA 151.78 APO 263.38 V2 23.967
RC 141.241 GL 8.07 GP -12.36 ZAL 82.69 ZAP 149.25 ETS 203.51 ZAE 162.92 ETE 307.11 ZAC 70.41 ETC 282.74 LVI -3.89

PLANETOCENTRIC CONIC

C3 16.183 VHL 4.023 DLA 20.13 RAL 27.99 RAD 6641.1 VEL 11.672 PTH 6.71 VHP 3.983 DPA 4.97 RAP 48.09 ECC 1.2663

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 5 56	3492.82	-46.14	127.45	260.42	103.19	12 4 9	2492.8	-35.92	98.17
60.00	11 21 26	3451.53	-39.83	125.25	261.93	96.74	12 18 58	2451.5	-32.85	96.54
70.00	11 45 22	3381.07	-34.12	120.07	262.45	91.59	12 41 43	2381.1	-29.91	92.16
80.00	12 25 49	3254.27	-29.79	110.44	262.43	87.95	13 20 3	2254.3	-27.61	83.23
90.00	13 34 13	3033.43	-28.09	94.12	262.34	86.55	14 24 47	2033.4	-26.69	67.20
100.00	15 8 40	2728.74	-29.79	71.81	262.43	87.95	15 54 9	1728.7	-27.61	44.60
110.00	16 44 48	2427.89	-34.12	48.99	262.45	91.59	17 25 16	1427.9	-29.91	21.07

DIFFERENTIAL CORRECTIONS

TDE -.4037 TRA -.7722 TC3 1.1986 BAU .3245
RDE -.2555 RRA .2298 RC3 -.9017 FAU .18449
FDE 1.5020 FRA 1.1230 FC3-9.8697 BSP 2902
BDE .4778 BRA .8057 BC3 1.4999 FSP 1140

MID-COURSE EXECUTION ACCURACY

SGT 1622.5 SGR 883.3 SG3 725.6
RRT -.6270 RRF .7516 RTF -.7986
SGB 1847.4 R23 -.1992 R13 .8378
SG1 1731.2 SG2 644.9 THA 157.93

ORBIT DETERMINATION ACCURACY

ST 33.7 SR 19.0 SS 38.1
CRT .6719 CRS .8580 CST .9493
LSA 52.5 MSA 13.5 SSA 2.6
EL1 36.4 EL2 13.0 ALF 23.93

LAUNCH DATE AUG 3 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 398.355 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 33.273 GAL .51 AZL 88.98 HCA 125.51 SMA 206.91 ECC .26647 INC 1.0208 V1 29.350
RP 229.86 LAP .83 LOP 76.04 VP 22.656 GAP 14.11 AZP 90.59 TAL 2.42 TAP 127.93 RCA 151.77 APO 262.04 V2 23.927
RC 144.046 GL 8.53 GP -12.80 ZAL 82.39 ZAP 148.05 ETS 203.27 ZAE 163.08 ETE 303.55 ZAC 70.00 ETC 282.79 LVI -3.50

PLANETOCENTRIC CONIC

C3 15.983 VHL 3.998 DLA 20.45 RAL 27.51 RAD 6641.0 VEL 11.663 PTH 6.70 VHP 3.886 DPA 4.52 RAP 48.12 ECC 1.2630

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 2 38	3496.64	-46.20	127.80	259.96	102.92	12 0 55	2496.6	-36.07	98.42
60.00	11 17 39	3456.65	-39.87	125.68	261.43	96.45	12 15 16	2456.6	-32.99	96.89
70.00	11 40 57	3388.07	-34.13	120.62	261.92	91.27	12 37 25	2388.1	-30.05	92.65
80.00	12 20 39	3263.59	-29.77	111.13	261.87	87.59	13 15 3	2263.6	-27.74	83.89
90.00	13 28 39	3044.04	-28.04	94.89	261.76	86.17	14 19 23	2044.0	-26.81	67.95
100.00	15 3 31	2738.06	-29.77	72.50	261.87	87.59	15 49 9	1738.1	-27.74	45.26
110.00	16 40 23	2434.88	-34.13	49.53	261.92	91.27	17 20 58	1434.9	-30.05	21.57

DIFFERENTIAL CORRECTIONS

TDE -.4049 TRA -.7605 TC3 1.2015 BAU .3292
RDE -.2398 RRA .2304 RC3 -.9646 FAU .19273
FDE 1.5983 FRA 1.1332 FC-10.4397 BSP 2939
BDE .4706 BRA .7946 BC3 1.5408 FSP 1210

MID-COURSE EXECUTION ACCURACY

SGT 1616.4 SGR 915.0 SG3 762.7
RRT -.6433 RRF .7752 RTF -.8265
SGB 1857.4 R23 -.2110 R13 .8412
SG1 1739.6 SG2 650.9 THA 156.51

ORBIT DETERMINATION ACCURACY

ST 33.9 SR 18.0 SS 39.7
CRT .6629 CRS .8536 CST .9481
LSA 53.5 MSA 13.3 SSA 2.6
EL1 36.2 EL2 12.6 ALF 22.25

LAUNCH DATE AUG 3 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 402.038 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 33.244 GAL .54 AZL 88.93 HCA 126.53 SMA 206.28 ECC .26424 INC 1.0708 V1 29.350
RP 230.25 LAP .86 LOP 77.06 VP 22.570 GAP 13.82 AZP 90.64 TAL 2.57 TAP 129.10 RCA 151.77 APO 260.78 V2 23.887
RC 146.870 GL 8.99 GP -13.26 ZAL 82.11 ZAP 146.83 ETS 203.03 ZAE 163.17 ETE 299.77 ZAC 69.57 ETC 282.84 LVI -3.10

PLANETOCENTRIC CONIC

C3 15.799 VHL 3.975 DLA 20.78 RAL 27.04 RAD 6640.9 VEL 11.655 PTH 6.69 VHP 3.793 DPA 4.04 RAP 48.13 ECC 1.2600

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 59 19	3501.01	-46.27	128.21	259.54	102.62	11 57 40	2501.0	-36.23	98.71
60.00	11 13 49	3462.38	-39.91	126.17	260.98	96.12	12 11 31	2462.4	-33.15	97.29
70.00	11 36 25	3395.81	-34.14	121.22	261.42	90.91	12 33 1	2395.8	-30.21	93.20
80.00	12 15 19	3273.84	-29.74	111.89	261.33	87.19	13 9 53	2273.8	-27.88	84.62
90.00	13 22 53	3055.71	-27.98	95.74	261.21	85.75	14 13 49	2055.7	-26.93	68.78
100.00	14 58 11	2748.31	-29.74	73.26	261.33	87.19	15 43 59	1748.3	-27.88	45.99
110.00	16 35 51	2442.63	-34.14	50.14	261.42	90.91	17 16 34	1442.6	-30.21	22.12

DIFFERENTIAL CORRECTIONS

TDE -.4055 TRA -.7461 TC3 1.2048 BAU .3351
RDE -.2233 RRA .2302 RC3-1.0325 FAU .20156
FDE 1.7021 FRA 1.1332 FC-11.0448 BSP 2936
BDE .4629 BRA .7808 BC3 1.5867 FSP 1271

MID-COURSE EXECUTION ACCURACY

SGT 1606.8 SGR 950.4 SG3 802.0
RRT -.6589 RRF .7976 RTF -.7947
SGB 1866.9 R23 -.2209 R13 .8458
SG1 1747.3 SG2 657.5 THA 154.92

ORBIT DETERMINATION ACCURACY

ST 34.0 SR 17.0 SS 41.3
CRT .6526 CRS .8483 CST .9467
LSA 54.5 MSA 13.1 SSA 2.7
EL1 36.0 EL2 12.2 ALF 20.53

LAUNCH DATE AUG 3 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 405.732 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.216	GAL	.56	AZL	88.68	HCA	127.85	SMA	205.68	ECC	.26214	INC	1.1219	V1	29.350
RP	230.63	LAP	.89	LOP	78.08	VP	22.487	GAP	13.54	AZP	90.68	TAL	2.72	TAP	130.27	RCA	151.77	APO	259.60	V2	23.647
RC	149.713	GL	9.47	GP	-13.74	ZAL	81.64	ZAP	145.58	ETS	202.81	ZAE	163.19	ETE	295.81	ZAC	69.14	ETC	282.90	LVI	-2.70

PLANETOCENTRIC CONIC

C3	15.632	VHL	3.954	DLA	21.12	RAL	26.58	RAD	6640.8	VEL	11.648	PTH	6.69	VHP	3.704	DPA	3.53	RAP	48.12	ECC	1.2873

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 55 56	3505.93	-46.34	128.66	259.17	102.28	11 54 22	2505.9	-36.41	99.04
60.00	11 9 54	3468.75	-39.96	126.70	260.56	95.76	12 7 43	2468.7	-33.33	97.74
70.00	11 31 46	3404.33	-34.15	121.89	260.96	90.52	12 28 31	2404.3	-30.37	93.81
80.00	12 9 48	3285.08	-29.70	112.73	260.83	86.75	13 4 33	2285.1	-28.02	85.43
90.00	13 16 53	3068.51	-27.92	96.67	260.69	85.28	14 8 2	2068.5	-27.07	69.70
100.00	14 52 40	2759.55	-29.70	74.09	260.83	86.75	15 38 40	1759.6	-28.02	46.79
110.00	16 31 13	2451.14	-34.15	50.80	260.96	90.52	17 12 4	1451.1	-30.37	22.73

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4088	TRA	-.7343	TC3	1.1967	BAU	.3400	SGT	1596.2	SGR	987.9	SG3	841.7			ST	34.2	SR	15.9	SS	43.4
RDE	-.2050	RRA	.2305	RC3	-1.1021	FAU	.21027	RRT	-.6704	RRF	.8180	RTF	-.7908			CRT	.6380	CRS	.8393	CST	.9459
FDE	1.8237	FRA	1.1386	FC	-11.6449	BSP	2955	SGB	1877.2	R23	-.2327	R13	.8496			LSA	55.9	MSA	12.9	SSA	2.7
BDE	.4574	BRA	.7697	BC3	1.6269	FSP	1343	SG1	1754.8	SG2	666.8	THA	153.31			EL1	35.9	EL2	11.6	ALF	18.47

LAUNCH DATE AUG 3 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 409.435 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.190	GAL	.59	AZL	88.83	HCA	128.57	SMA	205.13	ECC	.26017	INC	1.1743	V1	29.350
RP	231.01	LAP	.92	LOP	79.10	VP	22.406	GAP	13.26	AZP	90.73	TAL	2.85	TAP	131.42	RCA	151.76	APO	258.50	V2	23.807
RC	152.572	GL	9.96	GP	-14.24	ZAL	81.59	ZAP	144.31	ETS	202.59	ZAE	163.13	ETE	291.69	ZAC	68.68	ETC	282.97	LVI	-2.28

PLANETOCENTRIC CONIC

C3	15.480	VHL	3.935	DLA	21.48	RAL	26.14	RAD	6640.8	VEL	11.642	PTH	6.68	VHP	3.619	DPA	3.00	RAP	48.10	ECC	1.2548

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 52 32	3511.39	-46.42	129.16	258.84	101.90	11 51 3	2511.4	-36.61	99.40
60.00	11 5 55	3475.75	-40.00	127.29	260.18	95.37	12 3 50	2475.8	-33.53	98.23
70.00	11 27 0	3413.64	-34.15	122.61	260.53	90.09	12 23 54	2413.6	-30.55	94.48
80.00	12 4 5	3297.36	-29.65	113.63	260.36	86.28	12 59 2	2297.4	-28.17	86.31
90.00	13 10 38	3082.52	-27.83	97.69	260.20	84.78	14 2 0	2082.5	-27.20	70.70
100.00	14 46 57	2771.83	-29.65	75.00	260.36	86.28	15 33 9	1771.8	-28.17	47.67
110.00	16 26 26	2460.46	-34.15	51.53	260.53	90.09	17 7 27	1460.5	-30.55	23.40

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4094	TRA	-.7201	TC3	1.1862	BAU	.3458	SGT	1580.1	SGR	1029.9	SG3	883.3			ST	34.3	SR	14.7	SS	45.3
RDE	-.1862	RRA	.2303	RC3	-1.1767	FAU	.21951	RRT	-.6814	RRF	.8373	RTF	-.7870			CRT	.6180	CRS	.8268	CST	.9447
FDE	1.9478	FRA	1.1369	FC	-12.2761	BSP	2983	SGB	1886.1	R23	-.2417	R13	.8545			LSA	57.3	MSA	12.7	SSA	2.7
BDE	.4498	BRA	.7560	BC3	1.6708	FSP	1420	SG1	1760.6	SG2	676.6	THA	151.46			EL1	35.6	EL2	11.1	ALF	16.44

LAUNCH DATE AUG 3 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 413.148 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.165	GAL	.61	AZL	88.77	HCA	129.58	SMA	204.61	ECC	.25830	INC	1.2280	V1	29.350
RP	231.39	LAP	.95	LOP	80.11	VP	22.327	GAP	12.98	AZP	90.78	TAL	2.98	TAP	132.57	RCA	151.76	APO	257.46	V2	23.767
RC	155.447	GL	10.45	GP	-14.75	ZAL	81.36	ZAP	143.00	ETS	202.37	ZAE	162.99	ETE	287.45	ZAC	68.22	ETC	283.04	LVI	-1.85

PLANETOCENTRIC CONIC

C3	15.343	VHL	3.917	DLA	21.86	RAL	25.69	RAD	6640.7	VEL	11.636	PTH	6.68	VHP	3.537	DPA	2.45	RAP	48.05	ECC	1.2525

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 49 4	3517.39	-46.50	129.72	258.55	101.48	11 47 41	2517.4	-36.84	99.81
60.00	11 1 50	3483.38	-40.05	127.94	259.83	94.93	11 59 53	2483.4	-33.73	98.77
70.00	11 22 5	3423.73	-34.15	123.40	260.12	89.62	12 19 8	2423.7	-30.74	95.20
80.00	11 58 8	3310.68	-29.58	114.62	259.91	85.76	12 53 19	2310.7	-28.33	87.26
90.00	13 4 5	3097.75	-27.73	98.79	259.72	84.24	13 55 43	2097.8	-27.34	71.79
100.00	14 41 0	2785.15	-29.58	75.99	259.91	85.76	15 27 25	1785.1	-28.33	48.63
110.00	16 21 31	2470.55	-34.15	52.32	260.12	89.62	17 2 42	1470.6	-30.74	24.12

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3964	TRA	-.6941	TC3	1.2058	BAU	.3574	SGT	1557.3	SGR	1077.9	SG3	927.4			ST	33.3	SR	13.5	SS	47.0
RDE	-.1678	RRA	.2289	RC3	-1.2581	FAU	.22958	RRT	-.7049	RRF	.8556	RTF	-.[illegible]37			CRT	.5889	CRS	.8116	CST	.9411
FDE	2.0620	FRA	1.1203	FC	-12.9542	BSP	2841	SGB	1893.9	R23	-.2308	R13	.8666			LSA	57.8	MSA	12.5	SSA	2.7
BDE	.4305	BRA	.7309	BC3	1.7426	FSP	1477	SG1	1770.5	SG2	672.4	THA	149.05			EL1	34.4	EL2	10.6	ALF	14.84

LAUNCH DATE AUG 3 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 416.867 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.142	GAL	.63	AZL	88.72	HCA	130.59	SMA	204.13	ECC	.25656	INC	1.2832	V1	29.350
RP	231.77	LAP	.97	LOP	81.12	VP	22.251	GAP	12.71	AZP	90.84	TAL	3.10	TAP	133.69	RCA	151.76	APO	256.49	V2	23.728
RC	158.336	GL	10.97	GP	-15.29	ZAL	81.15	ZAP	141.68	ETS	202.15	ZAE	162.74	ETE	283.16	ZAC	67.74	ETC	283.11	LVI	-1.41

PLANETOCENTRIC CONIC

C3	15.220	VHL	3.901	DLA	22.25	RAL	25.26	RAD	6640.6	VEL	11.631	PTH	6.67	VHP	3.459	DPA	1.86	RAP	47.99	ECC	1.2505

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 45 33	3524.02	-46.59	130.33	258.32	101.01	11 44 17	2524.0	-37.08	100.26
60.00	10 57 40	3491.75	-40.10	128.64	259.53	94.45	11 55 52	2491.8	-33.96	99.37
70.00	11 17 1	3434.77	-34.14	124.26	259.76	89.11	12 14 15	2434.8	-30.94	96.00
80.00	11 51 56	3325.26	-29.50	115.70	259.49	85.20	12 47 21	2325.3	-28.50	88.32
90.00	12 57 13	3114.49	-27.61	100.00	259.28	83.64	13 49 7	2114.5	-27.49	73.00
100.00	14 34 48	2799.74	-29.50	77.06	259.49	85.20	15 21 27	1799.7	-28.50	49.68
110.00	16 16 27	2481.58	-34.14	53.18	259.76	89.11	16 57 49	1481.6	-30.94	24.92

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4054	TRA	-.6917	TC3	1.1541	BAU	.3593	SGT	1539.5	SGR	1125.5	SG3	969.1			ST	34.0	SR	12.1	SS	49.4
RDE	-.1462	RRA	.2299	RC3	-1.3365	FAU	.23852	RRT	-.6993	RRF	.8712	RTF	-.7779			CRT	.5495	CRS	.7817	CST	.9412
FDE	2.2085	FRA	1.1306	FC	-13.5674	BSP	2988	SGB	1907.0	R23	-.2529	R13	.8664			LSA	59.8	MSA	12.4	SSA	2.7
BDE	.4309	BRA	.7289	BC3	1.7658	FSP	1570	SG1	1774.8	SG2	697.8	THA	147.24			EL1	34.8	EL2	9.9	ALF	12.10

LAUNCH DATE AUG 3 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 420.993 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 33.120 GAL .65 AZL 88.66 HCA 131.60 SMA 203.67 ECC .25491 INC 1.3397 V1 29.380
RP 232.14 LAP 1.00 LOP 82.13 VP 22.176 GAP 12.43 AZP 90.89 TAL 3.21 TAP 134.81 RCA 151.75 APO 255.59 V2 23.689
RC 161.238 GL 11.49 GP -15.84 ZAL 80.96 ZAP 140.33 ETS 201.93 ZAE 162.39 ETE 278.65 ZAC 67.25 ETC 283.20 LVI -.96

PLANETOCENTRIC CONIC

C3 15.110 VHL 3.887 DLA 22.66 RAL 24.84 RAD 6640.6 VEL 11.626 PTH 6.67 VHP 3.384 DPA 1.25 RAP 47.91 ECC 1.2487

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 41 59	3531.21	-46.68	131.00	258.12	100.50	11 40 50	2531.2	-37.34	100.78
60.00	10 53 24	3500.80	-40.14	129.41	259.26	93.94	11 51 45	2500.8	-34.20	100.01
70.00	11 11 46	3446.68	-34.13	125.19	259.43	88.56	12 9 13	2446.7	-31.15	96.87
80.00	11 45 26	3341.08	-29.41	116.86	259.09	84.59	12 41 8	2341.1	-28.67	89.46
90.00	12 49 58	3132.74	-27.47	101.32	258.85	83.00	13 42 11	2132.7	-27.63	74.31
100.00	14 28 18	2815.55	-29.41	78.23	259.09	84.59	15 15 14	1815.6	-28.67	50.83
110.00	16 11 13	2493.49	-34.13	54.11	259.43	88.56	16 52 46	1493.5	-31.15	25.78

DIFFERENTIAL CORRECTIONS

TDE -.4074 TRA -.6835 TC3 1.1169 BAU .3651
RDE -.1237 RRA .2305 RC3-1.4207 FAU .24803
FDE 2.3578 FRA 1.1349 FC-14.2111 BSP 3033
BDE .4257 BRA .7213 BC3 1.8072 FSP 1652

MID-COURSE EXECUTION ACCURACY

SGT 1518.6 SGR 1178.5 SG3 1012.9
RRT -.6993 RRF .8858 RTF -.7672
SGB 1922.3 R23 -.2628 R13 .8708
SG1 1783.4 SG2 717.3 THA 145.07

ORBIT DETERMINATION ACCURACY

ST 34.2 SR 10.8 SS 51.7
CRT .4905 CRS .7380 CST .9401
LSA 61.6 MSA 12.4 SSA 2.7
EL1 34.7 EL2 9.3 ALF 9.47

LAUNCH DATE AUG 3 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 424.326 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 33.099 GAL .67 AZL 88.60 HCA 132.60 SMA 203.24 ECC .25336 INC 1.3980 V1 29.350
RP 232.51 LAP 1.03 LOP 83.13 VP 22.104 GAP 12.16 AZP 90.95 TAL 3.31 TAP 135.92 RCA 151.75 APO 254.74 V2 23.650
RC 164.150 GL 12.03 GP -16.42 ZAL 80.78 ZAP 138.95 ETS 201.70 ZAE 161.94 ETE 274.59 ZAC 66.74 ETC 283.29 LVI -.49

PLANETOCENTRIC CONIC

C3 15.013 VHL 3.875 DLA 23.09 RAL 24.43 RAD 6640.5 VEL 11.622 PTH 6.66 VHP 3.313 DPA .61 RAP 47.81 ECC 1.2471

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 38 21	3536.99	-46.77	131.73	257.97	99.95	11 37 20	2539.0	-37.62	101.28
60.00	10 49 1	3510.55	-40.18	130.23	259.03	93.38	11 47 32	2510.6	-34.46	100.71
70.00	11 6 20	3459.52	-34.10	126.20	259.12	87.97	12 4 0	2459.5	-31.37	97.80
80.00	11 38 38	3358.25	-29.29	118.12	258.72	83.94	12 34 36	2358.3	-28.84	90.71
90.00	12 42 18	3152.67	-27.30	102.75	258.45	82.30	13 34 51	2152.7	-27.77	75.75
100.00	14 21 30	2832.72	-29.29	79.49	258.72	83.94	15 8 42	1832.7	-28.84	52.08
110.00	16 5 47	2506.34	-34.10	55.11	259.12	87.97	16 47 33	1506.3	-31.37	26.72

DIFFERENTIAL CORRECTIONS

TDE -.4057 TRA -.6716 TC3 1.0810 BAU .3728
RDE -.1000 RRA .2303 RC3-1.5105 FAU .25801
FDE 2.5135 FRA 1.1298 FC-14.8784 BSP 3069
BDE .4179 BRA .7100 BC3 1.8575 FSP 1737

MID-COURSE EXECUTION ACCURACY

SGT 1492.4 SGR 1236.6 SG3 1058.3
RRT -.6999 RRF .8991 RTF -.7576
SGB 1938.1 R23 -.2660 R13 .8775
SG1 1793.3 SG2 735.0 THA 142.56

ORBIT DETERMINATION ACCURACY

ST 34.1 SR 9.4 SS 54.0
CRT .4037 CRS .6715 CST .9384
LSA 63.3 MSA 12.3 SSA 2.7
EL1 34.3 EL2 8.6 ALF 8.78

LAUNCH DATE AUG 3 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 428.065 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 33.080 GAL .69 AZL 88.54 HCA 133.60 SMA 202.84 ECC .25190 INC 1.4579 V1 29.350
RP 232.89 LAP 1.06 LOP 84.13 VP 22.034 GAP 11.89 AZP 91.01 TAL 3.41 TAP 137.01 RCA 151.75 APO 253.94 V2 23.612
RC 167.073 GL 12.58 GP -17.02 ZAL 80.62 ZAP 137.54 ETS 201.47 ZAE 161.37 ETE 270.42 ZAC 66.22 ETC 283.39 LVI -.02

PLANETOCENTRIC CONIC

C3 14.928 VHL 3.864 DLA 23.53 RAL 24.03 RAD 6640.5 VEL 11.618 PTH 6.66 VHP 3.246 DPA -.05 RAP 47.69 ECC 1.2457

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 34 36	3547.38	-46.87	132.52	257.86	99.35	11 33 45	2547.4	-37.91	101.86
60.00	10 44 31	3521.05	-40.22	131.12	258.84	92.77	11 43 12	2521.0	-34.72	101.47
70.00	11 0 42	3473.37	-34.06	127.27	258.84	87.33	11 58 35	2473.4	-31.59	98.82
80.00	11 31 27	3376.91	-29.15	119.49	258.37	83.23	12 27 44	2376.9	-29.01	92.07
90.00	12 34 8	3174.51	-27.09	104.31	258.05	81.55	13 27 2	2174.5	-27.90	77.34
100.00	14 14 19	2851.38	-29.15	80.86	258.37	83.23	15 1 50	1851.4	-29.01	53.44
110.00	16 0 8	2520.19	-34.06	56.19	258.84	87.33	16 42 8	1520.2	-31.59	27.73

DIFFERENTIAL CORRECTIONS

TDE -.4033 TRA -.6590 TC3 1.0353 BAU .3807
RDE -.0747 RRA .2296 RC3-1.6024 FAU .26777
FDE 2.6780 FRA 1.1177 FC-15.5286 BSP 3086
BDE .4102 BRA .6979 BC3 1.9078 FSP 1815

MID-COURSE EXECUTION ACCURACY

SGT 1460.8 SGR 1297.5 SG3 1103.2
RRT -.6965 RRF .9109 RTF -.[illegible]53
SGB 1953.8 R23 -.2664 R13 .8846
SG1 1802.2 SG2 754.7 THA 139.84

ORBIT DETERMINATION ACCURACY

ST 33.9 SR 8.1 SS 56.4
CRT .2716 CRS .5637 CST .9364
LSA 65.1 MSA 12.2 SSA 2.6
EL1 34.0 EL2 7.8 ALF 3.90

LAUNCH DATE AUG 3 1973 FLIGHT TIME 182.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 431.810 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 33.062 GAL .70 AZL 88.48 HCA 134.60 SMA 202.47 ECC .25054 INC 1.5197 V1 29.350
RP 233.25 LAP 1.08 LOP 85.13 VP 21.965 GAP 11.62 AZP 91.07 TAL 3.49 TAP 138.09 RCA 151.74 APO 253.20 V2 23.573
RC 170.003 GL 13.15 GP -17.64 ZAL 80.48 ZAP 136.11 ETS 201.24 ZAE 160.69 ETE 266.39 ZAC 65.68 ETC 283.49 LVI .48

PLANETOCENTRIC CONIC

C3 14.856 VHL 3.854 DLA 24.00 RAL 23.63 RAD 6640.5 VEL 11.615 PTH 6.66 VHP 3.182 DPA -.75 RAP 47.56 ECC 1.2445

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 30 50	3556.40	-46.96	133.37	257.80	98.70	11 30 7	2556.4	-38.23	102.49
60.00	10 39 53	3532.32	-40.25	132.08	258.68	92.13	11 38 45	2532.3	-35.01	102.30
70.00	10 54 49	3488.28	-34.01	128.44	258.59	86.65	11 52 58	2488.3	-31.83	99.92
80.00	11 23 51	3397.21	-28.98	120.98	258.03	82.47	12 20 28	2397.2	-29.18	93.55
90.00	12 25 23	3198.52	-26.84	106.02	257.67	80.72	13 18 41	2198.5	-28.03	79.08
100.00	14 6 43	2871.68	-28.98	82.35	258.03	82.47	14 54 35	1871.7	-29.18	54.92
110.00	15 54 16	2535.10	-34.01	57.35	258.59	86.65	16 36 31	1535.1	-31.83	28.83

DIFFERENTIAL CORRECTIONS

TDE -.3982 TRA -.6459 TC3 .9888 BAU .3906
RDE -.0484 RRA .2288 RC3-1.7001 FAU .27795
FDE 2.8453 FRA 1.1044 FC-16.1974 BSP 3099
BDE .4011 BRA .6853 BC3 1.9667 FSP 1895

MID-COURSE EXECUTION ACCURACY

SGT 1426.9 SGR 1364.3 SG3 1149.5
RRT -.6922 RRF .9216 RTF -.7327
SGB 1974.2 R23 -.2617 R13 .8933
SG1 1816.3 SG2 773.5 THA 136.85

ORBIT DETERMINATION ACCURACY

ST 33.6 SR 6.9 SS 58.8
CRT .0696 CRS .3868 CST .9338
LSA 66.9 MSA 12.2 SSA 2.6
EL1 33.6 EL2 6.9 ALF .86

LAUNCH DATE AUG 3 1973 FLIGHT TIME 184.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 435.560 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.044	GAL	.71	AZL	88.42	HCA	135.60	SMA	202.12	ECC	.24925	INC	1.5834	V1	29.350
RP	233.62	LAP	1.11	LOP	86.13	VP	21.899	GAP	11.36	AZP	91.13	TAL	3.57	TAP	139.16	RCA	151.74	APO	252.50	V2	23.536
RC	172.941	GL	13.73	GP	-18.28	ZAL	80.35	ZAP	134.66	ETS	200.99	ZAE	159.90	ETE	262.53	ZAC	65.12	ETC	283.60	LVI	.98

PLANETOCENTRIC CONIC

C3	14.795	VHL	3.846	DLA	24.48	RAL	23.24	RAD	6640.4	VEL	11.612	PTH	6.65	VHP	3.121	DPA	-1.48	RAP	47.41	ECC	1.2435

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 26 57	3566.07	-47.06	134.28	257.78	98.00	11 26 23	2566.1	-38.57	103.18
60.00	10 35 5	3544.39	-40.28	133.11	258.55	91.43	11 34 9	2544.4	-35.30	103.18
70.00	10 48 41	3504.31	-33.94	129.68	258.37	85.91	11 47 5	2504.3	-32.07	101.10
80.00	11 15 46	3419.34	-28.77	122.59	257.71	81.65	12 12 45	2419.3	-29.34	95.18
90.00	12 15 55	3225.05	-26.53	107.91	257.30	79.83	13 9 41	2225.1	-28.14	81.01
100.00	13 58 38	2893.81	-28.77	83.96	257.71	81.65	14 46 52	1893.8	-29.34	56.55
110.00	15 48 7	2551.12	-33.94	58.60	258.37	85.91	16 30 38	1551.1	-32.07	30.02

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3880	TRA	-.6283	TC3	.9470	BAU	.4029	SGT	1386.5	SGR	1436.5	SG3	1196.8			ST	32.8	SR	6.1	SS	61.2
RDE	-.0211	RRA	.2266	RC3	-1.8035	FAU	.28647	RRT	-.6899	RRF	.9312	RTF	-.7220			CRT	-.2118	CRS	.1187	CST	.9301
FDE	3.0130	FRA	1.0766	FC	-16.8792	BSP	3065	SGB	1996.5	R23	-.2489	R13	.9040			LSA	68.5	MSA	12.1	SSA	2.5
BDE	.3885	BRA	.6679	BC3	2.0371	FSP	1962	SG1	1835.4	SG2	785.6	THA	133.53			EL1	32.8	EL2	6.0	ALF	177.65

LAUNCH DATE AUG 3 1973 FLIGHT TIME 186.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 439.313 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.028	GAL	.72	AZL	88.35	HCA	136.59	SMA	201.80	ECC	.24805	INC	1.6491	V1	29.350
RP	233.99	LAP	1.13	LOP	87.12	VP	21.834	GAP	11.09	AZP	91.20	TAL	3.64	TAP	140.22	RCA	151.74	APO	251.85	V2	23.498
RC	175.886	GL	14.33	GP	-18.94	ZAL	80.25	ZAP	133.18	ETS	200.73	ZAE	159.01	ETE	258.88	ZAC	64.55	ETC	283.72	LVI	1.50

PLANETOCENTRIC CONIC

C3	14.747	VHL	3.840	DLA	24.99	RAL	22.85	RAD	6640.4	VEL	11.610	PTH	6.65	VHP	3.064	DPA	-2.23	RAP	47.24	ECC	1.2427

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 22 58	3576.43	-47.15	135.27	257.81	97.25	11 22 34	2576.4	-38.92	103.92
60.00	10 30 7	3557.33	-40.30	134.21	258.46	90.68	11 29 25	2557.3	-35.61	104.14
70.00	10 42 15	3521.60	-33.85	131.02	258.17	85.13	11 40 56	2521.6	-32.32	102.39
80.00	11 7 6	3443.62	-28.52	124.35	257.40	80.76	12 4 29	2443.6	-29.49	96.97
90.00	12 5 36	3254.70	-26.16	110.00	256.92	78.85	12 59 50	2254.7	-28.22	83.18
100.00	13 49 58	2918.09	-28.52	85.72	257.40	80.76	14 38 36	1918.1	-29.49	58.33
110.00	15 41 41	2568.42	-33.85	59.94	258.17	85.13	16 24 30	1568.4	-32.32	31.31

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3878	TRA	-.6237	TC3	.8631	BAU	.4121	SGT	1352.2	SGR	1509.2	SG3	1241.0			ST	32.8	SR	6.1	SS	64.0
RDE	.0102	RRA	.2270	RC3	-1.9037	FAU	.29776	RRT	-.6673	RRF	.9394	RTF	-.6944			CRT	-.5557	CRS	-.2558	CST	.9279
FDE	3.2106	FRA	1.0736	FC	-17.4808	BSP	3180	SGB	2026.3	R23	-.2454	R13	.9113			LSA	71.1	MSA	12.2	SSA	2.5
BDE	.3879	BRA	.6637	BC3	2.0903	FSP	2062	SG1	1852.8	SG2	820.3	THA	130.32			EL1	33.0	EL2	5.0	ALF	173.99

LAUNCH DATE AUG 3 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 443.072 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	33.013	GAL	.73	AZL	88.28	HCA	137.57	SMA	201.49	ECC	.24693	INC	1.7171	V1	29.350
RP	234.35	LAP	1.16	LOP	88.11	VP	21.771	GAP	10.83	AZP	91.27	TAL	3.70	TAP	141.27	RCA	151.74	APO	251.25	V2	23.461
RC	178.836	GL	14.95	GP	-19.63	ZAL	80.16	ZAP	131.67	ETS	200.46	ZAE	158.01	ETE	255.43	ZAC	63.97	ETC	283.85	LVI	2.04

PLANETOCENTRIC CONIC

C3	14.710	VHL	3.835	DLA	25.51	RAL	22.48	RAD	6640.4	VEL	11.609	PTH	6.65	VHP	3.010	DPA	-3.01	RAP	47.06	ECC	1.2421

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 18 51	3587.48	-47.24	136.32	257.88	96.44	11 18 39	2587.5	-39.29	104.71
60.00	10 24 59	3571.16	-40.30	135.38	258.41	89.88	11 24 30	2571.2	-35.93	105.18
70.00	10 35 29	3540.20	-33.73	132.46	257.99	84.28	11 34 29	2540.2	-32.57	103.78
80.00	10 57 45	3470.32	-28.21	126.27	257.09	79.79	11 55 35	2470.3	-29.63	98.94
90.00	11 54 10	3288.09	-25.70	112.33	256.53	77.77	12 48 58	2288.1	-28.27	85.62
100.00	13 40 36	2944.79	-28.21	87.64	257.09	79.79	14 29 41	1944.8	-29.63	60.31
110.00	15 34 55	2587.02	-33.73	61.38	257.99	84.28	16 18 2	1587.0	-32.57	32.70

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3803	TRA	-.6113	TC3	.7936	BAU	.4254	SGT	1310.4	SGR	1589.2	SG3	1287.3			ST	32.2	SR	6.8	SS	66.7
RDE	.0426	RRA	.2248	RC3	-2.0125	FAU	.30781	RRT	-.6494	RRF	.9468	RTF	-.6410			CRT	-.8056	CRS	-.5725	CST	.9241
FDE	3.4067	FRA	1.0449	FC	-18.1162	BSP	3228	SGB	2059.8	R23	-.2299	R13	.9215			LSA	73.4	MSA	12.2	SSA	2.4
BDE	.3827	BRA	.6513	BC3	2.1633	FSP	2144	SG1	1879.6	SG2	842.5	THA	126.68			EL1	32.7	EL2	4.0	ALF	170.16

LAUNCH DATE AUG 3 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 446.833 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.999	GAL	.74	AZL	88.21	HCA	138.56	SMA	201.21	ECC	.24587	INC	1.7876	V1	29.350
RP	234.71	LAP	1.18	LOP	89.09	VP	21.710	GAP	10.57	AZP	91.34	TAL	3.75	TAP	142.30	RCA	151.74	APO	250.68	V2	23.424
RC	181.791	GL	15.58	GP	-20.34	ZAL	80.09	ZAP	130.15	ETS	200.18	ZAE	156.92	ETE	252.20	ZAC	63.37	ETC	283.98	LVI	2.59

PLANETOCENTRIC CONIC

C3	14.684	VHL	3.832	DLA	26.06	RAL	22.10	RAD	6640.4	VEL	11.608	PTH	6.65	VHP	2.960	DPA	-3.83	RAP	46.86	ECC	1.2417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 14 37	3599.25	-47.33	137.45	257.99	95.58	11 14 36	2599.3	-39.68	105.57
60.00	10 19 37	3585.93	-40.29	136.64	258.38	89.03	11 19 23	2585.9	-36.27	106.29
70.00	10 28 19	3560.26	-33.58	134.01	257.83	83.38	11 27 40	2560.3	-32.81	105.30
80.00	10 47 33	3499.91	-27.83	128.39	256.77	78.74	11 45 53	2499.9	-29.75	101.13
90.00	11 41 15	3326.42	-25.12	114.99	256.11	76.56	12 36 42	2326.4	-28.27	88.42
100.00	13 30 25	2974.38	-27.83	89.76	256.77	78.74	14 19 59	1974.4	-29.75	62.50
110.00	15 27 46	2607.07	-33.58	62.93	257.83	83.38	16 11 13	1607.1	-32.81	34.21

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3712	TRA	-.6006	TC3	.7132	BAU	.4396	SGT	1267.3	SGR	1672.9	SG3	1332.2			ST	31.6	SR	6.4	SS	69.6
RDE	.0773	RRA	.2234	RC3	-2.1228	FAU	.31742	RRT	-.6251	RRF	.9534	RTF	-.6417			CRT	-.9289	CRS	-.7688	CST	.9195
FDE	3.6111	FRA	1.0236	FC	-18.7138	BSP	3289	SGB	2098.7	R23	-.2115	R13	.9314			LSA	75.8	MSA	12.2	SSA	2.3
BDE	.3792	BRA	.6408	BC3	2.2395	FSP	2227	SG1	1911.9	SG2	865.5	THA	122.89			EL1	32.5	EL2	3.0	ALF	165.99

LAUNCH DATE AUG 3 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 450.599 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.986 GAL .74 AZL 88.14 HCA 139.54 SMA 200.95 ECC .24489 INC 1.8606 V1 29.350
RP 235.06 LAP 1.21 LOP 90.08 VP 21.650 GAP 10.32 AZP 91.42 TAL 3.79 TAP 143.33 RCA 151.74 APO 250.15 V2 23.387
RC 184.750 GL 16.24 GP -21.07 ZAL 80.03 ZAP 128.60 ETS 199.88 ZAE 155.74 ETE 249.18 ZAC 62.75 ETC 284.12 LVI 3.16

PLANETOCENTRIC CONIC

C3 14.671 VHL 3.830 DLA 26.63 RAL 21.74 RAD 6640.4 VEL 11.607 PTH 6.65 VHP 2.913 DPA -4.67 RAP 46.66 ECC 1.2414

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 10 14	3611.79	-47.40	138.65	258.15	94.65	11 10 26	2611.8	-40.09	106.50
60.00	10 14 2	3601.70	-40.26	137.98	258.39	88.12	11 14 3	2601.7	-36.61	107.49
70.00	10 20 44	3581.92	-33.40	135.67	257.68	82.41	11 20 26	2581.9	-33.06	106.94
80.00	10 36 18	3533.06	-27.37	130.75	256.44	77.58	11 35 11	2533.1	-29.83	103.59
90.00	11 26 14	3371.68	-24.36	118.09	255.63	75.18	12 22 26	2371.7	-28.19	91.73
100.00	13 19 9	3007.53	-27.37	92.11	256.44	77.58	14 9 17	2007.5	-29.83	64.96
110.00	15 20 10	2628.74	-33.40	64.59	257.68	82.41	16 3 59	1628.7	-33.06	35.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3596 TRA -.5897 TC3 .6274 BAU .4557 SGT 1222.3 SGR 1761.4 SG3 1376.4 ST 30.7 SR 10.5 SS 72.4
RDE .1139 RRA .2210 RC3-2.2370 FAU .32691 RRT -.5947 RRF .9591 RTF -.6068 CRT -.9723 CRS -.8717 CST .9135
FDE 3.8188 FRA .9927 FC-19.2911 BSP 3357 SGB 2144.0 R23 -.1897 R13 .9413 LSA 78.3 MSA 12.3 SSA 2.3
BDE .3772 BRA .6297 BC3 2.3234 FSP 2307 SG1 1952.0 SG2 886.7 THA 118.93 EL1 32.4 EL2 2.3 ALF 161.53

LAUNCH DATE AUG 3 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 454.367 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.974 GAL .75 AZL 88.06 HCA 140.52 SMA 200.70 ECC .24397 INC 1.9364 V1 29.350
RP 235.42 LAP 1.23 LOP 91.06 VP 21.592 GAP 10.06 AZP 91.49 TAL 3.82 TAP 144.34 RCA 151.73 APO 249.66 V2 23.351
RC 187.714 GL 16.91 GP -21.82 ZAL 80.00 ZAP 127.03 ETS 199.56 ZAE 154.48 ETE 246.37 ZAC 62.12 ETC 284.27 LVI 3.74

PLANETOCENTRIC CONIC

C3 14.669 VHL 3.830 DLA 27.23 RAL 21.37 RAD 6640.4 VEL 11.607 PTH 6.65 VHP 2.870 DPA -5.54 RAP 46.44 ECC 1.2414

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 5 42	3625.13	-47.47	139.93	258.35	93.67	11 6 7	2625.1	-40.51	107.49
60.00	10 8 10	3618.55	-40.22	139.41	258.42	87.15	11 8 29	2618.5	-36.96	108.78
70.00	10 12 38	3605.38	-33.17	137.47	257.54	81.37	11 12 43	2605.4	-33.30	108.73
80.00	10 23 39	3570.78	-26.79	133.40	256.08	76.30	11 23 10	2570.8	-29.86	106.39
90.00	11 7 49	3428.03	-23.33	121.89	255.06	73.55	12 4 57	2428.0	-27.96	95.83
100.00	13 6 31	3045.25	-26.79	94.77	256.08	76.30	13 57 16	2045.2	-29.86	67.76
110.00	15 12 4	2652.20	-33.17	66.39	257.54	81.37	15 56 17	1652.2	-33.30	37.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3460 TRA -.5782 TC3 .5342 BAU .4732 SGT 1175.4 SGR 1853.6 SG3 1418.8 ST 29.7 SR 13.0 SS 75.3
RDE .1532 RRA .2177 RC3-2.3532 FAU .33595 RRT -.5566 RRF .9641 RTF -.5647 CRT -.9801 CRS -.9258 CST .9062
FDE 4.0341 FRA .9533 FC-19.8269 BSP 3440 SGB 2194.8 R23 -.1649 R13 .9505 LSA 81.0 MSA 12.4 SSA 2.2
BDE .3784 BRA .6178 BC3 2.4130 FSP 2386 SG1 1999.4 SG2 905.3 THA 114.87 EL1 32.3 EL2 2.4 ALF 156.67

LAUNCH DATE AUG 3 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 458.138 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.963 GAL .75 AZL 87.98 HCA 141.49 SMA 200.47 ECC .24311 INC 2.0150 V1 29.350
RP 235.77 LAP 1.25 LOP 92.03 VP 21.536 GAP 9.80 AZP 91.58 TAL 3.85 TAP 145.34 RCA 151.73 APO 249.21 V2 23.315
RC 190.680 GL 17.61 GP -22.59 ZAL 79.98 ZAP 125.45 ETS 199.22 ZAE 153.13 ETE 243.76 ZAC 61.48 ETC 284.43 LVI 4.35

PLANETOCENTRIC CONIC

C3 14.680 VHL 3.831 DLA 27.85 RAL 21.01 RAD 6640.4 VEL 11.608 PTH 6.65 VHP 2.830 DPA -6.45 RAP 46.21 ECC 1.2416

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 0 59	3639.31	-47.52	141.30	258.59	92.61	11 1 38	2639.3	-40.95	108.57
60.00	10 2 1	3636.55	-40.15	140.94	258.48	86.12	11 2 38	2636.5	-37.31	110.18
70.00	10 3 56	3630.89	-32.90	139.41	257.40	80.26	11 4 27	2630.9	-33.52	110.66
80.00	10 9 5	3614.73	-26.05	136.45	255.67	74.86	11 9 19	2614.7	-29.81	109.66
90.00	10 42 5	3507.99	-21.69	127.18	254.22	71.39	11 40 33	2508.0	-27.40	101.61
100.00	12 51 56	3089.20	-26.05	97.82	255.67	74.86	13 43 26	2089.2	-29.81	71.03
110.00	15 3 23	2677.70	-32.90	68.32	257.40	80.26	15 48 0	1677.7	-33.52	39.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3290 TRA -.5668 TC3 .4366 BAU .4928 SGT 1128.2 SGR 1951.0 SG3 1459.9 ST 28.5 SR 15.8 SS 78.1
RDE .1942 RRA .2140 RC3-2.4730 FAU .34480 RRT -.5106 RRF .9686 RTF -.5148 CRT -.9723 CRS -.9545 CST .8964
FDE 4.2473 FRA .9109 FC-20.3344 BSP 3522 SGB 2253.7 R23 -.1388 R13 .9589 LSA 83.6 MSA 12.5 SSA 2.1
BDE .3820 BRA .6059 BC3 2.5112 FSP 2455 SG1 2057.4 SG2 919.9 THA 110.79 EL1 32.4 EL2 3.2 ALF 151.42

LAUNCH DATE AUG 3 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 461.912 EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.952 GAL .75 AZL 87.90 HCA 142.47 SMA 200.26 ECC .24232 INC 2.0969 V1 29.350
RP 236.12 LAP 1.28 LOP 93.01 VP 21.481 GAP 9.55 AZP 91.66 TAL 3.86 TAP 146.33 RCA 151.73 APO 248.79 V2 23.279
RC 193.649 GL 18.33 GP -23.39 ZAL 79.98 ZAP 123.85 ETS 198.86 ZAE 151.72 ETE 241.32 ZAC 60.81 ETC 284.59 LVI 4.97

PLANETOCENTRIC CONIC

C3 14.703 VHL 3.834 DLA 28.49 RAL 20.64 RAD 6640.4 VEL 11.608 PTH 6.65 VHP 2.794 DPA -7.38 RAP 45.97 ECC 1.2420

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 56 3	3654.38	-47.56	142.76	258.88	91.49	10 56 58	2654.4	-41.41	109.73
60.00	9 55 32	3655.79	-40.04	142.57	258.56	85.02	10 56 27	2655.8	-37.68	111.68
70.00	9 54 32	3658.73	-32.56	141.51	257.26	79.06	10 55 31	2658.7	-33.73	112.83
80.00	9 51 32	3668.17	-25.04	140.10	255.15	73.19	10 52 40	2668.2	-29.63	113.62
86.37	9 26 50	3747.92	-18.48	143.47	252.65	67.92	10 29 18	2747.9	-25.97	116.89
100.00	12 34 24	3142.64	-25.04	101.47	255.15	73.19	13 26 46	2142.6	-29.63	74.99
110.00	14 53 58	2705.55	-32.56	70.42	257.26	79.06	15 39 4	1705.6	-33.73	41.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3075 TRA -.5532 TC3 .3424 BAU .5155 SGT 1079.3 SGR 2056.0 SG3 1501.3 ST 27.0 SR 18.7 SS 80.8
RDE .2373 RRA .2088 RC3-2.6000 FAU .35392 RRT -.4598 RRF .9725 RTF -.4600 CRT -.9565 CRS -.9710 CST .8832
FDE 4.4596 FRA .8560 FC-20.8397 BSP 3588 SGB 2322.1 R23 -.1125 R13 .9661 LSA 86.3 MSA 12.5 SSA 2.0
BDE .3884 BRA .5913 BC3 2.6224 FSP 2507 SG1 2129.8 SG2 925.2 THA 106.84 EL1 32.5 EL2 4.5 ALF 145.61

LAUNCH DATE AUG 3 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 465.686 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.942	GAL	.75	AZL	87.82	HCA	143.44	SMA	200.06	ECC	.24158	INC	2.1823	V1	29.350
RP	236.46	LAP	1.30	LOP	93.98	VP	21.428	GAP	9.30	AZP	91.75	TAL	3.87	TAP	147.31	RCA	151.73	APO	248.40	V2	23.244
RC	196.619	GL	19.07	GP	-24.21	ZAL	80.00	ZAP	122.23	ETS	198.48	ZAE	150.24	ETE	239.06	ZAC	60.13	ETC	284.76	LVI	5.61

PLANETOCENTRIC CONIC

C3	14.739	VHL	3.839	DLA	29.17	RAL	20.28	RAD	6640.4	VEL	11.610	PTH	6.65	VHP	2.761	DPA	-8.33	RAP	45.72	ECC	1.2426

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 50 55	3670.43	-47.58	144.31	259.21	90.30	10 52 5	2670.4	-41.88	110.98
60.00	9 48 40	3676.43	-39.91	144.31	258.66	83.85	10 49 56	2676.4	-38.04	113.32
70.00	9 44 16	3689.43	-32.14	143.80	257.11	77.76	10 45 45	2689.4	-33.92	115.21
80.00	9 28 18	3739.67	-23.55	144.89	254.41	71.10	10 30 38	2739.7	-29.19	118.89
82.55	8 54 18	3848.82	-18.88	151.06	252.51	67.35	9 58 27	2848.8	-26.57	126.46
100.00	12 11 10	3214.14	-23.55	106.26	254.41	71.10	13 4 44	2214.1	-29.19	80.25
110.00	14 43 42	2736.25	-32.14	72.72	257.11	77.76	15 29 18	1736.2	-33.92	44.12

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2949	TRA	-.5519	TC3	.2063	BAU	.5363	SGT	1052.8	SGR	2157.0	SG3	1535.1	ST	26.2	SR	22.3	SS	84.3
RDE	.2878	RRA	.2076	RC3	-2.7139	FAU	.36038	RRT	-.3759	RRF	.9758	RTF	-.3752	CRT	-.9385	CRS	-.9811	CST	.8710
FDE	4.7135	FRA	.8361	FC	-21.1678	BSP	3781	SGB	2400.3	R23	-.0873	R13	.9719	LSA	90.1	MSA	12.7	SSA	1.9
BDE	.4121	BRA	.5896	BC3	2.7218	FSP	2601	SG1	2201.8	SG2	955.8	THA	102.86	EL1	33.9	EL2	6.0	ALF	139.79

LAUNCH DATE AUG 3 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 469.463 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.933	GAL	.75	AZL	87.73	HCA	144.40	SMA	199.88	ECC	.24089	INC	2.2714	V1	29.350
RP	236.81	LAP	1.32	LOP	94.95	VP	21.376	GAP	9.05	AZP	91.85	TAL	3.87	TAP	148.27	RCA	151.73	APO	248.03	V2	23.209
RC	199.589	GL	19.84	GP	-25.05	ZAL	80.03	ZAP	120.61	ETS	198.07	ZAE	148.70	ETE	236.96	ZAC	59.44	ETC	284.95	LVI	6.27

PLANETOCENTRIC CONIC

C3	14.789	VHL	3.846	DLA	29.87	RAL	19.91	RAD	6640.4	VEL	11.612	PTH	6.65	VHP	2.732	DPA	-9.32	RAP	45.47	ECC	1.2434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 45 31	3687.48	-47.57	145.96	259.57	89.03	10 46 58	2687.5	-42.36	112.33
60.00	9 41 21	3698.56	-39.73	146.16	258.78	82.60	10 43 0	2698.6	-38.40	115.09
70.00	9 32 55	3723.47	-31.62	146.32	256.93	76.36	10 34 59	2723.5	-34.06	117.85
79.97	8 32 43	3914.06	-19.29	156.07	252.38	66.75	9 37 57	2914.1	-27.19	131.44
79.97	8 32 43	3914.06	-19.29	156.07	252.38	66.75	9 37 57	2914.1	-27.19	131.44
79.97	8 32 43	3914.06	-19.29	156.07	252.38	66.75	9 37 57	2914.1	-27.19	131.44
110.00	14 32 22	2770.29	-31.62	75.24	256.93	76.36	15 18 32	1770.3	-34.06	46.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2730	TRA	-.5435	TC3	.0841	BAU	.5609	SGT	1020.5	SGR	2266.1	SG3	1568.8	ST	24.7	SR	26.1	SS	87.4
RDE	.3398	RRA	.2028	RC3	-2.8360	FAU	.36722	RRT	-.2907	RRF	.9787	RTF	-.2878	CRT	-.9144	CRS	-.9873	CST	.8518
FDE	4.9539	FRA	.7868	FC	-21.4975	BSP	3939	SGB	2485.3	R23	-.0625	R13	.9768	LSA	93.6	MSA	12.9	SSA	1.8
BDE	.4359	BRA	.5801	BC3	2.8372	FSP	2672	SG1	2289.7	SG2	966.4	THA	99.09	EL1	35.1	EL2	7.4	ALF	133.32

LAUNCH DATE AUG 3 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 473.242 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.925	GAL	.75	AZL	87.64	HCA	145.37	SMA	199.72	ECC	.24026	INC	2.3644	V1	29.350
RP	237.14	LAP	1.34	LOP	95.91	VP	21.325	GAP	8.80	AZP	91.95	TAL	3.86	TAP	149.23	RCA	151.73	APO	247.70	V2	23.174
RC	202.557	GL	20.64	GP	-25.92	ZAL	80.08	ZAP	118.97	ETS	197.64	ZAE	147.11	ETE	234.99	ZAC	58.73	ETC	285.14	LVI	6.94

PLANETOCENTRIC CONIC

C3	14.853	VHL	3.854	DLA	30.60	RAL	19.54	RAD	6640.5	VEL	11.615	PTH	6.66	VHP	2.706	DPA	-10.33	RAP	45.22	ECC	1.2444

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 39 49	3705.61	-47.53	147.71	259.97	87.68	10 41 35	2705.6	-42.85	113.79
60.00	9 33 33	3722.35	-39.50	148.14	258.90	81.27	10 35 35	2722.3	-38.76	117.01
70.00	9 20 12	3761.79	-30.97	149.12	256.69	74.82	10 22 54	2761.8	-34.14	120.84
77.80	8 15 5	3966.48	-19.71	160.17	252.28	66.11	9 21 11	2966.5	-27.82	135.52
77.80	8 15 5	3966.48	-19.71	160.17	252.28	66.11	9 21 11	2966.5	-27.82	135.52
77.80	8 15 5	3966.48	-19.71	160.17	252.28	66.11	9 21 11	2966.5	-27.82	135.52
110.00	14 19 38	2808.61	-30.97	78.03	256.69	74.82	15 6 27	1808.6	-34.14	49.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2479	TRA	-.5369	TC3	-.0419	BAU	.5880	SGT	998.4	SGR	2381.0	SG3	1600.2	ST	23.1	SR	30.0	SS	90.5
RDE	.3944	RRA	.1978	RC3	-2.9609	FAU	.37370	RRT	-.1932	RRF	.9814	RTF	-.1883	CRT	-.8839	CRS	-.9912	CST	.8291
FDE	5.1895	FRA	.7372	FC	-21.7822	BSP	4081	SGB	2581.8	R23	-.0403	R13	.9805	LSA	97.2	MSA	13.0	SSA	1.7
BDE	.4659	BRA	.5722	BC3	2.9612	FSP	2716	SG1	2390.3	SG2	975.7	THA	95.56	EL1	36.8	EL2	8.8	ALF	128.71

LAUNCH DATE AUG 3 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 477.022 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.917	GAL	.74	AZL	87.54	HCA	146.33	SMA	199.58	ECC	.23967	INC	2.4619	V1	29.350
RP	237.48	LAP	1.36	LOP	96.87	VP	21.276	GAP	8.56	AZP	92.05	TAL	3.85	TAP	150.18	RCA	151.73	APO	247.39	V2	23.140
RC	205.523	GL	21.46	GP	-26.80	ZAL	80.15	ZAP	117.33	ETS	197.17	ZAE	145.47	ETE	233.14	ZAC	58.00	ETC	285.33	LVI	7.64

PLANETOCENTRIC CONIC

C3	14.932	VHL	3.864	DLA	31.36	RAL	19.17	RAD	6640.5	VEL	11.618	PTH	6.66	VHP	2.685	DPA	-11.37	RAP	44.96	ECC	1.2457

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 33 49	3724.91	-47.46	149.57	260.41	86.25	10 35 54	2724.9	-43.35	115.38
60.00	9 25 9	3746.01	-39.22	150.26	259.03	79.86	10 27 37	2746.0	-39.10	119.10
70.00	9 5 37	3805.79	-30.14	152.27	256.38	73.12	10 9 2	2805.8	-34.14	124.28
75.85	7 59 40	4011.62	-20.13	163.77	252.21	65.44	9 6 31	3011.6	-28.48	139.09
75.85	7 59 40	4011.62	-20.13	163.77	252.21	65.44	9 6 31	3011.6	-28.48	139.09
75.85	7 59 40	4011.62	-20.13	163.77	252.21	65.44	9 6 31	3011.6	-28.48	139.09
110.00	14 5 3	2852.61	-30.14	81.19	256.38	73.12	14 52 36	1852.6	-34.14	53.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2196	TRA	-.5295	TC3	-.1735	BAU	.6167	SGT	984.6	SGR	2498.8	SG3	1627.7	ST	21.3	SR	34.2	SS	93.7
RDE	.4534	RRA	.1908	RC3	-3.0844	FAU	.37922	RRT	-.0828	RRF	.9836	RTF	-.0765	CRT	-.8437	CRS	-.9938	CST	.7883
FDE	5.4305	FRA	.6736	FC	-21.9862	BSP	4277	SGB	2685.8	R23	-.0199	R13	.9834	LSA	101.1	MSA	13.1	SSA	1.6
BDE	.5038	BRA	.5628	BC3	3.0893	FSP	2777	SG1	2500.4	SG2	980.6	THA	92.21	EL1	39.0	EL2	10.0	ALF	119.97

LAUNCH DATE AUG 3 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC — DISTANCE 480.803 — EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.910 GAL .74 AZL 87.44 HCA 147.29 SMA 199.42 ECC .23913 INC 2.5641 V1 29.350
RP 237.81 LAP -1.39 LOP 97.83 VP 21.228 GAP 8.31 AZP 92.16 TAL 3.82 TAP 151.11 RCA 151.74 APO 247.11 V2 23.106
RC 208.485 GL 22.32 GP -27.71 ZAL 80.23 ZAP 115.68 ETS 196.68 ZAE 143.78 ETE 231.41 ZAC 57.26 ETC 285.54 LVI 8.36

PLANETOCENTRIC CONIC

C3 15.028 VHL 3.877 DLA 32.15 RAL 18.79 RAD 6640.5 VEL 11.622 PTH 6.66 VHP 2.666 DPA -12.43 RAP 44.71 ECC 1.2473

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 27 26	3745.48	-47.35	151.55	260.87	84.73	10 29 52	2745.5	-43.86	117.09
60.00	9 16 5	3775.79	-38.86	152.54	259.14	78.35	10 19 1	2775.8	-39.42	121.39
70.00	8 48 17	3858.06	-29.05	155.95	255.93	71.20	9 52 35	2858.1	-34.00	128.35
74.03	7 45 41	4052.05	-20.57	167.06	252.15	64.73	8 53 13	3052.0	-29.16	142.35
74.03	7 45 41	4052.05	-20.57	167.06	252.15	64.73	8 53 13	3052.0	-29.16	142.35
74.03	7 45 41	4052.05	-20.57	167.06	252.15	64.73	8 53 13	3052.0	-29.16	142.35
110.00	13 47 43	2904.87	-29.05	84.87	255.93	71.20	14 36 8	1904.9	-34.00	57.27

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.1865 TRA -.5229 TC3 -.3092 BAU .6474 — SGT 983.2 SGR 2619.6 SG3 1650.5 — ST 19.4 SR 38.5 SS 96.5
RDE .5138 RRA .1826 RC3-3.2074 FAU .38391 — RRT .0372 RRF .9856 RTF .0450 — CRT -.7863 CRS -.9956 CST .7330
FDE 5.6523 FRA .6045 FC-22.1161 BSP 4470 — SGB 2798.1 R23 -.0023 R13 .9856 — LSA 104.8 MSA 13.3 SSA 1.5
BDE .5466 BRA .5539 BC3 3.2223 FSP 2818 — SG1 2619.9 SG2 982.4 THA 89.07 — EL1 41.6 EL2 11.1 ALF 113.43

LAUNCH DATE AUG 3 1973 FLIGHT TIME 210.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC — DISTANCE 484.586 — EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.903 GAL .73 AZL 87.33 HCA 148.24 SMA 199.30 ECC .23863 INC 2.6714 V1 29.350
RP 238.14 LAP 1.41 LOP 98.79 VP 21.182 GAP 8.07 AZP 92.27 TAL 3.79 TAP 152.04 RCA 151.74 APO 246.85 V2 23.073
RC 211.443 GL 23.21 GP -28.64 ZAL 80.33 ZAP 114.04 ETS 196.16 ZAE 142.06 ETE 229.77 ZAC 56.50 ETC 285.76 LVI 9.11

PLANETOCENTRIC CONIC

C3 15.142 VHL 3.891 DLA 32.98 RAL 18.39 RAD 6640.6 VEL 11.627 PTH 6.67 VHP 2.652 DPA -13.52 RAP 44.45 ECC 1.2492

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 20 36	3767.42	-47.20	153.65	261.36	83.12	10 23 26	2767.4	-44.37	118.96
60.00	9 6 11	3806.01	-38.42	154.99	259.24	76.75	10 9 37	2806.0	-39.72	123.91
70.00	8 26 15	3924.39	-27.51	160.50	255.23	68.91	9 31 39	2924.4	-33.61	133.49
72.28	7 32 44	4089.06	-21.01	170.12	252.12	63.98	8 40 53	3089.1	-29.87	145.40
72.28	7 32 44	4089.06	-21.01	170.12	252.12	63.98	8 40 53	3089.1	-29.87	145.40
72.28	7 32 44	4089.06	-21.01	170.12	252.12	63.98	8 40 53	3089.1	-29.87	145.40
110.00	13 25 41	2971.21	-27.51	89.41	255.23	68.91	14 15 12	1971.2	-33.61	62.41

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.1483 TRA -.5155 TC3 -.4416 BAU .6806 — SGT 992.2 SGR 2747.2 SG3 1670.9 — ST 17.4 SR 43.0 SS 99.3
RDE .5786 RRA .1734 RC3-3.3331 FAU .38817 — RRT .1578 RRF .9873 RTF .1670 — CRT -.7005 CRS -.9968 CST .6486
FDE 5.8728 FRA .5309 FC-22.1942 BSP 4647 — SGB 2920.9 R23 .0115 R13 .9873 — LSA 108.8 MSA 13.4 SSA 1.5
BDE .5973 BRA .5439 BC3 3.3622 FSP 2832 — SG1 2752.3 SG2 978.0 THA 86.27 — EL1 44.9 EL2 11.9 ALF 107.09

LAUNCH DATE AUG 3 1973 FLIGHT TIME 212.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC — DISTANCE 488.368 — EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.897 GAL .72 AZL 87.22 HCA 149.20 SMA 199.18 ECC .23818 INC 2.7045 V1 29.350
RP 238.47 LAP 1.43 LOP 99.75 VP 21.137 GAP 7.83 AZP 92.39 TAL 3.76 TAP 152.95 RCA 151.74 APO 246.62 V2 23.040
RC 214.394 GL 24.13 GP -29.59 ZAL 80.44 ZAP 112.40 ETS 195.61 ZAE 140.30 ETE 228.23 ZAC 55.72 ETC 285.98 LVI 9.87

PLANETOCENTRIC CONIC

C3 15.274 VHL 3.908 DLA 33.84 RAL 17.99 RAD 6640.7 VEL 11.633 PTH 6.67 VHP 2.641 DPA -14.63 RAP 44.21 ECC 1.2514

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 13 22	3790.90	-46.98	155.87	261.86	81.42	10 16 33	2790.9	-44.88	120.99
60.00	8 55 16	3839.16	-37.86	157.63	259.29	75.03	9 59 17	2839.2	-39.98	126.69
70.00	7 51 56	4027.64	-24.79	167.29	253.85	65.72	8 59 3	3027.6	-32.54	141.35
70.59	7 20 32	4123.56	-21.46	173.02	252.12	63.18	8 29 15	3123.6	-30.60	148.29
70.59	7 20 32	4123.56	-21.46	173.02	252.12	63.18	8 29 15	3123.6	-30.60	148.29
70.59	7 20 32	4123.56	-21.46	173.02	252.12	63.18	8 29 15	3123.6	-30.60	148.29
110.00	12 51 22	3074.45	-24.79	96.21	253.85	65.72	13 42 36	2074.5	-32.54	70.27

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.1124 TRA -.5151 TC3 -.5994 BAU .7128 — SGT 1035.9 SGR 2867.3 SG3 1680.7 — ST 15.9 SR 48.1 SS 102.4
RDE .6509 RRA .1661 RC3-3.4388 FAU .38928 — RRT .2813 RRF .9888 RTF .2099 — CRT -.5872 CRS -.9976 CST .5370
FDE 6.1107 FRA .4745 FC-22.0640 BSP 4920 — SGB 3048.7 R23 .0268 R13 .9885 — LSA 113.5 MSA 13.6 SSA 1.4
BDE .6605 BRA .5412 BC3 3.4907 FSP 2884 — SG1 2884.1 SG2 988.3 THA 83.42 — EL1 49.1 EL2 12.7 ALF 101.82

LAUNCH DATE AUG 3 1973 FLIGHT TIME 214.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC — DISTANCE 492.151 — EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.892 GAL .71 AZL 87.10 HCA 150.15 SMA 199.07 ECC .23777 INC 2.9036 V1 29.350
RP 238.79 LAP 1.44 LOP 100.70 VP 21.093 GAP 7.59 AZP 92.52 TAL 3.71 TAP 153.86 RCA 151.74 APO 246.41 V2 23.008
RC 217.340 GL 25.10 GP -30.57 ZAL 80.58 ZAP 110.76 ETS 195.03 ZAE 138.52 ETE 226.77 ZAC 54.93 ETC 286.22 LVI 10.66

PLANETOCENTRIC CONIC

C3 15.428 VHL 3.928 DLA 34.74 RAL 17.57 RAD 6640.7 VEL 11.639 PTH 6.68 VHP 2.635 DPA -15.77 RAP 43.98 ECC 1.2539

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 5 32	3816.05	-46.70	158.24	262.37	79.62	10 9 8	2816.1	-45.38	123.20
60.00	8 43 11	3875.81	-37.18	160.50	259.28	73.18	9 47 47	2875.8	-40.18	129.79
68.93	7 8 56	4155.97	-21.91	175.81	252.13	62.34	8 18 12	3156.0	-31.35	151.07
68.93	7 8 56	4155.97	-21.91	175.81	252.13	62.34	8 18 12	3156.0	-31.35	151.07
68.93	7 8 56	4155.97	-21.91	175.81	252.13	62.34	8 18 12	3156.0	-31.35	151.07
68.93	7 8 56	4155.97	-21.91	175.81	252.13	62.34	8 18 12	3156.0	-31.35	151.07
68.93	7 8 56	4155.97	-21.91	175.81	252.13	62.34	8 18 12	3156.0	-31.35	151.07

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.0690 TRA -.5123 TC3 -.7469 BAU .7483 — SGT 1086.9 SGR 2996.2 SG3 1688.8 — ST 14.6 SR 53.3 SS 105.4
RDE .7267 RRA .1556 RC3-3.5500 FAU .39043 — RRT .3926 RRF .9901 RTF .4012 — CRT -.4113 CRS -.9982 CST .3629
FDE 6.3333 FRA .3996 FC-21.9081 BSP 5151 — SGB 3187.2 R23 .0380 R13 .9895 — LSA 118.2 MSA 13.7 SSA 1.3
BDE .7300 BRA .5354 BC3 3.6277 FSP 2893 — SG1 3030.1 SG2 988.4 THA 80.92 — EL1 53.7 EL2 13.2 ALF 96.82

LAUNCH DATE AUG 3 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 498.935 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.887	GAL	.70	AZL	86.97	HCA	151.09	SMA	198.98	ECC	.23740	INC	3.0295	V1	29.380
RP	239.10	LAP	1.46	LOP	101.65	VP	21.050	GAP	7.35	AZP	92.65	TAL	3.66	TAP	154.75	RCA	151.74	APO	246.22	V2	22.975
RC	220.278	GL	26.10	GP	-31.56	ZAL	80.72	ZAP	109.14	ETS	194.42	ZAE	136.71	ETE	225.37	ZAC	54.12	ETC	286.46	LVI	11.47

PLANETOCENTRIC CONIC

C3	15.606	VHL	3.950	DLA	35.68	RAL	17.12	RAD	6640.8	VEL	11.647	PTH	6.69	VHP	2.633	DPA	-16.92	RAP	43.75	ECC	1.2568

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 57 4	3843.08	-46.34	160.75	262.87	77.71	10 1 7	2843.1	-45.87	125.63
60.00	8 29 29	3916.86	-36.33	163.65	259.17	71.20	9 34 46	2916.9	-40.29	133.27
67.28	6 57 49	4186.71	-22.37	178.51	252.17	61.45	8 7 36	3186.7	-32.12	153.77
67.28	6 57 49	4186.71	-22.37	178.51	252.17	61.45	8 7 36	3186.7	-32.12	153.77
67.28	6 57 49	4186.71	-22.37	178.51	252.17	61.45	8 7 36	3186.7	-32.12	153.77
67.28	6 57 49	4186.71	-22.37	178.51	252.17	61.45	8 7 36	3186.7	-32.12	153.77
67.28	6 57 49	4186.71	-22.37	178.51	252.17	61.45	8 7 36	3186.7	-32.12	153.77

DIFFERENTIAL CORRECTIONS

TDE	-.0208	TRA	-.5112	TC3	-.8957	BAU	.7857												
RDE	.8065	RRA	.1441	RC3	-3.6578	FAU	.39056												
FDE	6.5405	FRA	.3235	FC	-21.6669	BSP	5411												
BDE	.8068	BRA	.5311	BC3	3.7659	FSP	2902												

MID-COURSE EXECUTION ACCURACY

SGT	1155.4	SGR	3128.3	SG3	1691.7						
RRT	.4911	RRF	.9913	RTF	.4996						
SGB	3334.8	R23	.0473	R13	.9903						
SG1	3184.9	SG2	988.5	THA	78.61						

ORBIT DETERMINATION ACCURACY

ST	13.8	SR	58.8	SS	108.1						
CRT	-.1680	CRS	-.9987	CST	.1229						
LSA	123.0	MSA	13.9	SSA	1.2						
EL1	58.8	EL2	13.6	ALF	92.39						

LAUNCH DATE AUG 3 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC DISTANCE 499.719 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.883	GAL	.69	AZL	86.84	HCA	152.04	SMA	198.89	ECC	.23706	INC	3.1629	V1	29.350
RP	239.42	LAP	1.48	LOP	102.60	VP	21.009	GAP	7.11	AZP	92.79	TAL	3.60	TAP	155.64	RCA	151.74	APO	246.04	V2	22.944
RC	223.209	GL	27.15	GP	-32.58	ZAL	80.89	ZAP	107.53	ETS	193.77	ZAE	134.89	ETE	224.04	ZAC	53.30	ETC	286.72	LVI	12.30

PLANETOCENTRIC CONIC

C3	15.809	VHL	3.976	DLA	36.66	RAL	16.66	RAD	6640.9	VEL	11.656	PTH	6.69	VHP	2.634	DPA	-18.10	RAP	43.54	ECC	1.2602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 47 51	3872.21	-45.88	163.41	263.34	75.71	9 52 23	2872.2	-46.32	128.29
60.00	8 13 39	3963.76	-35.24	167.16	258.90	69.03	9 19 43	2963.8	-40.28	137.26
65.63	6 47 2	4216.21	-22.83	181.15	252.23	60.50	7 57 18	3216.2	-32.92	156.41
65.63	6 47 2	4216.21	-22.83	181.15	252.23	60.50	7 57 18	3216.2	-32.92	156.41
65.63	6 47 2	4216.21	-22.83	181.15	252.23	60.50	7 57 18	3216.2	-32.92	156.41
65.63	6 47 2	4216.21	-22.83	181.15	252.23	60.50	7 57 18	3216.2	-32.92	156.41
65.63	6 47 2	4216.21	-22.83	181.15	252.23	60.50	7 57 18	3216.2	-32.92	156.41

DIFFERENTIAL CORRECTIONS

TDE	.0325	TRA	-.5106	TC3	-1.0441	BAU	.8241												
RDE	.8927	RRA	.1310	RC3	-3.7568	FAU	.38914												
FDE	6.7431	FRA	.2434	FC	-21.3107	BSP	5690												
BDE	.8933	BRA	.5272	BC3	3.8992	FSP	2902												

MID-COURSE EXECUTION ACCURACY

SGT	1238.1	SGR	3261.1	SG3	1688.2						
RRT	.5757	RRF	.9923	RTF	.5838						
SGB	3488.2	R23	.0550	R13	.9909						
SG1	3345.8	SG2	986.7	THA	76.47						

ORBIT DETERMINATION ACCURACY

ST	14.0	SR	64.6	SS	110.7						
CRT	.1169	CRS	-.9990	CST	-.1582						
LSA	128.2	MSA	14.0	SSA	1.1						
EL1	64.6	EL2	13.9	ALF	88.45						

LAUNCH DATE AUG 3 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC DISTANCE 503.502 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.879	GAL	.68	AZL	86.70	HCA	152.98	SMA	198.82	ECC	.23676	INC	3.3042	V1	29.350
RP	239.73	LAP	1.50	LOP	103.54	VP	20.969	GAP	6.87	AZP	92.94	TAL	3.53	TAP	156.51	RCA	151.75	APO	245.89	V2	22.912
RC	226.132	GL	28.24	GP	-33.61	ZAL	81.07	ZAP	105.94	ETS	193.09	ZAE	133.05	ETE	222.76	ZAC	52.45	ETC	286.99	LVI	13.16

PLANETOCENTRIC CONIC

C3	16.041	VHL	4.005	DLA	37.68	RAL	16.17	RAD	6641.0	VEL	11.665	PTH	6.70	VHP	2.641	DPA	-19.30	RAP	43.35	ECC	1.2640

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 37 45	3903.77	-45.31	166.24	263.77	73.59	9 42 49	2903.8	-46.74	131.22
60.00	7 54 43	4019.10	-33.82	171.16	258.39	66.63	9 1 42	3019.1	-40.07	141.95
63.98	6 36 32	4244.58	-23.29	183.74	252.31	59.50	7 47 17	3244.6	-33.74	159.03
63.98	6 36 32	4244.58	-23.29	183.74	252.31	59.50	7 47 17	3244.6	-33.74	159.03
63.98	6 36 32	4244.58	-23.29	183.74	252.31	59.50	7 47 17	3244.6	-33.74	159.03
63.98	6 36 32	4244.58	-23.29	183.74	252.31	59.50	7 47 17	3244.6	-33.74	159.03
63.98	6 36 32	4244.58	-23.29	183.74	252.31	59.50	7 47 17	3244.6	-33.74	159.03

DIFFERENTIAL CORRECTIONS

TDE	.0901	TRA	-.5117	TC3	-1.1925	BAU	.8645												
RDE	.9849	RRA	.1146	RC3	-3.8507	FAU	.38666												
FDE	6.9343	FRA	.1500	FC	-20.8684	BSP	5973												
BDE	.9890	BRA	.5244	BC3	4.0311	FSP	2887												

MID-COURSE EXECUTION ACCURACY

SGT	1335.9	SGR	3397.4	SG3	1679.6						
RRT	.6470	RRF	.9932	RTF	.6644						
SGB	3650.6	R23	.0615	R13	.9914						
SG1	3515.3	SG2	984.5	THA	74.48						

ORBIT DETERMINATION ACCURACY

ST	15.4	SR	70.7	SS	113.3						
CRT	.3845	CRS	-.9992	CST	-.4162						
LSA	133.7	MSA	14.2	SSA	1.1						
EL1	70.9	EL2	14.1	ALF	85.02						

LAUNCH DATE AUG 3 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 13 1974

HELIOCENTRIC CONIC DISTANCE 507.286 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.875	GAL	.66	AZL	86.55	HCA	153.92	SMA	198.75	ECC	.23649	INC	3.4547	V1	29.350
RP	240.03	LAP	1.52	LOP	104.48	VP	20.930	GAP	6.64	AZP	93.10	TAL	3.46	TAP	157.38	RCA	151.75	APO	245.75	V2	22.882
RC	229.048	GL	29.38	GP	-34.68	ZAL	81.26	ZAP	104.37	ETS	192.37	ZAE	131.20	ETE	221.52	ZAC	51.59	ETC	287.27	LVI	14.05

PLANETOCENTRIC CONIC

C3	16.305	VHL	4.038	DLA	38.75	RAL	15.65	RAD	6641.1	VEL	11.677	PTH	6.71	VHP	2.652	DPA	-20.51	RAP	43.19	ECC	1.2683

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 26 34	3938.12	-44.61	169.25	264.12	71.36	9 32 12	2938.1	-47.10	134.46
60.00	7 30 32	4088.67	-31.83	175.99	257.44	63.85	8 38 41	3088.7	-39.51	147.79
62.32	6 26 14	4272.07	-23.75	186.31	252.42	58.43	7 37 26	3272.1	-34.58	161.63
62.32	6 26 14	4272.07	-23.75	186.31	252.42	58.43	7 37 26	3272.1	-34.58	161.63
62.32	6 26 14	4272.07	-23.75	186.31	252.42	58.43	7 37 26	3272.1	-34.58	161.63
62.32	6 26 14	4272.07	-23.75	186.31	252.42	58.43	7 37 26	3272.1	-34.58	161.63
62.32	6 26 14	4272.07	-23.75	186.31	252.42	58.43	7 37 26	3272.1	-34.58	161.63

DIFFERENTIAL CORRECTIONS

TDE	.1535	TRA	-.5153	TC3	-1.3392	BAU	.9062												
RDE	1.0821	RRA	.0984	RC3	-3.9356	FAU	.38278												
FDE	7.1032	FRA	.0662	FC	-20.3235	BSP	6278												
BDE	1.0929	BRA	.5246	BC3	4.1572	FSP	2867												

MID-COURSE EXECUTION ACCURACY

SGT	1447.8	SGR	3534.3	SG3	1664.2						
RRT	.7044	RRF	.9940	RTF	.7113						
SGB	3819.3	R23	.0670	R13	.9918						
SG1	3690.4	SG2	984.2	THA	72.63						

ORBIT DETERMINATION ACCURACY

ST	17.9	SR	77.0	SS	115.6						
CRT	.5865	CRS	-.9994	CST	-.6107						
LSA	139.3	MSA	14.3	SSA	1.0						
EL1	77.7	EL2	14.3	ALF	81.97						

LAUNCH DATE AUG 3 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 15 1974

HELIOCENTRIC CONIC — DISTANCE 511.070 — EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.873 GAL .65 AZL 86.38 HCA 154.86 SMA 198.69 ECC .23625 INC 3.6152 V1 29.350
RP 240.34 LAP 1.54 LOP 105.42 VP 20.892 GAP 6.40 AZP 93.27 TAL 3.38 TAP 158.24 RCA 151.75 APO 245.63 V2 22.851
RC 231.955 GL 30.57 GP -35.76 ZAL 81.47 ZAP 102.83 ETS 191.63 ZAE 129.35 ETE 220.33 ZAC 50.70 ETC 287.56 LVI 14.96

PLANETOCENTRIC CONIC

C3 16.607 VHL 4.075 DLA 39.87 RAL 15.09 RAD 6641.3 VEL 11.690 PTH 6.72 VHP 2.668 DPA -21.75 RAP 43.04 ECC 1.2733

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 14 5	3975.81	-43.74	172.45	264.35	69.02	9 20 21	2975.8	-47.38	138.06
60.00	6 53 5	4194.47	-28.45	182.90	255.41	60.16	8 2 59	3194.5	-38.07	156.40
60.64	6 16 6	4298.80	-24.21	188.87	252.54	57.30	7 27 44	3298.8	-35.44	164.24
60.64	6 16 6	4298.80	-24.21	188.87	252.54	57.30	7 27 44	3298.8	-35.44	164.24
60.64	6 16 6	4298.80	-24.21	188.87	252.54	57.30	7 27 44	3298.8	-35.44	164.24
60.64	6 16 6	4298.80	-24.21	188.87	252.54	57.30	7 27 44	3298.8	-35.44	164.24
60.64	6 16 6	4298.80	-24.21	188.87	252.54	57.30	7 27 44	3298.8	-35.44	164.24

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .2233 TRA -.5195 TC3-1.4821 BAU .9488 — SGT 1569.5 SGR 3669.9 SG3 1641.3 — ST 21.3 SR 83.5 SS 117.6
RDE 1.1850 RRA .0765 RC3-4.0083 FAU .37729 — RRT .7528 RRF .9946 RTF .7591 — CRT .7238 CRS -.9996 CST -.7418
FDE 7.2498 FRA -.0395 FC-19.6683 BSP 6583 — SGB 3991.4 R23 .0713 R13 .9922 — LSA 145.1 MSA 14.4 SSA .9
BDE 1.2058 BRA .9251 BC3 4.2735 FSP 2830 — SG1 3869.2 SG2 979.9 THA 70.88 — EL1 84.9 EL2 14.4 ALF 79.22

LAUNCH DATE AUG 3 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 17 1974

HELIOCENTRIC CONIC — DISTANCE 514.853 — EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.870 GAL .63 AZL 86.21 HCA 155.79 SMA 198.64 ECC .23605 INC 3.7868 V1 29.350
RP 240.63 LAP 1.55 LOP 106.36 VP 20.855 GAP 6.17 AZP 93.45 TAL 3.29 TAP 159.08 RCA 151.75 APO 245.53 V2 22.821
RC 234.852 GL 31.82 GP -36.87 ZAL 81.69 ZAP 101.33 ETS 190.84 ZAE 127.50 ETE 219.17 ZAC 49.79 ETC 287.67 LVI 15.91

PLANETOCENTRIC CONIC

C3 16.951 VHL 4.117 DLA 41.03 RAL 14.48 RAD 6641.4 VEL 11.704 PTH 6.74 VHP 2.689 DPA -23.00 RAP 42.93 ECC 1.2790

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 59 57	4017.56	-42.66	175.89	264.42	66.55	9 6 54	3017.6	-47.55	142.08
58.93	6 6 0	4325.04	-24.65	191.42	252.67	56.10	7 18 5	3325.0	-36.32	166.87
58.93	6 6 0	4325.04	-24.65	191.42	252.67	56.10	7 18 5	3325.0	-36.32	166.87
58.93	6 6 0	4325.04	-24.65	191.42	252.67	56.10	7 18 5	3325.0	-36.32	166.87
58.93	6 6 0	4325.04	-24.65	191.42	252.67	56.10	7 18 5	3325.0	-36.32	166.87
58.93	6 6 0	4325.04	-24.65	191.42	252.67	56.10	7 18 5	3325.0	-36.32	166.87
58.93	6 6 0	4325.04	-24.65	191.42	252.67	56.10	7 18 5	3325.0	-36.32	166.87

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .2993 TRA -.5266 TC3-1.6205 BAU .9925 — SGT 1702.2 SGR 3806.5 SG3 1612.1 — ST 25.5 SR 90.3 SS 119.5
RDE 1.2961 RRA .0548 RC3-4.0689 FAU .37034 — RRT .7908 RRF .9952 RTF .7965 — CRT .8102 CRS -.9997 CST -.8236
FDE 7.3820 FRA -.1327 FC-18.9141 BSP 6893 — SGB 4169.7 R23 .0751 R13 .9925 — LSA 151.2 MSA 14.6 SSA .8
BDE 1.3302 BRA .5294 BC3 4.3797 FSP 2780 — SG1 4053.3 SG2 978.6 THA 69.26 — EL1 92.7 EL2 14.6 ALF 76.79

LAUNCH DATE AUG 3 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 19 1974

HELIOCENTRIC CONIC — DISTANCE 518.635 — EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.868 GAL .61 AZL 86.03 HCA 156.72 SMA 198.60 ECC .23587 INC 3.9710 V1 29.350
RP 240.93 LAP 1.57 LOP 107.30 VP 20.820 GAP 5.94 AZP 93.65 TAL 3.20 TAP 159.92 RCA 151.76 APO 245.45 V2 22.792
RC 237.739 GL 33.13 GP -38.00 ZAL 81.93 ZAP 99.85 ETS 190.03 ZAE 125.66 ETE 218.05 ZAC 48.86 ETC 288.20 LVI 16.88

PLANETOCENTRIC CONIC

C3 17.344 VHL 4.165 DLA 42.25 RAL 13.82 RAD 6641.6 VEL 11.721 PTH 6.75 VHP 2.716 DPA -24.27 RAP 42.85 ECC 1.2854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 43 39	4064.48	-41.32	179.60	264.24	63.93	8 51 23	3064.5	-47.55	146.62
57.20	5 55 56	4350.77	-25.08	193.99	252.82	54.81	7 8 27	3350.8	-37.21	169.54
57.20	5 55 56	4350.77	-25.08	193.99	252.82	54.81	7 8 27	3350.8	-37.21	169.54
57.20	5 55 56	4350.77	-25.08	193.99	252.82	54.81	7 8 27	3350.8	-37.21	169.54
57.20	5 55 56	4350.77	-25.08	193.99	252.82	54.81	7 8 27	3350.8	-37.21	169.54
57.20	5 55 56	4350.77	-25.08	193.99	252.82	54.81	7 8 27	3350.8	-37.21	169.54
57.20	5 55 56	4350.77	-25.08	193.99	252.82	54.81	7 8 27	3350.8	-37.21	169.54

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .3820 TRA -.5356 TC3-1.7503 BAU 1.0382 — SGT 1841.9 SGR 3947.0 SG3 1577.9 — ST 30.3 SR 97.5 SS 121.1
RDE 1.4154 RRA .0287 RC3-4.1214 FAU .36242 — RRT .8219 RRF .9958 RTF .8271 — CRT .8657 CRS -.9997 CST -.8757
FDE 7.4936 FRA -.2353 FC-18.0911 BSP 7209 — SGB 4355.6 R23 .0779 R13 .9928 — LSA 157.7 MSA 14.7 SSA .8
BDE 1.4660 BRA .5363 BC3 4.4777 FSP 2717 — SG1 4244.9 SG2 975.7 THA 67.78 — EL1 101.0 EL2 14.6 ALF 74.61

LAUNCH DATE AUG 3 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 21 1974

HELIOCENTRIC CONIC — DISTANCE 522.417 — EARTH TO MARS

RL 151.80 LAL .00 LOL 310.52 VL 32.866 GAL .59 AZL 85.83 HCA 157.65 SMA 198.57 ECC .23573 INC 4.1690 V1 29.350
RP 241.22 LAP 1.58 LOP 108.23 VP 20.785 GAP 5.71 AZP 93.86 TAL 3.10 TAP 160.76 RCA 151.76 APO 245.37 V2 22.763
RC 240.615 GL 34.50 GP -39.15 ZAL 82.19 ZAP 98.42 ETS 189.18 ZAE 123.82 ETE 216.95 ZAC 47.91 ETC 288.54 LVI 17.88

PLANETOCENTRIC CONIC

C3 17.792 VHL 4.218 DLA 43.52 RAL 13.10 RAD 6641.8 VEL 11.740 PTH 6.77 VHP 2.748 DPA -25.56 RAP 42.81 ECC 1.2928

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 24 22	4118.44	-39.63	183.66	263.69	61.15	8 33 1	3118.4	-47.32	151.82
55.42	5 45 49	4376.27	-25.49	196.58	252.98	53.45	6 58 45	3376.3	-38.12	172.27
55.42	5 45 49	4376.27	-25.49	196.58	252.98	53.45	6 58 45	3376.3	-38.12	172.27
55.42	5 45 49	4376.27	-25.49	196.58	252.98	53.45	6 58 45	3376.3	-38.12	172.27
55.42	5 45 49	4376.27	-25.49	196.58	252.98	53.45	6 58 45	3376.3	-38.12	172.27
55.42	5 45 49	4376.27	-25.49	196.58	252.98	53.45	6 58 45	3376.3	-38.12	172.27
55.42	5 45 49	4376.27	-25.49	196.58	252.98	53.45	6 58 45	3376.3	-38.12	172.27

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE .4723 TRA -.5473 TC3-1.8718 BAU 1.0852 — SGT 1989.0 SGR 4087.9 SG3 1537.1 — ST 35.7 SR 104.9 SS 122.4
RDE 1.5428 RRA .0008 RC3-4.1604 FAU .35315 — RRT .8468 RRF .9962 RTF .8516 — CRT .9018 CRS -.9998 CST -.9094
FDE 7.5783 FRA -.3327 FC-17.1837 BSP 7534 — SGB 4546.1 R23 .0801 R13 .9931 — LSA 164.4 MSA 14.8 SSA .7
BDE 1.6135 BRA .5473 BC3 4.5621 FSP 2644 — SG1 4440.5 SG2 974.0 THA 66.40 — EL1 109.8 EL2 14.7 ALF 72.64

LAUNCH DATE AUG 3 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 23 1974

HELIOCENTRIC CONIC DISTANCE 526.198 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.865	GAL	.57	AZL	85.62	HCA	158.58	SMA	198.54	ECC	.23561	INC	4.3829	V1	29.350
RP	241.50	LAP	1.60	LOP	109.16	VP	20.751	GAP	5.48	AZP	94.08	TAL	3.00	TAP	161.58	RCA	151.76	APO	245.32	V2	22.734
RC	243.479	GL	35.94	GP	-40.34	ZAL	82.49	ZAP	97.03	ETS	188.30	ZAE	122.00	ETE	215.87	ZAC	46.93	ETC	288.91	LVI	18.92

PLANETOCENTRIC CONIC

C3	18.307	VHL	4.279	DLA	44.85	RAL	12.31	RAD	6642.1	VEL	11.761	PTH	6.79	VHP	2.788	DPA	-26.66	RAP	42.81	ECC	1.3013

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 0 33	4183.00	-37.41	188.24	262.57	58.13	8 10 16	3183.0	-46.70	157.93
53.61	5 35 35	4401.56	-25.88	199.20	253.14	51.99	6 48 56	3401.6	-39.03	175.07
53.61	5 35 35	4401.56	-25.88	199.20	253.14	51.99	6 48 56	3401.6	-39.03	175.07
53.61	5 35 35	4401.56	-25.88	199.20	253.14	51.99	6 48 56	3401.6	-39.03	175.07
53.61	5 35 35	4401.56	-25.88	199.20	253.14	51.99	6 48 56	3401.6	-39.03	175.07
53.61	5 35 35	4401.56	-25.88	199.20	253.14	51.99	6 48 56	3401.6	-39.03	175.07
53.61	5 35 35	4401.56	-25.88	199.20	253.14	51.99	6 48 56	3401.6	-39.03	175.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.5703	TRA	-.5614	TC3	-1.9836	BAU	1.1321	SGT	2142.2	SGR	4224.3	SG3	1488.3	ST	41.4	SR	112.5	SS	123.2
RDE	1.6788	RRA	-.0325	RC3	-4.1787	FAU	.34203	RRT	.8676	RRF	.9966	RTF	.8720	CRT	.9263	CRS	-.9998	CST	-.9321
FDE	7.6321	FRA	-.4360	FC	-16.1746	BSP	7886	SGB	4736.4	R23	.0820	R13	.9934	LSA	171.3	MSA	14.9	SSA	.7
BDE	1.7731	BRA	.5624	BC3	4.6256	FSP	2568	SG1	4635.9	SG2	970.5	THA	65.08	EL1	119.0	EL2	14.8	ALF	70.86

LAUNCH DATE AUG 3 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 25 1974

HELIOCENTRIC CONIC DISTANCE 529.979 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.864	GAL	.55	AZL	85.39	HCA	159.51	SMA	198.52	ECC	.23551	INC	4.6146	V1	29.350
RP	241.78	LAP	1.61	LOP	110.09	VP	20.719	GAP	5.25	AZP	94.32	TAL	2.89	TAP	162.40	RCA	151.76	APO	245.27	V2	22.706
RC	246.330	GL	37.46	GP	-41.55	ZAL	82.73	ZAP	95.70	ETS	187.39	ZAE	120.20	ETE	214.82	ZAC	45.92	ETC	289.30	LVI	19.99

PLANETOCENTRIC CONIC

C3	18.898	VHL	4.347	DLA	46.24	RAL	11.42	RAD	6642.3	VEL	11.786	PTH	6.81	VHP	2.834	DPA	-28.18	RAP	42.86	ECC	1.3110

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 28 9	4267.63	-34.21	193.80	260.36	54.67	7 39 17	3267.6	-45.38	165.66
51.75	5 25 10	4426.78	-26.22	201.86	253.30	50.44	6 38 57	3426.8	-39.94	177.96
51.75	5 25 10	4426.78	-26.22	201.86	253.30	50.44	6 38 57	3426.8	-39.94	177.96
51.75	5 25 10	4426.78	-26.22	201.86	253.30	50.44	6 38 57	3426.8	-39.94	177.96
51.75	5 25 10	4426.78	-26.22	201.86	253.30	50.44	6 38 57	3426.8	-39.94	177.96
51.75	5 25 10	4426.78	-26.22	201.86	253.30	50.44	6 38 57	3426.8	-39.94	177.96
51.75	5 25 10	4426.78	-26.22	201.86	253.30	50.44	6 38 57	3426.8	-39.94	177.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.6760	TRA	-.5794	TC3	-2.0832	BAU	1.1816	SGT	2300.8	SGR	4364.8	SG3	1434.6	ST	47.6	SR	120.3	SS	123.6
RDE	1.8241	RRA	-.0679	RC3	-4.1874	FAU	.33019	RRT	.8841	RRF	.9970	RTF	.8881	CRT	.9429	CRS	-.9999	CST	-.9474
FDE	7.6523	FRA	-.5339	FC	-15.1260	BSP	8211	SGB	4934.1	R23	.0834	R13	.9936	LSA	178.4	MSA	15.1	SSA	.6
BDE	1.9454	BRA	.5834	BC3	4.6769	FSP	2470	SG1	4837.8	SG2	969.9	THA	63.88	EL1	126.6	EL2	14.8	ALF	69.26

LAUNCH DATE AUG 3 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 27 1974

HELIOCENTRIC CONIC DISTANCE 533.758 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.863	GAL	.53	AZL	85.13	HCA	160.43	SMA	198.50	ECC	.23544	INC	4.8665	V1	29.350
RP	242.06	LAP	1.63	LOP	111.02	VP	20.688	GAP	5.02	AZP	94.59	TAL	2.77	TAP	163.20	RCA	151.77	APO	245.24	V2	22.679
RC	249.167	GL	39.05	GP	-42.79	ZAL	83.03	ZAP	94.41	ETS	186.46	ZAE	118.41	ETE	213.78	ZAC	44.88	ETC	289.71	LVI	21.10

PLANETOCENTRIC CONIC

C3	19.581	VHL	4.425	DLA	47.69	RAL	10.44	RAD	6642.7	VEL	11.815	PTH	6.84	VHP	2.889	DPA	-29.52	RAP	42.96	ECC	1.3223

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.85	5 14 29	4452.13	-26.53	204.56	253.43	48.79	6 28 42	3452.1	-40.83	180.97
49.85	5 14 29	4452.13	-26.53	204.56	253.43	48.79	6 28 42	3452.1	-40.83	180.97
49.85	5 14 29	4452.13	-26.53	204.56	253.43	48.79	6 28 42	3452.1	-40.83	180.97
49.85	5 14 29	4452.13	-26.53	204.56	253.43	48.79	6 28 42	3452.1	-40.83	180.97
49.85	5 14 29	4452.13	-26.53	204.56	253.43	48.79	6 28 42	3452.1	-40.83	180.97
49.85	5 14 29	4452.13	-26.53	204.56	253.43	48.79	6 28 42	3452.1	-40.83	180.97
49.85	5 14 29	4452.13	-26.53	204.56	253.43	48.79	6 28 42	3452.1	-40.83	180.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.7903	TRA	-.6011	TC3	-2.1707	BAU	1.2301	SGT	2464.7	SGR	4495.3	SG3	1372.0	ST	54.1	SR	128.2	SS	123.5
RDE	1.9777	RRA	-.1130	RC3	-4.1675	FAU	.31617	RRT	.8987	RRF	.9973	RTF	.8822	CRT	.9550	CRS	-.9999	CST	-.9585
FDE	7.6290	FRA	-.6467	FC	-13.9790	BSP	8561	SGB	5126.7	R23	.0848	R13	.9938	LSA	185.4	MSA	15.2	SSA	.6
BDE	2.1297	BRA	.6116	BC3	4.6989	FSP	2370	SG1	5035.0	SG2	965.1	THA	62.68	EL1	138.3	EL2	14.9	ALF	67.78

LAUNCH DATE AUG 3 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 29 1974

HELIOCENTRIC CONIC DISTANCE 537.536 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.862	GAL	.51	AZL	84.86	HCA	161.35	SMA	198.49	ECC	.23540	INC	5.1417	V1	29.350
RP	242.33	LAP	1.64	LOP	111.94	VP	20.657	GAP	4.79	AZP	94.67	TAL	2.65	TAP	164.00	RCA	151.77	APO	245.22	V2	22.652
RC	251.989	GL	40.73	GP	-44.06	ZAL	83.33	ZAP	93.19	ETS	185.49	ZAE	116.66	ETE	212.77	ZAC	43.81	ETC	290.16	LVI	22.25

PLANETOCENTRIC CONIC

C3	20.373	VHL	4.514	DLA	49.21	RAL	9.32	RAD	6643.0	VEL	11.848	PTH	6.86	VHP	2.953	DPA	-30.87	RAP	43.12	ECC	1.3353

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.89	5 3 27	4477.70	-26.77	207.33	253.53	47.03	6 18 5	3477.7	-41.71	184.11
47.89	5 3 27	4477.70	-26.77	207.33	253.53	47.03	6 18 5	3477.7	-41.71	184.11
47.89	5 3 27	4477.70	-26.77	207.33	253.53	47.03	6 18 5	3477.7	-41.71	184.11
47.89	5 3 27	4477.70	-26.77	207.33	253.53	47.03	6 18 5	3477.7	-41.71	184.11
47.89	5 3 27	4477.70	-26.77	207.33	253.53	47.03	6 18 5	3477.7	-41.71	184.11
47.89	5 3 27	4477.70	-26.77	207.33	253.53	47.03	6 18 5	3477.7	-41.71	184.11
47.89	5 3 27	4477.70	-26.77	207.33	253.53	47.03	6 18 5	3477.7	-41.71	184.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9138	TRA	-.6264	TC3	-2.2410	BAU	1.2806	SGT	2630.5	SGR	4631.1	SG3	1305.7	ST	60.9	SR	136.5	SS	123.0
RDE	2.1469	RRA	-.1603	RC3	-4.1334	FAU	.30137	RRT	.9103	RRF	.9976	RTF	.9134	CRT	.9636	CRS	-.9999	CST	-.9664
FDE	7.5820	FRA	-.7437	FC	-12.8067	BSP	8933	SGB	5326.0	R23	.0857	R13	.9940	LSA	192.9	MSA	15.3	SSA	.5
BDE	2.3333	BRA	.6466	BC3	4.7018	FSP	2264	SG1	5238.3	SG2	962.9	THA	61.61	EL1	148.7	EL2	14.9	ALF	66.48

LAUNCH DATE AUG 3 1973 FLIGHT TIME 240.00 ARRIVAL DATE MAR 31 1974

HELIOCENTRIC CONIC DISTANCE 541.312 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.862	GAL	.48	AZL	84.56	HCA	162.27	SMA	198.49	ECC	.23537	INC	5.4438
RP	242.60	LAP	1.66	LOP	112.86	VP	20.628	GAP	4.57	AZP	95.19	TAL	2.53	TAP	164.79	RCA	151.77	APO	245.21
RC	254.795	GL	42.50	GP	-45.36	ZAL	83.65	ZAP	92.03	ETS	184.51	ZAE	114.93	ETE	211.76	ZAC	42.71	ETC	290.64

V1	29.350																		
V2	22.625																		
LVI	23.43																		

PLANETOCENTRIC CONIC

C3	21.297	VHL	4.615	DLA	50.78	RAL	8.06	RAD	6643.4	VEL	11.887	PTH	6.90	VHP	3.026	DPA	-32.23	RAP	43.34

ECC	1.3505																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.88	4 51 58	4503.61	-26.94	210.14	253.58	45.17	6 7 1	3503.6	-42.55	187.39
45.88	4 51 58	4503.61	-26.94	210.14	253.58	45.17	6 7 1	3503.6	-42.55	187.39
45.88	4 51 58	4503.61	-26.94	210.14	253.58	45.17	6 7 1	3503.6	-42.55	187.39
45.88	4 51 58	4503.61	-26.94	210.14	253.58	45.17	6 7 1	3503.6	-42.55	187.39
45.88	4 51 58	4503.61	-26.94	210.14	253.58	45.17	6 7 1	3503.6	-42.55	187.39
45.88	4 51 58	4503.61	-26.94	210.14	253.58	45.17	6 7 1	3503.6	-42.55	187.39
45.88	4 51 58	4503.61	-26.94	210.14	253.58	45.17	6 7 1	3503.6	-42.55	187.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0470	TRA	-.6565	TC3	-2.2935	BAU	1.3311	SGT	2798.7	SGR	4763.0	SG3	1233.2	ST	67.9	SR	144.9	SS	121.9
RDE	2.3300	RRA	-.2158	RC3	-4.0739	FAU	.28505	RRT	.9202	RRF	.9978	RTF	.9229	CRT	.9701	CRS	-.9999	CST	-.9723
FDE	7.4958	FRA	-.8420	FC	-11.5876	BSP	9260	SGB	5524.4	R23	.0866	R13	.9941	LSA	200.6	MSA	15.3	SSA	.5
BDE	2.5544	BRA	.6911	BC3	4.6751	FSP	2135	SG1	5440.4	SG2	959.2	THA	60.60	EL1	159.3	EL2	15.0	ALF	65.32

LAUNCH DATE AUG 3 1973 FLIGHT TIME 242.00 ARRIVAL DATE APR 2 1974

HELIOCENTRIC CONIC DISTANCE 545.087 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.862	GAL	.46	AZL	84.22	HCA	163.18	SMA	198.50	ECC	.23537	INC	5.7767
RP	242.86	LAP	1.67	LOP	113.78	VP	20.599	GAP	4.34	AZP	95.53	TAL	2.40	TAP	165.58	RCA	151.78	APO	245.22
RC	257.584	GL	44.36	GP	-46.70	ZAL	83.98	ZAP	90.95	ETS	183.50	ZAE	113.24	ETE	210.78	ZAC	41.57	ETC	291.16

V1	29.350																		
V2	22.599																		
LVI	24.65																		

PLANETOCENTRIC CONIC

C3	22.381	VHL	4.731	DLA	52.42	RAL	6.62	RAD	6643.9	VEL	11.932	PTH	6.94	VHP	3.112	DPA	-33.61	RAP	43.64

ECC	1.3683																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.82	4 39 51	4530.14	-27.01	213.03	253.54	43.19	5 55 21	3530.1	-43.32	190.85
43.82	4 39 51	4530.14	-27.01	213.03	253.54	43.19	5 55 21	3530.1	-43.32	190.85
43.82	4 39 51	4530.14	-27.01	213.03	253.54	43.19	5 55 21	3530.1	-43.32	190.85
43.82	4 39 51	4530.14	-27.01	213.03	253.54	43.19	5 55 21	3530.1	-43.32	190.85
43.82	4 39 51	4530.14	-27.01	213.03	253.54	43.19	5 55 21	3530.1	-43.32	190.85
43.82	4 39 51	4530.14	-27.01	213.03	253.54	43.19	5 55 21	3530.1	-43.32	190.85
43.82	4 39 51	4530.14	-27.01	213.03	253.54	43.19	5 55 21	3530.1	-43.32	190.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1877	TRA	-.6932	TC3	-2.3281	BAU	1.3854	SGT	2969.2	SGR	4898.9	SG3	1157.1	ST	74.9	SR	153.2	SS	120.0
RDE	2.5239	RRA	-.2822	RC3	-4.0025	FAU	.26839	RRT	.9288	RRF	.9980	RTF	.9312	CRT	.9749	CRS	-1.0000	CST	-.9766
FDE	7.3548	FRA	-.9432	FC	-10.3818	BSP	9592	SGB	5728.5	R23	.0868	R13	.9943	LSA	208.0	MSA	15.4	SSA	.4
BDE	2.7894	BRA	.7484	BC3	4.6303	FSP	2000	SG1	5648.4	SG2	954.3	THA	59.67	EL1	169.8	EL2	15.0	ALF	64.30

LAUNCH DATE AUG 3 1973 FLIGHT TIME 244.00 ARRIVAL DATE APR 4 1974

HELIOCENTRIC CONIC DISTANCE 548.860 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.863	GAL	.43	AZL	83.85	HCA	164.09	SMA	198.50	ECC	.23539	INC	6.1461
RP	243.12	LAP	1.68	LOP	114.70	VP	20.572	GAP	4.12	AZP	95.91	TAL	2.26	TAP	166.36	RCA	151.78	APO	245.23
RC	260.356	GL	46.33	GP	-48.07	ZAL	84.32	ZAP	89.93	ETS	182.48	ZAE	111.59	ETE	209.81	ZAC	40.40	ETC	291.73

V1	29.350																		
V2	22.573																		
LVI	25.92																		

PLANETOCENTRIC CONIC

C3	23.662	VHL	4.864	DLA	54.13	RAL	4.95	RAD	6644.4	VEL	11.985	PTH	6.98	VHP	3.210	DPA	-35.00	RAP	44.01

ECC	1.3894																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.71	4 27 0	4557.38	-26.97	215.97	253.37	41.11	5 42 57	3557.4	-44.02	194.49
41.71	4 27 0	4557.38	-26.97	215.97	253.37	41.11	5 42 57	3557.4	-44.02	194.49
41.71	4 27 0	4557.38	-26.97	215.97	253.37	41.11	5 42 57	3557.4	-44.02	194.49
41.71	4 27 0	4557.38	-26.97	215.97	253.37	41.11	5 42 57	3557.4	-44.02	194.49
41.71	4 27 0	4557.38	-26.97	215.97	253.37	41.11	5 42 57	3557.4	-44.02	194.49
41.71	4 27 0	4557.38	-26.97	215.97	253.37	41.11	5 42 57	3557.4	-44.02	194.49
41.71	4 27 0	4557.38	-26.97	215.97	253.37	41.11	5 42 57	3557.4	-44.02	194.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.3381	TRA	-.7546	TC3	-2.3400	BAU	1.4401	SGT	3137.9	SGR	5029.3	SG3	1075.3	ST	81.9	SR	161.4	SS	117.4
RDE	2.7328	RRA	-.3517	RC3	-3.9050	FAU	.25047	RRT	.9356	RRF	.9982	RTF	.9578	CRT	.9784	CRS	-1.0000	CST	-.9798
FDE	7.1641	FRA	-1.0199	FC	-9.1642	BSP	9960	SGB	5927.9	R23	.0872	R13	.9945	LSA	215.2	MSA	15.5	SSA	.4
BDE	3.0428	BRA	.8144	BC3	4.5524	FSP	1866	SG1	5851.0	SG2	952.2	THA	58.81	EL1	180.4	EL2	15.1	ALF	63.38

LAUNCH DATE AUG 3 1973 FLIGHT TIME 246.00 ARRIVAL DATE APR 6 1974

HELIOCENTRIC CONIC DISTANCE 552.631 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.864	GAL	.40	AZL	83.44	HCA	165.00	SMA	198.52	ECC	.23543	INC	6.5583
RP	243.37	LAP	1.69	LOP	115.62	VP	20.545	GAP	3.89	AZP	96.34	TAL	2.13	TAP	167.13	RCA	151.78	APO	245.25
RC	263.112	GL	48.41	GP	-49.47	ZAL	84.67	ZAP	89.00	ETS	181.44	ZAE	109.99	ETE	208.86	ZAC	39.19	ETC	292.35

V1	29.350																		
V2	22.548																		
LVI	27.23																		

PLANETOCENTRIC CONIC

C3	25.169	VHL	5.019	DLA	55.89	RAL	3.01	RAD	6645.1	VEL	12.048	PTH	7.03	VHP	3.325	DPA	-36.39	RAP	44.47

ECC	1.4145																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.56	4 13 11	4585.58	-26.80	218.96	253.02	38.92	5 29 37	3585.6	-44.59	198.32
39.56	4 13 11	4585.58	-26.80	218.96	253.02	38.92	5 29 37	3585.6	-44.59	198.32
39.56	4 13 11	4585.58	-26.80	218.96	253.02	38.92	5 29 37	3585.6	-44.59	198.32
39.56	4 13 11	4585.58	-26.80	218.96	253.02	38.92	5 29 37	3585.6	-44.59	198.32
39.56	4 13 11	4585.58	-26.80	218.96	253.02	38.92	5 29 37	3585.6	-44.59	198.32
39.56	4 13 11	4585.58	-26.80	218.96	253.02	38.92	5 29 37	3585.6	-44.59	198.32
39.56	4 13 11	4585.58	-26.80	218.96	253.02	38.92	5 29 37	3585.6	-44.59	198.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4950	TRA	-.7836	TC3	-2.3296	BAU	1.4959	SGT	3305.3	SGR	5157.0	SG3	989.5	ST	88.7	SR	169.4	SS	113.9
RDE	2.9563	RRA	-.4369	RC3	-3.7822	FAU	.23153	RRT	.9420	RRF	.9984	RTF	.9438	CRT	.9812	CRS	-1.0000	CST	-.9823
FDE	6.9168	FRA	-1.0999	FC	-7.9576	BSP	10288	SGB	6125.4	R23	.0871	R13	.9946	LSA	222.0	MSA	15.6	SSA	.3
BDE	3.3128	BRA	.8972	BC3	4.4421	FSP	1715	SG1	6051.9	SG2	945.6	THA	58.01	EL1	190.6	EL2	15.2	ALF	62.62

LAUNCH DATE AUG 3 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 8 1974

HELIOCENTRIC CONIC DISTANCE 556.401 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.864	GAL	.38	AZL	82.98	HCA	165.91	SMA	198.54	ECC	.23549	INC	7.0213	V1	29.380
RP	243.62	LAP	1.71	LOP	116.53	VP	20.520	GAP	3.67	AZP	96.81	TAL	1.98	TAP	167.89	RCA	151.78	APO	245.29	V2	22.523
RC	265.850	GL	50.60	GP	-50.91	ZAL	85.02	ZAP	88.15	ETS	180.41	ZAE	108.44	ETE	207.93	ZAC	37.95	ETC	293.04	LVI	28.58

PLANETOCENTRIC CONIC

C3	27.025	VHL	5.199	DLA	57.70	RAL	.74	RAD	6645.8	VEL	12.124	PTH	7.10	VHP	3.457	DPA	-37.80	RAP	45.01	ECC	1.4448

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.36	3 58 11	4614.95	-26.46	222.00	252.42	36.64	5 15 6	3614.9	-45.02	202.34
37.36	3 58 11	4614.95	-26.46	222.00	252.42	36.64	5 15 6	3614.9	-45.02	202.34
37.36	3 58 11	4614.95	-26.46	222.00	252.42	36.64	5 15 6	3614.9	-45.02	202.34
37.36	3 58 11	4614.95	-26.46	222.00	252.42	36.64	5 15 6	3614.9	-45.02	202.34
37.36	3 58 11	4614.95	-26.46	222.00	252.42	36.64	5 15 6	3614.9	-45.02	202.34
37.36	3 58 11	4614.95	-26.46	222.00	252.42	36.64	5 15 6	3614.9	-45.02	202.34
37.36	3 58 11	4614.95	-26.46	222.00	252.42	36.64	5 15 6	3614.9	-45.02	202.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6545	TRA	-.8427	TC3	-2.2974	BAU	1.5561	SGT	3471.7	SGR	5290.6	SG3	901.9	ST	94.9	SR	176.8	SS	109.3
RDE	3.1929	RRA	-.5442	RC3	-3.6431	FAU	.21228	RRT	.9482	RRF	.9985	RTF	.9496	CRT	.9833	CRS	-1.0000	CST	-.9842
FDE	6.6051	FRA	-1.1856	FC3	-6.8003	BSP	10640	SGB	6328.0	R23	.0861	R13	.9948	LSA	228.0	MSA	15.6	SSA	.3
BDE	3.5962	BRA	1.0032	BC3	4.3070	FSP	1566	SG1	6258.9	SG2	932.3	THA	57.29	EL1	200.1	EL2	15.3	ALF	62.01

LAUNCH DATE AUG 3 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 10 1974

HELIOCENTRIC CONIC DISTANCE 560.167 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.866	GAL	.35	AZL	82.45	HCA	166.81	SMA	198.56	ECC	.23556	INC	7.5456	V1	29.350
RP	243.86	LAP	1.72	LOP	117.45	VP	20.495	GAP	3.45	AZP	97.35	TAL	1.84	TAP	168.65	RCA	151.79	APO	245.33	V2	22.499
RC	268.570	GL	52.93	GP	-52.38	ZAL	85.39	ZAP	87.39	ETS	179.38	ZAE	106.96	ETE	207.03	ZAC	36.66	ETC	293.79	LVI	29.97

PLANETOCENTRIC CONIC

C3	29.259	VHL	5.409	DLA	59.56	RAL	358.04	RAD	6646.7	VEL	12.215	PTH	7.17	VHP	3.612	DPA	-39.20	RAP	45.66	ECC	1.4815

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.13	3 41 37	4645.87	-25.91	225.06	251.46	34.29	4 59 3	3645.9	-45.25	206.55
35.13	3 41 37	4645.87	-25.91	225.06	251.46	34.29	4 59 3	3645.9	-45.25	206.55
35.13	3 41 37	4645.87	-25.91	225.06	251.46	34.29	4 59 3	3645.9	-45.25	206.55
35.13	3 41 37	4645.87	-25.91	225.06	251.46	34.29	4 59 3	3645.9	-45.25	206.55
35.13	3 41 37	4645.87	-25.91	225.06	251.46	34.29	4 59 3	3645.9	-45.25	206.55
35.13	3 41 37	4645.87	-25.91	225.06	251.46	34.29	4 59 3	3645.9	-45.25	206.55
35.13	3 41 37	4645.87	-25.91	225.06	251.46	34.29	4 59 3	3645.9	-45.25	206.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8137	TRA	-.9096	TC3	-2.2386	BAU	1.6147	SGT	3629.2	SGR	5410.1	SG3	809.5	ST	100.3	SR	183.6	SS	103.7
RDE	3.4426	RRA	-.6564	RC3	-3.4682	FAU	.19161	RRT	.9529	RRF	.9986	RTF	.9539	CRT	.9846	CRS	-1.0000	CST	-.9853
FDE	6.2264	FRA	-1.2359	FC3	-5.6697	BSP	10978	SGB	6514.6	R23	.0860	R13	.9949	LSA	232.9	MSA	15.8	SSA	.3
BDE	3.8912	BRA	1.1229	BC3	4.1279	FSP	1408	SG1	6448.8	SG2	923.7	THA	56.64	EL1	208.6	EL2	15.4	ALF	61.56

LAUNCH DATE AUG 3 1973 FLIGHT TIME 252.00 ARRIVAL DATE APR 12 1974

HELIOCENTRIC CONIC DISTANCE 563.930 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.867	GAL	.32	AZL	81.86	HCA	167.72	SMA	198.59	ECC	.23566	INC	8.1440	V1	29.350
RP	244.10	LAP	1.73	LOP	118.36	VP	20.471	GAP	3.23	AZP	97.96	TAL	1.69	TAP	169.40	RCA	151.79	APO	245.39	V2	22.475
RC	271.273	GL	55.39	GP	-53.88	ZAL	85.76	ZAP	86.73	ETS	178.38	ZAE	105.53	ETE	206.16	ZAC	35.35	ETC	294.63	LVI	31.39

PLANETOCENTRIC CONIC

C3	32.007	VHL	5.658	DLA	61.43	RAL	354.80	RAD	6647.8	VEL	12.326	PTH	7.26	VHP	3.794	DPA	-40.60	RAP	46.42	ECC	1.5268

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.89	3 23 7	4678.57	-25.14	228.12	250.01	31.88	4 41 6	3678.6	-45.22	210.90
32.89	3 23 7	4678.57	-25.14	228.12	250.01	31.88	4 41 6	3678.6	-45.22	210.90
32.89	3 23 7	4678.57	-25.14	228.12	250.01	31.88	4 41 6	3678.6	-45.22	210.90
32.89	3 23 7	4678.57	-25.14	228.12	250.01	31.88	4 41 6	3678.6	-45.22	210.90
32.89	3 23 7	4678.57	-25.14	228.12	250.01	31.88	4 41 6	3678.6	-45.22	210.90
32.89	3 23 7	4678.57	-25.14	228.12	250.01	31.88	4 41 6	3678.6	-45.22	210.90
32.89	3 23 7	4678.57	-25.14	228.12	250.01	31.88	4 41 6	3678.6	-45.22	210.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.9573	TRA	-.9921	TC3	-2.1602	BAU	1.6844	SGT	3784.0	SGR	5547.4	SG3	718.4	ST	104.1	SR	189.0	SS	96.7
RDE	3.6962	RRA	-.8038	RC3	-3.2907	FAU	.17167	RRT	.9574	RRF	.9986	RTF	.9580	CRT	.9852	CRS	-1.0000	CST	-.9858
FDE	5.7676	FRA	-1.2862	FC3	-4.6434	BSP	11280	SGB	6715.1	R23	.0848	R13	.9950	LSA	235.9	MSA	16.0	SSA	.3
BDE	4.1824	BRA	1.2769	BC3	3.9364	FSP	1246	SG1	6653.1	SG2	910.7	THA	56.13	EL1	215.2	EL2	15.7	ALF	61.35

LAUNCH DATE AUG 3 1973 FLIGHT TIME 254.00 ARRIVAL DATE APR 14 1974

HELIOCENTRIC CONIC DISTANCE 567.690 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.869	GAL	.29	AZL	81.17	HCA	168.61	SMA	198.62	ECC	.23577	INC	8.8349	V1	29.350
RP	244.34	LAP	1.74	LOP	119.27	VP	20.449	GAP	3.01	AZP	98.66	TAL	1.54	TAP	170.15	RCA	151.79	APO	245.45	V2	22.452
RC	273.957	GL	57.99	GP	-55.41	ZAL	86.13	ZAP	86.18	ETS	177.41	ZAE	104.19	ETE	205.33	ZAC	34.00	ETC	295.55	LVI	32.88

PLANETOCENTRIC CONIC

C3	35.438	VHL	5.953	DLA	63.31	RAL	350.89	RAD	6649.1	VEL	12.463	PTH	7.36	VHP	4.008	DPA	-41.99	RAP	47.29	ECC	1.5832

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.67	3 2 11	4713.36	-24.08	231.13	247.92	29.47	4 20 44	3713.4	-44.89	215.31
30.67	3 2 11	4713.36	-24.08	231.13	247.92	29.47	4 20 44	3713.4	-44.89	215.31
30.67	3 2 11	4713.36	-24.08	231.13	247.92	29.47	4 20 44	3713.4	-44.89	215.31
30.67	3 2 11	4713.36	-24.08	231.13	247.92	29.47	4 20 44	3713.4	-44.89	215.31
30.67	3 2 11	4713.36	-24.08	231.13	247.92	29.47	4 20 44	3713.4	-44.89	215.31
30.67	3 2 11	4713.36	-24.08	231.13	247.92	29.47	4 20 44	3713.4	-44.89	215.31
30.67	3 2 11	4713.36	-24.08	231.13	247.92	29.47	4 20 44	3713.4	-44.89	215.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.0794	TRA	-1.0846	TC3	-2.0514	BAU	1.7490	SGT	3920.6	SGR	5674.0	SG3	625.1	ST	106.0	SR	193.1	SS	88.6
RDE	3.9591	RRA	-.9702	RC3	-3.0692	FAU	.15006	RRT	.9612	RRF	.9986	RTF	.9611	CRT	.9851	CRS	-1.0000	CST	-.9855
FDE	5.2438	FRA	-1.3058	FC3	-3.6659	BSP	11660	SGB	6896.8	R23	.0845	R13	.9951	LSA	236.9	MSA	16.3	SSA	.2
BDE	4.4720	BRA	1.4552	BC3	3.6916	FSP	1089	SG1	6838.1	SG2	897.6	THA	55.74	EL1	219.7	EL2	16.0	ALF	61.43

LAUNCH DATE AUG 3 1973 FLIGHT TIME 256.00 ARRIVAL DATE APR 16 1974

HELIOCENTRIC CONIC DISTANCE 571.449 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.871	GAL	.26	AZL	80.36	HCA	169.51	SMA	198.69	ECC	.23590	INC	9.6396	V1	29.350
RP	244.56	LAP	1.75	LOP	120.17	VP	20.427	GAP	2.79	AZP	99.48	TAL	1.38	TAP	170.88	RCA	151.79	APO	245.52	V2	22.430
RC	276.623	GL	60.76	GP	-56.94	ZAL	86.49	ZAP	85.72	ETS	176.49	ZAE	102.93	ETE	204.55	ZAC	32.63	ETC	296.58	LVI	34.34

PLANETOCENTRIC CONIC

C3	39.792	VHL	6.308	DLA	65.14	RAL	346.12	RAD	6650.6	VEL	12.636	PTH	7.49	VHP	4.264	DPA	-43.35	RAP	48.28	ECC	1.6549

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.52	2 38 6	4750.71	-22.71	234.03	244.95	27.11	3 57 17	3750.7	-44.18	219.71
28.52	2 38 6	4750.71	-22.71	234.03	244.95	27.11	3 57 17	3750.7	-44.18	219.71
28.52	2 38 6	4750.71	-22.71	234.03	244.95	27.11	3 57 17	3750.7	-44.18	219.71
28.52	2 38 6	4750.71	-22.71	234.03	244.95	27.11	3 57 17	3750.7	-44.18	219.71
28.52	2 38 6	4750.71	-22.71	234.03	244.95	27.11	3 57 17	3750.7	-44.18	219.71
28.52	2 38 6	4750.71	-22.71	234.03	244.95	27.11	3 57 17	3750.7	-44.18	219.71
28.52	2 38 6	4750.71	-22.71	234.03	244.95	27.11	3 57 17	3750.7	-44.18	219.71

DIFFERENTIAL CORRECTIONS

TDE	2.1396	TRA	-1.1951	TC3	-1.9212	BAU	1.8310						
RDE	4.1686	RRA	-1.1915	RC3	-2.8558	FAU	.12979						
FDE	4.5947	FRA	-1.3244	FC3	-2.8238	BSP	11835						
BDE	4.6857	BRA	1.6876	BC3	3.4418	FSP	909						

MID-COURSE EXECUTION ACCURACY

SGT	4039.5	SGR	5826.0	SG3	534.7						
RRT	.9661	RRF	.9986	RTF	.9654						
SGB	7089.4	R23	.0811	R13	.9953						
SG1	7036.7	SG2	863.4	THA	55.59						

ORBIT DETERMINATION ACCURACY

ST	104.7	SR	193.3	SS	78.5						
CRT	.9842	CRS	-1.0000	CST	-.9844						
LSA	232.8	NSA	16.6	SSA	.2						
EL1	219.2	EL2	16.4	ALF	61.77						

LAUNCH DATE AUG 3 1973 FLIGHT TIME 304.00 ARRIVAL DATE JUN 3 1974

HELIOCENTRIC CONIC DISTANCE 662.305 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.957	GAL	-.87	AZL	99.57	HCA	191.18	SMA	200.35	ECC	.24279	INC	9.5728	V1	29.350
RP	248.45	LAP	1.85	LOP	141.55	VP	20.148	GAP	-2.14	AZP	80.61	TAL	355.53	TAP	186.71	RCA	151.71	APO	249.00	V2	22.048
RC	333.364	GL	-60.06	GP	52.50	ZAL	92.43	ZAP	71.82	ETS	207.95	ZAE	86.34	ETE	186.86	ZAC	138.62	ETC	291.69	LVI	-72.45

PLANETOCENTRIC CONIC

C3	39.996	VHL	6.324	DLA	-40.82	RAL	62.41	RAD	6650.7	VEL	12.644	PTH	7.49	VHP	4.173	DPA	52.94	RAP	347.61	ECC	1.6582

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	18 9 13	2390.64	-1.92	61.82	296.28	137.55	18 49 4	1390.6	16.34	45.78
59.25	21 16 28	1888.23	16.08	33.58	312.89	128.04	21 47 56	888.2	30.08	12.21
59.25	21 16 28	1888.23	16.08	33.58	312.89	128.04	21 47 56	888.2	30.08	12.21
59.25	21 16 28	1888.23	16.08	33.58	312.89	128.04	21 47 56	888.2	30.08	12.21
59.25	21 16 28	1888.23	16.08	33.58	312.89	128.04	21 47 56	888.2	30.08	12.21
59.25	21 16 28	1888.23	16.08	33.58	312.89	128.04	21 47 56	888.2	30.08	12.21
59.25	21 16 28	1888.23	16.08	33.58	312.89	128.04	21 47 56	888.2	30.08	12.21

DIFFERENTIAL CORRECTIONS

TDE	-5.4844	TRA	3.3696	TC3	-3.9783	BAU	2.4455						
RDE	2.7770	RRA	-2.6187	RC3	2.2560	FAU	.14107						
FDE	-3.0661	FRA	3.3529	FC3	-3.0535	BSP	16601						
BDE	6.1474	BRA	4.2675	BC3	4.5734	FSP	926						

MID-COURSE EXECUTION ACCURACY

SGT	8141.2	SGR	4929.4	SG3	537.8						
RRT	-.9844	RRF	-.9970	RTF	.9754						
SGB	9517.3	R23	.1633	R13	-.9842						
SG1	9488.1	SG2	744.9	THA	148.99						

ORBIT DETERMINATION ACCURACY

ST	255.8	SR	134.4	SS	54.6						
CRT	-.9930	CRS	.9987	CST	-.9855						
LSA	293.6	NSA	16.1	SSA	.3						
EL1	288.6	EL2	14.1	ALF	152.36						

LAUNCH DATE AUG 3 1973 FLIGHT TIME 306.00 ARRIVAL DATE JUN 5 1974

HELIOCENTRIC CONIC DISTANCE 666.038 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.961	GAL	-.92	AZL	98.88	HCA	192.05	SMA	200.45	ECC	.24320	INC	8.8812	V1	29.350
RP	248.54	LAP	1.85	LOP	142.43	VP	20.146	GAP	-2.34	AZP	81.31	TAL	355.28	TAP	187.33	RCA	151.70	APO	249.20	V2	22.039
RC	335.380	GL	-57.62	GP	50.62	ZAL	92.82	ZAP	70.34	ETS	208.31	ZAE	85.21	ETE	187.80	ZAC	136.90	ETC	290.96	LVI	-70.90

PLANETOCENTRIC CONIC

C3	36.303	VHL	6.025	DLA	-38.47	RAL	61.51	RAD	6649.4	VEL	12.498	PTH	7.38	VHP	3.979	DPA	51.38	RAP	349.36	ECC	1.5974

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 43 26	2437.91	-4.29	63.80	292.01	137.43	18 24 6	1437.9	14.04	47.91
60.00	19 54 38	2087.70	7.00	43.08	302.71	129.79	20 29 26	1087.7	22.26	23.80
62.76	21 29 15	1817.40	16.26	27.75	309.97	125.36	21 59 32	817.4	29.24	5.74
62.76	21 29 15	1817.40	16.26	27.75	309.97	125.36	21 59 32	817.4	29.24	5.74
62.76	21 29 15	1817.40	16.26	27.75	309.97	125.36	21 59 32	817.4	29.24	5.74
62.76	21 29 15	1817.40	16.26	27.75	309.97	125.36	21 59 32	817.4	29.24	5.74
62.76	21 29 15	1817.40	16.26	27.75	309.97	125.36	21 59 32	817.4	29.24	5.74

DIFFERENTIAL CORRECTIONS

TDE	-5.2292	TRA	3.3087	TC3	-4.4186	BAU	2.4286						
RDE	2.4934	RRA	-2.4537	RC3	2.3487	FAU	.15722						
FDE	-3.2367	FRA	3.7080	FC3	-3.7492	BSP	16680						
BDE	5.7932	BRA	4.1193	BC3	5.0041	FSP	1053						

MID-COURSE EXECUTION ACCURACY

SGT	8320.3	SGR	4744.9	SG3	612.0						
RRT	-.9837	RRF	-.9970	RTF	.9750						
SGB	9578.1	R23	.1676	R13	-.9833						
SG1	9549.3	SG2	742.7	THA	150.51						

ORBIT DETERMINATION ACCURACY

ST	256.0	SR	126.8	SS	57.8						
CRT	-.9925	CRS	.9986	CST	-.9846						
LSA	291.0	NSA	16.3	SSA	.3						
EL1	285.3	EL2	13.9	ALF	153.76						

LAUNCH DATE AUG 3 1973 FLIGHT TIME 308.00 ARRIVAL DATE JUN 7 1974

HELIOCENTRIC CONIC DISTANCE 669.772 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.966	GAL	-.97	AZL	98.28	HCA	192.92	SMA	200.54	ECC	.24361	INC	8.2817	V1	29.350
RP	248.63	LAP	1.85	LOP	143.31	VP	20.144	GAP	-2.54	AZP	81.93	TAL	355.03	TAP	187.95	RCA	151.69	APO	249.40	V2	22.030
RC	337.366	GL	-55.32	GP	48.78	ZAL	93.23	ZAP	68.89	ETS	208.56	ZAE	84.08	ETE	188.64	ZAC	135.20	ETC	290.29	LVI	-69.32

PLANETOCENTRIC CONIC

C3	33.334	VHL	5.774	DLA	-36.23	RAL	60.78	RAD	6648.3	VEL	12.379	PTH	7.30	VHP	3.817	DPA	49.85	RAP	351.00	ECC	1.5486

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 22 31	2478.49	-6.32	65.51	288.63	137.25	18 3 49	1478.5	12.04	49.70
60.00	19 12 49	2184.59	2.75	47.75	297.30	130.22	19 49 13	1184.6	18.43	29.12
66.34	21 44 44	1741.95	16.22	21.58	307.37	122.85	22 13 46	742.0	28.25	359.07
66.34	21 44 44	1741.95	16.22	21.58	307.37	122.85	22 13 46	742.0	28.25	359.07
66.34	21 44 44	1741.95	16.22	21.58	307.37	122.85	22 13 46	742.0	28.25	359.07
66.34	21 44 44	1741.95	16.22	21.58	307.37	122.85	22 13 46	742.0	28.25	359.07
66.34	21 44 44	1741.95	16.22	21.58	307.37	122.85	22 13 46	742.0	28.25	359.07

DIFFERENTIAL CORRECTIONS

TDE	-4.9895	TRA	3.2648	TC3	-4.8523	BAU	2.4165						
RDE	2.2415	RRA	-2.3064	RC3	2.4205	FAU	.17221						
FDE	-3.3457	FRA	4.0309	FC3	-4.4725	BSP	16841						
BDE	5.4699	BRA	3.9973	BC3	5.4225	FSP	1177						

MID-COURSE EXECUTION ACCURACY

SGT	8487.9	SGR	4562.0	SG3	681.9						
RRT	-.9832	RRF	-.9969	RTF	.9747						
SGB	9636.2	R23	.1712	R13	-.9825						
SG1	9608.1	SG2	735.1	THA	151.97						

ORBIT DETERMINATION ACCURACY

ST	254.9	SR	119.2	SS	60.1						
CRT	-.9920	CRS	.9984	CST	-.9834						
LSA	287.3	NSA	16.6	SSA	.3						
EL1	281.1	EL2	13.7	ALF	155.06						

LAUNCH DATE AUG 3 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 9 1974

HELIOCENTRIC CONIC DISTANCE 673.508 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.971	GAL	-1.02	AZL	97.76	HCA	193.79	SMA	200.64	ECC	.24404	INC	7.7568	V1	29.330
RP	248.71	LAP	1.84	LOP	144.19	VP	20.144	GAP	-2.74	AZP	82.46	TAL	354.77	TAP	188.56	RCA	151.68	APO	249.60	V2	22.023
RC	339.321	GL	-53.15	GP	46.99	ZAL	93.67	ZAP	67.47	ETS	208.72	ZAE	82.94	ETE	189.37	ZAC	133.53	ETC	289.70	LVI	-67.74

PLANETOCENTRIC CONIC

C3	30.915	VHL	5.560	DLA	-34.11	RAL	60.18	RAD	6647.4	VEL	12.282	PTH	7.22	VHP	3.683	DPA	48.37	RAP	352.54	ECC	1.5088

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 4 57	2514.87	-8.14	67.05	285.93	137.04	17 46 51	1514.9	10.24	51.29
60.00	18 43 22	2252.82	-.25	51.01	293.46	130.30	19 20 55	1252.8	15.63	32.71
70.00	21 49 29	1701.98	14.59	17.36	304.17	121.23	22 17 51	702.0	26.12	354.88
70.09	22 3 43	1658.59	16.03	14.87	305.06	120.52	22 31 22	658.6	27.16	351.97
70.09	22 3 43	1658.59	16.03	14.87	305.06	120.52	22 31 22	658.6	27.16	351.97
70.09	22 3 43	1658.59	16.03	14.87	305.06	120.52	22 31 22	658.6	27.16	351.97
110.00	2 52 52	6036.84	14.59	284.19	304.17	121.23	4 33 29	5036.8	26.12	261.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.7712	TRA	3.2283	TC3	-5.2840	BAU	2.4112	SGT	8651.1	SGR	4382.4	SG3	747.0	ST	253.3	SR	111.8	SS	61.5
RDE	2.0197	RRA	-2.1728	RC3	2.4727	FAU	.18595	RRT	-.9827	RRF	-.9967	RTF	.9743	CRT	-.9914	CRS	.9982	CST	-.9818
FDE	-3.4032	FRA	4.3212	FC3	-5.2073	BSP	16938	SGB	9697.7	R23	.1750	R13	-.9816	LSA	283.1	MSA	16.8	SSA	.4
BDE	5.1811	BRA	3.8914	BC3	5.8339	FSP	1289	SG1	9670.4	SG2	727.1	THA	153.37	EL1	276.5	EL2	13.4	ALF	158.31

LAUNCH DATE AUG 3 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 11 1974

HELIOCENTRIC CONIC DISTANCE 677.244 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.976	GAL	-1.08	AZL	97.29	HCA	194.66	SMA	200.74	ECC	.24447	INC	7.2932	V1	29.350
RP	248.78	LAP	1.84	LOP	145.06	VP	20.144	GAP	-2.94	AZP	82.94	TAL	354.51	TAP	189.17	RCA	151.66	APO	249.81	V2	22.015
RC	341.246	GL	-51.11	GP	45.27	ZAL	94.11	ZAP	66.10	ETS	208.82	ZAE	81.79	ETE	190.02	ZAC	131.90	ETC	289.17	LVI	-66.17

PLANETOCENTRIC CONIC

C3	28.921	VHL	5.378	DLA	-32.08	RAL	59.69	RAD	6646.6	VEL	12.201	PTH	7.16	VHP	3.570	DPA	46.94	RAP	353.98	ECC	1.4760

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 49 54	2548.33	-9.80	68.49	283.73	136.80	17 32 22	1548.3	8.58	52.73
60.00	18 20 10	2308.10	-2.68	53.65	290.52	130.23	18 58 38	1308.1	13.31	35.54
70.00	20 31 37	1921.05	6.56	29.25	297.45	123.59	21 3 38	921.1	19.62	8.55
74.18	22 27 47	1561.63	15.70	7.21	303.03	118.34	22 53 49	561.6	26.00	344.01
74.18	22 27 47	1561.63	15.70	7.21	303.03	118.34	22 53 49	561.6	26.00	344.01
74.18	22 27 47	1561.63	15.70	7.21	303.03	118.34	22 53 49	561.6	26.00	344.01
110.00	1 34 59	6255.91	6.56	296.07	297.45	123.59	3 19 15	5255.9	19.62	275.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.5696	TRA	3.2023	TC3	-5.7103	BAU	2.4117	SGT	8811.2	SGR	4211.4	SG3	807.9	ST	251.0	SR	104.7	SS	62.2
RDE	1.8249	RRA	-2.0534	RC3	2.5101	FAU	.19871	RRT	-.9821	RRF	-.9965	RTF	.9739	CRT	-.9908	CRS	.9979	CST	-.9800
FDE	-3.4182	FRA	4.5852	FC3	-5.9483	BSP	17054	SGB	9765.9	R23	.1784	R13	-.9807	LSA	278.5	MSA	17.0	SSA	.4
BDE	4.9205	BRA	3.8041	BC3	6.2376	FSP	1394	SG1	9739.6	SG2	717.2	THA	154.71	EL1	271.6	EL2	13.1	ALF	157.48

LAUNCH DATE AUG 3 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 13 1974

HELIOCENTRIC CONIC DISTANCE 680.981 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.981	GAL	-1.13	AZL	96.88	HCA	195.53	SMA	200.84	ECC	.24491	INC	6.8808	V1	29.350
RP	248.85	LAP	1.84	LOP	145.94	VP	20.145	GAP	-3.14	AZP	83.37	TAL	354.25	TAP	189.77	RCA	151.65	APO	250.02	V2	22.009
RC	343.139	GL	-49.17	GP	43.61	ZAL	94.58	ZAP	64.77	ETS	208.86	ZAE	80.65	ETE	190.60	ZAC	130.32	ETC	288.70	LVI	-64.63

PLANETOCENTRIC CONIC

C3	27.260	VHL	5.221	DLA	-30.15	RAL	59.30	RAD	6645.9	VEL	12.133	PTH	7.10	VHP	3.475	DPA	45.57	RAP	355.33	ECC	1.4486

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 36 50	2579.60	-11.35	69.64	281.94	136.52	17 19 49	1579.6	7.02	54.06
60.00	18 0 57	2355.77	-4.78	55.94	288.19	130.06	18 40 13	1355.8	11.28	37.93
70.00	19 55 42	2018.23	2.88	34.35	293.96	124.05	20 29 20	1018.2	16.37	14.20
79.08	23 0 59	1437.22	15.28	357.61	301.24	116.32	23 24 56	437.2	24.80	334.20
79.08	23 0 59	1437.22	15.28	357.61	301.24	116.32	23 24 56	437.2	24.80	334.20
79.08	23 0 59	1437.22	15.28	357.61	301.24	116.32	23 24 56	437.2	24.80	334.20
110.00	0 59 4	1065.05	2.88	323.27	293.96	124.05	1 16 49	65.0	16.37	303.12

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.3811	TRA	3.1868	TC3	-6.1232	BAU	2.4144	SGT	8964.1	SGR	4044.2	SG3	863.3	ST	248.1	SR	98.1	SS	62.8
RDE	1.6534	RRA	-1.9443	RC3	2.5292	FAU	.21010	RRT	-.9817	RRF	-.9962	RTF	.9736	CRT	-.9902	CRS	.9975	CST	-.9780
FDE	-3.3972	FRA	4.8190	FC3	-6.6725	BSP	17224	SGB	9834.2	R23	.1808	R13	-.9799	LSA	273.5	MSA	17.2	SSA	.4
BDE	4.6827	BRA	3.7331	BC3	6.6250	FSP	1493	SG1	9808.9	SG2	703.7	THA	155.98	EL1	266.5	EL2	12.7	ALF	158.58

LAUNCH DATE AUG 3 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 15 1974

HELIOCENTRIC CONIC DISTANCE 684.719 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.986	GAL	-1.19	AZL	96.51	HCA	196.39	SMA	200.94	ECC	.24536	INC	6.5112	V1	29.350
RP	248.92	LAP	1.83	LOP	146.82	VP	20.146	GAP	-3.33	AZP	83.75	TAL	353.98	TAP	190.37	RCA	151.64	APO	250.24	V2	22.003
RC	345.001	GL	-47.34	GP	42.01	ZAL	95.06	ZAP	63.48	ETS	208.85	ZAE	79.50	ETE	191.11	ZAC	128.79	ETC	288.27	LVI	-63.13

PLANETOCENTRIC CONIC

C3	25.865	VHL	5.086	DLA	-28.31	RAL	58.99	RAD	6645.3	VEL	12.076	PTH	7.06	VHP	3.396	DPA	44.25	RAP	356.60	ECC	1.4257

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 25 21	2609.16	-12.81	71.14	280.48	136.23	17 8 50	1609.2	5.55	55.31
60.00	17 44 36	2398.35	-6.64	57.99	286.32	129.84	18 24 34	1398.4	9.45	40.04
70.00	19 29 14	2090.84	.11	38.13	291.41	124.15	20 4 4	1090.6	13.83	18.28
80.00	21 46 16	1661.54	7.33	10.02	295.85	119.02	22 13 57	661.5	18.60	348.32
88.54	0 19 51	1178.90	14.77	338.34	299.67	114.43	0 39 30	178.9	23.59	314.76
100.00	0 33 3	1136.02	7.33	331.39	295.85	119.02	0 51 59	136.0	18.60	309.69
110.00	0 32 36	1137.46	.11	327.05	291.41	124.15	0 51 33	137.5	13.83	307.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-4.2086	TRA	3.1781	TC3	-6.5297	BAU	2.4219	SGT	9117.7	SGR	3884.9	SG3	914.1	ST	245.0	SR	91.8	SS	62.2
RDE	1.5026	RRA	-1.8466	RC3	2.5340	FAU	.22029	RRT	-.9812	RRF	-.9958	RTF	.9732	CRT	-.9896	CRS	.9970	CST	-.9755
FDE	-3.3469	FRA	5.0322	FC3	-7.3736	BSP	17327	SGB	9910.9	R23	.1833	R13	-.9790	LSA	268.4	MSA	17.5	SSA	.5
BDE	4.4688	BRA	3.6756	BC3	7.0041	FSP	1575	SG1	9886.7	SG2	691.8	THA	157.19	EL1	261.4	EL2	12.4	ALF	159.60

LAUNCH DATE AUG 3 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 17 1974

HELIOCENTRIC CONIC DISTANCE 688.457 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.991	GAL	-1.24	AZL	96.18	HCA	197.26	SMA	201.04	ECC	.24581	INC	5.1781	V1	29.350
RP	248.97	LAP	1.83	LOP	147.69	VP	20.148	GAP	-3.53	AZP	84.10	TAL	353.70	TAP	190.97	RCA	151.62	APO	250.45	V2	21.997
RC	346.831	GL	-45.60	GP	40.49	ZAL	95.55	ZAP	62.23	ETS	208.80	ZAE	78.37	ETE	191.56	ZAC	127.31	ETC	287.89	LVI	-61.68

PLANETOCENTRIC CONIC

C3	24.683	VHL	4.968	DLA	-26.56	RAL	58.76	RAD	6644.9	VEL	12.027	PTH	7.02	VHP	3.329	DPA	43.00	RAP	357.80	ECC	1.4062

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 15 11	2637.28	-14.19	72.39	279.30	135.91	16 59 8	1637.3	4.14	58.49
60.00	17 30 24	2437.22	-8.33	59.88	284.81	129.58	18 11 1	1437.2	7.77	41.94
70.00	19 7 54	2150.53	-2.18	41.26	289.43	124.09	19 43 44	1150.5	11.67	21.57
80.00	21 8 24	1773.32	3.60	16.22	293.02	119.66	21 37 58	773.3	15.40	355.08
90.00	23 0 46	1410.97	6.59	351.20	294.66	117.56	23 24 17	411.0	17.36	329.34
100.00	23 51 16	1247.79	3.60	337.58	293.02	119.66	24 12 4	247.8	15.40	316.45
110.00	0 11 16	1197.35	-2.18	330.18	289.43	124.09	0 31 13	197.4	11.67	310.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.0440	TRA	3.1782	TC3	-6.9224	BAU	2.4319	SGT	9265.8	SGR	3731.6	SG3	959.9	ST	241.4	SR	85.9	SS	61.6
RDE	1.3676	RRA	-1.7564	RC3	2.5278	FAU	.22951	RRT	-.9808	RRF	-.9954	RTF	.9729	CRT	-.9889	CRS	.9963	CST	-.9727
FDE	-3.2663	FRA	5.2183	FC3	-8.0499	BSP	17503	SGB	9988.9	R23	.1848	R13	-.9783	LSA	262.9	MSA	17.7	$SA	.5
BDE	4.2690	BRA	3.6312	BC3	7.3695	FSP	1655	SG1	9966.0	SG2	676.6	THA	158.34	EL1	255.9	EL2	12.0	ALF	160.56

LAUNCH DATE AUG 3 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 19 1974

HELIOCENTRIC CONIC DISTANCE 692.194 EARTH TO MARS

RL	151.80	LAL	.00	LOL	310.52	VL	32.996	GAL	-1.30	AZL	95.88	HCA	198.13	SMA	201.14	ECC	.24627	INC	5.6761	V1	29.350
RP	249.02	LAP	1.83	LOP	148.57	VP	20.151	GAP	-3.72	AZP	84.41	TAL	353.43	TAP	191.56	RCA	151.60	APO	250.67	V2	21.992
RC	348.628	GL	-43.95	GP	39.03	ZAL	96.05	ZAP	61.03	ETS	208.71	ZAE	77.24	ETE	191.96	ZAC	125.89	ETC	287.55	LVI	-60.27

PLANETOCENTRIC CONIC

C3	23.677	VHL	4.866	DLA	-24.89	RAL	58.58	RAD	6644.4	VEL	11.986	PTH	6.98	VHP	3.273	DPA	41.80	RAP	358.93	ECC	1.3897

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 6 6	2664.19	-15.50	73.60	278.35	135.57	16 50 30	1664.2	2.79	57.62
60.00	17 17 54	2473.23	-9.88	61.65	283.60	129.27	17 59 7	1473.2	6.20	43.69
70.00	18 49 57	2202.62	-4.16	43.99	287.88	123.93	19 26 39	1202.6	9.76	24.40
80.00	20 41 12	1854.42	.86	20.67	291.00	119.85	21 12 7	854.4	12.94	359.83
90.00	22 25 13	1518.97	3.15	357.27	292.27	118.12	22 50 32	519.0	14.40	335.89
100.00	23 24 4	1328.89	.86	342.04	291.00	119.85	23 46 13	328.9	12.94	321.20
110.00	23 49 23	1249.44	-4.16	332.90	287.88	123.93	24 10 13	249.4	9.76	313.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.8910	TRA	3.1820	TC3	-7.3009	BAU	2.4434	SGT	9409.3	SGR	3580.6	SG3	999.6	ST	237.6	SR	80.5	SS	60.5
RDE	1.2482	RRA	-1.6726	RC3	2.5058	FAU	.23717	RRT	-.9803	RRF	-.9949	RTF	.9726	CRT	-.9883	CRS	.9954	CST	-.9694
FDE	-3.1649	FRA	5.3788	FC3	-8.6721	BSP	17660	SGB	10067.5	R23	.1861	R13	-.9775	LSA	257.4	MSA	17.9	$SA	.5
BDE	4.0863	BRA	3.5949	BC3	7.7190	FSP	1724	SG1	10045.7	SG2	662.0	THA	159.45	EL1	250.5	EL2	11.6	ALF	161.45

LAUNCH DATE AUG 4 1973 FLIGHT TIME 104.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 301.186 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	35.555	GAL	-.99	AZL	90.17	HCA	92.72	SMA	273.84	ECC	.44600	INC	.1660	V1	29.354
RP	218.53	LAP	-.17	LOP	44.20	VP	27.018	GAP	23.95	AZP	89.99	TAL	356.79	TAP	89.51	RCA	151.71	APO	395.97	V2	25.148
RC	76.362	GL	-.95	GP	-5.09	ZAL	93.44	ZAP	174.35	ETS	246.02	ZAE	165.37	ETE	343.53	ZAC	78.47	ETC	282.89	LVI	-12.26

PLANETOCENTRIC CONIC

C3	38.546	VHL	6.209	DLA	15.40	RAL	42.75	RAD	6650.2	VEL	12.587	PTH	7.45	VHP	8.906	DPA	10.33	RAP	41.12	ECC	1.6344

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 20 46	3606.39	-47.37	138.13	291.31	95.05	13 20 52	2606.4	-39.91	106.10
60.00	12 42 54	3547.48	-40.28	133.37	291.85	91.25	13 42 1	2547.5	-35.38	103.41
70.00	13 15 11	3452.47	-34.12	125.65	291.82	88.30	14 12 43	2452.5	-31.25	97.29
80.00	14 4 38	3297.51	-29.65	113.65	291.57	86.27	14 59 35	2297.5	-28.18	86.32
90.00	15 17 36	3062.01	-27.95	96.20	291.43	85.52	16 8 38	2062.0	-27.00	69.23
100.00	16 47 29	2771.99	-29.65	75.01	291.57	86.27	17 33 41	1772.0	-28.18	47.69
110.00	18 14 37	2499.29	-34.12	54.56	291.82	88.30	18 56 16	1499.3	-31.25	26.21

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3349	TRA	-1.0753	TC3	.2308	BAU	.1248	SGT	1112.2	SGR	621.3	SG3	136.5	ST	21.8	SR	28.8	SS	12.0
RDE	-.6203	RRA	.2337	RC3	-.0734	FAU	.05130	RRT	-.1149	RRF	.1318	RTF	-.6423	CRT	.6201	CRS	.7116	CST	.9842
FDE	.2662	FRA	.6526	FC3	-1.1522	BSP	1613	SGB	1274.0	R23	-.0256	R13	.6444	LSA	34.6	MSA	15.9	SSA	1.3
BDE	.7049	BRA	1.1004	BC3	.2422	FSP	165	SG1	1115.5	SG2	615.4	THA	174.71	EL1	32.9	EL2	15.0	ALF	57.17

LAUNCH DATE AUG 4 1973 FLIGHT TIME 106.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 303.285 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	35.403	GAL	-.91	AZL	90.13	HCA	93.85	SMA	267.90	ECC	.43368	INC	.1295	V1	29.354
RP	218.89	LAP	-.13	LOP	45.33	VP	26.781	GAP	23.58	AZP	89.99	TAL	356.98	TAP	90.83	RCA	151.72	APO	384.08	V2	25.107
RC	77.855	GL	-.76	GP	-5.23	ZAL	93.05	ZAP	173.86	ETS	240.07	ZAE	162.72	ETE	343.41	ZAC	78.27	ETC	282.86	LVI	-12.03

PLANETOCENTRIC CONIC

C3	36.663	VHL	6.055	DLA	15.47	RAL	42.30	RAD	6649.5	VEL	12.512	PTH	7.40	VHP	8.638	DPA	10.32	RAP	41.52	ECC	1.6034

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 18 42	3595.15	-47.30	137.05	289.67	95.88	13 18 37	2595.2	-39.55	105.27
60.00	12 40 44	3536.47	-40.26	132.43	290.33	91.89	13 39 41	2536.5	-35.11	102.60
70.00	13 12 55	3441.79	-34.13	124.81	290.38	88.79	14 10 16	2441.8	-31.06	96.51
80.00	14 2 15	3287.17	-29.69	112.88	290.17	86.67	14 57 2	2287.2	-28.05	85.58
90.00	15 15 10	3051.83	-28.00	95.46	290.04	85.88	16 6 2	2051.8	-26.89	68.51
100.00	16 45 7	2761.64	-29.69	74.25	290.17	86.67	17 31 9	1761.6	-28.05	46.94
110.00	18 12 21	2488.61	-34.13	53.73	290.38	88.79	18 53 49	1488.6	-31.06	25.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3391	TRA	-1.0685	TC3	.2551	BAU	.1314	SGT	1139.8	SGR	625.3	SG3	145.5	ST	22.5	SR	28.9	SS	12.5
RDE	-.6062	RRA	.2324	RC3	-.0821	FAU	.05341	RRT	-.1208	RRF	.1419	RTF	-.6501	CRT	.6256	CRS	.7190	CST	.9839
FDE	.2811	FRA	.6706	FC3	-1.2612	BSP	1669	SGB	1300.0	R23	-.0308	R13	.6525	LSA	35.1	MSA	16.1	SSA	1.3
BDE	.6946	BRA	1.0935	BC3	.2680	FSP	179	SG1	1143.3	SG2	618.8	THA	174.63	EL1	33.3	EL2	15.2	ALF	56.03

LAUNCH DATE AUG 4 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 305.553 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	35.260	GAL	-.83	AZL	90.09	HCA	94.98	SMA	262.53	ECC	.42207	INC	.0931	V1	29.354
RP	219.26	LAP	-.09	LOP	46.46	VP	26.553	GAP	23.20	AZP	89.99	TAL	357.19	TAP	92.17	RCA	151.73	APO	373.34	V2	25.067
RC	79.428	GL	-.56	GP	-5.36	ZAL	92.64	ZAP	173.31	ETS	235.04	ZAE	162.13	ETE	343.24	ZAC	78.06	ETC	282.82	LVI	-11.79

PLANETOCENTRIC CONIC

C3	34.927	VHL	5.910	DLA	15.54	RAL	41.83	RAD	6648.9	VEL	12.443	PTH	7.34	VHP	8.379	DPA	10.30	RAP	41.90	ECC	1.5748

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 16 33	3584.37	-47.22	136.02	288.06	96.67	13 16 17	2584.4	-39.19	104.49
60.00	12 38 30	3525.94	-40.24	131.54	288.83	92.49	13 37 15	2525.9	-34.85	101.83
70.00	13 10 33	3431.59	-34.15	124.02	288.95	89.26	14 7 44	2431.6	-30.88	95.77
80.00	13 59 46	3277.33	-29.73	112.15	288.78	87.05	14 54 24	2277.3	-27.92	84.87
90.00	15 12 38	3042.17	-28.05	94.76	288.67	86.23	16 3 20	2042.2	-26.79	67.82
100.00	16 42 38	2751.80	-29.73	73.52	288.78	87.05	17 28 30	1751.8	-27.92	46.24
110.00	18 9 59	2478.41	-34.15	52.93	288.95	89.26	18 51 18	1478.4	-30.88	24.69

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3389	TRA	-1.0598	TC3	.2871	BAU	.1407	SGT	1166.4	SGR	629.2	SG3	154.8	ST	22.9	SR	28.9	SS	12.9
RDE	-.5926	RRA	.2311	RC3	-.0916	FAU	.05558	RRT	-.1308	RRF	.1531	RTF	-.6417	CRT	.6268	CRS	.7253	CST	.9830
FDE	.2947	FRA	.6860	FC3	-1.3777	BSP	1732	SGB	1325.3	R23	-.0325	R13	.6643	LSA	35.6	MSA	16.2	SSA	1.4
BDE	.6827	BRA	1.0847	BC3	.3014	FSP	192	SG1	1170.4	SG2	621.6	THA	174.37	EL1	33.6	EL2	15.4	ALF	55.26

LAUNCH DATE AUG 4 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 307.969 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	35.125	GAL	-.76	AZL	90.06	HCA	96.10	SMA	257.67	ECC	.41113	INC	.0555	V1	29.354
RP	219.63	LAP	-.06	LOP	47.58	VP	26.334	GAP	22.83	AZP	89.99	TAL	357.40	TAP	93.50	RCA	151.73	APO	363.61	V2	25.026
RC	81.081	GL	-.35	GP	-5.51	ZAL	92.22	ZAP	172.71	ETS	230.79	ZAE	161.59	ETE	343.01	ZAC	77.86	ETC	282.79	LVI	-11.55

PLANETOCENTRIC CONIC

C3	33.328	VHL	5.773	DLA	15.62	RAL	41.35	RAD	6648.3	VEL	12.379	PTH	7.30	VHP	8.130	DPA	10.28	RAP	42.28	ECC	1.5485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 18	3574.07	-47.13	135.04	286.47	97.42	13 13 52	2574.1	-38.84	103.75
60.00	12 36 9	3515.90	-40.20	130.69	287.35	93.07	13 34 45	2515.9	-34.59	101.10
70.00	13 8 6	3421.89	-34.15	123.26	287.53	89.71	14 5 8	2421.9	-30.70	95.07
80.00	13 57 12	3268.01	-29.76	111.46	287.40	87.41	14 51 40	2268.0	-27.80	84.21
90.00	15 10 0	3033.03	-28.09	94.09	287.30	86.57	16 0 33	2033.0	-26.68	67.17
100.00	16 40 4	2742.48	-29.76	72.83	287.40	87.41	17 25 46	1742.5	-27.80	45.57
110.00	18 7 32	2468.71	-34.15	52.18	287.53	89.71	18 48 41	1468.7	-30.70	23.99

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3397	TRA	-1.0510	TC3	.3191	BAU	.1493	SGT	1192.6	SGR	632.8	SG3	164.9	ST	23.4	SR	29.0	SS	13.4
RDE	-.5791	RRA	.2300	RC3	-.1020	FAU	.05796	RRT	-.1410	RRF	.1643	RTF	-.6720	CRT	.6290	CRS	.7342	CST	.9817
FDE	.3123	FRA	.7031	FC3	-1.5055	BSP	1790	SGB	1350.1	R23	-.0341	R13	.6748	LSA	36.0	MSA	16.4	SSA	1.4
BDE	.6714	BRA	1.0759	BC3	.3350	FSP	208	SG1	1197.2	SG2	624.1	THA	174.12	EL1	33.8	EL2	15.6	ALF	54.39

LAUNCH DATE AUG 4 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 310.517 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	34.996	GAL	-.68	AZL	90.02	HCA	97.22	SMA	293.25	ECC	.40082	INC	.0156
RP	220.00	LAP	-.02	LOP	48.70	VP	26.123	GAP	22.46	AZP	90.00	TAL	357.82	TAP	94.84	RCA	151.74	APO	354.76
RC	82.809	GL	-.13	GP	-5.66	ZAL	91.78	ZAP	172.07	ETS	227.20	ZAE	161.12	ETE	342.73	ZAC	77.64	ETC	282.76

V1	29.354																		
V2	24.885																		
LVI	-11.31																		

PLANETOCENTRIC CONIC

C3	31.851	VHL	5.644	DLA	15.70	RAL	40.85	RAD	6647.7	VEL	12.320	PTH	7.25	VHP	7.890	DPA	10.25	RAP	42.66

ECC	1.9242																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 11 59	3564.26	-47.04	134.11	284.92	98.13	13 11 24	2564.3	-38.50	103.05
60.00	12 33 44	3506.35	-40.17	129.88	285.89	93.62	13 32 11	2506.4	-34.35	100.41
70.00	13 5 33	3412.71	-34.15	122.54	286.14	90.13	14 2 26	2412.7	-30.53	94.41
80.00	13 54 32	3259.23	-29.78	110.81	286.05	87.76	14 48 51	2259.2	-27.68	83.58
90.00	15 7 16	3024.45	-28.12	93.47	285.96	86.88	15 57 41	2024.4	-26.58	66.56
100.00	16 37 24	2733.70	-29.78	72.18	286.05	87.76	17 22 58	1733.7	-27.68	44.95
110.00	18 5 0	2459.53	-34.15	51.46	286.14	90.13	18 45 59	1459.5	-30.53	23.33

DIFFERENTIAL CORRECTIONS

TDE	-.3402	TRA	-1.0422	TC3	.3527	BAU	.1578												
RDE	-.5661	RRA	.2291	RC3	-.1134	FAU	.06044												
FDE	.3278	FRA	.7198	FC3	-1.6428	BSP	1836												
BDE	.6605	BRA	1.0671	BC3	.3705	FSP	223												

MID-COURSE EXECUTION ACCURACY

SGT	1218.9	SGR	636.4	SG3	175.5														
RRT	-.1520	RRF	.1775	RTF	-.6816														
SGB	1375.0	R23	-.0371	R13	.6846														
SG1	1224.1	SG2	626.3	THA	173.84														

ORBIT DETERMINATION ACCURACY

ST	23.9	SR	29.0	SS	13.9														
CRT	.6309	CRS	.7402	CST	.9808														
LSA	36.4	MSA	16.5	SSA	1.4														
EL1	34.1	EL2	15.7	ALF	53.55														

LAUNCH DATE AUG 4 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 313.181 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	34.875	GAL	-.61	AZL	89.98	HCA	98.34	SMA	249.22	ECC	.39110	INC	.0000
RP	220.38	LAP	.02	LOP	49.82	VP	25.921	GAP	22.09	AZP	90.00	TAL	357.84	TAP	96.18	RCA	151.75	APO	346.69
RC	84.610	GL	.10	GP	-5.82	ZAL	91.33	ZAP	171.39	ETS	224.16	ZAE	160.70	ETE	342.39	ZAC	77.43	ETC	282.73

V1	29.354																		
V2	24.944																		
LVI	-11.06																		

PLANETOCENTRIC CONIC

C3	30.488	VHL	5.522	DLA	15.78	RAL	40.33	RAD	6647.2	VEL	12.265	PTH	7.21	VHP	7.658	DPA	10.20	RAP	43.02

ECC	1.5018																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 9 36	3554.95	-46.95	133.23	283.40	98.80	13 8 51	2554.9	-38.18	102.39
60.00	12 31 15	3497.33	-40.12	129.11	284.47	94.14	13 29 32	2497.3	-34.11	99.76
70.00	13 2 56	3404.07	-34.15	121.87	284.77	90.53	13 59 40	2404.1	-30.37	93.79
80.00	13 51 47	3251.00	-29.80	110.20	284.71	88.08	14 45 58	2251.0	-27.56	83.00
90.00	15 4 27	3016.42	-28.15	92.88	284.63	87.17	15 54 43	2016.4	-26.49	66.00
100.00	16 34 38	2725.47	-29.80	71.57	284.71	88.08	17 20 4	1725.5	-27.56	44.37
110.00	18 2 22	2450.89	-34.15	50.78	284.77	90.53	18 43 13	1450.9	-30.37	22.71

DIFFERENTIAL CORRECTIONS

TDE	-.3423	TRA	-1.0328	TC3	.3871	BAU	.1659												
RDE	-.5531	RRA	.2283	RC3	-.1256	FAU	.06298												
FDE	.3470	FRA	.7371	FC3	-1.7883	BSP	1894												
BDE	.6505	BRA	1.0578	BC3	.4069	FSP	242												

MID-COURSE EXECUTION ACCURACY

SGT	1244.7	SGR	639.7	SG3	186.5														
RRT	-.1627	RRF	.1903	RTF	-.6911														
SGB	1399.4	R23	-.0399	R13	.6945														
SG1	1250.5	SG2	628.3	THA	173.60														

ORBIT DETERMINATION ACCURACY

ST	24.4	SR	28.9	SS	14.4														
CRT	.6346	CRS	.7485	CST	.9797														
LSA	36.9	MSA	16.6	SSA	1.5														
EL1	34.4	EL2	15.9	ALF	52.57														

LAUNCH DATE AUG 4 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 315.950 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	34.760	GAL	-.53	AZL	89.95	HCA	99.46	SMA	245.53	ECC	.38193	INC	.0509
RP	220.76	LAP	.05	LOP	50.94	VP	25.726	GAP	21.73	AZP	90.01	TAL	358.07	TAP	97.53	RCA	151.76	APO	339.31
RC	86.480	GL	.33	GP	-5.98	ZAL	90.87	ZAP	170.69	ETS	221.56	ZAE	160.35	ETE	342.00	ZAC	77.21	ETC	282.70

V1	29.354																		
V2	24.902																		
LVI	-10.81																		

PLANETOCENTRIC CONIC

C3	29.230	VHL	5.406	DLA	15.86	RAL	39.80	RAD	6646.7	VEL	12.214	PTH	7.17	VHP	7.434	DPA	10.15	RAP	43.38

ECC	1.4810																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 7 9	3546.15	-46.85	132.40	281.92	99.43	13 6 15	2546.1	-37.87	101.78
60.00	12 28 41	3488.83	-40.08	128.40	283.07	94.62	13 26 49	2488.8	-33.88	99.16
70.00	13 0 13	3395.97	-34.14	121.23	283.43	90.90	13 56 49	2396.0	-30.21	93.21
80.00	13 48 56	3243.34	-29.82	109.63	283.40	88.37	14 42 59	2243.3	-27.46	82.45
90.00	15 1 32	3008.98	-28.17	92.34	283.33	87.44	15 51 41	2009.0	-26.39	65.47
100.00	16 31 48	2717.81	-29.82	71.00	283.40	88.37	17 17 5	1717.8	-27.46	43.82
110.00	17 59 40	2442.79	-34.14	50.15	283.43	90.90	18 40 22	1442.8	-30.21	22.13

DIFFERENTIAL CORRECTIONS

TDE	-.3440	TRA	-1.0240	TC3	.4240	BAU	.1744												
RDE	-.5405	RRA	.2275	RC3	-.1390	FAU	.06577												
FDE	.3670	FRA	.7530	FC3	-1.9481	BSP	1967												
BDE	.6407	BRA	1.0490	BC3	.4462	FSP	262												

MID-COURSE EXECUTION ACCURACY

SGT	1271.2	SGR	643.0	SG3	198.5														
RRT	-.1747	RRF	.2043	RTF	-.7098														
SGB	1424.6	R23	-.0428	R13	.7034														
SG1	1277.7	SG2	629.9	THA	173.32														

ORBIT DETERMINATION ACCURACY

ST	24.9	SR	28.9	SS	15.0														
CRT	.6376	CRS	.7569	CST	.9783														
LSA	37.4	MSA	16.7	SSA	1.5														
EL1	34.6	EL2	16.0	ALF	51.61														

LAUNCH DATE AUG 4 1973 FLIGHT TIME 118.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 318.811 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	34.651	GAL	-.46	AZL	89.91	HCA	100.57	SMA	242.15	ECC	.37327	INC	.0879
RP	221.14	LAP	.09	LOP	52.05	VP	25.539	GAP	21.37	AZP	90.02	TAL	358.30	TAP	98.87	RCA	151.76	APO	332.54
RC	88.416	GL	.58	GP	-6.15	ZAL	90.41	ZAP	169.95	ETS	219.34	ZAE	160.05	ETE	341.56	ZAC	76.98	ETC	282.67

V1	29.354																		
V2	24.861																		
LVI	-10.56																		

PLANETOCENTRIC CONIC

C3	28.066	VHL	5.298	DLA	15.95	RAL	39.26	RAD	6646.2	VEL	12.166	PTH	7.13	VHP	7.217	DPA	10.09	RAP	43.73

ECC	1.4619																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 37	3537.86	-46.76	131.63	280.47	100.03	13 3 35	2537.9	-37.58	101.20
60.00	12 26 2	3480.86	-40.03	127.72	281.70	95.08	13 24 3	2480.9	-33.67	98.59
70.00	12 57 26	3388.43	-34.13	120.65	282.11	91.25	13 53 55	2388.4	-30.06	92.68
80.00	13 46 0	3236.27	-29.83	109.10	282.10	88.65	14 39 56	2236.3	-27.35	81.95
90.00	14 58 32	3002.14	-28.19	91.84	282.04	87.69	15 48 34	2002.1	-26.31	64.99
100.00	16 28 51	2710.74	-29.83	70.47	282.10	88.65	17 14 2	1710.7	-27.35	43.32
110.00	17 56 52	2435.25	-34.13	49.56	282.11	91.25	18 37 28	1435.2	-30.06	21.60

DIFFERENTIAL CORRECTIONS

TDE	-.3460	TRA	-1.0134	TC3	.4622	BAU	.1827												
RDE	-.5281	RRA	.2267	RC3	-.1535	FAU	.06867												
FDE	.3876	FRA	.7677	FC3	-2.1182	BSP	2013												
BDE	.6314	BRA	1.0385	BC3	.4870	FSP	280												

MID-COURSE EXECUTION ACCURACY

SGT	1295.8	SGR	646.3	SG3	210.9														
RRT	-.1870	RRF	.2192	RTF	-.7082														
SGB	1448.1	R23	-.0462	R13	.7122														
SG1	1303.2	SG2	631.3	THA	173.03														

ORBIT DETERMINATION ACCURACY

ST	25.4	SR	28.8	SS	15.5														
CRT	.6415	CRS	.7651	CST	.9770														
LSA	37.8	MSA	16.7	SSA	1.6														
EL1	34.9	EL2	16.1	ALF	50.65														

LAUNCH DATE AUG 4 1973 FLIGHT TIME 120.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 321.756 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	34.548	GAL	-.39	AZL	89.87	HCA	101.67	SMA	239.04	ECC	.36510	INC	.1243	V1	29.354
RP	221.52	LAP	.12	LOP	53.15	VP	25.358	GAP	21.02	AZP	90.03	TAL	358.54	TAP	100.21	RCA	151.77	APO	326.31	V2	24.819
RC	90.414	GL	.83	GP	-6.33	ZAL	89.93	ZAP	169.20	ETS	217.41	ZAE	159.81	ETE	341.06	ZAC	76.75	ETC	282.65	LVI	-10.30

PLANETOCENTRIC CONIC

C3	26.989	VHL	5.195	DLA	16.05	RAL	38.71	RAD	6645.8	VEL	12.122	PTH	7.09	VHP	7.008	DPA	10.01	RAP	44.07	ECC	1.4442

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 2 2	3530.08	-46.66	130.90	279.06	100.58	13 0 52	2530.1	-37.30	100.67
60.00	12 23 19	3473.40	-39.99	127.09	280.36	95.50	13 21 13	2473.4	-33.46	98.07
70.00	12 54 34	3361.42	-34.12	120.10	280.81	91.57	13 50 56	2361.4	-29.92	92.18
80.00	13 42 58	3229.75	-29.84	108.62	280.83	88.90	14 36 48	2229.7	-27.26	81.49
90.00	14 55 26	2995.87	-28.21	91.38	280.78	87.92	15 45 21	1995.9	-26.23	64.55
100.00	16 25 50	2704.22	-29.84	69.99	280.83	88.90	17 10 54	1704.2	-27.26	42.86
110.00	17 54 0	2428.24	-34.12	49.02	280.81	91.57	18 34 29	1428.2	-29.92	21.10

DIFFERENTIAL CORRECTIONS

TDE	-.3377	TRA	-.9927	TC3	.5168	BAU	.1962
RDE	-.5156	RRA	.2265	RC3	-.1689	FAU	.07163
FDE	.4147	FRA	.7892	FC3	-2.2977	BSP	1928
BDE	.6163	BRA	1.0183	BC3	.5437	FSP	305

MID-COURSE EXECUTION ACCURACY

SGT	1313.4	SGR	649.4	SG3	224.1				
RRT	-.2094	RRF	.2341	RTF	-.7291				
SGB	1465.2	R23	-.0364	R13	.7329				
SG1	1322.5	SG2	630.6	THA	172.34				

ORBIT DETERMINATION ACCURACY

ST	25.3	SR	28.7	SS	16.3
CRT	.6374	CRS	.7741	CST	.9738
LSA	38.0	MSA	16.7	SSA	1.6
EL1	34.7	EL2	16.1	ALF	50.63

LAUNCH DATE AUG 4 1973 FLIGHT TIME 122.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 324.776 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	34.451	GAL	-.32	AZL	89.84	HCA	102.78	SMA	236.18	ECC	.35739	INC	.1618	V1	29.354
RP	221.90	LAP	.16	LOP	54.25	VP	25.184	GAP	20.66	AZP	90.04	TAL	358.78	TAP	101.56	RCA	151.77	APO	320.59	V2	24.778
RC	92.473	GL	1.10	GP	-6.52	ZAL	89.45	ZAP	168.42	ETS	215.75	ZAE	159.62	ETE	340.50	ZAC	76.52	ETC	282.63	LVI	-10.04

PLANETOCENTRIC CONIC

C3	25.994	VHL	5.098	DLA	16.15	RAL	38.15	RAD	6645.4	VEL	12.081	PTH	7.06	VHP	6.807	DPA	9.92	RAP	44.40	ECC	1.4278

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 59 24	3522.85	-46.57	130.22	277.70	101.09	12 58 7	2522.9	-37.03	100.18
60.00	12 20 33	3466.54	-39.94	126.52	279.06	95.89	13 18 19	2466.5	-33.27	97.58
70.00	12 51 38	3375.04	-34.11	119.60	279.55	91.87	13 47 53	2375.0	-29.79	91.73
80.00	13 39 52	3223.89	-29.85	108.19	279.60	89.13	14 33 36	2223.9	-27.17	81.08
90.00	14 52 14	2990.28	-28.22	90.97	279.55	88.12	15 42 5	1990.3	-26.15	64.15
100.00	16 22 44	2698.37	-29.85	69.55	279.60	89.13	17 7 42	1698.4	-27.17	42.45
110.00	17 51 4	2421.86	-34.11	48.52	279.55	91.87	18 31 26	1421.9	-29.79	20.65

DIFFERENTIAL CORRECTIONS

TDE	-.3431	TRA	-.9875	TC3	.5523	BAU	.2025
RDE	-.5036	RRA	.2259	RC3	-.1858	FAU	.07488
FDE	.4368	FRA	.8039	FC3	-2.4939	BSP	2036
BDE	.6094	BRA	1.0130	BC3	.5827	FSP	325

MID-COURSE EXECUTION ACCURACY

SGT	1341.9	SGR	652.8	SG3	238.1				
RRT	-.2213	RRF	.2509	RTF	-.7326				
SGB	1492.2	R23	-.0436	R13	.7369				
SG1	1351.8	SG2	631.9	THA	172.12				

ORBIT DETERMINATION ACCURACY

ST	25.9	SR	28.6	SS	16.9
CRT	.6431	CRS	.7822	CST	.9726
LSA	38.6	MSA	16.7	SSA	1.6
EL1	35.0	EL2	16.2	ALF	49.29

LAUNCH DATE AUG 4 1973 FLIGHT TIME 124.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 327.864 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	34.359	GAL	-.25	AZL	89.80	HCA	103.87	SMA	233.54	ECC	.35011	INC	.1987	V1	29.354
RP	222.28	LAP	.19	LOP	55.35	VP	25.017	GAP	20.32	AZP	90.05	TAL	359.02	TAP	102.90	RCA	151.77	APO	315.30	V2	24.736
RC	94.587	GL	1.37	GP	-6.71	ZAL	88.97	ZAP	167.62	ETS	214.29	ZAE	159.49	ETE	339.88	ZAC	76.28	ETC	282.60	LVI	-9.78

PLANETOCENTRIC CONIC

C3	25.074	VHL	5.007	DLA	16.26	RAL	37.59	RAD	6645.0	VEL	12.043	PTH	7.03	VHP	6.612	DPA	9.82	RAP	44.72	ECC	1.4127

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 56 42	3516.16	-46.48	129.60	276.38	101.56	12 55 18	2516.2	-36.79	99.72
60.00	12 17 43	3460.22	-39.90	125.98	277.79	96.25	13 15 23	2460.2	-33.09	97.14
70.00	12 48 38	3369.23	-34.09	119.15	278.32	92.14	13 44 47	2369.2	-29.67	91.32
80.00	13 36 41	3218.65	-29.85	107.80	278.39	89.34	14 30 19	2218.6	-27.09	80.71
90.00	14 48 58	2985.31	-28.23	90.61	278.35	88.30	15 38 43	1985.3	-26.09	63.81
100.00	16 19 33	2693.12	-29.85	69.16	278.39	89.34	17 4 26	1693.1	-27.09	42.08
110.00	17 48 4	2416.05	-34.09	48.07	278.32	92.14	18 28 20	1416.0	-29.67	20.24

DIFFERENTIAL CORRECTIONS

TDE	-.3470	TRA	-.9788	TC3	.5902	BAU	.2094
RDE	-.4922	RRA	.2255	RC3	-.2046	FAU	.07853
FDE	.4585	FRA	.8191	FC3	-2.7116	BSP	2142
BDE	.6022	BRA	1.0045	BC3	.6247	FSP	351

MID-COURSE EXECUTION ACCURACY

SGT	1366.8	SGR	656.8	SG3	253.4				
RRT	-.2351	RRF	.2716	RTF	-.[illegible]65				
SGB	1516.4	R23	-.0525	R13	.7416				
SG1	1377.8	SG2	633.3	THA	171.81				

ORBIT DETERMINATION ACCURACY

ST	26.5	SR	28.5	SS	17.3
CRT	.6481	CRS	.7866	CST	.9724
LSA	39.1	MSA	16.7	SSA	1.7
EL1	35.3	EL2	16.2	ALF	48.17

LAUNCH DATE AUG 4 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 331.013 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	34.271	GAL	-.19	AZL	89.76	HCA	104.97	SMA	231.10	ECC	.34324	INC	.2366	V1	29.354
RP	222.67	LAP	.23	LOP	56.45	VP	24.855	GAP	19.97	AZP	90.06	TAL	359.27	TAP	104.24	RCA	151.78	APO	310.42	V2	24.694
RC	96.756	GL	1.65	GP	-6.91	ZAL	88.49	ZAP	166.81	ETS	213.01	ZAE	159.41	ETE	339.19	ZAC	76.03	ETC	282.58	LVI	-9.51

PLANETOCENTRIC CONIC

C3	24.222	VHL	4.922	DLA	16.37	RAL	37.02	RAD	6644.7	VEL	12.008	PTH	7.00	VHP	6.424	DPA	9.71	RAP	45.03	ECC	1.3986

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 53 58	3509.99	-46.40	129.03	275.09	101.99	12 52 28	2510.0	-36.56	99.31
60.00	12 14 50	3454.46	-39.85	125.50	276.56	96.57	13 12 24	2454.5	-32.93	96.74
70.00	12 45 33	3364.01	-34.08	118.74	277.12	92.38	13 41 37	2364.0	-29.56	90.95
80.00	13 33 25	3214.03	-29.85	107.45	277.21	89.52	14 26 59	2214.0	-27.02	80.39
90.00	14 45 37	2980.99	-28.24	90.29	277.17	88.46	15 35 18	1981.0	-26.03	63.50
100.00	16 16 17	2688.50	-29.85	68.82	277.21	89.52	17 1 5	1688.5	-27.02	41.76
110.00	17 45 0	2410.83	-34.08	47.66	277.12	92.38	18 25 10	1410.8	-29.56	19.87

DIFFERENTIAL CORRECTIONS

TDE	-.3508	TRA	-.9704	TC3	.6267	BAU	.2155
RDE	-.4804	RRA	.2252	RC3	-.2236	FAU	.08189
FDE	.4881	FRA	.8352	FC3	-2.9271	BSP	2218
BDE	.5948	BRA	.9962	BC3	.6654	FSP	376

MID-COURSE EXECUTION ACCURACY

SGT	1390.6	SGR	660.2	SG3	268.4				
RRT	-.2495	RRF	.2892	RTF	-.7414				
SGB	1539.3	R23	-.0574	R13	.7469				
SG1	1402.8	SG2	633.7	THA	171.50				

ORBIT DETERMINATION ACCURACY

ST	27.0	SR	28.3	SS	18.0
CRT	.6526	CRS	.7953	CST	.9708
LSA	39.7	MSA	16.7	SSA	1.7
EL1	35.5	EL2	16.3	ALF	46.99

LAUNCH DATE AUG 4 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 334.218 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	34.188	GAL	-.12	AZL	89.73	HCA	106.06	SMA	228.84	ECC	.33675	INC	.2739
RP	223.06	LAP	.26	LOP	57.54	VP	24.699	GAP	19.63	AZP	90.08	TAL	359.51	TAP	105.57	RCA	151.78	APO	305.90
RC	98.976	GL	1.94	GP	-7.12	ZAL	88.01	ZAP	165.97	ETS	211.89	ZAE	159.38	ETE	338.43	ZAC	75.78	ETC	282.56

V1	29.354																		
V2	24.652																		
LVI	-9.24																		

PLANETOCENTRIC CONIC

C3	23.432	VHL	4.841	DLA	16.49	RAL	36.44	RAD	6644.3	VEL	11.976	PTH	6.97	VHP	6.242	DPA	9.59	RAP	45.32

ECC	1.3856																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 11	3504.36	-46.32	128.51	273.85	102.39	12 49 35	2504.4	-36.35	98.93
60.00	12 11 53	3449.25	-39.81	125.06	275.36	96.87	13 9 22	2449.2	-32.78	96.38
70.00	12 42 25	3359.38	-34.07	118.38	275.96	92.59	13 38 24	2359.4	-29.46	90.63
80.00	13 30 4	3210.04	-29.86	107.16	276.05	89.67	14 23 34	2210.0	-26.95	80.11
90.00	14 42 10	2977.33	-28.25	90.03	276.03	88.60	15 31 47	1977.3	-25.98	63.25
100.00	16 12 56	2684.51	-29.86	68.52	276.05	89.67	16 57 40	1684.5	-26.95	41.48
110.00	17 41 51	2406.20	-34.07	47.30	275.96	92.59	18 21 57	1406.2	-29.46	19.55

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3599	TRA	-.9623	TC3	.6624	BAU	.2212	SGT	1415.6	SGR	663.7	SG3	284.6			ST	27.8	SR	28.0
RDE	-.4685	RRA	.2249	RC3	-.2443	FAU	.08557	RRT	-.2610	RRF	.3075	RTF	-.7449			CRT	.6623	CRS	.6049
FDE	.5225	FRA	.8508	FC3	-3.1614	BSP	2315	SGB	1563.4	R23	-.0663	R13	.7511			LSA	40.5	MSA	16.6
BDE	.5908	BRA	.9883	BC3	.7060	FSP	417	SG1	1428.8	SG2	634.8	THA	171.29			EL1	36.0	EL2	16.2

SST	28.9																		
CRT	.9702																		
SSA	1.8																		
ALF	45.39																		

LAUNCH DATE AUG 4 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 337.472 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	34.110	GAL	-.06	AZL	89.69	HCA	107.15	SMA	226.75	ECC	.33062	INC	.3118
RP	223.44	LAP	.30	LOP	58.63	VP	24.548	GAP	19.29	AZP	90.09	TAL	359.76	TAP	106.91	RCA	151.78	APO	301.71
RC	101.244	GL	2.24	GP	-7.34	ZAL	87.52	ZAP	165.12	ETS	210.89	ZAE	159.39	ETE	337.60	ZAC	75.52	ETC	282.55

V1	29.354																		
V2	24.611																		
LVI	-8.96																		

PLANETOCENTRIC CONIC

C3	22.701	VHL	4.765	DLA	16.62	RAL	35.87	RAD	6644.0	VEL	11.945	PTH	6.95	VHP	6.066	DPA	9.45	RAP	45.61

ECC	1.3736																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 48 22	3499.26	-46.24	128.04	272.65	102.74	12 46 41	2499.3	-36.16	98.59
60.00	12 8 53	3444.60	-39.77	124.67	274.20	97.13	13 6 18	2444.6	-32.65	96.06
70.00	12 39 13	3355.35	-34.05	118.07	274.82	92.78	13 35 8	2355.4	-29.38	90.35
80.00	13 26 39	3206.69	-29.86	106.91	274.93	89.81	14 20 5	2206.7	-26.90	79.87
90.00	14 38 38	2974.32	-28.25	89.81	274.91	88.71	15 28 12	1974.3	-25.94	63.04
100.00	16 9 31	2681.16	-29.86	68.28	274.93	89.81	16 54 12	1681.2	-26.90	41.24
110.00	17 38 39	2402.17	-34.05	46.98	274.82	92.78	18 18 41	1402.2	-29.38	19.26

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3713	TRA	-.9550	TC3	.6981	BAU	.2267	SGT	1441.5	SGR	667.0	SG3	301.3			ST	28.7	SR	27.8
RDE	-.4562	RRA	.2251	RC3	-.2657	FAU	.08917	RRT	-.2726	RRF	.3250	RTF	-.7500			CRT	.6730	CRS	.8154
FDE	.5662	FRA	.8716	FC3	-3.4005	BSP	2375	SGB	1588.4	R23	-.0739	R13	.7568			LSA	41.5	MSA	16.4
BDE	.5882	BRA	.9811	BC3	.7469	FSP	440	SG1	1455.7	SG2	635.5	THA	171.10			EL1	36.5	EL2	16.1

SST	20.0																		
CRT	.9698																		
SSA	1.8																		
ALF	43.61																		

LAUNCH DATE AUG 4 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE .000 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	34.036	GAL	.00	AZL	89.65	HCA	108.23	SMA	224.80	ECC	.32483	INC	.3502
RP	223.83	LAP	.33	LOP	59.71	VP	24.403	GAP	18.95	AZP	90.11	TAL	.00	TAP	108.23	RCA	151.78	APO	297.82
RC	103.560	GL	2.54	GP	-7.57	ZAL	87.04	ZAP	164.25	ETS	210.00	ZAE	159.45	ETE	336.68	ZAC	75.26	ETC	282.53

V1	29.354																		
V2	24.569																		
LVI	-8.68																		

PLANETOCENTRIC CONIC

C3	22.024	VHL	4.693	DLA	16.75	RAL	35.29	RAD	6643.7	VEL	11.917	PTH	6.92	VHP	5.896	DPA	9.30	RAP	45.88

ECC	1.3625																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 45 30	3494.69	-46.17	127.63	271.50	103.06	12 43 45	2494.7	-35.99	98.29
60.00	12 5 51	3440.52	-39.74	124.33	273.08	97.36	13 3 11	2440.5	-32.53	95.78
70.00	12 35 57	3351.92	-34.04	117.80	273.72	92.93	13 31 49	2351.9	-29.30	90.11
80.00	13 23 9	3203.99	-29.86	106.71	273.84	89.91	14 16 33	2204.0	-26.86	79.68
90.00	14 35 1	2971.99	-28.26	89.64	273.82	88.79	15 24 33	1972.0	-25.91	62.87
100.00	16 6 1	2678.46	-29.86	68.07	273.84	89.91	16 50 39	1678.5	-26.86	41.05
110.00	17 35 23	2398.74	-34.04	46.72	273.72	92.93	18 15 22	1398.7	-29.30	19.02

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3914	TRA	-.9523	TC3	.9449	BAU	.2939	SGT	1577.7	SGR	680.4	SG3	354.8			ST	30.1	SR	27.2
RDE	-.4405	RRA	.2249	RC3	-.3222	FAU	.10479	RRT	-.3347	RRF	.3793	RTF	-.7599			CRT	.6881	CRS	.8393
FDE	.6591	FRA	.8847	FC3	-4.1192	BSP	613	SGB	1718.1	R23	-.0636	R13	.8061			LSA	43.4	MSA	16.1
BDE	.5893	BRA	.9785	BC3	.9983	FSP	-72	SG1	1597.1	SG2	633.3	THA	170.24			EL1	37.3	EL2	15.9

SST	22.4																		
CRT	.9646																		
SSA	2.0																		
ALF	40.90																		

LAUNCH DATE AUG 4 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 344.119 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.965	GAL	.06	AZL	89.61	HCA	109.31	SMA	222.99	ECC	.31936	INC	.3887
RP	224.22	LAP	.37	LOP	60.79	VP	24.262	GAP	18.62	AZP	90.13	TAL	.25	TAP	109.56	RCA	151.78	APO	294.21
RC	105.921	GL	2.86	GP	-7.81	ZAL	86.57	ZAP	163.36	ETS	209.20	ZAE	159.55	ETE	335.67	ZAC	74.99	ETC	282.52

V1	29.354																		
V2	24.527																		
LVI	-8.39																		

PLANETOCENTRIC CONIC

C3	21.397	VHL	4.626	DLA	16.89	RAL	34.71	RAD	6643.5	VEL	11.891	PTH	6.90	VHP	5.732	DPA	9.13	RAP	46.14

ECC	1.3521																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 42 36	3490.66	-46.11	127.26	270.39	103.34	12 40 47	2490.7	-35.84	98.03
60.00	12 2 46	3437.00	-39.71	124.04	272.00	97.56	13 0 3	2437.0	-32.43	95.53
70.00	12 32 37	3349.10	-34.03	117.58	272.66	93.06	13 28 26	2349.1	-29.24	89.91
80.00	13 19 34	3201.95	-29.86	106.55	272.79	89.99	14 12 58	2202.0	-26.82	79.54
90.00	14 31 19	2970.34	-28.26	89.52	272.77	88.85	15 20 50	1970.3	-25.88	62.76
100.00	16 2 26	2678.42	-29.86	67.92	272.79	89.99	16 47 3	1676.4	-26.82	40.91
110.00	17 32 3	2395.92	-34.03	46.50	272.66	93.06	18 11 59	1395.9	-29.24	18.83

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3527	TRA	-.9182	TC3	.7976	BAU	.2457	SGT	1465.7	SGR	681.6	SG3	341.3			ST	28.2	SR	27.4
RDE	-.4367	RRA	.2253	RC3	-.3187	FAU	.09884	RRT	-.3282	RRF	.3851	RTF	-.7678			CRT	.6625	CRS	.8109
FDE	.5916	FRA	.9064	FC3	-3.9993	BSP	2258	SGB	1616.4	R23	-.0790	R13	.7766			LSA	41.1	MSA	16.4
BDE	.5613	BRA	.9454	BC3	.8589	FSP	457	SG1	1486.5	SG2	634.8	THA	169.36			EL1	35.9	EL2	16.1

SST	20.3																		
CRT	.9677																		
SSA	1.9																		
ALF	43.73																		

LAUNCH DATE AUG 4 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 347.499 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.899	GAL	.12	AZL	89.57	HCA	110.30	SMA	221.31	ECC	.31419	INC	.4277	V1	29.354
RP	224.61	LAP	.40	LOP	61.87	VP	24.126	GAP	18.29	AZP	90.15	TAL	.49	TAP	110.87	RCA	151.78	APO	290.85	V2	24.485
RC	108.326	GL	3.18	GP	-8.06	ZAL	86.10	ZAP	162.46	ETS	208.48	ZAE	159.69	ETE	334.57	ZAC	74.71	ETC	282.51	LVI	-8.10

PLANETOCENTRIC CONIC

C3	20.815	VHL	4.562	DLA	17.04	RAL	34.13	RAD	6643.2	VEL	11.867	PTH	6.88	VHP	5.573	DPA	8.95	RAP	46.39	ECC	1.3426

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 39 41	3487.16	-46.05	126.94	269.32	103.58	12 37 48	2487.2	-35.71	97.80
60.00	11 59 38	3434.04	-39.68	123.79	270.95	97.72	12 56 52	2434.0	-32.34	95.33
70.00	12 29 14	3346.89	-34.02	117.41	271.63	93.16	13 25 1	2346.9	-29.20	89.75
80.00	13 15 55	3200.57	-29.86	106.45	271.76	90.04	14 9 16	2200.6	-26.80	79.44
90.00	14 27 33	2969.39	-28.26	89.45	271.75	88.89	15 17 2	1969.4	-25.87	62.69
100.00	15 58 47	2675.04	-29.86	67.82	271.76	90.04	16 43 22	1675.0	-26.80	40.81
110.00	17 28 40	2393.71	-34.02	46.32	271.63	93.16	18 8 34	1393.7	-29.20	18.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3591	TRA	-.9080	TC3	.8473	BAU	.2548	SGT	1491.2	SGR	685.3	SG3	361.7	ST	28.8	SR	27.0	SS	21.5
RDE	-.4242	RRA	.2226	RC3	-.3473	FAU	.10378	RRT	-.3458	RRF	.4026	RTF	-.7684	CRT	.6707	CRS	.8329	CST	.9610
FDE	.6467	FRA	.8842	FC3	-4.3164	BSP	2413	SGB	1641.2	R23	-.0933	R13	.7777	LSA	41.9	MSA	16.1	SSA	2.0
BDE	.5558	BRA	.9349	BC3	.9157	FSP	512	SG1	1514.0	SG2	633.4	THA	169.03	EL1	36.1	EL2	16.0	ALF	42.24

LAUNCH DATE AUG 4 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 350.915 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.836	GAL	.17	AZL	89.53	HCA	111.46	SMA	219.75	ECC	.30931	INC	.4669	V1	29.354
RP	225.00	LAP	.43	LOP	62.94	VP	23.995	GAP	17.97	AZP	90.17	TAL	.73	TAP	112.18	RCA	151.78	APO	287.72	V2	24.443
RC	110.773	GL	3.51	GP	-8.32	ZAL	85.63	ZAP	161.53	ETS	207.84	ZAE	159.86	ETE	333.35	ZAC	74.43	ETC	282.51	LVI	-7.81

PLANETOCENTRIC CONIC

C3	20.276	VHL	4.503	DLA	17.20	RAL	33.56	RAD	6643.0	VEL	11.844	PTH	6.86	VHP	5.420	DPA	8.75	RAP	46.62	ECC	1.3337

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 36 43	3484.19	-46.00	126.67	268.30	103.78	12 34 48	2484.2	-35.60	97.60
60.00	11 56 27	3431.65	-39.66	123.59	269.95	97.85	12 53 39	2431.6	-32.27	95.17
70.00	12 25 47	3345.29	-34.02	117.28	270.63	93.24	13 21 33	2345.3	-29.16	89.64
80.00	13 12 12	3199.87	-29.86	106.40	270.77	90.07	14 5 31	2199.9	-26.79	79.40
90.00	14 23 40	2969.14	-28.26	89.43	270.76	88.89	15 13 10	1969.1	-25.87	62.67
100.00	15 55 3	2674.34	-29.86	67.77	270.77	90.07	16 39 38	1674.3	-26.79	40.76
110.00	17 25 14	2392.11	-34.02	46.20	270.63	93.24	18 5 6	1392.1	-29.16	18.56

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3652	TRA	-.9008	TC3	.8902	BAU	.2620	SGT	1516.1	SGR	692.9	SG3	383.1	ST	29.4	SR	26.7	SS	22.3
RDE	-.4131	RRA	.2239	RC3	-.3764	FAU	.10851	RRT	-.3668	RRF	.4298	RTF	-.7758	CRT	.6751	CRS	.8339	CST	.9623
FDE	.6849	FRA	.9166	FC3	-4.6330	BSP	2459	SGB	1666.9	R23	-.0910	R13	.7861	LSA	42.6	MSA	16.0	SSA	2.0
BDE	.5514	BRA	.9282	BC3	.9665	FSP	548	SG1	1541.7	SG2	633.9	THA	168.52	EL1	36.4	EL2	15.9	ALF	40.85

LAUNCH DATE AUG 4 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 354.363 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.776	GAL	.22	AZL	89.49	HCA	112.53	SMA	218.29	ECC	.30470	INC	.5068	V1	29.354
RP	225.39	LAP	.47	LOP	64.01	VP	23.867	GAP	17.64	AZP	90.19	TAL	.96	TAP	113.49	RCA	151.77	APO	284.60	V2	24.401
RC	113.259	GL	3.85	GP	-8.59	ZAL	85.18	ZAP	160.59	ETS	207.26	ZAE	160.07	ETE	332.02	ZAC	74.13	ETC	282.51	LVI	-7.51

PLANETOCENTRIC CONIC

C3	19.777	VHL	4.447	DLA	17.37	RAL	32.99	RAD	6642.7	VEL	11.823	PTH	6.84	VHP	5.272	DPA	8.53	RAP	46.84	ECC	1.3255

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 33 45	3481.74	-45.96	126.44	267.32	103.95	12 31 46	2481.7	-35.50	97.44
60.00	11 53 15	3429.82	-39.64	123.44	268.98	97.96	12 50 25	2429.8	-32.22	95.04
70.00	12 22 17	3344.31	-34.01	117.21	269.68	93.28	13 18 2	2344.3	-29.14	89.57
80.00	13 8 23	3199.84	-29.86	106.40	269.82	90.07	14 1 43	2199.8	-26.79	79.39
90.00	14 19 43	2969.60	-28.26	89.46	269.80	88.88	15 9 13	1969.6	-25.87	62.71
100.00	15 51 15	2674.31	-29.86	67.77	269.82	90.07	16 35 49	1674.3	-26.79	40.76
110.00	17 21 44	2391.13	-34.01	46.12	269.68	93.28	18 1 35	1391.1	-29.14	18.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3717	TRA	-.8862	TC3	.9277	BAU	.2679	SGT	1530.2	SGR	699.2	SG3	405.5	ST	29.9	SR	26.2	SS	23.6
RDE	-.4007	RRA	.2231	RC3	-.4079	FAU	.11361	RRT	-.3855	RRF	.4526	RTF	-.7889	CRT	.6832	CRS	.8453	CST	.9599
FDE	.7422	FRA	.9199	FC3	-4.9733	BSP	2539	SGB	1682.3	R23	-.0974	R13	.7902	LSA	43.4	MSA	15.7	SSA	2.1
BDE	.5466	BRA	.9139	BC3	1.0134	FSP	594	SG1	1550.6	SG2	633.4	THA	168.00	EL1	36.6	EL2	15.7	ALF	39.47

LAUNCH DATE AUG 4 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 357.840 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.719	GAL	.28	AZL	89.45	HCA	113.59	SMA	216.92	ECC	.30034	INC	.5471	V1	29.354
RP	225.78	LAP	.50	LOP	65.07	VP	23.744	GAP	17.33	AZP	90.22	TAL	1.19	TAP	114.78	RCA	151.77	APO	282.07	V2	24.358
RC	115.782	GL	4.20	GP	-8.87	ZAL	84.73	ZAP	159.63	ETS	206.73	ZAE	160.31	ETE	330.56	ZAC	73.83	ETC	282.51	LVI	-7.20

PLANETOCENTRIC CONIC

C3	19.314	VHL	4.395	DLA	17.55	RAL	32.42	RAD	6642.5	VEL	11.804	PTH	6.83	VHP	5.129	DPA	8.30	RAP	47.05	ECC	1.3179

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 30 44	3479.82	-45.93	126.27	266.58	104.08	12 28 44	2479.8	-35.43	97.32
60.00	11 50 0	3428.55	-39.63	123.33	268.06	98.03	12 47 8	2428.6	-32.18	94.95
70.00	12 18 44	3343.95	-34.01	117.18	268.75	93.30	13 14 28	2343.9	-29.13	89.55
80.00	13 4 30	3200.50	-29.86	106.45	268.90	90.05	13 57 51	2200.5	-26.80	79.44
90.00	14 15 40	2970.78	-28.26	89.55	268.88	88.83	15 5 11	1970.8	-25.89	62.79
100.00	15 47 22	2674.97	-29.86	67.81	268.90	90.05	16 31 57	1675.0	-26.80	40.81
110.00	17 18 10	2390.77	-34.01	46.10	268.75	93.30	17 58 1	1390.8	-29.13	18.47

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3728	TRA	-.8766	TC3	.9623	BAU	.2733	SGT	1545.4	SGR	708.3	SG3	428.3	ST	30.3	SR	25.8	SS	24.3
RDE	-.3899	RRA	.2233	RC3	-.4407	FAU	.11878	RRT	-.4080	RRF	.4801	RTF	-.7813	CRT	.6840	CRS	.8483	CST	.9586
FDE	.7808	FRA	.9348	FC3	-5.3241	BSP	2542	SGB	1700.0	R23	-.1058	R13	.7940	LSA	43.9	MSA	15.6	SSA	2.2
BDE	.5395	BRA	.9046	BC3	1.0584	FSP	627	SG1	1577.5	SG2	633.5	THA	167.33	EL1	36.6	EL2	15.6	ALF	38.46

LAUNCH DATE AUG 4 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC — DISTANCE 361.344 — EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.666	GAL	.32	AZL	89.41	HCA	114.65	SMA	215.65	ECC	.29622	INC	.5878	V1	29.354
RP	226.17	LAP	.53	LOP	66.13	VP	23.625	GAP	17.01	AZP	90.25	TAL	1.42	TAP	116.07	RCA	151.77	APO	279.53	V2	24.318
RC	118.341	GL	4.86	GP	-9.17	ZAL	84.29	ZAP	158.65	ETS	206.25	ZAE	160.57	ETE	328.96	ZAC	73.53	ETC	282.51	LVI	-6.89

PLANETOCENTRIC CONIC

C3	18.885	VHL	4.346	DLA	17.74	RAL	31.86	RAD	6642.3	VEL	11.786	PTH	6.81	VHP	4.991	DPA	8.06	RAP	47.24	ECC	1.3108

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 27 43	3478.43	-45.91	126.14	265.49	104.17	12 25 41	2478.4	-35.38	97.23
60.00	11 46 42	3427.85	-39.62	123.28	267.17	98.07	12 43 50	2427.9	-32.16	94.91
70.00	12 15 7	3344.21	-34.01	117.20	267.87	93.29	13 10 51	2344.2	-29.14	89.57
80.00	13 0 32	3201.85	-29.86	106.55	268.01	89.99	13 53 54	2201.9	-26.82	79.53
90.00	14 11 32	2972.70	-28.26	89.69	267.99	88.76	15 1 5	1972.7	-25.92	62.92
100.00	15 43 24	2676.33	-29.86	67.92	268.01	89.99	16 28 1	1676.3	-26.82	40.90
110.00	17 14 33	2391.03	-34.01	46.12	267.87	93.29	17 54 24	1391.0	-29.14	18.48

DIFFERENTIAL CORRECTIONS

TDE	-.3745	TRA	-.8647	TC3	.9938	BAU	.2782
RDE	-.3784	RRA	.2233	RC3	-.4755	FAU	.12415
FDE	.8302	FRA	.9469	FC3	-5.6911	BSP	2594
BDE	.5323	BRA	.8931	BC3	1.1017	FSP	670

MID-COURSE EXECUTION ACCURACY

SGT	1556.5	SGR	717.8	SG3	452.1
RRT	-.4303	RRF	.5068	RTF	-.7835
SGB	1714.0	R23	-.1133	R13	.7978
SG1	1592.8	SG2	633.2	THA	166.62

ORBIT DETERMINATION ACCURACY

ST	30.6	SR	25.4	SS	25.3
CRT	.6857	CRS	.8532	CST	.9567
LSA	44.4	MSA	15.4	SSA	2.2
EL1	36.6	EL2	15.4	ALF	37.39

LAUNCH DATE AUG 4 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC — DISTANCE 364.872 — EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.615	GAL	.37	AZL	89.37	HCA	115.71	SMA	214.46	ECC	.29234	INC	.6292	V1	29.354
RP	226.56	LAP	.57	LOP	67.19	VP	23.510	GAP	16.70	AZP	90.27	TAL	1.64	TAP	117.35	RCA	151.77	APO	277.15	V2	24.276
RC	120.933	GL	4.93	GP	-9.47	ZAL	83.87	ZAP	157.64	ETS	205.81	ZAE	160.85	ETE	327.21	ZAC	73.21	ETC	282.52	LVI	-6.57

PLANETOCENTRIC CONIC

C3	18.488	VHL	4.300	DLA	17.94	RAL	31.30	RAD	6642.2	VEL	11.769	PTH	6.80	VHP	4.857	DPA	7.79	RAP	47.41	ECC	1.3043

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 24 40	3477.56	-45.89	126.06	264.64	104.23	12 22 37	2477.6	-35.34	97.17
60.00	11 43 23	3427.72	-39.62	123.26	266.33	98.07	12 40 31	2427.7	-32.16	94.90
70.00	12 11 27	3345.10	-34.02	117.27	267.02	93.25	13 7 12	2345.1	-29.16	89.63
80.00	12 56 29	3203.91	-29.86	106.70	267.16	89.91	13 49 53	2203.9	-26.86	79.68
90.00	14 7 18	2975.36	-28.25	89.88	267.13	88.67	14 56 53	1975.4	-25.95	63.11
100.00	15 39 21	2678.39	-29.86	68.07	267.16	89.91	16 24 0	1678.4	-26.86	41.05
110.00	17 10 53	2391.92	-34.02	46.19	267.02	93.25	17 50 45	1391.9	-29.16	18.55

DIFFERENTIAL CORRECTIONS

TDE	-.3781	TRA	-.8528	TC3	1.0367	BAU	.2862
RDE	-.3664	RRA	.2234	RC3	-.5155	FAU	.13062
FDE	.8876	FRA	.9592	FC3	-6.1165	BSP	2642
BDE	.5265	BRA	.8816	BC3	1.1578	FSP	717

MID-COURSE EXECUTION ACCURACY

SGT	1573.3	SGR	729.9	SG3	480.0
RRT	-.4554	RRF	.5363	RTF	-.7882
SGB	1734.4	R23	-.1206	R13	.8040
SG1	1614.7	SG2	633.2	THA	165.85

ORBIT DETERMINATION ACCURACY

ST	30.9	SR	24.9	SS	26.4
CRT	.6888	CRS	.8581	CST	.9553
LSA	45.1	MSA	15.2	SSA	2.3
EL1	36.7	EL2	15.2	ALF	36.13

LAUNCH DATE AUG 4 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC — DISTANCE 368.423 — EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.567	GAL	.42	AZL	89.33	HCA	116.76	SMA	213.35	ECC	.28867	INC	.6710	V1	29.354
RP	226.95	LAP	.60	LOP	68.24	VP	23.398	GAP	16.39	AZP	90.30	TAL	1.86	TAP	118.62	RCA	151.76	APO	274.93	V2	24.234
RC	123.556	GL	5.30	GP	-9.79	ZAL	83.45	ZAP	156.62	ETS	205.40	ZAE	161.15	ETE	325.28	ZAC	72.89	ETC	282.53	LVI	-6.25

PLANETOCENTRIC CONIC

C3	18.120	VHL	4.257	DLA	18.14	RAL	30.76	RAD	6642.0	VEL	11.754	PTH	6.78	VHP	4.728	DPA	7.50	RAP	47.57	ECC	1.2982

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 21 36	3477.21	-45.89	126.03	263.84	104.26	12 19 33	2477.2	-35.33	97.15
60.00	11 40 1	3428.15	-39.62	123.30	265.52	98.05	12 37 9	2428.2	-32.17	94.93
70.00	12 7 43	3346.62	-34.02	117.39	266.21	93.18	13 3 29	2346.6	-29.19	89.74
80.00	12 52 21	3206.69	-29.86	106.91	266.34	89.81	13 45 48	2206.7	-26.90	79.87
90.00	14 2 57	2978.79	-28.25	90.13	266.31	88.54	14 52 36	1978.8	-26.00	63.35
100.00	15 35 13	2681.16	-29.86	68.27	266.34	89.81	16 19 54	1681.2	-26.90	41.24
110.00	17 7 9	2393.44	-34.02	46.30	266.21	93.18	17 47 2	1393.4	-29.19	18.65

DIFFERENTIAL CORRECTIONS

TDE	-.3814	TRA	-.8397	TC3	1.0678	BAU	.2916
RDE	-.3543	RRA	.2233	RC3	-.5558	FAU	.13679
FDE	.9467	FRA	.9671	FC3	-6.5354	BSP	2682
BDE	.5206	BRA	.8689	BC3	1.2038	FSP	764

MID-COURSE EXECUTION ACCURACY

SGT	1582.6	SGR	742.5	SG3	507.2
RRT	-.4778	RRF	.5641	RTF	-.8003
SGB	1748.1	R23	-.1295	R13	.8080
SG1	1629.3	SG2	633.6	THA	165.05

ORBIT DETERMINATION ACCURACY

ST	31.3	SR	24.3	SS	27.6
CRT	.6918	CRS	.8629	CST	.9538
LSA	45.8	MSA	15.0	SSA	2.3
EL1	36.7	EL2	15.0	ALF	34.89

LAUNCH DATE AUG 4 1973 FLIGHT TIME 150.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC — DISTANCE 371.995 — EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.521	GAL	.46	AZL	89.29	HCA	117.81	SMA	212.31	ECC	.28520	INC	.7136	V1	29.354
RP	227.34	LAP	.63	LOP	69.29	VP	23.290	GAP	16.08	AZP	90.33	TAL	2.07	TAP	119.88	RCA	151.76	APO	272.86	V2	24.193
RC	126.208	GL	5.68	GP	-10.12	ZAL	83.05	ZAP	155.58	ETS	205.03	ZAE	161.45	ETE	323.18	ZAC	72.55	ETC	282.55	LVI	-5.92

PLANETOCENTRIC CONIC

C3	17.780	VHL	4.217	DLA	18.36	RAL	30.22	RAD	6641.8	VEL	11.739	PTH	6.77	VHP	4.604	DPA	7.20	RAP	47.71	ECC	1.2926

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 30	3477.37	-45.89	126.05	263.08	104.25	12 16 28	2477.4	-35.34	97.16
60.00	11 36 37	3429.15	-39.63	123.38	264.76	97.99	12 33 46	2429.2	-32.20	95.00
70.00	12 3 55	3348.79	-34.03	117.55	265.44	93.08	12 59 44	2348.8	-29.24	89.89
80.00	12 48 8	3210.19	-29.86	107.17	265.55	89.67	13 41 38	2210.2	-26.96	80.12
90.00	13 58 31	2982.99	-28.24	90.44	265.52	88.39	14 48 14	1983.0	-26.06	63.64
100.00	15 31 0	2684.66	-29.86	68.54	265.55	89.67	16 15 44	1684.7	-26.96	41.49
110.00	17 3 21	2395.60	-34.03	46.47	265.44	93.08	17 43 17	1395.6	-29.24	18.80

DIFFERENTIAL CORRECTIONS

TDE	-.3842	TRA	-.8278	TC3	1.0932	BAU	.2962
RDE	-.3423	RRA	.2233	RC3	-.5979	FAU	.14304
FDE	1.0056	FRA	.9771	FC3	-6.9648	BSP	2698
BDE	.5145	BRA	.8573	BC3	1.2460	FSP	808

MID-COURSE EXECUTION ACCURACY

SGT	1589.6	SGR	756.8	SG3	534.9
RRT	-.4995	RRF	.5920	RTF	-.7912
SGB	1760.6	R23	-.1398	R13	.8112
SG1	1642.2	SG2	634.6	THA	164.20

ORBIT DETERMINATION ACCURACY

ST	31.6	SR	23.8	SS	28.6
CRT	.6934	CRS	.8660	CST	.9526
LSA	46.5	MSA	14.8	SSA	2.4
EL1	36.7	EL2	14.7	ALF	33.67

LAUNCH DATE AUG 4 1973 FLIGHT TIME 152.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 375.587 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.478	GAL	.50	AZL	89.24	HCA	118.86	SMA	211.33	ECC	.28192	INC	.7568	V1	29.354
RP	227.73	LAP	.66	LOP	70.34	VP	23.185	GAP	15.77	AZP	90.37	TAL	2.28	TAP	121.14	RCA	151.75	APO	270.91	V2	24.152
RC	128.887	GL	6.07	GP	-10.47	ZAL	82.66	ZAP	154.51	ETS	204.68	ZAE	161.76	ETE	320.88	ZAC	72.21	ETC	282.57	LVI	-5.59

PLANETOCENTRIC CONIC

C3	17.465	VHL	4.179	DLA	18.59	RAL	29.68	RAD	6641.7	VEL	11.726	PTH	6.78	VHP	4.484	DPA	6.88	RAP	47.83	ECC	1.2874

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 15 24	3478.04	-45.90	126.11	262.36	104.20	12 13 22	2478.0	-35.36	97.20
60.00	11 33 10	3430.69	-39.65	123.51	264.03	97.91	12 30 21	2430.7	-32.24	95.10
70.00	12 0 3	3351.56	-34.04	117.77	264.69	92.95	12 55 55	2351.6	-29.30	90.08
80.00	12 43 49	3214.40	-29.85	107.48	264.80	89.50	13 37 23	2214.4	-27.02	80.41
90.00	13 53 57	2987.96	-28.23	90.80	264.76	88.21	14 43 45	1988.0	-26.12	63.99
100.00	15 26 40	2688.87	-29.85	68.85	264.80	89.50	16 11 29	1688.9	-27.02	41.78
110.00	16 59 29	2398.38	-34.04	46.69	264.69	92.95	17 39 28	1398.4	-29.30	19.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3778	TRA	-.8047	TC3	1.1438	BAU	.3065	SGT	1592.9	SGR	773.3	SG3	565.2	ST	31.3	SR	23.1	SS	29.9
RDE	-.3296	RRA	.2229	RC3	-.6441	FAU	.14999	RRT	-.5325	RRF	.6203	RTF	-.8017	CRT	.6910	CRS	.8701	CST	.9493
FDE	1.0736	FRA	.9805	FC3	-7.4351	BSP	2615	SGB	1770.7	R23	-.1340	R13	.8228	LSA	46.8	MSA	14.5	SSA	2.4
BDE	.5013	BRA	.8350	BC3	1.3127	FSP	856	SG1	1654.8	SG2	630.0	THA	162.96	EL1	36.1	EL2	14.5	ALF	33.04

LAUNCH DATE AUG 4 1973 FLIGHT TIME 154.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 379.195 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.438	GAL	.54	AZL	89.20	HCA	119.90	SMA	210.42	ECC	.27883	INC	.8008	V1	29.354
RP	228.12	LAP	.69	LOP	71.38	VP	23.083	GAP	15.47	AZP	90.40	TAL	2.47	TAP	122.38	RCA	151.75	APO	269.09	V2	24.110
RC	131.592	GL	6.48	GP	-10.83	ZAL	82.29	ZAP	153.42	ETS	204.36	ZAE	162.06	ETE	318.37	ZAC	71.86	ETC	282.59	LVI	-5.24

PLANETOCENTRIC CONIC

C3	17.174	VHL	4.144	DLA	18.84	RAL	29.16	RAD	6641.6	VEL	11.714	PTH	6.75	VHP	4.368	DPA	6.53	RAP	47.94	ECC	1.2826

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 12 16	3479.25	-45.92	126.22	261.70	104.12	12 10 15	2479.3	-35.41	97.28
60.00	11 29 42	3432.84	-39.67	123.69	263.35	97.79	12 26 55	2432.8	-32.31	95.25
70.00	11 56 7	3355.03	-34.05	118.04	263.99	92.79	12 52 3	2355.0	-29.37	90.32
80.00	12 39 23	3219.42	-29.85	107.85	264.09	89.31	13 33 3	2219.4	-27.10	80.77
90.00	13 49 17	2993.79	-28.21	91.23	264.04	87.99	14 39 11	1993.8	-26.20	64.40
100.00	15 22 15	2693.89	-29.85	69.22	264.09	89.31	16 7 9	1693.9	-27.10	42.13
110.00	16 55 34	2401.85	-34.05	46.96	263.99	92.79	17 35 36	1401.8	-29.37	19.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3847	TRA	-.7964	TC3	1.1591	BAU	.3100	SGT	1599.8	SGR	791.9	SG3	596.5	ST	31.8	SR	22.4	SS	31.2
RDE	-.3167	RRA	.2228	RC3	-.6925	FAU	.15709	RRT	-.5503	RRF	.6483	RTF	-.7991	CRT	.6936	CRS	.8725	CST	.9489
FDE	1.1445	FRA	.9879	FC3	-7.9186	BSP	2700	SGB	1785.1	R23	-.1505	R13	.8236	LSA	47.7	MSA	14.3	SSA	2.5
BDE	.4983	BRA	.8270	BC3	1.3502	FSP	915	SG1	1668.7	SG2	633.8	THA	162.09	EL1	36.3	EL2	14.2	ALF	31.39

LAUNCH DATE AUG 4 1973 FLIGHT TIME 156.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 382.820 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.399	GAL	.58	AZL	89.15	HCA	120.94	SMA	209.57	ECC	.27592	INC	.8455	V1	29.354
RP	228.51	LAP	.73	LOP	72.42	VP	22.984	GAP	15.17	AZP	90.43	TAL	2.67	TAP	123.61	RCA	151.74	APO	267.39	V2	24.069
RC	134.321	GL	6.89	GP	-11.20	ZAL	81.93	ZAP	152.31	ETS	204.06	ZAE	162.35	ETE	315.64	ZAC	71.49	ETC	282.62	LVI	-4.89

PLANETOCENTRIC CONIC

C3	16.906	VHL	4.112	DLA	19.09	RAL	28.65	RAD	6641.4	VEL	11.702	PTH	6.74	VHP	4.257	DPA	6.17	RAP	48.03	ECC	1.2782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 9 7	3480.98	-45.95	126.37	261.07	104.00	12 7 8	2481.0	-35.47	97.39
60.00	11 26 11	3435.56	-39.69	123.92	262.70	97.64	12 23 26	2435.6	-32.39	95.43
70.00	11 52 8	3359.15	-34.07	118.36	263.33	92.60	12 48 7	2359.2	-29.46	90.61
80.00	12 34 52	3225.20	-29.84	108.28	263.40	89.08	13 28 37	2225.2	-27.19	81.17
90.00	13 44 29	3000.46	-28.20	91.72	263.35	87.75	14 34 29	2000.5	-26.29	64.87
100.00	15 17 44	2699.67	-29.84	69.65	263.40	89.08	16 2 43	1699.7	-27.19	42.54
110.00	16 51 34	2405.97	-34.07	47.26	263.33	92.60	17 31 40	1406.0	-29.46	19.53

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3698	TRA	-.7865	TC3	1.1735	BAU	.3140	SGT	1603.6	SGR	812.3	SG3	628.8	ST	32.3	SR	21.7	SS	32.6
RDE	-.3031	RRA	.2227	RC3	-.7433	FAU	.16438	RRT	-.5691	RRF	.6753	RTF	-.8173	CRT	.6943	CRS	.8744	CST	.9479
FDE	1.2230	FRA	.9939	FC3	-8.4179	BSP	2747	SGB	1787.6	R23	-.1646	R13	.8254	LSA	48.7	MSA	14.0	SSA	2.5
BDE	.4938	BRA	.8174	BC3	1.3891	FSP	987	SG1	1680.8	SG2	637.3	THA	161.10	EL1	36.3	EL2	13.9	ALF	29.79

LAUNCH DATE AUG 4 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 386.459 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.363	GAL	.61	AZL	89.11	HCA	121.98	SMA	208.77	ECC	.27316	INC	.8911	V1	29.354
RP	228.90	LAP	.76	LOP	73.46	VP	22.889	GAP	14.88	AZP	90.47	TAL	2.85	TAP	124.83	RCA	151.74	APO	265.79	V2	24.028
RC	137.073	GL	7.30	GP	-11.59	ZAL	81.58	ZAP	151.18	ETS	203.78	ZAE	162.62	ETE	312.68	ZAC	71.12	ETC	282.65	LVI	-4.54

PLANETOCENTRIC CONIC

C3	16.658	VHL	4.081	DLA	19.36	RAL	28.14	RAD	6641.3	VEL	11.692	PTH	6.73	VHP	4.149	DPA	5.78	RAP	48.10	ECC	1.2742

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 5 57	3483.22	-45.99	126.58	260.49	103.85	12 4 0	2483.2	-35.56	97.54
60.00	11 22 37	3438.85	-39.72	124.19	262.10	97.45	12 19 56	2438.8	-32.48	95.66
70.00	11 48 3	3363.94	-34.08	118.74	262.70	92.38	12 44 7	2363.9	-29.56	90.95
80.00	12 30 13	3231.77	-29.84	108.77	262.76	88.83	13 24 5	2231.8	-27.29	81.64
90.00	13 39 32	3007.99	-28.18	92.27	262.69	87.48	14 29 40	2008.0	-26.38	65.40
100.00	15 13 5	2706.24	-29.84	70.14	262.76	88.83	15 58 11	1706.2	-27.29	43.00
110.00	16 47 30	2410.76	-34.08	47.65	262.70	92.38	17 27 40	1410.8	-29.56	19.87

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3937	TRA	-.7760	TC3	1.1881	BAU	.3187	SGT	1606.0	SGR	835.9	SG3	663.0	ST	32.6	SR	20.9	SS	34.0
RDE	-.2892	RRA	.2228	RC3	-.7976	FAU	.17211	RRT	-.5884	RRF	.7022	RTF	-.7964	CRT	.6931	CRS	.8748	CST	.9470
FDE	1.3050	FRA	1.0024	FC3	-8.9444	BSP	2809	SGB	1810.5	R23	-.1774	R13	.8284	LSA	49.6	MSA	13.8	SSA	2.6
BDE	.4885	BRA	.8074	BC3	1.4310	FSP	1033	SG1	1693.2	SG2	641.1	THA	159.98	EL1	36.3	EL2	13.6	ALF	28.23

LAUNCH DATE AUG 4 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 390.112 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.329	GAL	.64	AZL	89.06	HCA	123.01	SMA	208.02	ECC	.27057	INC	.9375	V1	29.354
RP	229.28	LAP	.79	LOP	74.49	VP	22.796	GAP	14.59	AZP	90.51	TAL	3.03	TAP	126.04	RCA	151.73	APO	264.30	V2	23.988
RC	139.847	GL	7.73	GP	-12.00	ZAL	81.26	ZAP	150.02	ETS	203.52	ZAE	162.86	ETE	309.48	ZAC	70.73	ETC	282.69	LVI	-4.17

PLANETOCENTRIC CONIC

C3	16.430	VHL	4.053	DLA	19.64	RAL	27.65	RAD	6641.2	VEL	11.682	PTH	6.72	VHP	4.046	DPA	5.37	RAP	48.16	ECC	1.2704

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 2 46	3485.97	-46.03	126.83	259.95	103.66	12 0 52	2486.0	-35.66	97.72
60.00	11 19 0	3442.72	-39.76	124.52	261.53	97.23	12 16 23	2442.7	-32.59	95.93
70.00	11 43 54	3369.41	-34.10	119.16	262.11	92.13	12 40 3	2369.4	-29.67	91.33
80.00	12 25 27	3239.15	-29.83	109.32	262.14	88.54	13 19 26	2239.2	-27.39	82.16
90.00	13 34 27	3016.41	-28.15	92.88	262.07	87.17	14 24 43	2016.4	-26.49	66.00
100.00	15 8 19	2713.63	-29.83	70.69	262.14	88.54	15 53 33	1713.6	-27.39	43.53
110.00	16 43 20	2416.23	-34.10	48.08	262.11	92.13	17 23 37	1416.2	-29.67	20.25

DIFFERENTIAL CORRECTIONS

TDE	-.3973	TRA	-.7636	TC3	1.2003	BAU	.3237
RDE	-.2746	RRA	.2224	RC3	-.8552	FAU	.18016
FDE	1.3947	FRA	1.0024	FC3	-9.4926	BSP	2831
BDE	.4829	BRA	.7953	BC3	1.4737	FSP	1091

MID-COURSE EXECUTION ACCURACY

SGT	1604.8	SGR	861.8	SG3	698.6
RRT	-.6067	RRF	.7279	RTF	-.7953
SGB	1821.6	R23	-.1896	R13	.8318
SG1	1703.4	SG2	645.4	THA	158.76

ORBIT DETERMINATION ACCURACY

ST	33.0	SR	20.1	SS	35.6
CRT	.6915	CRS	.8754	CST	.9459
LSA	50.6	MSA	13.6	SSA	2.7
EL1	36.3	EL2	13.2	ALF	26.63

LAUNCH DATE AUG 4 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 393.778 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.296	GAL	.68	AZL	89.01	HCA	124.04	SMA	207.31	ECC	.26812	INC	.9850	V1	29.354
RP	229.67	LAP	.82	LOP	75.52	VP	22.705	GAP	14.30	AZP	90.55	TAL	3.19	TAP	127.23	RCA	151.73	APO	262.90	V2	23.947
RC	142.641	GL	8.17	GP	-12.42	ZAL	80.95	ZAP	148.84	ETS	203.26	ZAE	163.06	ETE	306.05	ZAC	70.33	ETC	282.74	LVI	-3.80

PLANETOCENTRIC CONIC

C3	16.221	VHL	4.028	DLA	19.94	RAL	27.16	RAD	6641.1	VEL	11.673	PTH	6.71	VHP	3.947	DPA	4.94	RAP	48.19	ECC	1.2670

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 59 33	3489.25	-46.09	127.13	259.46	103.43	11 57 42	2489.3	-35.79	97.93
60.00	11 15 21	3447.18	-39.79	124.89	261.01	96.98	12 12 48	2447.2	-32.72	96.24
70.00	11 39 40	3375.57	-34.11	119.64	261.55	91.84	12 35 55	2375.6	-29.80	91.77
80.00	12 20 33	3247.38	-29.81	109.93	261.56	88.22	13 14 40	2247.4	-27.51	82.74
90.00	13 29 12	3025.77	-28.12	93.56	261.47	86.83	14 19 38	2025.8	-26.60	66.66
100.00	15 3 25	2721.85	-29.81	71.30	261.56	88.22	15 48 47	1721.9	-27.51	44.11
110.00	16 39 6	2422.39	-34.11	48.56	261.55	91.84	17 19 28	1422.4	-29.80	20.69

DIFFERENTIAL CORRECTIONS

TDE	-.3989	TRA	-.7504	TC3	1.2027	BAU	.3276
RDE	-.2597	RRA	.2219	RC3	-.9143	FAU	.18814
FDE	1.4873	FRA	1.0026	FC-10.	0412	BSP	2866
BDE	.4760	BRA	.7826	BC3	1.5108	FSP	1158

MID-COURSE EXECUTION ACCURACY

SGT	1596.9	SGR	889.7	SG3	734.1
RRT	-.6230	RRF	.7519	RTF	-.7929
SGB	1828.1	R23	-.2016	R13	.8348
SG1	1708.4	SG2	650.6	THA	157.40

ORBIT DETERMINATION ACCURACY

ST	33.1	SR	19.2	SS	37.1
CRT	.6874	CRS	.8744	CST	.9445
LSA	51.6	MSA	13.4	SSA	2.7
EL1	36.1	EL2	12.8	ALF	25.06

LAUNCH DATE AUG 4 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 397.455 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.265	GAL	.70	AZL	88.97	HCA	125.06	SMA	206.66	ECC	.26581	INC	1.0333	V1	29.354
RP	230.05	LAP	.85	LOP	76.55	VP	22.618	GAP	14.01	AZP	90.59	TAL	3.36	TAP	128.42	RCA	151.72	APO	261.59	V2	23.907
RC	145.456	GL	8.62	GP	-12.66	ZAL	80.65	ZAP	147.63	ETS	203.02	ZAE	163.20	ETE	302.39	ZAC	69.92	ETC	282.78	LVI	-3.42

PLANETOCENTRIC CONIC

C3	16.029	VHL	4.004	DLA	20.25	RAL	26.69	RAD	6641.0	VEL	11.665	PTH	6.70	VHP	3.851	DPA	4.48	RAP	48.21	ECC	1.2636

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 56 18	3493.05	-46.14	127.48	259.01	103.17	11 54 31	2493.1	-35.93	98.18
60.00	11 11 38	3452.23	-39.83	125.31	260.52	96.70	12 9 10	2452.2	-32.87	96.59
70.00	11 35 19	3382.45	-34.12	120.18	261.03	91.53	12 31 42	2382.4	-29.94	92.25
80.00	12 15 30	3256.48	-29.79	110.80	261.01	87.86	13 9 47	2256.5	-27.64	83.39
90.00	13 23 46	3036.10	-28.08	94.32	260.91	86.45	14 14 22	2036.1	-26.72	67.39
100.00	14 58 22	2730.95	-29.79	71.97	261.01	87.86	15 43 53	1730.9	-27.64	44.75
110.00	16 34 46	2429.26	-34.12	49.10	261.03	91.53	17 15 15	1429.3	-29.94	21.17

DIFFERENTIAL CORRECTIONS

TDE	-.4023	TRA	-.7382	TC3	1.2043	BAU	.3324
RDE	-.2435	RRA	.2217	RC3	-.9778	FAU	.19663
FDE	1.5925	FRA	1.0046	FC-10.	6205	BSP	2892
BDE	.4702	BRA	.7708	BC3	1.5513	FSP	1226

MID-COURSE EXECUTION ACCURACY

SGT	1590.4	SGR	921.2	SG3	772.1
RRT	-.6383	RRF	.7752	RTF	-.[illegible]07
SGB	1837.9	R23	-.2133	R13	.8386
SG1	1716.5	SG2	657.1	THA	155.97

ORBIT DETERMINATION ACCURACY

ST	33.4	SR	18.2	SS	38.9
CRT	.6817	CRS	.8717	CST	.9437
LSA	52.7	MSA	13.1	SSA	2.7
EL1	36.0	EL2	12.4	ALF	23.26

LAUNCH DATE AUG 4 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 401.143 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.236	GAL	.73	AZL	88.92	HCA	126.09	SMA	206.04	ECC	.26363	INC	1.0827	V1	29.354
RP	230.44	LAP	.87	LOP	77.57	VP	22.533	GAP	13.72	AZP	90.64	TAL	3.51	TAP	129.59	RCA	151.72	APO	260.36	V2	23.867
RC	148.289	GL	9.08	GP	-13.32	ZAL	80.37	ZAP	146.40	ETS	202.78	ZAE	163.28	ETE	298.52	ZAC	69.50	ETC	282.84	LVI	-3.03

PLANETOCENTRIC CONIC

C3	15.853	VHL	3.982	DLA	20.57	RAL	26.22	RAD	6640.9	VEL	11.657	PTH	6.69	VHP	3.759	DPA	4.00	RAP	48.21	ECC	1.2609

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 53 1	3497.38	-46.21	127.87	258.60	102.87	11 51 19	2497.4	-36.09	98.47
60.00	11 7 51	3457.89	-39.88	125.79	260.07	96.38	12 5 29	2457.9	-33.03	96.98
70.00	11 30 53	3390.04	-34.14	120.77	260.55	91.18	12 27 23	2390.0	-30.09	92.79
80.00	12 10 18	3266.48	-29.76	111.35	260.48	87.47	13 4 44	2266.5	-27.78	84.10
90.00	13 18 9	3047.45	-28.02	95.14	260.37	86.04	14 8 56	2047.5	-26.84	68.20
100.00	14 53 10	2740.95	-29.76	72.72	260.48	87.47	15 38 51	1741.0	-27.78	45.47
110.00	16 30 20	2436.86	-34.14	49.69	260.55	91.18	17 10 57	1436.9	-30.09	21.71

DIFFERENTIAL CORRECTIONS

TDE	-.4028	TRA	-.7259	TC3	1.2029	BAU	.3377
RDE	-.2273	RRA	.2212	RC3	-1.0447	FAU	.20544
FDE	1.6950	FRA	1.0022	FC-11.	2192	BSP	2893
BDE	.4625	BRA	.7589	BC3	1.5933	FSP	1290

MID-COURSE EXECUTION ACCURACY

SGT	1580.7	SGR	956.4	SG3	811.1
RRT	-.6526	RRF	.7973	RTF	-.7878
SGB	1847.5	R23	-.2242	R13	.8426
SG1	1723.8	SG2	664.4	THA	154.38

ORBIT DETERMINATION ACCURACY

ST	33.5	SR	17.2	SS	40.6
CRT	.6724	CRS	.8674	CST	.9422
LSA	53.7	MSA	13.0	SSA	2.8
EL1	35.7	EL2	11.9	ALF	21.54

LAUNCH DATE AUG 4 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 404.840 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.209	GAL	.76	AZL	88.87	HCA	127.10	SMA	205.46	ECC	.26158	INC	1.1333	V1	29.354
RP	230.62	LAP	.90	LOP	78.59	VP	22.450	GAP	13.44	AZP	90.68	TAL	3.65	TAP	130.76	RCA	151.72	APO	259.20	V2	23.827
RC	151.140	GL	9.34	GP	-13.80	ZAL	80.11	ZAP	145.15	ETS	202.55	ZAE	163.29	ETE	294.47	ZAC	69.07	ETC	282.90	LVI	-2.62

PLANETOCENTRIC CONIC

C3	15.692	VHL	3.961	DLA	20.91	RAL	25.77	RAD	6640.9	VEL	11.651	PTH	6.69	VHP	3.671	DPA	3.49	RAP	48.19	ECC	1.2583

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 49 43	3502.24	-46.28	128.32	258.24	102.54	11 48 5	2502.2	-36.28	98.79
60.00	11 4 1	3464.15	-39.92	126.32	259.66	96.02	12 1 45	2464.2	-33.20	97.42
70.00	11 26 21	3398.39	-34.15	121.42	260.09	90.79	12 22 59	2398.4	-30.26	93.39
80.00	12 4 55	3277.44	-29.72	112.16	259.99	87.05	12 59 33	2277.4	-27.92	84.88
90.00	13 12 18	3059.89	-27.96	96.05	259.86	85.59	14 3 18	2059.9	-26.98	69.08
100.00	14 47 47	2751.91	-29.72	73.53	259.99	87.05	15 33 39	1751.9	-27.92	46.25
110.00	16 25 47	2445.21	-34.15	50.34	260.09	90.79	17 6 32	1445.2	-30.26	22.30

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4039	TRA	-.7140	TC3	1.1922	BAU	.3424	SGT	1567.1	SGR	994.3	SG3	851.0			ST	33.6	SR	16.1	SS	42.4
RDE	-.2099	RRA	.2208	RC3	-1.1145	FAU	.21434	RRT	-.6640	RRF	.8176	RTF	-.7833			CRT	.6595	CRS	.8603	CST	.9410
FDE	1.8092	FRA	1.0010	FC	-11.8251	BSP	2914	SGB	1855.9	R23	-.2354	R13	.8465			LSA	54.9	MSA	12.8	SSA	2.8
BDE	.4552	BRA	.7474	BC3	1.6320	FSP	1362	SG1	1729.3	SG2	673.7	THA	152.67			EL1	35.5	EL2	11.5	ALF	19.63

LAUNCH DATE AUG 4 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 408.547 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.183	GAL	.78	AZL	88.81	HCA	128.12	SMA	204.92	ECC	.25965	INC	1.1851	V1	29.354
RP	231.20	LAP	.93	LOP	79.60	VP	22.370	GAP	13.16	AZP	90.73	TAL	3.79	TAP	131.91	RCA	151.71	APO	258.12	V2	23.787
RC	154.008	GL	10.02	GP	-14.29	ZAL	79.87	ZAP	143.86	ETS	202.32	ZAE	163.22	ETE	290.27	ZAC	68.62	ETC	282.97	LVI	-2.21

PLANETOCENTRIC CONIC

C3	15.547	VHL	3.943	DLA	21.26	RAL	25.33	RAD	6640.8	VEL	11.644	PTH	6.68	VHP	3.587	DPA	2.96	RAP	48.15	ECC	1.2559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 46 22	3507.64	-46.36	128.82	257.92	102.16	11 44 49	2507.6	-36.48	99.15
60.00	11 0 6	3471.05	-39.97	126.90	259.29	95.63	11 57 57	2471.0	-33.40	97.90
70.00	11 21 40	3407.51	-34.15	122.13	259.67	90.37	12 18 28	2407.5	-30.43	94.04
80.00	11 59 21	3289.39	-29.68	113.04	259.53	86.58	12 54 10	2289.4	-28.08	85.73
90.00	13 6 14	3073.47	-27.89	97.03	259.38	85.11	13 57 27	2073.5	-27.12	70.05
100.00	14 42 13	2763.86	-29.68	74.41	259.53	86.58	15 28 16	1763.9	-28.08	47.10
110.00	16 21 7	2454.32	-34.15	51.05	259.67	90.37	17 2 1	1454.3	-30.43	22.96

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4043	TRA	-.7028	TC3	1.1800	BAU	.3481	SGT	1553.0	SGR	1036.4	SG3	892.7			ST	33.7	SR	14.9	SS	44.3
RDE	-.1916	RRA	.2205	RC3	-1.1885	FAU	.22365	RRT	-.6743	RRF	.8368	RTF	-.7788			CRT	.6413	CRS	.8495	CST	.9396
FDE	1.9298	FRA	1.0008	FC	-12.4541	BSP	2922	SGB	1867.1	R23	-.2449	R13	.8513			LSA	56.1	MSA	12.7	SSA	2.8
BDE	.4474	BRA	.7366	BC3	1.6748	FSP	1432	SG1	1737.2	SG2	684.1	THA	150.82			EL1	35.2	EL2	11.0	ALF	17.61

LAUNCH DATE AUG 4 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 412.262 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.159	GAL	.80	AZL	88.76	HCA	129.13	SMA	204.41	ECC	.25782	INC	1.2382	V1	29.354
RP	231.58	LAP	.96	LOP	80.62	VP	22.292	GAP	12.88	AZP	90.78	TAL	3.92	TAP	133.05	RCA	151.71	APO	257.11	V2	23.748
RC	156.890	GL	10.51	GP	-14.81	ZAL	79.64	ZAP	142.55	ETS	202.10	ZAE	163.05	ETE	285.95	ZAC	68.16	ETC	283.04	LVI	-1.79

PLANETOCENTRIC CONIC

C3	15.415	VHL	3.926	DLA	21.63	RAL	24.89	RAD	6640.7	VEL	11.639	PTH	6.68	VHP	3.506	DPA	2.40	RAP	48.09	ECC	1.2537

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 42 58	3513.56	-46.45	129.36	257.64	101.75	11 41 31	2513.6	-36.69	99.55
60.00	10 56 6	3476.55	-40.02	127.53	258.95	95.21	11 54 5	2476.5	-33.60	98.43
70.00	11 16 52	3417.36	-34.15	122.91	259.28	89.91	12 13 50	2417.4	-30.62	94.75
80.00	11 53 34	3302.34	-29.62	114.00	259.09	86.08	12 48 36	2302.3	-28.23	86.66
90.00	12 59 53	3088.23	-27.80	98.10	258.92	84.58	13 51 21	2088.2	-27.26	71.11
100.00	14 36 25	2776.61	-29.62	75.37	259.09	86.08	15 22 42	1776.6	-28.23	48.03
110.00	16 16 19	2464.20	-34.15	51.82	259.28	89.91	16 57 23	1464.2	-30.62	23.66

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3924	TRA	-.6784	TC3	1.1933	BAU	.3391	SGT	1529.7	SGR	1084.4	SG3	937.2			ST	32.8	SR	13.7	SS	46.0
RDE	-.1738	RRA	.2184	RC3	-1.2698	FAU	.23391	RRT	-.6960	RRF	.8980	RTF	-.[illegible]40			CRT	.6167	CRS	.8374	CST	.9361
FDE	2.0439	FRA	.9788	FC	-13.1367	BSP	2803	SGB	1879.1	R23	-.2356	R13	.8630			LSA	56.7	MSA	12.5	SSA	2.8
BDE	.4290	BRA	.7127	BC3	1.7428	FSP	1493	SG1	1746.7	SG2	681.9	THA	148.38			EL1	34.0	EL2	10.4	ALF	18.03

LAUNCH DATE AUG 4 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 415.984 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.136	GAL	.82	AZL	88.71	HCA	130.14	SMA	203.93	ECC	.25612	INC	1.2927	V1	29.354
RP	231.95	LAP	.98	LOP	81.63	VP	22.216	GAP	12.60	AZP	90.83	TAL	4.03	TAP	134.17	RCA	151.70	APO	256.16	V2	23.708
RC	159.788	GL	11.02	GP	-15.34	ZAL	79.44	ZAP	141.22	ETS	201.87	ZAE	162.78	ETE	281.61	ZAC	67.69	ETC	283.12	LVI	-1.36

PLANETOCENTRIC CONIC

C3	15.297	VHL	3.911	DLA	22.01	RAL	24.47	RAD	6640.7	VEL	11.634	PTH	6.67	VHP	3.429	DPA	1.82	RAP	48.02	ECC	1.2518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 39 32	3520.08	-46.53	129.97	257.41	101.29	11 38 12	2520.1	-36.93	99.99
60.00	10 52 2	3486.76	-40.07	128.22	258.66	94.74	11 50 9	2486.8	-33.83	99.01
70.00	11 11 56	3428.16	-34.15	123.75	258.93	89.42	12 9 4	2428.2	-30.82	95.52
80.00	11 47 32	3316.50	-29.55	115.05	258.69	85.54	12 42 49	2316.5	-28.40	87.68
90.00	12 53 14	3104.41	-27.69	99.27	258.50	84.00	13 44 58	2104.4	-27.40	72.27
100.00	14 30 24	2790.97	-29.55	76.42	258.69	85.54	15 16 55	1791.0	-28.40	49.05
110.00	16 11 22	2474.98	-34.15	52.67	258.93	89.42	16 52 37	1475.0	-30.82	24.44

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.4016	TRA	-.6752	TC3	1.1408	BAU	.3611	SGT	1510.2	SGR	1131.1	SG3	978.9			ST	33.5	SR	12.4	SS	48.3
RDE	-.1517	RRA	.2184	RC3	-1.3475	FAU	.24290	RRT	-.6896	RRF	.8704	RTF	-.7679			CRT	.5840	CRS	.8132	CST	.9363
FDE	2.1943	FRA	.9796	FC	-13.7468	BSP	2932	SGB	1886.9	R23	-.2563	R13	.8634			LSA	58.8	MSA	12.4	SSA	2.8
BDE	.4293	BRA	.7096	BC3	1.7656	FSP	1586	SG1	1749.3	SG2	707.2	THA	146.51			EL1	34.4	EL2	9.8	ALF	13.25

LAUNCH DATE AUG 4 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 419.713 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.115	GAL	.84	AZL	88.65	HCA	131.15	SMA	203.49	ECC	.25451	INC	1.3485	V1	29.354
RP	232.33	LAP	1.02	LOP	82.63	VP	22.142	GAP	12.33	AZP	90.89	TAL	4.14	TAP	135.29	RCA	151.70	APO	255.28	V2	23.670
RC	162.693	GL	11.53	GP	-15.89	ZAL	79.25	ZAP	139.86	ETS	201.65	ZAE	162.40	ETE	277.27	ZAC	67.20	ETC	283.20	LVI	-.91

PLANETOCENTRIC CONIC

C3	15.192	VHL	3.898	DLA	22.41	RAL	24.05	RAD	6640.6	VEL	11.629	PTH	6.67	VHP	3.355	DPA	1.21	RAP	47.92	ECC	1.2500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 36 2	3527.15	-46.63	130.62	257.22	100.79	11 34 49	2527.2	-37.19	100.47
60.00	10 47 52	3495.63	-40.12	128.97	258.40	94.23	11 46 8	2495.6	-34.06	99.64
70.00	11 6 49	3439.78	-34.14	124.65	258.60	88.88	12 4 9	2439.8	-31.03	96.36
80.00	11 41 15	3331.83	-29.47	116.18	258.31	84.95	12 36 47	2331.8	-28.57	88.79
90.00	12 46 14	3122.01	-27.56	100.54	258.09	83.38	13 38 16	2122.0	-27.55	73.54
100.00	14 24 7	2806.30	-29.47	77.55	258.31	84.95	15 10 53	1806.3	-28.57	50.16
110.00	16 6 16	2486.60	-34.14	53.57	258.60	88.88	16 47 42	1486.6	-31.03	25.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4018	TRA	-.6660	TC3	1.1032	BAU	.3672	SGT	1486.6	SGR	1184.3	SG3	1023.1	ST	33.6	SR	11.0	SS	50.5
RDE	-.1301	RRA	.2175	RC3	-1.4321	FAU	.25270	RRT	-.6893	RRF	.8649	RTF	-.7567	CRT	.5354	CRS	.7794	CST	.9347
FDE	2.3375	FRA	.9713	FC	-14.4003	BSP	2971	SGB	1900.6	R23	-.2645	R13	.8684	LSA	60.3	MSA	12.3	SSA	2.8
BDE	.4223	BRA	.7006	BC3	1.8077	FSP	1666	SG1	1756.4	SG2	726.2	THA	144.20	EL1	34.1	EL2	9.1	ALF	10.74

LAUNCH DATE AUG 4 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 423.449 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.095	GAL	.86	AZL	88.59	HCA	132.15	SMA	203.07	ECC	.25299	INC	1.4060	V1	29.354
RP	232.70	LAP	1.04	LOP	83.63	VP	22.071	GAP	12.06	AZP	90.94	TAL	4.24	TAP	136.39	RCA	151.70	APO	254.45	V2	23.631
RC	165.610	GL	12.06	GP	-16.46	ZAL	79.08	ZAP	138.47	ETS	201.42	ZAE	161.92	ETE	272.98	ZAC	66.70	ETC	283.29	LVI	-.46

PLANETOCENTRIC CONIC

C3	15.099	VHL	3.886	DLA	22.83	RAL	23.65	RAD	6640.6	VEL	11.625	PTH	6.67	VHP	3.285	DPA	.57	RAP	47.81	ECC	1.2485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 32 29	3534.80	-46.72	131.34	257.07	100.24	11 31 23	2534.8	-37.47	100.99
60.00	10 43 36	3505.18	-40.16	129.78	258.18	93.69	11 42 1	2505.2	-34.32	100.33
70.00	11 1 32	3452.31	-34.12	125.63	258.31	88.30	11 59 5	2452.3	-31.24	97.28
80.00	11 34 40	3348.44	-29.36	117.40	257.95	84.31	12 30 28	2348.4	-28.74	90.00
90.00	12 38 51	3141.19	-27.40	101.92	257.70	82.70	13 31 12	2141.2	-27.69	74.92
100.00	14 17 31	2822.91	-29.36	78.77	257.95	84.31	15 4 34	1822.9	-28.74	51.36
110.00	16 0 59	2499.13	-34.12	54.55	258.31	88.30	16 42 38	1499.1	-31.24	26.19

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.4010	TRA	-.6543	TC3	1.0636	BAU	.3746	SGT	1459.0	SGR	1241.3	SG3	1068.3	ST	33.5	SR	9.6	SS	52.9
RDE	-.1085	RRA	.2164	RC3	-1.5206	FAU	.26266	RRT	-.6882	RRF	.8981	RTF	-.7459	CRT	.4624	CRS	.7252	CST	.9332
FDE	2.4951	FRA	.9587	FC	-15.0600	BSP	3010	SGB	1915.6	R23	-.2668	R13	.8755	LSA	62.1	MSA	12.2	SSA	2.8
BDE	.4149	BRA	.6892	BC3	1.8556	FSP	1755	SG1	1765.0	SG2	744.5	THA	141.63	EL1	33.8	EL2	8.4	ALF	8.03

LAUNCH DATE AUG 4 1973 FLIGHT TIME 180.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 427.190 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.076	GAL	.87	AZL	88.53	HCA	133.15	SMA	202.68	ECC	.25157	INC	1.4650	V1	29.354
RP	233.07	LAP	1.07	LOP	84.63	VP	22.001	GAP	11.79	AZP	91.00	TAL	4.33	TAP	137.48	RCA	151.69	APO	253.67	V2	23.593
RC	168.537	GL	12.60	GP	-17.05	ZAL	78.93	ZAP	137.06	ETS	201.18	ZAE	161.32	ETE	268.81	ZAC	66.18	ETC	283.39	LVI	.01

PLANETOCENTRIC CONIC

C3	15.018	VHL	3.875	DLA	23.27	RAL	23.25	RAD	6640.5	VEL	11.622	PTH	6.66	VHP	3.219	DPA	-.09	RAP	47.68	ECC	1.2472

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 28 51	3543.04	-46.82	132.11	256.97	99.66	11 27 54	2543.0	-37.76	101.56
60.00	10 39 12	3515.46	-40.20	130.65	257.99	93.10	11 37 48	2515.5	-34.58	101.07
70.00	10 56 4	3465.79	-34.08	126.68	258.04	87.68	11 53 49	2465.8	-31.47	98.26
80.00	11 27 44	3366.45	-29.23	118.73	257.61	83.63	12 23 50	2366.5	-28.91	91.31
90.00	12 31 0	3162.14	-27.21	103.43	257.32	81.97	13 23 42	2162.1	-27.83	76.44
100.00	14 10 36	2840.93	-29.23	80.09	257.61	83.63	14 57 57	1840.9	-28.91	52.67
110.00	15 55 30	2512.61	-34.08	55.60	258.04	87.68	16 37 23	1512.6	-31.47	27.18

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3965	TRA	-.6426	TC3	1.0174	BAU	.3629	SGT	1426.6	SGR	1302.8	SG3	1113.7	ST	33.2	SR	8.2	SS	55.1
RDE	-.0825	RRA	.2146	RC3	-1.6130	FAU	.27277	RRT	-.6842	RRF	.9100	RTF	-.7525	CRT	.3528	CRS	.6408	CST	.9305
FDE	2.6490	FRA	.9397	FC	-15.7236	BSP	3030	SGB	1931.9	R23	-.2660	R13	.8832	LSA	63.6	MSA	12.2	SSA	2.7
BDE	.4050	BRA	.6775	BC3	1.9071	FSP	1834	SG1	1774.5	SG2	763.8	THA	138.78	EL1	33.3	EL2	7.7	ALF	5.28

LAUNCH DATE AUG 4 1973 FLIGHT TIME 182.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 430.937 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.058	GAL	.88	AZL	88.47	HCA	134.14	SMA	202.32	ECC	.25024	INC	1.5259	V1	29.354
RP	233.44	LAP	1.09	LOP	85.63	VP	21.933	GAP	11.52	AZP	91.06	TAL	4.42	TAP	138.56	RCA	151.69	APO	252.94	V2	23.554
RC	171.472	GL	13.16	GP	-17.67	ZAL	78.79	ZAP	135.62	ETS	200.93	ZAE	160.61	ETE	264.80	ZAC	65.65	ETC	283.50	LVI	.49

PLANETOCENTRIC CONIC

C3	14.949	VHL	3.866	DLA	23.73	RAL	22.86	RAD	6640.5	VEL	11.619	PTH	6.66	VHP	3.156	DPA	-.79	RAP	47.53	ECC	1.2460

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 25 9	3551.89	-46.92	132.94	256.91	99.02	11 24 21	2551.9	-38.07	102.18
60.00	10 34 41	3526.48	-40.24	131.59	257.84	92.46	11 33 27	2526.5	-34.86	101.87
70.00	10 50 22	3480.29	-34.04	127.81	257.80	87.02	11 48 22	2480.3	-31.71	99.33
80.00	11 20 25	3386.01	-29.08	120.16	257.29	82.89	12 16 51	2386.0	-29.09	92.73
90.00	12 22 38	3185.10	-26.98	105.07	256.96	81.18	13 15 43	2185.1	-27.96	78.10
100.00	14 3 17	2860.48	-29.08	81.53	257.29	82.89	14 50 57	1860.5	-29.09	54.10
110.00	15 49 48	2527.11	-34.04	56.73	257.80	87.02	16 31 55	1527.1	-31.71	28.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3925	TRA	-.6303	TC3	.9671	BAU	.3925	SGT	1392.2	SGR	1368.6	SG3	1160.0	ST	32.9	SR	6.9	SS	57.5
RDE	-.0561	RRA	.2128	RC3	-1.7095	FAU	.28297	RRT	-.6779	RRF	.9206	RTF	-.7182	CRT	.1742	CRS	.4902	CST	.9281
FDE	2.8209	FRA	.9191	FC	-16.3871	BSP	3052	SGB	1952.3	R23	-.2604	R13	.8922	LSA	65.5	MSA	12.2	SSA	2.7
BDE	.3964	BRA	.6652	BC3	1.9641	FSP	1918	SG1	1788.2	SG2	783.3	THA	135.72	EL1	32.9	EL2	6.8	ALF	2.19

LAUNCH DATE AUG 4 1973 FLIGHT TIME 184.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 454.689 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.041	GAL	.90	AZL	88.41	HCA	135.13	SMA	201.98	ECC	.24899	INC	1.5886	V1	29.354
RP	233.80	LAP	1.12	LOP	86.62	VP	21.867	GAP	11.26	AZP	91.13	TAL	4.49	TAP	139.63	RCA	151.69	APO	252.26	V2	23.517
RC	174.413	GL	13.73	GP	-18.30	ZAL	78.68	ZAP	134.16	ETS	200.68	ZAE	159.79	ETE	260.96	ZAC	65.11	ETC	283.61	LVI	.99

PLANETOCENTRIC CONIC

C3	14.892	VHL	3.859	DLA	24.20	RAL	22.48	RAD	6640.5	VEL	11.617	PTH	6.66	VHP	3.096	DPA	-1.51	RAP	47.37	ECC	1.2451

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 21 21	3561.35	-47.01	133.84	256.90	98.34	11 20 43	2561.3	-38.40	102.84
60.00	10 30 1	3538.26	-40.27	132.59	257.72	91.78	11 28 59	2538.3	-35.15	102.73
70.00	10 44 25	3495.85	-33.98	129.02	257.59	86.30	11 42 41	2495.9	-31.95	100.48
80.00	11 12 39	3407.26	-28.89	121.71	256.98	82.10	12 9 26	2407.3	-29.25	94.29
90.00	12 13 38	3210.34	-26.70	106.86	256.60	80.32	13 7 8	2210.3	-28.08	79.94
100.00	13 55 31	2881.73	-28.89	83.08	256.98	82.10	14 43 33	1881.7	-29.25	55.66
110.00	15 43 51	2542.67	-33.98	57.94	257.59	86.30	16 26 14	1542.7	-31.95	29.39

DIFFERENTIAL CORRECTIONS

TDE	-.3804	TRA	-.6132	TC3	.9234	BAU	.4049
RDE	-.0301	RRA	.2095	RC3	-1.8123	FAU	.29366
FDE	2.9798	FRA	.8835	FC	-17.0718	BSP	3016
BDE	.3816	BRA	.6480	BC3	2.0340	FSP	1984

MID-COURSE EXECUTION ACCURACY

SGT	1350.3	SGR	1440.4	SG3	1207.3		
RRT	-.6746	RRF	.9302	RTF	-.7062		
SGB	1974.4	R23	-.2460	R13	.9034		
SG1	1807.5	SG2	794.4	THA	132.26		

ORBIT DETERMINATION ACCURACY

ST	32.0	SR	6.0	SS	59.7		
CRT	-.0827	CRS	.2572	CST	.9236		
LSA	66.8	MSA	12.1	SSA	2.6		
EL1	32.0	EL2	5.9	ALF	179.09		

LAUNCH DATE AUG 4 1973 FLIGHT TIME 186.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 438.444 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.025	GAL	.90	AZL	88.35	HCA	136.12	SMA	201.66	ECC	.24782	INC	1.6534	V1	29.354
RP	234.17	LAP	1.15	LOP	87.61	VP	21.803	GAP	10.99	AZP	91.19	TAL	4.56	TAP	140.68	RCA	151.68	APO	251.63	V2	23.479
RC	177.360	GL	14.32	GP	-18.96	ZAL	78.58	ZAP	132.67	ETS	200.41	ZAE	158.87	ETE	257.34	ZAC	64.55	ETC	283.73	LVI	1.50

PLANETOCENTRIC CONIC

C3	14.846	VHL	3.853	DLA	24.70	RAL	22.11	RAD	6640.5	VEL	11.615	PTH	6.66	VHP	3.040	DPA	-2.26	RAP	47.19	ECC	1.2443

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 17 28	3571.50	-47.11	134.80	256.93	97.61	11 17 0	2571.5	-38.75	103.56
60.00	10 25 12	3550.90	-40.29	133.66	257.64	91.05	11 24 23	2550.9	-35.46	103.67
70.00	10 38 11	3512.62	-33.90	130.33	257.40	85.54	11 36 44	2512.6	-32.19	101.72
80.00	11 4 21	3430.52	-28.66	123.40	256.69	81.24	12 1 32	2430.5	-29.41	96.00
90.00	12 3 51	3238.39	-26.37	108.85	256.25	79.39	12 57 49	2238.4	-28.18	81.99
100.00	13 47 13	2904.99	-28.66	84.77	256.69	81.24	14 35 38	1905.0	-29.41	57.37
110.00	15 37 38	2559.44	-33.90	59.24	257.40	85.54	16 20 17	1559.4	-32.19	30.64

DIFFERENTIAL CORRECTIONS

TDE	-.3806	TRA	-.6103	TC3	.8390	BAU	.4145
RDE	.0008	RRA	.2090	RC3	-1.9127	FAU	.30325
FDE	3.1768	FRA	.8767	FC	-17.6643	BSP	3123
BDE	.3806	BRA	.6451	BC3	2.0867	FSP	2080

MID-COURSE EXECUTION ACCURACY

SGT	1317.7	SGR	1513.1	SG3	1252.3		
RRT	-.6497	RRF	.9385	RTF	-.6764		
SGB	2006.5	R23	-.2414	R13	.9111		
SG1	1826.9	SG2	829.7	THA	128.97		

ORBIT DETERMINATION ACCURACY

ST	32.0	SR	5.6	SS	62.5		
CRT	-.4505	CRS	-.1271	CST	.9214		
LSA	69.4	MSA	12.2	SSA	2.6		
EL1	32.1	EL2	5.0	ALF	175.40		

LAUNCH DATE AUG 4 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 442.204 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.011	GAL	.91	AZL	88.28	HCA	137.11	SMA	201.36	ECC	.24672	INC	1.7203	V1	29.354
RP	234.53	LAP	1.17	LOP	88.60	VP	21.741	GAP	10.73	AZP	91.26	TAL	4.61	TAP	141.72	RCA	151.68	APO	251.04	V2	23.442
RC	180.313	GL	14.92	GP	-19.64	ZAL	78.50	ZAP	131.17	ETS	200.13	ZAE	157.85	ETE	253.93	ZAC	63.98	ETC	283.85	LVI	2.03

PLANETOCENTRIC CONIC

C3	14.810	VHL	3.848	DLA	25.21	RAL	21.74	RAD	6640.4	VEL	11.613	PTH	6.65	VHP	2.987	DPA	-3.04	RAP	47.00	ECC	1.2437

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 13 29	3582.30	-47.20	135.83	257.00	96.82	11 13 11	2582.3	-39.12	104.34
60.00	10 20 13	3564.37	-40.30	134.81	257.59	90.28	11 19 37	2564.4	-35.78	104.67
70.00	10 31 39	3530.63	-33.79	131.72	257.24	84.72	11 30 30	2530.6	-32.44	103.07
80.00	10 55 27	3455.97	-28.38	125.24	256.40	80.31	11 53 3	2456.0	-29.56	97.88
90.00	11 53 7	3269.72	-25.95	111.05	255.89	78.36	12 47 36	2269.7	-28.25	84.27
100.00	13 38 19	2930.44	-28.38	86.61	256.40	80.31	14 27 9	1930.4	-29.56	59.28
110.00	15 31 6	2577.45	-33.79	60.64	257.24	84.72	16 14 3	1577.4	-32.44	31.98

DIFFERENTIAL CORRECTIONS

TDE	-.3737	TRA	-.6004	TC3	.7612	BAU	.4269
RDE	.0330	RRA	.2065	RC3	-2.0173	FAU	.31287
FDE	3.3758	FRA	.8499	FC	-18.2888	BSP	3191
BDE	.3751	BRA	.6349	BC3	2.1561	FSP	2172

MID-COURSE EXECUTION ACCURACY

SGT	1276.2	SGR	1590.2	SG3	1297.1		
RRT	-.6272	RRF	.9458	RTF	-.6785		
SGB	2039.0	R23	-.2256	R13	.9213		
SG1	1851.7	SG2	853.7	THA	125.26		

ORBIT DETERMINATION ACCURACY

ST	31.5	SR	6.1	SS	65.3		
CRT	-.7566	CRS	-.4998	CST	.9174		
LSA	71.7	MSA	12.3	SSA	2.5		
EL1	31.9	EL2	4.0	ALF	171.51		

LAUNCH DATE AUG 4 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 445.967 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.997	GAL	.92	AZL	88.21	HCA	138.09	SMA	201.09	ECC	.24569	INC	1.7896	V1	29.354
RP	234.89	LAP	1.20	LOP	89.59	VP	21.680	GAP	10.47	AZP	91.33	TAL	4.66	TAP	142.75	RCA	151.68	APO	250.49	V2	23.405
RC	183.270	GL	15.54	GP	-20.33	ZAL	78.44	ZAP	129.64	ETS	199.84	ZAE	156.74	ETE	250.74	ZAC	63.39	ETC	283.99	LVI	2.57

PLANETOCENTRIC CONIC

C3	14.787	VHL	3.845	DLA	25.75	RAL	21.38	RAD	6640.4	VEL	11.612	PTH	6.65	VHP	2.938	DPA	-3.85	RAP	46.79	ECC	1.2434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 9 22	3593.81	-47.29	136.93	257.12	95.98	11 9 16	2593.8	-39.50	105.17
60.00	10 15 1	3578.75	-40.30	136.03	257.57	89.45	11 14 40	2578.7	-36.11	105.75
70.00	10 24 46	3550.00	-33.66	133.22	257.09	83.84	11 23 56	2550.0	-32.69	104.52
80.00	10 45 47	3484.03	-28.04	127.26	256.12	79.30	11 43 51	2484.0	-29.69	99.95
90.00	11 41 8	3305.26	-25.44	113.52	255.51	77.22	12 36 13	2305.3	-28.28	86.87
100.00	13 28 39	2958.50	-28.04	88.62	256.12	79.30	14 17 58	1958.5	-29.69	61.32
110.00	15 24 12	2596.82	-33.66	62.14	257.09	83.84	16 7 29	1596.8	-32.69	33.44

DIFFERENTIAL CORRECTIONS

TDE	-.3635	TRA	-.5906	TC3	.6815	BAU	.4418
RDE	.0663	RRA	.2039	RC3	-2.1282	FAU	.32286
FDE	3.5713	FRA	.8217	FC	-18.9028	BSP	3249
BDE	.3695	BRA	.6249	BC3	2.2347	FSP	2254

MID-COURSE EXECUTION ACCURACY

SGT	1234.0	SGR	1674.1	SG3	1342.7		
RRT	-.6007	RRF	.9524	RTF	-.6169		
SGB	2079.7	R23	-.2054	R13	.9317		
SG1	1886.5	SG2	875.4	THA	121.36		

ORBIT DETERMINATION ACCURACY

ST	30.8	SR	7.5	SS	68.0		
CRT	-.9101	CRS	-.7339	CST	.9120		
LSA	73.9	MSA	12.3	SSA	2.4		
EL1	31.6	EL2	3.0	ALF	167.41		

LAUNCH DATE AUG 4 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 449.733 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.984	GAL	.92	AZL	88.14	HCA	138.07	SMA	200.83	ECC	.24473	INC	1.8613	V1	29.384
RP	235.24	LAP	1.22	LOP	90.57	VP	21.622	GAP	10.22	AZP	91.41	TAL	4.70	TAP	143.77	RCA	151.68	APO	249.98	V2	23.569
RC	186.232	GL	16.18	GP	-21.05	ZAL	78.40	ZAP	128.09	ETS	199.53	ZAE	155.53	ETE	247.77	ZAC	62.78	ETC	284.13	LVI	3.12

PLANETOCENTRIC CONIC

C3	14.774	VHL	3.844	DLA	26.31	RAL	21.02	RAD	6640.4	VEL	11.612	PTH	6.65	VHP	2.892	DPA	-4.69	RAP	46.57	ECC	1.2431		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 5 7	3606.05	-47.37	138.10	257.27	95.08	11 5 13	2606.0	-39.90	106.07
60.00	10 9 36	3594.09	-40.28	137.34	257.59	88.56	11 9 30	2594.1	-36.44	106.91
70.00	10 17 28	3570.89	-33.50	134.83	256.95	82.90	11 16 59	2570.9	-32.94	106.10
80.00	10 35 12	3515.24	-27.63	129.48	255.82	78.20	11 33 47	2515.2	-29.79	102.27
90.00	11 27 27	3346.45	-24.79	116.37	255.09	75.94	12 23 13	2346.4	-28.24	89.88
100.00	13 18 4	2989.71	-27.63	90.85	255.82	78.20	14 7 54	1989.7	-29.79	63.63
110.00	15 16 55	2617.71	-33.50	63.75	256.95	82.90	16 0 33	1617.7	-32.94	35.02

DIFFERENTIAL CORRECTIONS																							
TDE	-.3524	TRA	-.5808	TC3	.5933	BAU	.4579																
RDE	.1024	RRA	.2002	RC3	-2.2413	FAU	.33247																
FDE	3.7792	FRA	.7833	FC	-19.4820	BSP	3320																
BDE	.3670	BRA	.6143	BC3	2.3185	FSP	2333																

MID-COURSE EXECUTION ACCURACY									
SGT	1190.2	SGR	1761.5	SG3	1387.1				
RRT	-.5664	RRF	.9582	RTF	-.5782				
SGB	2125.9	R23	-.1819	R13	.9418				
SG1	1927.7	SG2	896.3	THA	117.31				

ORBIT DETERMINATION ACCURACY					
ST	30.0	SR	9.5	SS	70.8
CRT	-.9653	CRS	-.8585	CST	.9057
LSA	76.4	MSA	12.4	SSA	2.3
EL1	31.4	EL2	2.4	ALF	162.94

LAUNCH DATE AUG 4 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 453.503 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.972	GAL	.93	AZL	88.06	HCA	140.05	SMA	200.59	ECC	.24364	INC	1.9356	V1	29.354
RP	235.59	LAP	1.24	LOP	91.54	VP	21.564	GAP	9.96	AZP	91.48	TAL	4.73	TAP	144.78	RCA	151.68	APO	249.50	V2	23.332
RC	189.197	GL	16.84	GP	-21.80	ZAL	78.37	ZAP	126.52	ETS	199.20	ZAE	154.25	ETE	245.01	ZAC	62.17	ETC	284.28	LVI	3.69

PLANETOCENTRIC CONIC

C3	14.773	VHL	3.844	DLA	26.89	RAL	20.66	RAD	6640.4	VEL	11.611	PTH	6.65	VHP	2.849	DPA	-5.55	RAP	46.34	ECC	1.2431		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 0 43	3619.06	-47.44	139.35	257.48	94.12	11 1 2	2619.1	-40.32	107.04
60.00	10 3 57	3610.45	-40.24	138.73	257.63	87.62	11 4 7	2610.5	-36.79	108.16
70.00	10 9 43	3593.45	-33.29	136.56	256.83	81.90	11 9 36	2593.4	-33.18	107.82
80.00	10 23 26	3550.37	-27.11	131.97	255.50	76.99	11 22 36	2550.4	-29.85	104.88
90.00	11 11 13	3395.96	-23.93	119.74	254.60	74.46	12 7 49	2396.0	-28.10	93.50
100.00	13 6 18	3024.85	-27.11	93.33	255.50	76.99	13 56 42	2024.8	-29.85	66.24
110.00	15 9 9	2640.27	-33.29	65.47	256.83	81.90	15 53 9	1640.3	-33.18	36.73

DIFFERENTIAL CORRECTIONS																							
TDE	-.3382	TRA	-.5722	TC3	.4951	BAU	.4752																
RDE	.1402	RRA	.1972	RC3	-2.3548	FAU	.34139																
FDE	3.9872	FRA	.7520	FC	-20.0064	BSP	3389																
BDE	.3661	BRA	.6052	BC3	2.4063	FSP	2404																

MID-COURSE EXECUTION ACCURACY									
SGT	1146.2	SGR	1851.8	SG3	1428.7				
RRT	-.5228	RRF	.9633	RTF	-.5304				
SGB	2177.8	R23	-.1566	R13	.9510				
SG1	1975.9	SG2	915.7	THA	113.18				

ORBIT DETERMINATION ACCURACY					
ST	29.0	SR	11.9	SS	73.5
CRT	-.9750	CRS	-.9195	CST	.8974
LSA	78.9	MSA	12.5	SSA	2.2
EL1	31.3	EL2	2.4	ALF	158.11

LAUNCH DATE AUG 4 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 457.275 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.961	GAL	.93	AZL	87.99	HCA	141.02	SMA	200.37	ECC	.24301	INC	2.0128	V1	29.354
RP	235.94	LAP	1.27	LOP	92.52	VP	21.508	GAP	9.71	AZP	91.57	TAL	4.75	TAP	145.78	RCA	151.68	APO	249.06	V2	23.297
RC	192.165	GL	17.52	GP	-22.56	ZAL	78.36	ZAP	124.93	ETS	198.85	ZAE	152.89	ETE	242.43	ZAC	61.53	ETC	284.43	LVI	4.28

PLANETOCENTRIC CONIC

C3	14.783	VHL	3.845	DLA	27.50	RAL	20.31	RAD	6640.4	VEL	11.612	PTH	6.65	VHP	2.810	DPA	-6.45	RAP	46.09	ECC	1.2433		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 56 9	3632.88	-47.50	140.68	257.72	93.09	10 56 42	2632.9	-40.75	108.08
60.00	9 58 1	3627.91	-40.18	140.21	257.69	86.61	10 58 29	2627.9	-37.15	109.51
70.00	10 1 25	3617.89	-33.04	138.42	256.71	80.82	11 1 42	2617.9	-33.41	109.68
80.00	10 10 4	3590.68	-26.46	134.78	255.14	75.64	11 9 55	2590.7	-29.85	107.87
90.00	10 50 29	3460.06	-22.70	124.03	253.96	72.66	11 48 9	2460.1	-27.77	98.16
100.00	12 52 56	3065.15	-26.46	96.15	255.14	75.64	13 44 1	2065.1	-29.85	69.24
110.00	15 0 51	2664.71	-33.04	67.34	256.71	80.82	15 45 16	1664.7	-33.41	38.60

DIFFERENTIAL CORRECTIONS																							
TDE	-.3215	TRA	-.5615	TC3	.3964	BAU	.4952																
RDE	.1805	RRA	.1917	RC3	-2.4742	FAU	.35047																
FDE	4.2008	FRA	.6994	FC	-20.5241	BSP	3482																
BDE	.3687	BRA	.5934	BC3	2.5058	FSP	2479																

MID-COURSE EXECUTION ACCURACY									
SGT	1101.1	SGR	1948.4	SG3	1470.5				
RRT	-.4720	RRF	.9678	RTF	-.4759				
SGB	2237.9	R23	-.1292	R13	.9593				
SG1	2036.1	SG2	928.8	THA	109.05				

ORBIT DETERMINATION ACCURACY					
ST	27.8	SR	14.6	SS	76.3
CRT	-.9663	CRS	-.9521	CST	.8868
LSA	81.5	MSA	12.8	SSA	2.1
EL1	31.2	EL2	3.3	ALF	152.82

LAUNCH DATE AUG 4 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 461.050 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.951	GAL	.93	AZL	87.91	HCA	141.99	SMA	200.16	ECC	.24223	INC	2.0932	V1	29.354
RP	236.29	LAP	1.29	LOP	93.49	VP	21.454	GAP	9.45	AZP	91.65	TAL	4.77	TAP	146.76	RCA	151.68	APO	248.65	V2	23.261
RC	195.134	GL	18.22	GP	-23.34	ZAL	78.37	ZAP	123.32	ETS	198.48	ZAE	151.46	ETE	240.04	ZAC	60.89	ETC	284.60	LVI	4.89

PLANETOCENTRIC CONIC

C3	14.806	VHL	3.848	DLA	28.13	RAL	19.96	RAD	6640.4	VEL	11.613	PTH	6.65	VHP	2.774	DPA	-7.37	RAP	45.84	ECC	1.2437		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 51 23	3647.54	-47.54	142.10	258.00	92.00	10 52 11	2647.5	-41.20	109.20
60.00	9 51 46	3646.54	-40.10	141.79	257.78	85.55	10 52 32	2646.5	-37.50	110.96
70.00	9 52 28	3644.48	-32.74	140.43	256.60	79.67	10 53 12	2644.5	-33.63	111.73
80.00	9 54 25	3638.32	-25.62	138.07	254.70	74.11	10 55 4	2638.3	-29.75	111.41
90.00	10 16 30	3566.87	-20.36	130.98	252.85	69.94	11 15 57	2566.9	-26.82	105.82
100.00	12 37 17	3112.79	-25.62	99.44	254.70	74.11	13 29 10	2112.8	-29.75	72.78
110.00	14 51 54	2691.30	-32.74	69.35	256.60	79.67	15 36 45	1691.3	-33.63	40.65

DIFFERENTIAL CORRECTIONS																							
TDE	-.2991	TRA	-.5488	TC3	.3018	BAU	.5181																
RDE	.2220	RRA	.1851	RC3	-2.6000	FAU	.35973																
FDE	4.4059	FRA	.6380	FC	-21.0339	BSP	3553																
BDE	.3725	BRA	.5792	BC3	2.6174	FSP	2530																

MID-COURSE EXECUTION ACCURACY									
SGT	1054.0	SGR	2051.9	SG3	1511.9				
RRT	-.4168	RRF	.9718	RTF	-.4164				
SGB	2306.8	R23	-.1025	R13	.9664				
SG1	2110.3	SG2	931.6	THA	105.09				

ORBIT DETERMINATION ACCURACY					
ST	26.3	SR	17.4	SS	78.9
CRT	-.9485	CRS	-.9699	CST	.8719
LSA	84.0	MSA	12.7	SSA	2.1
EL1	31.2	EL2	4.7	ALF	146.96

LAUNCH DATE AUG 4 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 464.825 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.941	GAL	.93	AZL	87.82	HCA	142.96	SMA	199.97	ECC	.24151	INC	2.1768	V1	29.354
RP	236.63	LAP	1.31	LOP	94.46	VP	21.401	GAP	9.20	AZP	91.74	TAL	4.77	TAP	147.74	RCA	151.68	APO	248.27	V2	23.226
RC	198.104	GL	18.95	GP	-24.15	ZAL	78.40	ZAP	121.71	ETS	198.08	ZAE	149.97	ETE	237.82	ZAC	60.22	ETC	284.77	LVI	5.51

PLANETOCENTRIC CONIC

C3	14.841	VHL	3.852	DLA	28.78	RAL	19.61	RAD	6640.5	VEL	11.614	PTH	6.66	VHP	2.742	DPA	-8.31	RAP	48.58	ECC	1.2442

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 46 25	3663.15	-47.57	143.60	258.33	90.84	10 47 29	2663.2	-41.66	110.41
60.00	9 45 10	3666.51	-39.98	143.47	257.90	84.41	10 46 16	2666.5	-37.87	112.53
70.00	9 42 45	3673.65	-32.36	142.62	256.47	78.42	10 43 58	2673.7	-33.83	113.98
80.00	9 34 57	3698.17	-24.44	142.12	254.12	72.29	10 36 35	2698.2	-29.47	115.83
84.40	9 2 36	3802.37	-18.61	147.52	251.84	67.63	10 5 58	2802.4	-26.21	122.95
100.00	12 17 49	3172.64	-24.44	103.49	254.12	72.29	13 10 42	2172.6	-29.47	77.20
110.00	14 42 11	2720.47	-32.36	71.54	256.47	78.42	15 27 31	1720.5	-33.83	42.90

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2875	TRA	-.5495	TC3	.1627	BAU	.5391	SGT	1033.5	SGR	2150.9	SG3	1545.7	ST	25.5	SR	21.0	SS	82.5
RDE	.2722	RRA	.1828	RC3	-2.7120	FAU	.36616	RRT	-.3259	RRF	.9751	RTF	-.3248	CRT	-.9288	CRS	-.9808	C8T	.8590
FDE	4.6647	FRA	.6163	FC	-21.3600	BSP	3752	SGB	2386.3	R23	-.0764	R13	.9721	LSA	87.9	MSA	12.9	SSA	2.0
BDE	.3959	BRA	.5791	BC3	2.7169	FSP	2628	SG1	2183.6	SG2	962.4	THA	101.08	EL1	32.5	EL2	6.1	ALF	140.99

LAUNCH DATE AUG 4 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 468.603 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.932	GAL	.93	AZL	87.74	HCA	143.93	SMA	199.80	ECC	.24085	INC	2.2640	V1	29.354
RP	236.98	LAP	1.33	LOP	95.43	VP	21.350	GAP	8.95	AZP	91.83	TAL	4.77	TAP	148.70	RCA	151.68	APO	247.92	V2	23.191
RC	201.073	GL	19.70	GP	-24.97	ZAL	78.44	ZAP	120.09	ETS	197.67	ZAE	148.42	ETE	235.75	ZAC	59.55	ETC	284.95	LVI	6.15

PLANETOCENTRIC CONIC

C3	14.889	VHL	3.859	DLA	29.47	RAL	19.26	RAD	6640.5	VEL	11.616	PTH	6.66	VHP	2.713	DPA	-9.29	RAP	45.32	ECC	1.2450

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 41 13	3679.70	-47.57	145.21	258.70	89.61	10 42 33	2679.7	-42.14	111.71
60.00	9 38 10	3687.86	-39.82	145.26	258.02	83.20	10 39 37	2687.9	-38.23	114.23
70.00	9 32 5	3705.80	-31.89	145.02	256.33	77.08	10 33 51	2705.8	-33.99	116.48
80.00	9 6 49	3785.43	-22.51	147.89	253.20	69.85	10 9 55	2785.4	-28.78	122.23
81.35	8 36 49	3881.53	-19.01	153.53	251.72	67.05	9 41 30	2881.5	-26.81	128.93
100.00	11 49 41	3259.91	-22.51	109.26	253.20	69.85	12 44 1	2259.9	-28.78	83.59
110.00	14 31 31	2752.62	-31.89	73.93	256.33	77.08	15 17 24	1752.6	-33.99	45.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2649	TRA	-.5433	TC3	.0382	BAU	.5638	SGT	1007.0	SGR	2257.6	SG3	1578.9	ST	24.1	SR	24.5	SS	85.4
RDE	.3216	RRA	.1775	RC3	-2.8322	FAU	.37305	RRT	-.2343	RRF	.9781	RTF	-.2310	CRT	-.9022	CRS	-.9871	C8T	.8373
FDE	4.8932	FRA	.5691	FC	-21.6914	BSP	3884	SGB	2472.0	R23	-.0518	R13	.9767	LSA	91.1	MSA	13.0	SSA	1.9
BDE	.4167	BRA	.5715	BC3	2.8324	FSP	2681	SG1	2272.7	SG2	972.5	THA	97.31	EL1	33.5	EL2	7.6	ALF	134.42

LAUNCH DATE AUG 4 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 472.382 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.924	GAL	.92	AZL	87.65	HCA	144.89	SMA	199.64	ECC	.24023	INC	2.3550	V1	29.354
RP	237.31	LAP	1.35	LOP	96.39	VP	21.300	GAP	8.71	AZP	91.93	TAL	4.78	TAP	149.65	RCA	151.68	APO	247.60	V2	23.157
RC	204.040	GL	20.48	GP	-25.82	ZAL	78.50	ZAP	118.45	ETS	197.22	ZAE	146.82	ETE	233.81	ZAC	58.85	ETC	285.13	LVI	6.81

PLANETOCENTRIC CONIC

C3	14.951	VHL	3.867	DLA	30.18	RAL	18.90	RAD	6640.5	VEL	11.619	PTH	6.66	VHP	2.688	DPA	-10.28	RAP	45.06	ECC	1.2460

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 35 45	3697.29	-47.55	146.91	259.10	88.30	10 37 22	2697.3	-42.63	113.12
60.00	9 30 41	3710.77	-39.62	147.18	258.16	81.92	10 32 32	2710.8	-38.59	116.07
70.00	9 20 14	3741.65	-31.32	147.65	256.14	75.62	10 22 36	2741.7	-34.11	119.27
78.99	8 17 22	3940.06	-19.42	158.06	251.62	66.43	9 23 2	2940.1	-27.43	133.44
78.99	8 17 22	3940.06	-19.42	158.06	251.62	66.43	9 23 2	2940.1	-27.43	133.44
78.99	8 17 22	3940.06	-19.42	158.06	251.62	66.43	9 23 2	2940.1	-27.43	133.44
110.00	14 19 40	2788.47	-31.32	76.57	256.14	75.62	15 6 9	1788.5	-34.11	48.19

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2395	TRA	-.5375	TC3	-.0897	BAU	.5908	SGT	989.8	SGR	2369.2	SG3	1609.7	ST	22.5	SR	28.3	SS	88.4
RDE	.3740	RRA	.1706	RC3	-2.9545	FAU	.37946	RRT	-.1312	RRF	.9807	RTF	-.1960	CRT	-.8682	CRS	-.9911	C8T	.8076
FDE	5.1211	FRA	.5117	FC	-21.9734	BSP	4067	SGB	2567.6	R23	-.0295	R13	.9802	LSA	94.5	MSA	13.2	SSA	1.8
BDE	.4441	BRA	.5639	BC3	2.9559	FSP	2749	SG1	2373.5	SG2	979.5	THA	93.78	EL1	35.0	EL2	9.0	ALF	127.56

LAUNCH DATE AUG 4 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 476.165 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.917	GAL	.92	AZL	87.55	HCA	145.85	SMA	199.49	ECC	.23966	INC	2.4501	V1	29.354
RP	237.65	LAP	1.38	LOP	97.35	VP	21.252	GAP	8.46	AZP	92.03	TAL	4.74	TAP	150.59	RCA	151.68	APO	247.30	V2	23.123
RC	207.005	GL	21.28	GP	-26.69	ZAL	78.58	ZAP	116.81	ETS	196.75	ZAE	145.17	ETE	232.00	ZAC	58.15	ETC	285.33	LVI	7.49

PLANETOCENTRIC CONIC

C3	15.027	VHL	3.876	DLA	30.93	RAL	18.54	RAD	6640.5	VEL	11.622	PTH	6.66	VHP	2.687	DPA	-11.31	RAP	44.79	ECC	1.2473

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 29 58	3716.00	-47.50	148.71	259.53	86.91	10 31 54	2716.0	-43.12	114.64
60.00	9 22 41	3735.42	-39.36	149.23	258.30	80.55	10 24 57	2735.4	-38.94	116.07
70.00	9 6 49	3782.29	-30.59	150.59	255.89	74.02	10 9 52	2782.3	-34.15	122.44
76.93	8 0 51	3989.02	-19.83	161.92	251.55	65.77	9 7 20	2989.0	-28.07	137.28
76.93	8 0 51	3989.02	-19.83	161.92	251.55	65.77	9 7 20	2989.0	-28.07	137.28
76.93	8 0 51	3989.02	-19.83	161.92	251.55	65.77	9 7 20	2989.0	-28.07	137.28
110.00	14 6 16	2829.11	-30.59	79.51	255.89	74.02	14 53 25	1829.1	-34.15	51.36

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2111	TRA	-.5327	TC3	-.2236	BAU	.6197	SGT	984.7	SGR	2484.7	SG3	1637.2	ST	20.8	SR	32.3	SS	91.4
RDE	.4303	RRA	.1631	RC3	-3.0767	FAU	.38509	RRT	-.0175	RRF	.9830	RTF	-.0108	CRT	-.8237	CRS	-.9938	C8T	.7665
FDE	5.3524	FRA	.4524	FC	-22.1860	BSP	4239	SGB	2672.7	R23	-.0096	R13	.9830	LSA	98.2	MSA	13.3	SSA	1.7
BDE	.4793	BRA	.5571	BC3	3.0848	FSP	2794	SG1	2484.7	SG2	984.6	THA	90.47	EL1	37.0	EL2	10.3	ALF	120.59

LAUNCH DATE AUG 4 1973 FLIGHT TIME 208.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 479.945 EARTH TO MARS

RL 151.78 LAL .00 LOL 311.48 VL 32.910 GAL .91 AZL 87.45 HCA 146.81 SMA 199.35 ECC .23914 INC 2.3500 V1 29.384
RP 237.98 LAP 1.40 LOP 98.31 VP 21.205 GAP 8.22 AZP 92.13 TAL 4.71 TAP 151.52 RCA 151.68 APO 247.03 V2 23.090
RC 209.965 GL 22.12 GP -27.57 ZAL 78.67 ZAP 115.17 ETS 196.25 ZAE 143.48 ETE 230.29 ZAC 57.43 ETC 285.53 LVI 8.19

PLANETOCENTRIC CONIC

C3 15.119 VHL 3.888 DLA 31.70 RAL 18.18 RAD 6640.6 VEL 11.626 PTH 6.67 VHP 2.649 DPA -12.35 RAP 44.52 ECC 1.2488

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 23 51	3738.90	-47.41	150.63	260.00	85.44	10 26 7	2735.9	-43.63	116.28
60.00	9 14 4	3782.02	-39.04	151.42	258.44	79.10	10 16 46	2762.0	-39.27	120.25
70.00	8 51 14	3829.51	-29.66	153.95	255.54	72.23	9 55 4	2829.5	-34.09	126.13
75.04	7 46 11	4031.92	-20.26	165.37	251.50	65.08	8 53 23	3031.9	-28.74	140.70
75.04	7 46 11	4031.92	-20.26	165.37	251.50	65.08	8 53 23	3031.9	-28.74	140.70
75.04	7 46 11	4031.92	-20.26	165.37	251.50	65.08	8 53 23	3031.9	-28.74	140.70
110.00	13 50 41	2876.33	-29.66	82.87	255.54	72.23	14 38 37	1876.3	-34.09	55.05

DIFFERENTIAL CORRECTIONS

TDE -.1781 TRA -.5276 TC3 -.3620 BAU .6500
RDE .4892 RRA .1544 RC3-3.1953 FAU .38949
FDE 5.5744 FRA .3862 FC-22.3029 BSP .4432
BDE .5206 BRA .5497 BC3 3.2158 FSP .2834

MID-COURSE EXECUTION ACCURACY

SGT 991.5 SGR 2601.1 SG3 1659.1
RRT .1032 RRF .9850 RTF .1111
SGB 2783.7 R23 .0076 R13 .9850
SG1 2603.5 SG2 985.3 THA 87.37

ORBIT DETERMINATION ACCURACY

ST 19.0 SR 36.5 SS 94.2
CRT -.7608 CRS -.9955 CST .7061
LSA 101.9 MSA 13.5 SSA 1.6
EL1 39.5 EL2 11.4 ALF 113.69

LAUNCH DATE AUG 4 1973 FLIGHT TIME 210.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 483.728 EARTH TO MARS

RL 151.78 LAL .00 LOL 311.48 VL 32.904 GAL .90 AZL 87.35 HCA 147.76 SMA 199.23 ECC .23866 INC 2.6546 V1 29.354
RP 238.30 LAP 1.42 LOP 99.27 VP 21.159 GAP 7.97 AZP 92.25 TAL 4.68 TAP 152.44 RCA 151.68 APO 246.78 V2 23.056
RC 212.919 GL 22.98 GP -28.48 ZAL 78.78 ZAP 113.53 ETS 195.72 ZAE 141.76 ETE 228.68 ZAC 56.69 ETC 285.74 LVI 8.91

PLANETOCENTRIC CONIC

C3 15.228 VHL 3.902 DLA 32.51 RAL 17.80 RAD 6640.6 VEL 11.631 PTH 6.67 VHP 2.634 DPA -13.42 RAP 44.26 ECC 1.2506

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 17 20	3757.09	-47.27	152.66	260.49	83.88	10 19 58	2757.1	-44.14	118.07
60.00	9 4 42	3790.86	-38.64	153.76	258.56	77.55	10 7 53	2790.9	-39.58	122.64
70.00	8 32 17	3886.83	-28.40	157.94	255.01	70.18	9 37 4	2886.8	-33.86	130.59
73.26	7 32 45	4070.76	-20.69	168.55	251.47	64.35	8 40 35	3070.8	-29.43	143.86
73.26	7 32 45	4070.76	-20.69	168.55	251.47	64.35	8 40 35	3070.8	-29.43	143.86
73.26	7 32 45	4070.76	-20.69	168.55	251.47	64.35	8 40 35	3070.8	-29.43	143.86
110.00	13 31 43	2933.65	-28.40	86.86	255.01	70.18	14 20 37	1933.6	-33.86	59.51

DIFFERENTIAL CORRECTIONS

TDE -.1398 TRA -.5208 TC3 -.4950 BAU .6834
RDE .5508 RRA .1420 RC3-3.3203 FAU .39397
FDE 5.7850 FRA .2978 FC-22.3981 BSP .4612
BDE .5682 BRA .5398 BC3 3.3570 FSP .2847

MID-COURSE EXECUTION ACCURACY

SGT 1006.8 SGR 2725.8 SG3 1679.8
RRT .2226 RRF .9868 RTF .2319
SGB 2905.8 R23 .0207 R13 .9867
SG1 2736.4 SG2 977.7 THA 84.61

ORBIT DETERMINATION ACCURACY

ST 17.1 SR 40.8 SS 96.9
CRT -.6661 CRS -.9968 CST .6133
LSA 105.6 MSA 13.5 SSA 1.5
EL1 42.5 EL2 12.2 ALF 107.01

LAUNCH DATE AUG 4 1973 FLIGHT TIME 212.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 487.510 EARTH TO MARS

RL 151.78 LAL .00 LOL 311.48 VL 32.898 GAL .89 AZL 87.24 HCA 148.71 SMA 199.12 ECC .23822 INC 2.7647 V1 29.354
RP 238.63 LAP 1.44 LOP 100.22 VP 21.114 GAP 7.73 AZP 92.36 TAL 4.64 TAP 153.35 RCA 151.68 APO 246.55 V2 23.024
RC 215.868 GL 23.89 GP -29.41 ZAL 78.91 ZAP 111.90 ETS 195.17 ZAE 140.01 ETE 227.16 ZAC 55.94 ETC 285.96 LVI 9.66

PLANETOCENTRIC CONIC

C3 15.355 VHL 3.919 DLA 33.35 RAL 17.41 RAD 6640.7 VEL 11.636 PTH 6.68 VHP 2.624 DPA -14.51 RAP 44.00 ECC 1.2527

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 10 24	3779.75	-47.09	154.82	261.00	82.22	10 13 23	2779.7	-44.64	120.02
60.00	8 54 27	3822.35	-38.15	156.29	258.66	75.89	9 58 9	2822.3	-39.86	125.28
70.00	8 6 47	3963.75	-28.52	163.12	254.13	67.64	9 12 51	2963.7	-33.26	136.51
71.54	7 20 12	4106.63	-21.13	171.54	251.46	63.58	8 28 39	3106.6	-30.14	146.84
71.54	7 20 12	4106.63	-21.13	171.54	251.46	63.58	8 28 39	3106.6	-30.14	146.84
71.54	7 20 12	4106.63	-21.13	171.54	251.46	63.58	8 28 39	3106.6	-30.14	146.84
110.00	13 6 13	3010.57	-28.52	92.04	254.13	67.64	13 56 24	2010.6	-33.26	65.43

DIFFERENTIAL CORRECTIONS

TDE -.1054 TRA -.5232 TC3 -.6540 BAU .7161
RDE .6221 RRA .1350 RC3-3.4266 FAU .39338
FDE 6.0313 FRA .2521 FC-22.2924 BSP .4883
BDE .6310 BRA .5404 BC3 3.4885 FSP .2901

MID-COURSE EXECUTION ACCURACY

SGT 1060.8 SGR 2845.2 SG3 1691.3
RRT .3379 RRF .9883 RTF .2463
SGB 3036.5 R23 .0356 R13 .9877
SG1 2870.7 SG2 989.5 THA 81.85

ORBIT DETERMINATION ACCURACY

ST 15.8 SR 45.8 SS 100.2
CRT -.5484 CRS -.9976 CST .4979
LSA 110.4 MSA 13.8 SSA 1.4
EL1 46.7 EL2 12.9 ALF 101.60

LAUNCH DATE AUG 4 1973 FLIGHT TIME 214.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 491.294 EARTH TO MARS

RL 151.78 LAL .00 LOL 311.48 VL 32.893 GAL .88 AZL 87.12 HCA 149.66 SMA 199.02 ECC .23782 INC 2.8606 V1 29.354
RP 238.95 LAP 1.45 LOP 101.17 VP 21.071 GAP 7.49 AZP 92.49 TAL 4.59 TAP 154.25 RCA 151.69 APO 246.35 V2 22.991
RC 218.810 GL 24.82 GP -30.36 ZAL 79.06 ZAP 110.27 ETS 194.58 ZAE 138.23 ETE 225.72 ZAC 55.17 ETC 286.19 LVI 10.42

PLANETOCENTRIC CONIC

C3 15.502 VHL 3.937 DLA 34.23 RAL 17.01 RAD 6640.8 VEL 11.643 PTH 6.68 VHP 2.617 DPA -15.63 RAP 43.76 ECC 1.2551

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 2 56	3803.96	-46.84	157.10	261.52	80.48	10 6 20	2804.0	-45.15	122.13
60.00	8 43 7	3856.94	-37.54	159.03	258.70	74.13	9 47 24	2856.9	-40.08	128.19
69.87	7 8 21	4140.15	-21.58	174.39	251.48	62.77	8 17 21	3140.2	-30.87	149.67
69.87	7 8 21	4140.15	-21.58	174.39	251.48	62.77	8 17 21	3140.2	-30.87	149.67
69.87	7 8 21	4140.15	-21.58	174.39	251.48	62.77	8 17 21	3140.2	-30.87	149.67
69.87	7 8 21	4140.15	-21.58	174.39	251.48	62.77	8 17 21	3140.2	-30.87	149.67
69.87	7 8 21	4140.15	-21.58	174.39	251.48	62.77	8 17 21	3140.2	-30.87	149.67

DIFFERENTIAL CORRECTIONS

TDE -.0622 TRA -.5226 TC3 -.8025 BAU .7517
RDE .6948 RRA .1242 RC3-3.5371 FAU .39668
FDE 6.2491 FRA .1840 FC-22.1537 BSP .5130
BDE .6976 BRA .5372 BC3 3.6270 FSP .2919

MID-COURSE EXECUTION ACCURACY

SGT 1119.6 SGR 2971.2 SG3 1700.0
RRT .4411 RRF .9897 RTF .4495
SGB 3175.2 R23 .0462 R13 .9887
SG1 3017.0 SG2 989.6 THA 79.41

ORBIT DETERMINATION ACCURACY

ST 14.6 SR 50.8 SS 103.0
CRT -.3652 CRS -.9982 CST .3169
LSA 114.9 MSA 13.9 SSA 1.3
EL1 51.1 EL2 13.5 ALF 96.42

LAUNCH DATE AUG 4 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 495.078 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.888	GAL	.87	AZL	87.00	HCA	150.61	SMA	198.93	ECC	.23746	INC	3.0029	V1	29.354
RP	239.26	LAP	1.47	LOP	102.12	VP	21.029	GAP	7.25	AZP	92.62	TAL	4.53	TAP	155.14	RCA	151.69	APO	246.16	V2	22.860
RC	221.744	GL	25.80	GP	-31.33	ZAL	79.22	ZAP	108.65	ETS	193.96	ZAE	136.43	ETE	224.34	ZAC	54.39	ETC	286.43	LVI	11.20

PLANETOCENTRIC CONIC

C3	15.671	VHL	3.959	DLA	35.14	RAL	16.59	RAD	6640.8	VEL	11.650	PTH	6.69	VHP	2.615	DPA	-16.76	RAP	43.52	ECC	1.2579

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 54 54	3829.92	-46.52	159.53	262.04	78.64	9 58 44	2829.9	-45.64	124.44
60.00	8 30 25	3895.36	-36.79	162.01	258.66	72.23	9 35 20	2895.4	-40.24	131.45
68.21	6 57 1	4171.83	-22.03	177.13	251.52	61.90	8 6 33	3171.8	-31.63	152.42
68.21	6 57 1	4171.83	-22.03	177.13	251.52	61.90	8 6 33	3171.8	-31.63	152.42
68.21	6 57 1	4171.83	-22.03	177.13	251.52	61.90	8 6 33	3171.8	-31.63	152.42
68.21	6 57 1	4171.83	-22.03	177.13	251.52	61.90	8 6 33	3171.8	-31.63	152.42
68.21	6 57 1	4171.83	-22.03	177.13	251.52	61.90	8 6 33	3171.8	-31.63	152.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0149	TRA	-.5230	TC3	-.9525	BAU	.7889	SGT	1194.2	SGR	3099.6	SG3	1703.3	ST	14.0	SR	56.1	SS	105.7
RDE	.7721	RRA	.1116	RC3	-3.6431	FAU	.39682	RRT	.5317	RRF	.9908	RTF	.5398	CRT	-.1230	CRS	-.9987	CST	.0787
FDE	6.4578	FRA	.1089	FC	-21.9225	BSP	5387	SGB	3321.7	R23	.0550	R13	.9894	LSA	119.7	MSA	14.1	SSA	1.2
BDE	.7723	BRA	.5348	BC3	3.7656	FSP	2927	SG1	3171.2	SG2	988.6	THA	77.15	EL1	56.2	EL2	13.9	ALF	91.87

LAUNCH DATE AUG 4 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 498.862 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.884	GAL	.86	AZL	86.87	HCA	151.55	SMA	198.85	ECC	.23714	INC	3.1323	V1	29.354
RP	239.57	LAP	1.49	LOP	103.07	VP	20.988	GAP	7.01	AZP	92.75	TAL	4.47	TAP	156.02	RCA	151.69	APO	246.00	V2	22.928
RC	224.672	GL	26.81	GP	-32.32	ZAL	79.40	ZAP	107.05	ETS	193.30	ZAE	134.61	ETE	223.02	ZAC	53.58	ETC	286.67	LVI	12.01

PLANETOCENTRIC CONIC

C3	15.864	VHL	3.983	DLA	36.10	RAL	16.15	RAD	6640.9	VEL	11.658	PTH	6.70	VHP	2.616	DPA	-17.91	RAP	43.30	ECC	1.2611

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 46 10	3857.83	-46.11	162.10	262.54	76.69	9 50 28	2857.8	-46.11	126.97
60.00	8 15 57	3938.69	-35.83	165.30	258.49	70.17	9 21 35	2938.7	-40.30	135.13
66.57	6 46 7	4202.02	-22.48	179.80	251.58	60.99	7 56 9	3202.0	-32.41	155.09
66.57	6 46 7	4202.02	-22.48	179.80	251.58	60.99	7 56 9	3202.0	-32.41	155.09
66.57	6 46 7	4202.02	-22.48	179.80	251.58	60.99	7 56 9	3202.0	-32.41	155.09
66.57	6 46 7	4202.02	-22.48	179.80	251.58	60.99	7 56 9	3202.0	-32.41	155.09
66.57	6 46 7	4202.02	-22.48	179.80	251.58	60.99	7 56 9	3202.0	-32.41	155.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0376	TRA	-.5241	TC3	-1.1037	BAU	.8274	SGT	1283.1	SGR	3228.1	SG3	1700.1	ST	14.3	SR	61.6	SS	108.3
RDE	.8535	RRA	.0959	RC3	-3.7417	FAU	.39554	RRT	.6102	RRF	.9919	RTF	.6179	CRT	.1543	CRS	-.9990	CST	-.1924
FDE	6.6507	FRA	.0214	FC	-21.5855	BSP	5659	SGB	3473.8	R23	.0624	R13	.9900	LSA	124.6	MSA	14.2	SSA	1.2
BDE	.8544	BRA	.5328	BC3	3.9011	FSP	2924	SG1	3331.2	SG2	985.0	THA	75.03	EL1	61.6	EL2	14.1	ALF	87.83

LAUNCH DATE AUG 4 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 12 1974

HELIOCENTRIC CONIC DISTANCE 502.646 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.880	GAL	.84	AZL	86.73	HCA	152.49	SMA	198.77	ECC	.23685	INC	3.2695	V1	29.354
RP	239.88	LAP	1.51	LOP	104.01	VP	20.948	GAP	6.78	AZP	92.90	TAL	4.40	TAP	156.89	RCA	151.69	APO	245.85	V2	22.897
RC	227.591	GL	27.87	GP	-33.33	ZAL	79.59	ZAP	105.47	ETS	192.62	ZAE	132.78	ETE	221.76	ZAC	52.77	ETC	286.93	LVI	12.85

PLANETOCENTRIC CONIC

C3	16.085	VHL	4.011	DLA	37.09	RAL	15.68	RAD	6641.0	VEL	11.667	PTH	6.70	VHP	2.622	DPA	-19.08	RAP	43.10	ECC	1.2647

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 36 38	3887.96	-45.61	164.83	263.00	74.64	9 41 26	2888.0	-46.54	129.75
60.00	7 59 1	3988.75	-34.62	168.98	258.14	67.93	9 5 29	2988.7	-40.21	139.39
64.93	6 35 32	4230.96	-22.94	182.41	251.66	60.02	7 46 3	3231.0	-33.21	157.72
64.93	6 35 32	4230.96	-22.94	182.41	251.66	60.02	7 46 3	3231.0	-33.21	157.72
64.93	6 35 32	4230.96	-22.94	182.41	251.66	60.02	7 46 3	3231.0	-33.21	157.72
64.93	6 35 32	4230.96	-22.94	182.41	251.66	60.02	7 46 3	3231.0	-33.21	157.72
64.93	6 35 32	4230.96	-22.94	182.41	251.66	60.02	7 46 3	3231.0	-33.21	157.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0947	TRA	-.5274	TC3	-1.2528	BAU	.8677	SGT	1385.7	SGR	3360.5	SG3	1692.2	ST	15.8	SR	67.4	SS	110.7
RDE	.9408	RRA	.0798	RC3	-3.8357	FAU	.39325	RRT	.6740	RRF	.9928	RTF	.6311	CRT	.4057	CRS	-.9992	CST	-.4363
FDE	6.8348	FRA	-.0613	FC	-21.1656	BSP	5934	SGB	3635.0	R23	.0683	R13	.9906	LSA	129.8	MSA	14.4	SSA	1.1
BDE	.9456	BRA	.5334	BC3	4.0351	FSP	2907	SG1	3499.6	SG2	983.0	THA	73.09	EL1	67.7	EL2	14.3	ALF	84.32

LAUNCH DATE AUG 4 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC DISTANCE 506.430 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.877	GAL	.83	AZL	86.58	HCA	153.43	SMA	198.71	ECC	.23659	INC	3.4151	V1	29.354
RP	240.18	LAP	1.53	LOP	104.95	VP	20.910	GAP	6.84	AZP	93.06	TAL	4.32	TAP	157.76	RCA	151.70	APO	245.72	V2	22.866
RC	230.802	GL	28.98	GP	-34.36	ZAL	79.80	ZAP	103.91	ETS	191.90	ZAE	130.95	ETE	220.53	ZAC	51.93	ETC	287.20	LVI	13.71

PLANETOCENTRIC CONIC

C3	16.336	VHL	4.042	DLA	38.13	RAL	15.19	RAD	6641.2	VEL	11.678	PTH	6.71	VHP	2.632	DPA	-20.27	RAP	42.92	ECC	1.2689

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 26 9	3920.65	-44.98	167.73	263.41	72.49	9 31 30	2920.7	-46.93	132.81
60.00	7 38 18	4049.03	-32.99	173.27	257.49	65.40	8 45 47	3049.0	-39.87	144.48
63.28	6 25 9	4259.01	-23.40	185.00	251.76	58.99	7 36 8	3259.0	-34.04	160.33
63.28	6 25 9	4259.01	-23.40	185.00	251.76	58.99	7 36 8	3259.0	-34.04	160.33
63.28	6 25 9	4259.01	-23.40	185.00	251.76	58.99	7 36 8	3259.0	-34.04	160.33
63.28	6 25 9	4259.01	-23.40	185.00	251.76	58.99	7 36 8	3259.0	-34.04	160.33
63.28	6 25 9	4259.01	-23.40	185.00	251.76	58.99	7 36 8	3259.0	-34.04	160.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1573	TRA	-.5322	TC3	-1.4001	BAU	.9094	SGT	1500.2	SGR	3493.8	SG3	1677.8	ST	18.3	SR	73.4	SS	113.0
RDE	1.0330	RRA	.0618	RC3	-3.9217	FAU	.38962	RRT	.7264	RRF	.9936	RTF	.7330	CRT	.5966	CRS	-.9994	CST	-.6201
FDE	6.9999	FRA	-.1461	FC	-20.6477	BSP	6248	SGB	3802.3	R23	.0731	R13	.9910	LSA	135.2	MSA	14.5	SSA	1.0
BDE	1.0449	BRA	.5358	BC3	4.1641	FSP	2894	SG1	3673.7	SG2	980.5	THA	71.29	EL1	74.2	EL2	14.5	ALF	81.21

LAUNCH DATE AUG 4 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 16 1974

HELIOCENTRIC CONIC DISTANCE 510.214 EARTH TO MARS

RL 151.78 LAL .00 LOL 311.48 VL 32.874 GAL .81 AZL 86.43 HCA 154.37 SMA 198.66 ECC .23637 INC 3.5703 V1 29.354
RP 240.48 LAP 1.54 LOP 108.89 VP 20.873 GAP 6.31 AZP 93.22 TAL 4.24 TAP 156.61 RCA 151.70 APO 245.61 V2 22.836
RC 233.405 GL 30.14 GP -35.41 ZAL 80.02 ZAP 102.38 ETS 191.15 ZAE 129.11 ETE 219.35 ZAC 51.07 ETC 287.48 LVI 14.89

PLANETOCENTRIC CONIC

C3 16.622 VHL 4.077 DLA 39.22 RAL 14.66 RAD 6641.3 VEL 11.690 PTH 6.72 VHP 2.647 DPA -21.48 RAP 42.77 ECC 1.2736

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 14 30	3956.33	-44.20	170.81	263.72	70.22	9 20 26	2956.3	-47.25	136.20
60.00	7 10 26	4128.66	-30.60	178.66	256.23	62.38	8 19 15	3128.7	-39.05	151.09
61.61	6 14 59	4286.10	-23.85	187.55	251.88	57.90	7 26 25	3286.1	-34.88	162.93
61.61	6 14 59	4286.10	-23.85	187.55	251.88	57.90	7 26 25	3286.1	-34.88	162.93
61.61	6 14 59	4286.10	-23.85	187.55	251.88	57.90	7 26 25	3286.1	-34.88	162.93
61.61	6 14 59	4286.10	-23.85	187.55	251.88	57.90	7 26 25	3286.1	-34.88	162.93
61.61	6 14 59	4286.10	-23.85	187.55	251.88	57.90	7 26 25	3286.1	-34.88	162.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .2254 TRA -.5389 TC3-1.5451 BAU .9516 SGT 1625.7 SGR 3625.7 SG3 1656.3 ST 21.7 SR 79.8 SS 115.2
RDE 1.1330 RRA .0424 RC3-3.9937 FAU .38415 RRT .7688 RRF .9943 RTF .7748 CRT .7251 CRS -.9996 CST -.7427
FDE 7.1571 FRA -.2298 FC-20.0078 BSP 6550 SGB 3973.5 R23 .0775 R13 .9914 LSA 141.0 MSA 14.6 SSA .9
BDE 1.1552 BRA .5405 BC3 4.2821 FSP 2857 SG1 3851.1 SG2 978.7 THA 69.60 EL1 81.4 EL2 14.6 ALF 78.48

LAUNCH DATE AUG 4 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 18 1974

HELIOCENTRIC CONIC DISTANCE 513.997 EARTH TO MARS

RL 151.78 LAL .00 LOL 311.48 VL 32.872 GAL .79 AZL 86.26 HCA 155.30 SMA 198.61 ECC .23617 INC 3.7359 V1 29.354
RP 240.78 LAP 1.56 LOP 106.83 VP 20.836 GAP 6.07 AZP 93.40 TAL 4.15 TAP 159.45 RCA 151.70 APO 245.52 V2 22.807
RC 236.297 GL 31.35 GP -36.48 ZAL 80.26 ZAP 100.89 ETS 190.37 ZAE 127.27 ETE 218.21 ZAC 50.19 ETC 287.78 LVI 15.51

PLANETOCENTRIC CONIC

C3 16.947 VHL 4.117 DLA 40.35 RAL 14.09 RAD 6641.4 VEL 11.704 PTH 6.74 VHP 2.667 DPA -22.70 RAP 42.64 ECC 1.2789

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 1 25	3995.59	-43.24	174.10	263.89	67.83	9 8 1	2995.6	-47.48	139.96
59.93	6 4 54	4312.64	-24.29	190.10	252.01	56.73	7 16 47	3312.6	-35.74	165.55
59.93	6 4 54	4312.64	-24.29	190.10	252.01	56.73	7 16 47	3312.6	-35.74	165.55
59.93	6 4 54	4312.64	-24.29	190.10	252.01	56.73	7 16 47	3312.6	-35.74	165.55
59.93	6 4 54	4312.64	-24.29	190.10	252.01	56.73	7 16 47	3312.6	-35.74	165.55
59.93	6 4 54	4312.64	-24.29	190.10	252.01	56.73	7 16 47	3312.6	-35.74	165.55
59.93	6 4 54	4312.64	-24.29	190.10	252.01	56.73	7 16 47	3312.6	-35.74	165.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .2997 TRA -.5473 TC3-1.6838 BAU .9960 SGT 1759.3 SGR 3761.0 SG3 1629.6 ST 25.8 SR 86.3 SS 117.0
RDE 1.2376 RRA .0187 RC3-4.0605 FAU .37787 RRT .8039 RRF .9949 RTF .8094 CRT .8092 CRS -.9997 CST -.8223
FDE 7.2849 FRA -.3255 FC-19.3031 BSP 6851 SGB 4152.1 R23 .0805 R13 .9918 LSA 146.9 MSA 14.8 SSA .9
BDE 1.2734 BRA .5476 BC3 4.3958 FSP 2806 SG1 4036.0 SG2 975.0 THA 68.04 EL1 88.8 EL2 14.7 ALF 76.02

LAUNCH DATE AUG 4 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 20 1974

HELIOCENTRIC CONIC DISTANCE 517.780 EARTH TO MARS

RL 151.78 LAL .00 LOL 311.48 VL 32.870 GAL .77 AZL 86.09 HCA 156.23 SMA 198.57 ECC .23601 INC 3.9133 V1 29.354
RP 241.07 LAP 1.58 LOP 107.76 VP 20.801 GAP 5.84 AZP 93.58 TAL 4.06 TAP 160.29 RCA 151.71 APO 245.44 V2 22.777
RC 239.179 GL 32.62 GP -37.58 ZAL 80.52 ZAP 99.42 ETS 189.56 ZAE 125.44 ETE 217.09 ZAC 49.29 ETC 288.09 LVI 16.45

PLANETOCENTRIC CONIC

C3 17.318 VHL 4.161 DLA 41.54 RAL 13.46 RAD 6641.6 VEL 11.720 PTH 6.75 VHP 2.692 DPA -23.94 RAP 42.55 ECC 1.2850

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 46 30	4039.29	-42.06	177.63	263.87	65.32	8 53 50	3039.3	-47.58	144.19
58.21	5 54 52	4338.67	-24.72	192.66	252.16	55.50	7 7 11	3338.7	-36.62	168.19
58.21	5 54 52	4338.67	-24.72	192.66	252.16	55.50	7 7 11	3338.7	-36.62	168.19
58.21	5 54 52	4338.67	-24.72	192.66	252.16	55.50	7 7 11	3338.7	-36.62	168.19
58.21	5 54 52	4338.67	-24.72	192.66	252.16	55.50	7 7 11	3338.7	-36.62	168.19
58.21	5 54 52	4338.67	-24.72	192.66	252.16	55.50	7 7 11	3338.7	-36.62	168.19
58.21	5 54 52	4338.67	-24.72	192.66	252.16	55.50	7 7 11	3338.7	-36.62	168.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .3802 TRA -.5585 TC3-1.8168 BAU 1.0412 SGT 1901.6 SGR 3896.9 SG3 1596.6 ST 30.5 SR 93.2 SS 118.7
RDE 1.3513 RRA -.0058 RC3-4.1140 FAU .37006 RRT .8316 RRF .9955 RTF .8366 CRT .8630 CRS -.9997 CST -.8729
FDE 7.4011 FRA -.4125 FC-18.4997 BSP 7174 SGB 4336.1 R23 .0833 R13 .9921 LSA 153.2 MSA 14.9 SSA .8
BDE 1.4038 BRA .5585 BC3 4.4973 FSP 2750 SG1 4225.3 SG2 973.9 THA 66.59 EL1 96.9 EL2 14.8 ALF 73.86

LAUNCH DATE AUG 4 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 22 1974

HELIOCENTRIC CONIC DISTANCE 521.562 EARTH TO MARS

RL 151.78 LAL .00 LOL 311.48 VL 32.868 GAL .75 AZL 85.90 HCA 157.16 SMA 198.54 ECC .23587 INC 4.1038 V1 29.354
RP 241.36 LAP 1.59 LOP 108.69 VP 20.767 GAP 5.61 AZP 93.78 TAL 3.95 TAP 161.12 RCA 151.71 APO 245.37 V2 22.749
RC 242.049 GL 33.95 GP -38.71 ZAL 80.79 ZAP 98.00 ETS 188.71 ZAE 123.62 ETE 216.01 ZAC 48.37 ETC 288.42 LVI 17.42

PLANETOCENTRIC CONIC

C3 17.741 VHL 4.212 DLA 42.77 RAL 12.79 RAD 6641.8 VEL 11.738 PTH 6.77 VHP 2.723 DPA -25.20 RAP 42.49 ECC 1.2920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 29 9	4088.79	-40.58	181.45	263.55	62.65	8 37 18	3088.8	-47.48	148.97
56.46	5 44 50	4364.26	-25.14	195.22	252.32	54.18	6 57 35	3364.3	-37.51	170.88
56.46	5 44 50	4364.26	-25.14	195.22	252.32	54.18	6 57 35	3364.3	-37.51	170.88
56.46	5 44 50	4364.26	-25.14	195.22	252.32	54.18	6 57 35	3364.3	-37.51	170.88
56.46	5 44 50	4364.26	-25.14	195.22	252.32	54.18	6 57 35	3364.3	-37.51	170.88
56.46	5 44 50	4364.26	-25.14	195.22	252.32	54.18	6 57 35	3364.3	-37.51	170.88
56.46	5 44 50	4364.26	-25.14	195.22	252.32	54.18	6 57 35	3364.3	-37.51	170.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4681 TRA -.5717 TC3-1.9422 BAU 1.0866 SGT 2050.6 SGR 4028.3 SG3 1555.4 ST 35.7 SR 100.2 SS 120.0
RDE 1.4713 RRA -.0335 RC3-4.1493 FAU .36042 RRT .8546 RRF .9960 RTF .8590 CRT .8991 CRS -.9998 CST -.9066
FDE 7.4864 FRA -.5018 FC-17.5884 BSP 7513 SGB 4520.2 R23 .0857 R13 .9924 LSA 159.6 MSA 15.0 SSA .8
BDE 1.5439 BRA .5727 BC3 4.5814 FSP 2687 SG1 4414.5 SG2 971.8 THA 65.21 EL1 105.3 EL2 14.9 ALF 71.88

LAUNCH DATE AUG 4 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 24 1974

HELIOCENTRIC CONIC DISTANCE 525.343 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.867	GAL	.73	AZL	85.69	HCA	158.09	SMA	198.52	ECC	.23575	INC	4.3091	V1	29.354
RP	241.64	LAP	1.61	LOP	109.62	VP	20.734	GAP	5.38	AZP	94.00	TAL	3.85	TAP	161.94	RCA	151.71	APO	245.32	V2	22.720
RC	244.907	GL	35.34	GP	-39.86	ZAL	81.08	ZAP	96.62	ETS	187.83	ZAE	121.82	ETE	214.94	ZAC	47.42	ETC	288.77	LVI	18.43

PLANETOCENTRIC CONIC

C3	18.224	VHL	4.269	DLA	44.07	RAL	12.04	RAD	6642.0	VEL	11.758	PTH	6.79	VHP	2.761	DPA	-26.47	RAP	42.48	ECC	1.2998

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 8 20	4146.43	-38.69	185.68	262.79	59.80	8 17 26	3146.4	-47.09	154.49
54.68	5 34 43	4389.63	-25.54	197.82	252.48	52.78	6 47 53	3389.6	-38.41	173.63
54.68	5 34 43	4389.63	-25.54	197.82	252.48	52.78	6 47 53	3389.6	-38.41	173.63
54.68	5 34 43	4389.63	-25.54	197.82	252.48	52.78	6 47 53	3389.6	-38.41	173.63
54.68	5 34 43	4389.63	-25.54	197.82	252.48	52.78	6 47 53	3389.6	-38.41	173.63
54.68	5 34 43	4389.63	-25.54	197.82	252.48	52.78	6 47 53	3389.6	-38.41	173.63
54.68	5 34 43	4389.63	-25.54	197.82	252.48	52.78	6 47 53	3389.6	-38.41	173.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.5633	TRA	-.5875	TC3	-2.0564	BAU	1.1337			SGT	2204.2	SGR	4161.5	SG3	1508.8			ST	41.3	SR	107.4	SS	120.9
RDE	1.5984	RRA	-.0642	RC3	-4.1741	FAU	.34981			RRT	.8733	RRF	.9984	RTF	.8774			CRT	.9236	CRS	-.9998	CST	-.9294
FDE	7.5402	FRA	-.5897	FC	-16.6180	BSP	7841			SGB	4709.2	R23	.0873	R13	.9927			LSA	166.2	MSA	15.1	SSA	.7
BDE	1.6948	BRA	.5910	BC3	4.6532	FSP	2606			SG1	4608.3	SG2	969.7	THA	63.94			EL1	114.1	EL2	14.9	ALF	70.09

LAUNCH DATE AUG 4 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 26 1974

HELIOCENTRIC CONIC DISTANCE 529.124 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.866	GAL	.71	AZL	85.47	HCA	159.01	SMA	198.50	ECC	.23567	INC	4.5310	V1	29.354		
RP	241.92	LAP	1.62	LOP	110.55	VP	20.702	GAP	5.15	AZP	94.23	TAL	3.73	TAP	162.75	RCA	151.72	APO	245.28	V2	22.692		
RC	247.751	GL	36.81	GP	-41.03	ZAL	81.38	ZAP	95.30	ETS	186.93	ZAE	120.03	ETE	213.90	ZAC	46.44	ETC	289.13	LVI	19.47		

PLANETOCENTRIC CONIC

C3	18.778	VHL	4.333	DLA	45.42	RAL	11.21	RAD	6642.3	VEL	11.781	PTH	6.81	VHP	2.805	DPA	-27.76	RAP	42.51	ECC	1.3090

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 41 51	4217.24	-36.15	190.54	261.32	56.66	7 52 8	3217.2	-46.23	161.10
52.85	5 24 27	4414.89	-25.90	200.45	252.64	51.29	6 38 2	3414.9	-39.32	176.47
52.85	5 24 27	4414.89	-25.90	200.45	252.64	51.29	6 38 2	3414.9	-39.32	176.47
52.85	5 24 27	4414.89	-25.90	200.45	252.64	51.29	6 38 2	3414.9	-39.32	176.47
52.85	5 24 27	4414.89	-25.90	200.45	252.64	51.29	6 38 2	3414.9	-39.32	176.47
52.85	5 24 27	4414.89	-25.90	200.45	252.64	51.29	6 38 2	3414.9	-39.32	176.47
52.85	5 24 27	4414.89	-25.90	200.45	252.64	51.29	6 38 2	3414.9	-39.32	176.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.6661	TRA	-.6066	TC3	-2.1596	BAU	1.1817			SGT	2363.1	SGR	4294.4	SG3	1456.1			ST	47.3	SR	114.9	SS	121.4
RDE	1.7355	RRA	-.1003	RC3	-4.1826	FAU	.33783			RRT	.8890	RRF	.9968	RTF	.8926			CRT	.9407	CRS	-.9999	CST	-.9452
FDE	7.5685	FRA	-.6833	FC	-15.5755	BSP	8189			SGB	4901.6	R23	.0887	R13	.9929			LSA	173.1	MSA	15.2	SSA	.6
BDE	1.8590	BRA	.6148	BC3	4.7072	FSP	2520			SG1	4805.2	SG2	967.2	THA	62.74			EL1	123.4	EL2	15.0	ALF	68.49

LAUNCH DATE AUG 4 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 28 1974

HELIOCENTRIC CONIC DISTANCE 532.903 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.866	GAL	.69	AZL	85.23	HCA	159.94	SMA	198.49	ECC	.23560	INC	4.7719	V1	29.354		
RP	242.19	LAP	1.64	LOP	111.48	VP	20.671	GAP	4.93	AZP	94.48	TAL	3.62	TAP	163.55	RCA	151.72	APO	245.25	V2	22.665		
RC	250.580	GL	38.35	GP	-42.24	ZAL	81.69	ZAP	94.02	ETS	186.00	ZAE	118.27	ETE	212.87	ZAC	45.44	ETC	289.53	LVI	20.54		

PLANETOCENTRIC CONIC

C3	19.416	VHL	4.406	DLA	46.83	RAL	10.29	RAD	6642.6	VEL	11.808	PTH	6.83	VHP	2.856	DPA	-29.06	RAP	42.59	ECC	1.3195

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 2 38	4318.12	-32.18	196.90	256.26	52.85	7 14 36	3318.1	-44.32	170.06
50.98	5 13 59	4440.14	-26.22	203.11	252.79	49.70	6 27 59	3440.1	-40.21	179.40
50.98	5 13 59	4440.14	-26.22	203.11	252.79	49.70	6 27 59	3440.1	-40.21	179.40
50.98	5 13 59	4440.14	-26.22	203.11	252.79	49.70	6 27 59	3440.1	-40.21	179.40
50.98	5 13 59	4440.14	-26.22	203.11	252.79	49.70	6 27 59	3440.1	-40.21	179.40
50.98	5 13 59	4440.14	-26.22	203.11	252.79	49.70	6 27 59	3440.1	-40.21	179.40
50.98	5 13 59	4440.14	-26.22	203.11	252.79	49.70	6 27 59	3440.1	-40.21	179.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.7776	TRA	-.6286	TC3	-2.2483	BAU	1.2302			SGT	2524.9	SGR	4427.3	SG3	1397.8			ST	53.7	SR	122.8	SS	121.7
RDE	1.8853	RRA	-.1410	RC3	-4.1723	FAU	.32445			RRT	.9021	RRF	.9971	RTF	.8853			CRT	.9531	CRS	-.9999	CST	-.9565
FDE	7.5748	FRA	-.7758	FC	-14.4669	BSP	8514			SGB	5096.7	R23	.0897	R13	.9932			LSA	180.4	MSA	15.3	SSA	.6
BDE	2.0394	BRA	.6442	BC3	4.7395	FSP	2414			SG1	5004.7	SG2	963.9	THA	61.63			EL1	133.2	EL2	15.0	ALF	67.05

LAUNCH DATE AUG 4 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 30 1974

HELIOCENTRIC CONIC DISTANCE 536.681 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.865	GAL	.67	AZL	84.97	HCA	160.85	SMA	198.48	ECC	.23556	INC	5.0341	V1	29.354		
RP	242.46	LAP	1.65	LOP	112.40	VP	20.641	GAP	4.70	AZP	94.76	TAL	3.49	TAP	164.35	RCA	151.73	APO	245.24	V2	22.638		
RC	253.394	GL	39.97	GP	-43.47	ZAL	82.02	ZAP	92.81	ETS	185.04	ZAE	116.53	ETE	211.86	ZAC	44.40	ETC	289.95	LVI	21.65		

PLANETOCENTRIC CONIC

C3	20.153	VHL	4.489	DLA	48.30	RAL	9.26	RAD	6642.9	VEL	11.839	PTH	6.86	VHP	2.916	DPA	-30.37	RAP	42.73	ECC	1.3317

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.06	5 3 11	4465.56	-26.49	205.84	252.91	48.01	6 17 37	3465.6	-41.09	182.46
49.06	5 3 11	4465.56	-26.49	205.84	252.91	48.01	6 17 37	3465.6	-41.09	182.46
49.06	5 3 11	4465.56	-26.49	205.84	252.91	48.01	6 17 37	3465.6	-41.09	182.46
49.06	5 3 11	4465.56	-26.49	205.84	252.91	48.01	6 17 37	3465.6	-41.09	182.46
49.06	5 3 11	4465.56	-26.49	205.84	252.91	48.01	6 17 37	3465.6	-41.09	182.46
49.06	5 3 11	4465.56	-26.49	205.84	252.91	48.01	6 17 37	3465.6	-41.09	182.46
49.06	5 3 11	4465.56	-26.49	205.84	252.91	48.01	6 17 37	3465.6	-41.09	182.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8962	TRA	-.6557	TC3	-2.3245	BAU	1.2803			SGT	2691.9	SGR	4556.6	SG3	1332.9			ST	60.3	SR	130.5	SS	121.3
RDE	2.0410	RRA	-.1884	RC3	-4.1445	FAU	.30991			RRT	.9131	RRF	.9974	RTF	.9160			CRT	.9619	CRS	-.9999	CST	-.9646
FDE	7.5278	FRA	-.8708	FC	-13.3134	BSP	8862			SGB	5292.4	R23	.0906	R13	.9934			LSA	187.4	MSA	15.4	SSA	.5
BDE	2.2291	BRA	.6822	BC3	4.7519	FSP	2307			SG1	5204.4	SG2	960.9	THA	60.55			EL1	142.9	EL2	15.0	ALF	65.75

LAUNCH DATE AUG 4 1973 FLIGHT TIME 240.00 ARRIVAL DATE APR 1 1974

HELIOCENTRIC CONIC DISTANCE 540.458 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.865	GAL	.64	AZL	84.68	HCA	161.77	SMA	198.48	ECC	.23555	INC	5.3214	V1	29.384
RP	242.73	LAP	1.66	LOP	113.32	VP	20.612	GAP	4.47	AZP	95.06	TAL	3.36	TAP	165.13	RCA	151.73	APO	245.23	V2	22.612
RC	256.181	GL	41.68	GP	-44.74	ZAL	82.36	ZAP	91.66	ETS	184.06	ZAE	114.82	ETE	210.87	ZAC	43.33	ETC	290.40	LVI	22.80

PLANETOCENTRIC CONIC

C3	21.009	VHL	4.584	DLA	49.83	RAL	8.09	RAD	6643.3	VEL	11.875	PTH	6.89	VHP	2.985	DPA	-31.70	RAP	42.93	ECC	1.3488

END OF TAPE, CHANGE AND PRESS START

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.10	4 52 0	4491.24	-26.69	208.61	252.99	46.22	6 6 51	3491.2	-41.94	185.64
47.10	4 52 0	4491.24	-26.69	208.61	252.99	46.22	6 6 51	3491.2	-41.94	185.64
47.10	4 52 0	4491.24	-26.69	208.61	252.99	46.22	6 6 51	3491.2	-41.94	185.64
47.10	4 52 0	4491.24	-26.69	208.61	252.99	46.22	6 6 51	3491.2	-41.94	185.64
47.10	4 52 0	4491.24	-26.69	208.61	252.99	46.22	6 6 51	3491.2	-41.94	185.64
47.10	4 52 0	4491.24	-26.69	208.61	252.99	46.22	6 6 51	3491.2	-41.94	185.64
47.10	4 52 0	4491.24	-26.69	208.61	252.99	46.22	6 6 51	3491.2	-41.94	185.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0250	TRA	-.6856	TC3	-2.3801	BAU	1.3312	SGT	2857.9	SGR	4687.3	SG3	1263.3	ST	67.2	SR	138.5	SS	120.4
RDE	2.2115	RRA	-.2370	RC3	-4.0987	FAU	.29435	RRT	.9220	RRF	.9977	RTF	.9245	CRT	.9685	CRS	-.9999	CST	-.9707
FDE	7.4526	FRA	-.9455	FC	-12.1293	BSP	9230	SGB	5489.8	R23	.0913	R13	.9935	LSA	194.8	MSA	15.5	SSA	.5
BDE	2.4375	BRA	.7254	BC3	4.7397	FSP	2194	SG1	5405.3	SG2	959.8	THA	59.60	EL1	153.2	EL2	15.1	ALF	64.57

LAUNCH DATE AUG 4 1973 FLIGHT TIME 242.00 ARRIVAL DATE APR 3 1974

HELIOCENTRIC CONIC DISTANCE 544.233 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.866	GAL	.62	AZL	84.36	HCA	162.68	SMA	198.49	ECC	.23555	INC	5.6371	V1	29.354
RP	242.99	LAP	1.68	LOP	114.24	VP	20.584	GAP	4.25	AZP	95.38	TAL	3.23	TAP	165.91	RCA	151.73	APO	245.24	V2	22.586
RC	258.972	GL	43.48	GP	-46.03	ZAL	82.72	ZAP	90.57	ETS	183.06	ZAE	113.15	ETE	209.90	ZAC	42.23	ETC	290.89	LVI	23.99

PLANETOCENTRIC CONIC

C3	22.010	VHL	4.692	DLA	51.42	RAL	6.75	RAD	6643.7	VEL	11.917	PTH	6.92	VHP	3.065	DPA	-33.05	RAP	43.20	ECC	1.3622

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.08	4 40 17	4517.40	-26.81	211.44	252.99	44.32	5 55 35	3517.4	-42.74	188.99
45.08	4 40 17	4517.40	-26.81	211.44	252.99	44.32	5 55 35	3517.4	-42.74	188.99
45.08	4 40 17	4517.40	-26.81	211.44	252.99	44.32	5 55 35	3517.4	-42.74	188.99
45.08	4 40 17	4517.40	-26.81	211.44	252.99	44.32	5 55 35	3517.4	-42.74	188.99
45.08	4 40 17	4517.40	-26.81	211.44	252.99	44.32	5 55 35	3517.4	-42.74	188.99
45.08	4 40 17	4517.40	-26.81	211.44	252.99	44.32	5 55 35	3517.4	-42.74	188.99
45.08	4 40 17	4517.40	-26.81	211.44	252.99	44.32	5 55 35	3517.4	-42.74	188.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1611	TRA	-.7217	TC3	-2.4193	BAU	1.3839	SGT	3026.8	SGR	4815.9	SG3	1188.5	ST	74.1	SR	146.4	SS	118.8
RDE	2.3913	RRA	-.2988	RC3	-4.0332	FAU	.27777	RRT	.9302	RRF	.9979	RTF	.9324	CRT	.9736	CRS	-1.0000	CST	-.9753
FDE	7.3247	FRA	-1.0353	FC	-10.9255	BSP	9560	SGB	5688.1	R23	.0914	R13	.9937	LSA	201.9	MSA	15.6	SSA	.4
BDE	2.6563	BRA	.7811	BC3	4.7032	FSP	2062	SG1	5607.5	SG2	954.3	THA	58.68	EL1	163.4	EL2	15.2	ALF	63.53

LAUNCH DATE AUG 4 1973 FLIGHT TIME 244.00 ARRIVAL DATE APR 5 1974

HELIOCENTRIC CONIC DISTANCE 548.007 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.866	GAL	.59	AZL	84.01	HCA	163.60	SMA	198.50	ECC	.23557	INC	5.9860	V1	29.354
RP	243.24	LAP	1.69	LOP	115.16	VP	20.558	GAP	4.03	AZP	95.74	TAL	3.09	TAP	166.69	RCA	151.74	APO	245.26	V2	22.560
RC	261.736	GL	45.38	GP	-47.37	ZAL	83.09	ZAP	89.56	ETS	182.04	ZAE	111.52	ETE	208.94	ZAC	41.08	ETC	291.43	LVI	25.22

PLANETOCENTRIC CONIC

C3	23.188	VHL	4.815	DLA	53.08	RAL	5.22	RAD	6644.2	VEL	11.985	PTH	6.96	VHP	3.157	DPA	-34.40	RAP	43.54	ECC	1.3816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.01	4 27 55	4544.16	-26.84	214.33	252.90	42.31	5 43 40	3544.2	-43.47	192.50
43.01	4 27 55	4544.16	-26.84	214.33	252.90	42.31	5 43 40	3544.2	-43.47	192.50
43.01	4 27 55	4544.16	-26.84	214.33	252.90	42.31	5 43 40	3544.2	-43.47	192.50
43.01	4 27 55	4544.16	-26.84	214.33	252.90	42.31	5 43 40	3544.2	-43.47	192.50
43.01	4 27 55	4544.16	-26.84	214.33	252.90	42.31	5 43 40	3544.2	-43.47	192.50
43.01	4 27 55	4544.16	-26.84	214.33	252.90	42.31	5 43 40	3544.2	-43.47	192.50
43.01	4 27 55	4544.16	-26.84	214.33	252.90	42.31	5 43 40	3544.2	-43.47	192.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.3098	TRA	-.7635	TC3	-2.4379	BAU	1.4384	SGT	3195.9	SGR	4945.9	SG3	1109.8	ST	81.0	SR	154.4	SS	116.5
RDE	2.5869	RRA	-.3676	RC3	-3.9481	FAU	.26032	RRT	.9370	RRF	.9981	RTF	.9289	CRT	.9774	CRS	-1.0000	CST	-.9787
FDE	7.1573	FRA	-1.1134	FC	-9.7192	BSP	9892	SGB	5888.6	R23	.0915	R13	.9939	LSA	209.1	MSA	15.7	SSA	.4
BDE	2.8978	BRA	.8473	BC3	4.6401	FSP	1923	SG1	5811.5	SG2	950.0	THA	57.84	EL1	173.7	EL2	15.2	ALF	62.62

LAUNCH DATE AUG 4 1973 FLIGHT TIME 246.00 ARRIVAL DATE APR 7 1974

HELIOCENTRIC CONIC DISTANCE 551.779 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.867	GAL	.56	AZL	83.63	HCA	164.51	SMA	198.51	ECC	.23562	INC	6.3739	V1	29.354
RP	243.50	LAP	1.70	LOP	116.08	VP	20.531	GAP	3.80	AZP	96.14	TAL	2.95	TAP	167.46	RCA	151.74	APO	245.29	V2	22.535
RC	264.483	GL	47.38	GP	-48.73	ZAL	83.47	ZAP	88.63	ETS	181.02	ZAE	109.94	ETE	208.00	ZAC	39.91	ETC	292.01	LVI	26.49

PLANETOCENTRIC CONIC

C3	24.584	VHL	4.958	DLA	54.80	RAL	3.45	RAD	6644.8	VEL	12.023	PTH	7.01	VHP	3.263	DPA	-35.77	RAP	43.97	ECC	1.4046

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.89	4 14 42	4571.80	-26.73	217.28	252.65	40.20	5 30 54	3571.8	-44.11	196.21
40.89	4 14 42	4571.80	-26.73	217.28	252.65	40.20	5 30 54	3571.8	-44.11	196.21
40.89	4 14 42	4571.80	-26.73	217.28	252.65	40.20	5 30 54	3571.8	-44.11	196.21
40.89	4 14 42	4571.80	-26.73	217.28	252.65	40.20	5 30 54	3571.8	-44.11	196.21
40.89	4 14 42	4571.80	-26.73	217.28	252.65	40.20	5 30 54	3571.8	-44.11	196.21
40.89	4 14 42	4571.80	-26.73	217.28	252.65	40.20	5 30 54	3571.8	-44.11	196.21
40.89	4 14 42	4571.80	-26.73	217.28	252.65	40.20	5 30 54	3571.8	-44.11	196.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4561	TRA	-.8130	TC3	-2.4353	BAU	1.4937	SGT	3364.4	SGR	5070.7	SG3	1026.3	ST	87.7	SR	162.1	SS	113.4
RDE	2.7936	RRA	-.4498	RC3	-3.8370	FAU	.24170	RRT	.9431	RRF	.9982	RTF	.9447	CRT	.9802	CRS	-1.0000	CST	-.9813
FDE	6.9309	FRA	-1.1914	FC	-8.5115	BSP	10244	SGB	6085.3	R23	.0915	R13	.9941	LSA	215.8	MSA	15.8	SSA	.4
BDE	3.1503	BRA	.9292	BC3	4.5446	FSP	1784	SG1	6011.8	SG2	943.2	THA	57.05	EL1	183.6	EL2	15.3	ALF	61.85

LAUNCH DATE AUG 4 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 9 1974

HELIOCENTRIC CONIC DISTANCE 555.548 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.868	GAL	.53	AZL	83.19	HCA	165.41	SMA	198.54	ECC	.23568	INC	6.8082	V1	29.354
RP	243.74	LAP	1.71	LOP	116.99	VP	20.506	GAP	3.58	AZP	96.59	TAL	2.80	TAP	168.22	RCA	151.74	APO	245.33	V2	22.511
RC	267.212	GL	49.50	GP	-50.14	ZAL	83.86	ZAP	87.78	ETS	179.99	ZAE	108.41	ETE	207.08	ZAC	38.69	ETC	292.65	LVI	27.81

PLANETOCENTRIC CONIC

C3	26.254	VHL	5.124	DLA	56.57	RAL	1.37	RAD	6645.5	VEL	12.092	PTH	7.07	VHP	3.386	DPA	-37.14	RAP	44.48	ECC	1.4321

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.72	4 0 27	4600.44	-26.48	220.28	252.19	37.99	5 17 7	3600.4	-44.61	200.10
38.72	4 0 27	4600.44	-26.48	220.28	252.19	37.99	5 17 7	3600.4	-44.61	200.10
38.72	4 0 27	4600.44	-26.48	220.28	252.19	37.99	5 17 7	3600.4	-44.61	200.10
38.72	4 0 27	4600.44	-26.48	220.28	252.19	37.99	5 17 7	3600.4	-44.61	200.10
38.72	4 0 27	4600.44	-26.48	220.28	252.19	37.99	5 17 7	3600.4	-44.61	200.10
38.72	4 0 27	4600.44	-26.48	220.28	252.19	37.99	5 17 7	3600.4	-44.61	200.10
38.72	4 0 27	4600.44	-26.48	220.28	252.19	37.99	5 17 7	3600.4	-44.61	200.10

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.6132	TRA	-.8684	TC3	-2.4069	BAU	1.5495	SGT	3527.8	SGR	5194.3	SG3	939.4	ST	94.1	SR	169.6	SS	109.5
RDE	3.0179	RRA	-.5415	RC3	-3.7009	FAU	.22215	RRT	.9485	RRF	.9984	RTF	.9496	CRT	.9824	CRS	1.0000	CST	-.9833
FDE	6.6564	FRA	1.2520	FC3	-7.3255	BSP	10595	SGB	6279.0	R23	.0912	R13	.9942	LSA	222.2	MSA	15.8	SSA	.3
BDE	3.4220	BRA	1.0234	BC3	4.4148	FSP	1636	SG1	6209.0	SG2	935.2	THA	56.35	EL1	193.4	EL2	15.4	ALF	61.22

LAUNCH DATE AUG 4 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 11 1974

HELIOCENTRIC CONIC DISTANCE 559.315 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.870	GAL	.51	AZL	82.70	HCA	166.32	SMA	198.56	ECC	.23576	INC	7.2975	V1	29.354
RP	243.98	LAP	1.72	LOP	117.90	VP	20.482	GAP	3.36	AZP	97.09	TAL	2.65	TAP	168.97	RCA	151.75	APO	245.37	V2	22.487
RC	269.924	GL	51.74	GP	-51.57	ZAL	84.26	ZAP	87.03	ETS	178.96	ZAE	106.93	ETE	206.18	ZAC	37.43	ETC	293.36	LVI	29.16

PLANETOCENTRIC CONIC

C3	28.270	VHL	5.317	DLA	58.39	RAL	358.93	RAD	6646.3	VEL	12.174	PTH	7.14	VHP	3.528	DPA	-38.52	RAP	45.10	ECC	1.4653

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.53	3 44 51	4630.42	-26.05	223.31	251.43	35.69	5 2 2	3630.4	-44.94	204.17
36.53	3 44 51	4630.42	-26.05	223.31	251.43	35.69	5 2 2	3630.4	-44.94	204.17
36.53	3 44 51	4630.42	-26.05	223.31	251.43	35.69	5 2 2	3630.4	-44.94	204.17
36.53	3 44 51	4630.42	-26.05	223.31	251.43	35.69	5 2 2	3630.4	-44.94	204.17
36.53	3 44 51	4630.42	-26.05	223.31	251.43	35.69	5 2 2	3630.4	-44.94	204.17
36.53	3 44 51	4630.42	-26.05	223.31	251.43	35.69	5 2 2	3630.4	-44.94	204.17
36.53	3 44 51	4630.42	-26.05	223.31	251.43	35.69	5 2 2	3630.4	-44.94	204.17

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.7697	TRA	-.9336	TC3	-2.3555	BAU	1.6078	SGT	3687.0	SGR	5315.7	SG3	849.7	ST	99.7	SR	176.5	SS	104.5
RDE	3.2539	RRA	-.6476	RC3	-3.5423	FAU	.20195	RRT	.9530	RRF	.9985	RTF	.9537	CRT	.9839	CRS	1.0000	CST	-.9845
FDE	6.3161	FRA	1.2990	FC3	-6.1846	BSP	10962	SGB	6469.2	R23	.0911	R13	.9943	LSA	227.5	MSA	16.0	SSA	.3
BDE	3.7040	BRA	1.1362	BC3	4.2539	FSP	1487	SG1	6402.3	SG2	927.9	THA	55.72	EL1	202.1	EL2	15.6	ALF	60.76

LAUNCH DATE AUG 4 1973 FLIGHT TIME 252.00 ARRIVAL DATE APR 13 1974

HELIOCENTRIC CONIC DISTANCE 563.079 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.871	GAL	.48	AZL	82.15	HCA	167.22	SMA	198.59	ECC	.23586	INC	7.8535	V1	29.354
RP	244.22	LAP	1.73	LOP	118.81	VP	20.459	GAP	3.14	AZP	97.66	TAL	2.50	TAP	169.72	RCA	151.75	APO	245.43	V2	22.464
RC	272.618	GL	54.11	GP	-53.04	ZAL	84.67	ZAP	86.36	ETS	177.95	ZAE	105.52	ETE	205.31	ZAC	36.14	ETC	294.14	LVI	30.56

PLANETOCENTRIC CONIC

C3	30.734	VHL	5.544	DLA	60.24	RAL	356.02	RAD	6647.3	VEL	12.274	PTH	7.22	VHP	3.695	DPA	-39.90	RAP	45.81	ECC	1.5058

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.31	3 27 34	4662.01	-25.41	226.35	250.27	33.33	4 45 16	3662.0	-45.06	208.41
34.31	3 27 34	4662.01	-25.41	226.35	250.27	33.33	4 45 16	3662.0	-45.06	208.41
34.31	3 27 34	4662.01	-25.41	226.35	250.27	33.33	4 45 16	3662.0	-45.06	208.41
34.31	3 27 34	4662.01	-25.41	226.35	250.27	33.33	4 45 16	3662.0	-45.06	208.41
34.31	3 27 34	4662.01	-25.41	226.35	250.27	33.33	4 45 16	3662.0	-45.06	208.41
34.31	3 27 34	4662.01	-25.41	226.35	250.27	33.33	4 45 16	3662.0	-45.06	208.41
34.31	3 27 34	4662.01	-25.41	226.35	250.27	33.33	4 45 16	3662.0	-45.06	208.41

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.9194	TRA	-1.0091	TC3	-2.2796	BAU	1.6718	SGT	3839.0	SGR	5445.3	SG3	759.4	ST	104.1	SR	182.6	SS	98.4
RDE	3.5004	RRA	-.7742	RC3	-3.3704	FAU	.18181	RRT	.9571	RRF	.9985	RTF	.9574	CRT	.9848	CRS	1.0000	CST	-.9852
FDE	5.9080	FRA	1.3352	FC3	-5.1213	BSP	11318	SGB	6662.5	R23	.0902	R13	.9945	LSA	231.5	MSA	16.2	SSA	.3
BDE	3.9921	BRA	1.2719	BC3	4.0689	FSP	1331	SG1	6599.1	SG2	917.5	THA	55.22	EL1	209.6	EL2	15.8	ALF	60.49

LAUNCH DATE AUG 4 1973 FLIGHT TIME 254.00 ARRIVAL DATE APR 15 1974

HELIOCENTRIC CONIC DISTANCE 566.841 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.873	GAL	.45	AZL	81.51	HCA	168.12	SMA	198.62	ECC	.23597	INC	8.4906	V1	29.354
RP	244.45	LAP	1.74	LOP	119.72	VP	20.437	GAP	2.92	AZP	98.31	TAL	2.34	TAP	170.46	RCA	151.76	APO	245.49	V2	22.441
RC	275.292	GL	56.62	GP	-54.54	ZAL	85.08	ZAP	85.80	ETS	176.98	ZAE	104.18	ETE	204.48	ZAC	34.81	ETC	295.00	LVI	32.00

PLANETOCENTRIC CONIC

C3	33.782	VHL	5.812	DLA	62.10	RAL	352.52	RAD	6648.4	VEL	12.397	PTH	7.31	VHP	3.691	DPA	-41.27	RAP	46.64	ECC	1.5560

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.09	3 8 9	4695.52	-24.51	229.36	248.56	30.95	4 26 25	3695.5	-44.89	212.75
32.09	3 8 9	4695.52	-24.51	229.36	248.56	30.95	4 26 25	3695.5	-44.89	212.75
32.09	3 8 9	4695.52	-24.51	229.36	248.56	30.95	4 26 25	3695.5	-44.89	212.75
32.09	3 8 9	4695.52	-24.51	229.36	248.56	30.95	4 26 25	3695.5	-44.89	212.75
32.09	3 8 9	4695.52	-24.51	229.36	248.56	30.95	4 26 25	3695.5	-44.89	212.75
32.09	3 8 9	4695.52	-24.51	229.36	248.56	30.95	4 26 25	3695.5	-44.89	212.75
32.09	3 8 9	4695.52	-24.51	229.36	248.56	30.95	4 26 25	3695.5	-44.89	212.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.0455	TRA	-1.1008	TC3	-2.1828	BAU	1.7416	SGT	3985.2	SGR	5579.9	SG3	668.6	ST	106.7	SR	187.0	SS	91.0
RDE	3.7461	RRA	-.9304	RC3	-3.1791	FAU	.16134	RRT	.9609	RRF	.9986	RTF	.9606	CRT	.9848	CRS	1.0000	CST	-.9851
FDE	5.4192	FRA	1.3622	FC3	-4.1346	BSP	11585	SGB	6856.9	R23	.0895	R13	.9945	LSA	233.2	MSA	16.5	SSA	.3
BDE	4.2681	BRA	1.4413	BC3	3.8563	FSP	1164	SG1	6796.9	SG2	905.5	THA	54.82	EL1	214.7	EL2	16.1	ALF	60.49

LAUNCH DATE AUG 4 1973 FLIGHT TIME 256.00 ARRIVAL DATE APR 17 1974

HELIOCENTRIC CONIC DISTANCE 570.601 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.875	GAL	.42	AZL	80.77	HCA	169.01	SMA	198.66	ECC	.23610	INC	9.2291
RP	244.66	LAP	1.75	LOP	120.63	VP	20.415	GAP	2.70	AZP	99.06	TAL	2.19	TAP	171.20	RCA	151.76	APO	245.57
RC	277.948	GL	59.28	GP	-56.06	ZAL	85.50	ZAP	85.33	ETS	176.05	ZAE	102.91	ETE	203.69	ZAC	33.45	ETC	295.96

V1	29.354																		
V2	22.416																		
LVI	33.47																		

PLANETOCENTRIC CONIC

C3	37.611	VHL	6.133	DLA	63.94	RAL	348.28	RAD	6649.8	VEL	12.550	PTH	7.42	VHP	4.123	DPA	-42.63	RAP	47.59
ECC	1.6190																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.92	2 46 3	4731.31	-23.32	232.31	246.12	28.58	4 4 54	3731.3	-44.40	217.13
29.92	2 46 3	4731.31	-23.32	232.31	246.12	28.58	4 4 54	3731.3	-44.40	217.13
29.92	2 46 3	4731.31	-23.32	232.31	246.12	28.58	4 4 54	3731.3	-44.40	217.13
29.92	2 46 3	4731.31	-23.32	232.31	246.12	28.58	4 4 54	3731.3	-44.40	217.13
29.92	2 46 3	4731.31	-23.32	232.31	246.12	28.58	4 4 54	3731.3	-44.40	217.13
29.92	2 46 3	4731.31	-23.32	232.31	246.12	28.58	4 4 54	3731.3	-44.40	217.13
29.92	2 46 3	4731.31	-23.32	232.31	246.12	28.58	4 4 54	3731.3	-44.40	217.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.1327	TRA	-1.2028	TC3	-2.0555	BAU	1.8164	SGT	4107.3	SGR	5722.6	SG3	578.1	ST	106.8	SR	188.8	SS	81.9
RDE	3.9671	RRA	-1.1261	RC3	-2.9706	FAU	.14076	RRT	.9657	RRF	.9985	RTF	.9647	CRT	.9845	CRS	-1.0000	CST	-.9846
FDE	4.8321	FRA	-1.3779	FC3	-3.2401	BSP	11767	SGB	7044.0	R23	.0863	R13	.9948	LSA	231.3	MSA	16.7	SSA	.2
BDE	4.5041	BRA	1.6477	BC3	3.6124	FSP	983	SG1	6989.6	SG2	873.7	THA	54.64	EL1	216.3	EL2	16.3	ALF	60.70

LAUNCH DATE AUG 4 1973 FLIGHT TIME 306.00 ARRIVAL DATE JUN 6 1974

HELIOCENTRIC CONIC DISTANCE 665.193 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.968	GAL	-.78	AZL	99.27	HCA	191.54	SMA	200.50	ECC	.24334	INC	9.2690
RP	248.59	LAP	1.85	LOP	142.87	VP	20.145	GAP	-2.42	AZP	80.92	TAL	356.03	TAP	187.57	RCA	151.71	APO	249.28
RC	336.377	GL	-59.02	GP	51.63	ZAL	91.90	ZAP	70.82	ETS	208.64	ZAE	85.23	ETE	188.03	ZAC	137.76	ETC	291.31

V1	29.354																		
V2	22.034																		
LVI	-71.64																		

PLANETOCENTRIC CONIC

C3	38.354	VHL	6.193	DLA	-39.89	RAL	61.78	RAD	6650.1	VEL	12.579	PTH	7.44	VHP	4.103	DPA	52.36	RAP	348.69
ECC	1.6312																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 53 33	2409.29	-2.86	62.60	294.20	137.51	18 33 42	1409.3	15.43	46.62
60.00	20 34 36	1977.60	11.75	37.67	307.84	128.83	21 7 33	977.6	26.36	17.37
60.61	21 16 8	1860.49	16.20	31.32	311.41	126.96	21 47 8	860.5	29.80	9.67
60.61	21 16 8	1860.49	16.20	31.32	311.41	126.96	21 47 8	860.5	29.80	9.67
60.61	21 16 8	1860.49	16.20	31.32	311.41	126.96	21 47 8	860.5	29.80	9.67
60.61	21 16 8	1860.49	16.20	31.32	311.41	126.96	21 47 8	860.5	29.80	9.67
60.61	21 16 8	1860.49	16.20	31.32	311.41	126.96	21 47 8	860.5	29.80	9.67

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-5.5209	TRA	3.2758	TC3	-4.2251	BAU	2.4633	SGT	8311.3	SGR	4811.8	SG3	558.8	ST	262.3	SR	132.3	SS	56.1
RDE	2.6901	RRA	-2.4798	RC3	2.2862	FAU	.14567	RRT	-.9837	RRF	-.9969	RTF	.9742	CRT	-.9931	CRS	.9986	CST	-.9855
FDE	-3.1518	FRA	3.3935	FC3	-3.2880	BSP	16848	SGB	9603.7	R23	.1704	R13	-.9829	LSA	298.7	MSA	16.1	SSA	.3
BDE	6.1414	BRA	4.1085	BC3	4.8040	FSP	964	SG1	9574.4	SG2	750.3	THA	150.14	EL1	293.5	EL2	13.9	ALF	153.32

LAUNCH DATE AUG 4 1973 FLIGHT TIME 308.00 ARRIVAL DATE JUN 8 1974

HELIOCENTRIC CONIC DISTANCE 668.927 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.972	GAL	-.83	AZL	98.62	HCA	192.41	SMA	200.59	ECC	.24375	INC	8.6165
RP	248.67	LAP	1.84	LOP	143.75	VP	20.144	GAP	-2.62	AZP	81.58	TAL	355.77	TAP	188.18	RCA	151.70	APO	249.49
RC	338.347	GL	-56.64	GP	49.77	ZAL	92.28	ZAP	69.34	ETS	208.93	ZAE	84.08	ETE	188.90	ZAC	136.04	ETC	290.61

V1	29.354																		
V2	22.026																		
LVI	-70.08																		

PLANETOCENTRIC CONIC

C3	34.975	VHL	5.914	DLA	-37.58	RAL	60.96	RAD	6648.9	VEL	12.445	PTH	7.35	VHP	3.923	DPA	50.81	RAP	350.40
ECC	1.5756																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 29 54	2453.68	-5.08	64.46	290.32	137.37	18 10 48	1453.7	13.26	48.61
60.00	19 31 6	2130.43	5.13	45.15	300.04	130.03	20 6 36	1130.4	20.60	26.18
64.14	21 30 1	1787.98	16.29	25.36	308.63	124.35	21 59 49	788.0	28.89	3.13
64.14	21 30 1	1787.98	16.29	25.36	308.63	124.35	21 59 49	788.0	28.89	3.13
64.14	21 30 1	1787.98	16.29	25.36	308.63	124.35	21 59 49	788.0	28.89	3.13
64.14	21 30 1	1787.98	16.29	25.36	308.63	124.35	21 59 49	788.0	28.89	3.13
64.14	21 30 1	1787.98	16.29	25.36	308.63	124.35	21 59 49	788.0	28.89	3.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-5.2605	TRA	3.2195	TC3	-4.6690	BAU	2.4482	SGT	8483.1	SGR	4624.7	SG3	629.7	ST	261.7	SR	124.5	SS	58.9
RDE	2.4125	RRA	-2.3239	RC3	2.3694	FAU	.16115	RRT	-.9831	RRF	-.9968	RTF	.9739	CRT	-.9926	CRS	.9985	CST	-.9844
FDE	-3.2931	FRA	3.7204	FC3	-3.9869	BSP	16967	SGB	9661.9	R23	.1743	R13	-.9820	LSA	295.3	MSA	16.3	SSA	.3
BDE	5.7873	BRA	3.8706	BC3	5.2358	FSP	1087	SG1	9633.1	SG2	744.9	THA	151.62	EL1	289.5	EL2	13.7	ALF	154.67

LAUNCH DATE AUG 4 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 10 1974

HELIOCENTRIC CONIC DISTANCE 672.662 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.977	GAL	-.88	AZL	98.05	HCA	193.27	SMA	200.69	ECC	.24417	INC	8.0481
RP	248.75	LAP	1.84	LOP	144.63	VP	20.144	GAP	-2.82	AZP	82.16	TAL	355.52	TAP	188.79	RCA	151.69	APO	249.69
RC	340.287	GL	-54.39	GP	47.95	ZAL	92.67	ZAP	67.90	ETS	209.13	ZAE	82.93	ETE	189.67	ZAC	134.35	ETC	289.98

V1	29.354																		
V2	22.019																		
LVI	-68.49																		

PLANETOCENTRIC CONIC

C3	32.243	VHL	5.678	DLA	-35.38	RAL	60.30	RAD	6647.9	VEL	12.335	PTH	7.26	VHP	3.774	DPA	49.31	RAP	352.01
ECC	1.5306																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 10 24	2492.53	-7.03	66.10	287.24	137.18	17 51 57	1492.5	11.35	50.32
60.00	18 55 25	2212.83	1.51	49.10	295.39	130.28	19 32 18	1212.8	17.28	30.62
67.79	21 46 51	1709.72	16.19	18.99	306.16	121.90	22 15 21	709.7	27.85	356.30
67.79	21 46 51	1709.72	16.19	18.99	306.16	121.90	22 15 21	709.7	27.85	356.30
67.79	21 46 51	1709.72	16.19	18.99	306.16	121.90	22 15 21	709.7	27.85	356.30
67.79	21 46 51	1709.72	16.19	18.99	306.16	121.90	22 15 21	709.7	27.85	356.30
67.79	21 46 51	1709.72	16.19	18.99	306.16	121.90	22 15 21	709.7	27.85	356.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-5.0269	TRA	3.1705	TC3	-5.1162	BAU	2.4426	SGT	8653.6	SGR	4445.3	SG3	696.9	ST	260.5	SR	116.9	SS	60.8
RDE	2.1715	RRA	-2.1841	RC3	2.4358	FAU	.17566	RRT	-.9825	RRF	-.9967	RTF	.9735	CRT	-.9920	CRS	.9983	CST	-.9831
FDE	-3.3839	FRA	4.0167	FC3	-4.7166	BSP	17014	SGB	9728.6	R23	.1783	R13	-.9811	LSA	291.5	MSA	16.6	SSA	.3
BDE	5.4759	BRA	3.8500	BC3	5.6665	FSP	1200	SG1	9700.5	SG2	738.9	THA	153.05	EL1	285.2	EL2	13.5	ALF	155.95

LAUNCH DATE AUG 4 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 12 1974

HELIOCENTRIC CONIC DISTANCE 676.398 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.992	GAL	-.93	AZL	97.55	HCA	194.14	SMA	200.79	ECC	.24459	INC	7.5487	V1	29.354
RP	248.82	LAP	1.84	LOP	145.50	VP	20.144	GAP	-3.01	AZP	82.68	TAL	355.26	TAP	189.40	RCA	151.68	APO	249.90	V2	22.012
RC	342.196	GL	-52.27	GP	46.18	ZAL	93.09	ZAP	66.49	ETS	209.25	ZAE	81.77	ETE	190.34	ZAC	132.69	ETC	289.42	LVI	-66.91

PLANETOCENTRIC CONIC

C3	30.005	VHL	5.478	DLA	-33.29	RAL	59.76	RAD	6647.0	VEL	12.245	PTH	7.19	VHP	3.649	DPA	47.85	RAP	353.52	ECC	1.4938

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 53 55	2527.75	-8.78	67.60	284.75	136.95	17 36 3	1527.7	9.61	51.84
60.00	18 28 48	2275.16	-1.23	52.08	291.96	130.29	19 6 44	1275.2	14.70	33.86
70.00	20 59 40	1830.30	9.95	24.40	300.25	122.84	21 30 11	830.3	22.48	3.06
71.65	22 7 40	1621.79	15.93	11.95	303.97	119.63	22 34 41	621.8	26.72	348.92
71.65	22 7 40	1621.79	15.93	11.95	303.97	119.63	22 34 41	621.8	26.72	348.92
71.65	22 7 40	1621.79	15.93	11.95	303.97	119.63	22 34 41	621.8	26.72	348.92
110.00	2 3 3	6165.16	9.95	291.23	300.25	122.84	3 45 48	5165.2	22.48	269.88

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE-4.8070	TRA 3.1382	TC3-5.5519	BAU 2.4396			SGT 8814.6	SGR 4270.9	SG3 759.5				ST 258.4	SR 109.6	SS 62.0			
RDE 1.9584	RRA-2.0603	RC3 2.4825	FAU .18893			RRT -.9820	RRF -.9965	RTF .9731				CRT -.9915	CRS .9981	CST -.9818			
FDE-3.4248	FRA 4.2867	FC3-5.4511	BSP 17129			SGB 9794.8	R23 .1815	R13 -.9802				LSA 286.9	MSA 16.8	SSA .4			
BDE 5.1906	BRA 3.7541	BC3 6.0816	FSP 1305			SG1 9767.6	SG2 728.9	THA 154.40				EL1 280.3	EL2 13.2	ALF 157.14			

LAUNCH DATE AUG 4 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 14 1974

HELIOCENTRIC CONIC DISTANCE 680.134 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.987	GAL	-.99	AZL	97.11	HCA	195.01	SMA	200.89	ECC	.24503	INC	7.1063	V1	29.354
RP	248.88	LAP	1.84	LOP	146.38	VP	20.145	GAP	-3.21	AZP	83.13	TAL	354.99	TAP	190.00	RCA	151.67	APO	250.11	V2	22.006
RC	344.074	GL	-50.27	GP	44.48	ZAL	93.52	ZAP	65.14	ETS	209.31	ZAE	80.61	ETE	190.93	ZAC	131.08	ETC	288.91	LVI	-65.35

PLANETOCENTRIC CONIC

C3	28.152	VHL	5.306	DLA	-31.30	RAL	59.32	RAD	6646.3	VEL	12.170	PTH	7.13	VHP	3.544	DPA	46.45	RAP	354.93	ECC	1.4633

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 39 43	2560.36	-10.40	69.01	282.73	136.70	17 22 23	1560.4	7.98	53.24
60.00	18 7 21	2327.16	-3.52	54.56	289.28	130.17	18 46 8	1327.2	12.50	36.50
70.00	20 10 53	1963.60	4.95	31.49	295.66	123.84	20 43 36	963.6	18.22	11.05
75.99	22 34 41	1516.23	15.56	3.69	302.04	117.51	22 59 58	516.2	25.54	340.39
75.99	22 34 41	1516.23	15.56	3.69	302.04	117.51	22 59 58	516.2	25.54	340.39
75.99	22 34 41	1516.23	15.56	3.69	302.04	117.51	22 59 58	516.2	25.54	340.39
110.00	1 14 15	1010.42	4.95	320.41	295.66	123.84	1 31 5	10.4	18.22	299.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE-4.6024	TRA 3.1152	TC3-5.9780	BAU 2.4403			SGT 8969.0	SGR 4099.8	SG3 816.7				ST 255.6	SR 102.5	SS 62.4			
RDE 1.7694	RRA-1.9474	RC3 2.5110	FAU .20088			RRT -.9815	RRF -.9962	RTF .9728				CRT -.9909	CRS .9978	CST -.9797			
FDE-3.4212	FRA 4.5263	FC3-6.1776	BSP 17297			SGB 9861.6	R23 .1843	R13 -.9794				LSA 281.9	MSA 17.0	SSA .4			
BDE 4.9308	BRA 3.6738	BC3 6.4639	FSP 1408			SG1 9835.5	SG2 716.6	THA 155.70				EL1 275.1	EL2 12.8	ALF 158.28			

LAUNCH DATE AUG 4 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 16 1974

HELIOCENTRIC CONIC DISTANCE 683.871 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.992	GAL	-1.04	AZL	96.71	HCA	195.88	SMA	200.99	ECC	.24547	INC	6.7114	V1	29.354
RP	248.94	LAP	1.83	LOP	147.25	VP	20.147	GAP	-3.40	AZP	83.54	TAL	354.72	TAP	190.60	RCA	151.65	APO	250.33	V2	22.000
RC	345.920	GL	-48.37	GP	42.85	ZAL	93.97	ZAP	63.82	ETS	209.31	ZAE	79.46	ETE	191.46	ZAC	129.52	ETC	288.46	LVI	-63.83

PLANETOCENTRIC CONIC

C3	26.602	VHL	5.158	DLA	-29.41	RAL	58.97	RAD	6645.7	VEL	12.106	PTH	7.08	VHP	3.456	DPA	45.10	RAP	356.26	ECC	1.4378

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 27 19	2590.99	-11.91	70.34	281.09	136.41	17 10 30	1591.0	6.46	54.54
60.00	17 49 22	2372.71	-5.52	56.75	287.16	129.99	18 28 55	1372.7	10.56	38.77
70.00	19 39 34	2048.59	1.72	35.94	292.61	124.12	20 13 42	1048.6	15.31	15.92
80.00	22 19 6	1548.55	11.00	3.64	298.22	117.93	22 44 55	548.6	21.55	341.23
81.59	23 14 58	1369.63	15.10	352.51	300.34	115.53	23 37 48	369.6	24.33	329.02
100.00	1 5 54	1023.02	11.00	325.01	298.22	117.93	1 22 57	23.0	21.55	302.60
110.00	0 42 56	1095.41	1.72	324.86	292.61	124.12	1 1 11	95.4	15.31	304.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE-4.4123	TRA 3.1016	TC3-6.3941	BAU 2.4448			SGT 9119.9	SGR 3935.6	SG3 869.0				ST 252.3	SR 95.8	SS 62.4			
RDE 1.6022	RRA-1.8466	RC3 2.5236	FAU .21159			RRT -.9809	RRF -.9959	RTF .9723				CRT -.9902	CRS .9973	CST -.9774			
FDE-3.3809	FRA 4.7448	FC3-6.8859	BSP 17449			SGB 9932.8	R23 .1871	R13 -.9784				LSA 276.5	MSA 17.2	SSA .4			
BDE 4.6942	BRA 3.6097	BC3 6.8741	FSP 1500			SG1 9907.8	SG2 704.5	THA 156.93				EL1 269.6	EL2 12.5	ALF 159.35			

LAUNCH DATE AUG 4 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 18 1974

HELIOCENTRIC CONIC DISTANCE 687.609 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	32.997	GAL	-1.10	AZL	96.36	HCA	196.75	SMA	201.09	ECC	.24592	INC	6.3566	V1	29.354
RP	249.00	LAP	1.83	LOP	148.13	VP	20.150	GAP	-3.60	AZP	83.91	TAL	354.44	TAP	191.19	RCA	151.64	APO	250.54	V2	21.995
RC	347.734	GL	-46.57	GP	41.29	ZAL	94.44	ZAP	62.55	ETS	209.26	ZAE	78.31	ETE	191.92	ZAC	128.01	ETC	288.06	LVI	-62.35

PLANETOCENTRIC CONIC

C3	25.296	VHL	5.030	DLA	-27.60	RAL	58.70	RAD	6645.1	VEL	12.053	PTH	7.04	VHP	3.382	DPA	43.82	RAP	357.51	ECC	1.4163

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 16 24	2620.01	-13.34	71.62	279.75	136.11	17 0 4	1620.0	5.00	55.77
60.00	17 33 56	2413.78	-7.31	58.74	285.45	129.74	18 14 10	1413.8	8.78	40.80
70.00	19 15 25	2115.34	-.83	39.42	290.32	124.14	19 50 41	1115.3	12.94	19.64
80.00	21 24 17	1711.91	5.66	12.82	294.34	119.37	21 52 49	711.9	17.19	351.40
90.00	23 28 30	1311.37	9.69	345.52	296.50	116.70	23 50 21	311.4	19.86	323.11
100.00	0 11 5	1186.38	5.66	334.19	294.34	119.37	0 30 51	186.4	17.19	312.77
110.00	0 18 48	1162.15	-.83	328.34	290.32	124.14	0 38 10	162.2	12.94	308.56

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE-4.2381	TRA 3.0939	TC3-6.8008	BAU 2.4531			SGT 9269.5	SGR 3779.0	SG3 916.6				ST 248.9	SR 89.7	SS 62.0			
RDE 1.4573	RRA-1.7537	RC3 2.5235	FAU .22121			RRT -.9805	RRF -.9955	RTF .9720				CRT -.9896	CRS .9968	CST -.9750			
FDE-3.3204	FRA 4.9358	FC3-7.5708	BSP 17597			SGB10010.2	R23 .1889	R13 -.9776				LSA 271.1	MSA 17.4	SSA .5			
BDE 4.4816	BRA 3.5563	BC3 7.2539	FSP 1582			SG1 9986.4	SG2 690.1	THA 158.10				EL1 264.3	EL2 12.2	ALF 160.32			

LAUNCH DATE AUG 4 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 20 1974

HELIOCENTRIC CONIC DISTANCE 691.347 EARTH TO MARS

RL	151.78	LAL	.00	LOL	311.48	VL	33.002	GAL	-1.15	AZL	96.04	HCA	197.62	SMA	201.19	ECC	.24637	INC	6.0360	V1	29.354
RP	249.05	LAP	1.62	LOP	149.00	VP	20.153	GAP	-3.79	AZP	84.25	TAL	354.17	TAP	191.78	RCA	151.62	APO	250.76	V2	21.990
RC	349.515	GL	-44.87	GP	39.79	ZAL	94.92	ZAP	61.32	ETS	209.18	ZAE	77.17	ETE	192.33	ZAC	126.56	ETC	287.70	LVI	-60.91

PLANETOCENTRIC CONIC

C3	24.187	VHL	4.918	DLA	-25.87	RAL	98.50	RAD	6644.7	VEL	12.007	PTH	7.00	VHP	3.320	DPA	42.60	RAP	358.69	ECC	1.3980

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 6 42	2647.70	-14.70	72.86	278.67	135.78	16 50 49	1647.7	3.61	56.93
60.00	17 20 27	2451.52	-8.95	60.58	284.07	129.46	18 1 19	1451.5	7.14	42.64
70.00	18 55 34	2171.85	-2.99	42.37	288.53	124.04	19 31 46	1171.9	10.89	22.73
80.00	20 51 48	1808.06	2.43	18.13	291.90	119.77	21 21 56	808.1	14.36	357.13
90.00	22 39 55	1459.37	5.06	353.93	293.36	117.86	23 4 15	459.4	16.06	332.30
100.00	23 34 40	1282.54	2.43	339.50	291.90	119.77	23 56 2	282.5	14.36	318.50
110.00	23 55 1	1218.67	-2.99	331.29	288.53	124.04	24 15 19	218.7	10.89	311.65

DIFFERENTIAL CORRECTIONS

TDE	-4.0749	TRA	3.0919	TC3	-7.1973	BAU	2.4649												
RDE	1.3279	RRA	-1.6684	RC3	2.5119	FAU	.22974												
FDE	-3.2319	FRA	5.1036	FC3	-8.2234	BSP	17729												
BDE	4.2859	BRA	3.5134	BC3	7.6230	FSP	1652												

MID-COURSE EXECUTION ACCURACY

SGT	9417.0	SGR	3628.2	SG3	959.3														
RRT	-.9800	RRF	-.9951	RTF	.9717														
SGB	10091.8	R23	.1904	R13	-.9768														
SG1	10069.1	SG2	675.6	THA	159.22														

ORBIT DETERMINATION ACCURACY

ST	245.1	SR	83.9	SS	61.1														
CRT	-.9890	CRS	.9961	CST	-.9721														
LSA	265.6	MSA	17.6	SSA	.5														
EL1	258.8	EL2	11.8	ALF	161.25														

LAUNCH DATE AUG 5 1973 FLIGHT TIME 102.00 ARRIVAL DATE NOV 15 1973

HELIOCENTRIC CONIC DISTANCE 297.738 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	35.673	GAL	-.81	AZL	90.18	HCA	91.19	SMA	278.52	ECC	.45530	INC	.1840
RP	218.35	LAP	-.18	LOP	43.63	VP	27.187	GAP	24.23	AZP	90.00	TAL	357.41	TAP	88.60	RCA	151.71	APO	405.32
RC	75.647	GL	-1.04	GP	-5.01	ZAL	92.33	ZAP	174.64	ETS	250.98	ZAE	163.57	ETE	343.82	ZAC	78.55	ETC	282.89

V1	29.358	V2	25.168	LVI	-12.34														

PLANETOCENTRIC CONIC

C3	39.917	VHL	6.316	DLA	15.27	RAL	42.62	RAD	6650.6	VEL	12.641	PTH	7.49	VHP	9.100	DPA	10.40	RAP	41.08

ECC	1.6569																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 16 51	3612.53	-47.41	138.72	291.93	94.60	13 17 4	2612.5	-40.11	106.55
60.00	12 39 9	3553.16	-40.29	133.85	292.41	90.92	13 38 22	2553.2	-35.51	103.83
70.00	13 11 38	3457.56	-34.11	126.04	292.34	88.06	14 9 16	2457.6	-31.33	97.66
80.00	14 1 18	3301.94	-29.63	113.97	292.07	86.10	14 56 20	2301.9	-28.23	86.64
90.00	15 14 22	3066.11	-27.93	96.50	291.93	85.37	16 5 28	2066.1	-27.04	69.53
100.00	16 44 10	2776.42	-29.63	75.34	292.07	86.10	17 30 26	1776.4	-28.23	48.00
110.00	18 11 4	2504.38	-34.11	54.96	292.34	88.06	18 52 49	1504.4	-31.33	26.58

DIFFERENTIAL CORRECTIONS

TDE	-.3331	TRA	-1.0643	TC3	.2155	BAU	.1206
RDE	-.6303	RRA	.2341	RC3	-.0682	FAU	.04992
FDE	.2504	FRA	.6106	FC3	-1.0827	BSP	1543
BDE	.7129	BRA	1.0898	BC3	.2260	FSP	155

MID-COURSE EXECUTION ACCURACY

SGT	1080.0	SGR	618.5	SG3	129.7		
RRT	-.1063	RRF	.1233	RTF	-.6264		
SGB	1244.6	R23	-.0251	R13	.6285		
SG1	1083.0	SG2	613.3	THA	174.87		

ORBIT DETERMINATION ACCURACY

ST	21.3	SR	28.8	SS	11.3
CRT	.6235	CRS	.7142	CST	.9835
LSA	34.2	MSA	15.5	SSA	1.3
EL1	32.6	EL2	14.7	ALF	58.05

LAUNCH DATE AUG 5 1973 FLIGHT TIME 104.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 299.708 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	35.514	GAL	-.74	AZL	90.15	HCA	92.33	SMA	272.08	ECC	.44239	INC	.1472
RP	218.71	LAP	-.15	LOP	44.76	VP	26.942	GAP	23.85	AZP	89.99	TAL	357.60	TAP	89.93	RCA	151.72	APO	392.45
RC	77.098	GL	-.85	GP	-5.14	ZAL	91.93	ZAP	174.21	ETS	244.29	ZAE	162.89	ETE	343.72	ZAC	78.36	ETC	282.85

V1	29.358	V2	25.127	LVI	-12.11														

PLANETOCENTRIC CONIC

C3	37.926	VHL	6.158	DLA	15.34	RAL	42.17	RAD	6649.9	VEL	12.562	PTH	7.43	VHP	8.824	DPA	10.40	RAP	41.48

ECC	1.6242																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 14 48	3600.89	-47.34	137.60	290.25	95.46	13 14 49	2600.9	-39.73	105.69
60.00	12 37 1	3541.74	-40.28	132.88	290.85	91.58	13 36 3	2541.7	-35.24	102.99
70.00	13 9 24	3446.42	-34.13	125.17	290.86	88.57	14 6 51	2446.4	-31.14	98.85
80.00	13 58 58	3291.12	-29.67	113.17	290.64	86.52	14 53 49	2291.1	-28.10	85.86
90.00	15 11 59	3055.44	-27.99	95.72	290.51	85.75	16 2 54	2055.4	-26.93	68.77
100.00	16 41 50	2765.59	-29.67	74.54	290.64	86.52	17 27 55	1765.6	-28.10	47.23
110.00	18 8 50	2493.24	-34.13	54.09	290.86	88.57	18 50 24	1493.2	-31.14	25.76

DIFFERENTIAL CORRECTIONS

TDE	-.3304	TRA	-1.0510	TC3	.2409	BAU	.1281
RDE	-.6163	RRA	.2326	RC3	-.0764	FAU	.05191
FDE	.2633	FRA	.6264	FC3	-1.1849	BSP	1630
BDE	.6992	BRA	1.0764	BC3	.2527	FSP	167

MID-COURSE EXECUTION ACCURACY

SGT	1100.2	SGR	622.8	SG3	138.1		
RRT	-.1156	RRF	.1330	RTF	-.6374		
SGB	1264.3	R23	-.0257	R13	.6397		
SG1	1103.7	SG2	616.7	THA	174.55		

ORBIT DETERMINATION ACCURACY

ST	21.6	SR	28.9	SS	11.7
CRT	.6237	CRS	.7208	CST	.9824
LSA	34.5	MSA	15.7	SSA	1.3
EL1	32.9	EL2	14.8	ALF	57.57

LAUNCH DATE AUG 5 1973 FLIGHT TIME 106.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 301.864 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	35.365	GAL	-.66	AZL	90.11	HCA	93.46	SMA	266.30	ECC	.43025	INC	.1108
RP	219.08	LAP	-.11	LOP	45.89	VP	26.706	GAP	23.47	AZP	89.99	TAL	357.80	TAP	91.26	RCA	151.72	APO	380.87
RC	78.631	GL	-.66	GP	-5.27	ZAL	91.52	ZAP	173.70	ETS	238.58	ZAE	162.27	ETE	343.57	ZAC	78.16	ETC	282.82

V1	29.358	V2	25.087	LVI	-11.88														

PLANETOCENTRIC CONIC

C3	36.093	VHL	6.008	DLA	15.40	RAL	41.70	RAD	6649.3	VEL	12.489	PTH	7.38	VHP	8.558	DPA	10.39	RAP	41.86

ECC	1.5940																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 12 39	3589.71	-47.26	136.53	288.60	96.28	13 12 29	2589.7	-39.37	104.67
60.00	12 34 48	3530.78	-40.25	131.95	289.32	92.21	13 33 38	2530.8	-34.97	102.18
70.00	13 7 5	3435.76	-34.14	124.34	289.40	89.07	14 4 20	2435.8	-30.96	96.07
80.00	13 56 32	3280.78	-29.71	112.41	289.22	86.92	14 51 13	2280.8	-27.97	85.12
90.00	15 9 30	3045.26	-28.03	94.98	289.10	86.12	16 0 15	2045.3	-26.82	68.04
100.00	16 39 24	2755.25	-29.71	73.78	289.22	86.92	17 25 19	1755.3	-27.97	46.49
110.00	18 6 31	2482.58	-34.14	53.26	289.40	89.07	18 47 53	1482.6	-30.96	24.99

DIFFERENTIAL CORRECTIONS

TDE	-.3339	TRA	-1.0470	TC3	.2703	BAU	.1368
RDE	-.6026	RRA	.2313	RC3	-.0853	FAU	.05404
FDE	.2766	FRA	.6419	FC3	-1.2963	BSP	1663
BDE	.6889	BRA	1.0722	BC3	.2635	FSP	182

MID-COURSE EXECUTION ACCURACY

SGT	1131.2	SGR	627.0	SG3	147.1		
RRT	-.1230	RRF	.1437	RTF	-.6478		
SGB	1293.3	R23	-.0300	R13	.6503		
SG1	1135.0	SG2	620.2	THA	174.43		

ORBIT DETERMINATION ACCURACY

ST	22.3	SR	28.9	SS	12.2
CRT	.6276	CRS	.7273	CST	.9820
LSA	35.0	MSA	15.9	SSA	1.4
EL1	33.2	EL2	15.1	ALF	56.48

LAUNCH DATE AUG 5 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 304.182 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	35.223	GAL	-.59	AZL	90.08	HCA	94.58	SMA	261.07	ECC	.41881	INC	.0740
RP	219.45	LAP	-.08	LOP	47.02	VP	26.480	GAP	23.10	AZP	89.99	TAL	358.02	TAP	92.60	RCA	151.73	APO	370.40
RC	80.245	GL	-.45	GP	-5.41	ZAL	91.09	ZAP	175.14	ETS	233.76	ZAE	161.71	ETE	343.37	ZAC	77.95	ETC	282.79

V1	29.358	V2	25.046	LVI	-11.65														

PLANETOCENTRIC CONIC

C3	34.405	VHL	5.866	DLA	15.47	RAL	41.21	RAD	6648.7	VEL	12.422	PTH	7.33	VHP	8.302	DPA	10.37	RAP	42.24

ECC	1.5662																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 26	3579.00	-47.17	135.51	286.97	97.06	13 10 5	2579.0	-39.01	104.10
60.00	12 32 29	3520.30	-40.22	131.06	287.81	92.82	13 31 9	2520.3	-34.71	101.42
70.00	13 4 39	3425.59	-34.15	123.55	287.96	89.54	14 1 45	2425.6	-30.77	95.34
80.00	13 54 0	3270.95	-29.75	111.68	287.82	87.30	14 48 31	2271.0	-27.84	84.42
90.00	15 6 55	3035.60	-28.08	94.28	287.71	86.47	15 57 31	2035.6	-26.71	67.35
100.00	16 36 52	2745.42	-29.75	73.05	287.82	87.30	17 22 38	1745.4	-27.84	45.78
110.00	18 4 6	2472.41	-34.15	52.46	287.96	89.54	18 45 18	1472.4	-30.77	24.26

DIFFERENTIAL CORRECTIONS

TDE	-.3363	TRA	-1.0395	TC3	.3019	BAU	.1456
RDE	-.5892	RRA	.2299	RC3	-.0951	FAU	.05628
FDE	.2918	FRA	.6557	FC3	-1.4162	BSP	1728
BDE	.6784	BRA	1.0646	BC3	.3165	FSP	197

MID-COURSE EXECUTION ACCURACY

SGT	1159.0	SGR	630.9	SG3	156.6		
RRT	-.1313	RRF	.1542	RTF	-.6582		
SGB	1319.6	R23	-.0328	R13	.6609		
SG1	1163.2	SG2	623.2	THA	174.26		

ORBIT DETERMINATION ACCURACY

ST	22.8	SR	29.0	SS	12.6
CRT	.6314	CRS	.7360	CST	.9809
LSA	35.5	MSA	16.0	SSA	1.4
EL1	33.6	EL2	15.3	ALF	55.50

LAUNCH DATE AUG 5 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC — DISTANCE 306.643 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	35.090	GAL	-.51	AZL	90.04	HCA	95.71	SMA	256.32	ECC	.40803	INC	.0357
RP	219.82	LAP	-.04	LOP	48.14	VP	26.263	GAP	22.72	AZP	90.00	TAL	358.24	TAP	93.94	RCA	151.74	APO	360.91
RC	81.936	GL	-.24	GP	-5.56	ZAL	90.64	ZAP	172.52	ETS	229.69	ZAE	161.21	ETE	343.11	ZAC	77.75	ETC	282.76

V1	29.388																		
V2	25.005																		
LVI	-11.41																		

PLANETOCENTRIC CONIC

C3	32.849	VHL	5.731	DLA	15.54	RAL	40.70	RAD	6648.1	VEL	12.360	PTH	7.28	VHP	8.055	DPA	10.34	RAP	42.62

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 8 8	3568.77	-47.08	134.54	285.38	97.80	13 7 37	2568.8	-38.66	103.37
60.00	12 30 5	3510.31	-40.18	130.21	286.32	93.39	13 28 36	2510.3	-34.45	100.70
70.00	13 2 9	3415.93	-34.15	122.79	286.54	89.98	13 59 5	2415.9	-30.59	94.64
80.00	13 51 23	3261.65	-29.77	110.99	286.43	87.66	14 45 45	2261.6	-27.71	83.75
90.00	15 4 15	3026.47	-28.11	93.61	286.34	86.80	15 54 42	2026.5	-26.61	66.71
100.00	16 34 15	2736.12	-29.77	72.36	286.43	87.66	17 19 51	1736.1	-27.71	45.12
110.00	18 1 35	2462.75	-34.15	51.71	286.54	89.98	18 42 38	1462.8	-30.59	23.56

C3	31.415	VHL	5.605	DLA	15.61	RAL	40.18	RAD	6647.6	VEL	12.302	PTH	7.24	VHP	7.816	DPA	10.30	RAP	42.98

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 5 45	3559.04	-46.99	133.62	283.82	98.51	13 5 4	2559.0	-38.32	102.68
60.00	12 27 37	3500.84	-40.14	129.41	284.85	93.93	13 25 58	2500.8	-34.20	100.02
70.00	12 59 34	3406.80	-34.15	122.08	285.14	90.40	13 56 21	2406.8	-30.42	93.99
80.00	13 48 41	3252.89	-29.80	110.34	285.07	88.00	14 42 54	2252.9	-27.59	83.13
90.00	15 1 29	3017.89	-28.14	92.99	284.99	87.12	15 51 47	2017.9	-26.50	66.10
100.00	16 31 33	2727.36	-29.80	71.71	285.07	88.00	17 17 0	1727.4	-27.59	44.50
110.00	17 59 0	2453.62	-34.15	51.00	285.14	90.40	18 39 54	1453.6	-30.42	22.91

LAUNCH DATE AUG 5 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC — DISTANCE 309.232 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	34.963	GAL	-.44	AZL	90.00	HCA	96.83	SMA	252.01	ECC	.39787	INC	.0000
RP	220.19	LAP	-.00	LOP	49.26	VP	26.054	GAP	22.36	AZP	90.00	TAL	358.46	TAP	95.29	RCA	151.74	APO	352.27
RC	83.701	GL	-.02	GP	-5.71	ZAL	90.19	ZAP	171.87	ETS	226.25	ZAE	160.76	ETE	342.81	ZAC	77.53	ETC	282.73

V1	29.358																		
V2	24.964																		
LVI	-11.17																		

PLANETOCENTRIC CONIC

C3	31.415	VHL	5.605	DLA	15.61	RAL	40.18	RAD	6647.6	VEL	12.302	PTH	7.24	VHP	7.816	DPA	10.30	RAP	42.98

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 5 45	3559.04	-46.99	133.62	283.82	98.51	13 5 4	2559.0	-38.32	102.68
60.00	12 27 37	3500.84	-40.14	129.41	284.85	93.93	13 25 58	2500.8	-34.20	100.02
70.00	12 59 34	3406.80	-34.15	122.08	285.14	90.40	13 56 21	2406.8	-30.42	93.99
80.00	13 48 41	3252.89	-29.80	110.34	285.07	88.00	14 42 54	2252.9	-27.59	83.13
90.00	15 1 29	3017.89	-28.14	92.99	284.99	87.12	15 51 47	2017.9	-26.50	66.10
100.00	16 31 33	2727.36	-29.80	71.71	285.07	88.00	17 17 0	1727.4	-27.59	44.50
110.00	17 59 0	2453.62	-34.15	51.00	285.14	90.40	18 39 54	1453.6	-30.42	22.91

LAUNCH DATE AUG 5 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC — DISTANCE 311.932 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	34.843	GAL	-.36	AZL	89.97	HCA	97.94	SMA	248.07	ECC	.38829	INC	.0297
RP	220.57	LAP	.03	LOP	50.36	VP	25.853	GAP	21.99	AZP	90.00	TAL	358.70	TAP	96.64	RCA	151.75	APO	344.39
RC	85.536	GL	.21	GP	-5.87	ZAL	89.72	ZAP	171.18	ETS	223.33	ZAE	160.38	ETE	342.45	ZAC	77.32	ETC	282.70

V1	29.358																		
V2	24.923																		
LVI	-10.92																		

PLANETOCENTRIC CONIC

C3	30.090	VHL	5.485	DLA	15.69	RAL	39.65	RAD	6647.0	VEL	12.248	PTH	7.19	VHP	7.586	DPA	10.26	RAP	43.34

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 3 18	3549.82	-46.89	132.75	282.30	99.17	13 2 28	2549.8	-38.00	102.03
60.00	12 25 4	3491.89	-40.10	128.65	283.42	94.45	13 23 16	2491.9	-33.96	99.38
70.00	12 56 53	3398.21	-34.15	121.41	283.76	90.80	13 53 32	2398.2	-30.25	93.37
80.00	13 45 53	3244.69	-29.81	109.73	283.72	88.32	14 39 58	2244.7	-27.47	82.55
90.00	14 58 38	3009.89	-28.17	92.40	283.65	87.41	15 48 48	2009.9	-26.41	65.54
100.00	16 28 45	2719.16	-29.81	71.10	283.72	88.32	17 14 4	1719.2	-27.47	43.92
110.00	17 56 20	2445.03	-34.15	50.33	283.76	90.80	18 37 5	1445.0	-30.25	22.29

C3	28.868	VHL	5.373	DLA	15.77	RAL	39.10	RAD	6646.6	VEL	12.199	PTH	7.16	VHP	7.364	DPA	10.20	RAP	43.69

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 0 48	3541.11	-46.80	131.93	280.82	99.79	12 59 49	2541.1	-37.69	101.43
60.00	12 22 27	3483.47	-40.05	127.94	282.02	94.93	13 20 30	2483.5	-33.74	98.78
70.00	12 54 9	3390.17	-34.14	120.78	282.41	91.17	13 50 39	2390.2	-30.09	92.80
80.00	13 43 0	3237.07	-29.83	109.16	282.40	88.62	14 36 57	2237.1	-27.36	82.01
90.00	14 55 41	3002.47	-28.19	91.86	282.34	87.68	15 45 43	2002.5	-26.31	65.01
100.00	16 25 52	2711.54	-29.83	70.53	282.40	88.62	17 11 3	1711.5	-27.36	43.38
110.00	17 53 35	2436.99	-34.14	49.70	282.41	91.17	18 34 12	1437.0	-30.09	21.72

LAUNCH DATE AUG 5 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC — DISTANCE 314.734 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	34.730	GAL	-.29	AZL	89.93	HCA	99.05	SMA	244.47	ECC	.37926	INC	.0685
RP	220.95	LAP	.07	LOP	51.49	VP	25.660	GAP	21.63	AZP	90.01	TAL	358.93	TAP	97.99	RCA	151.75	APO	337.18
RC	87.440	GL	.45	GP	-6.03	ZAL	89.24	ZAP	170.46	ETS	220.84	ZAE	160.06	ETE	342.04	ZAC	77.10	ETC	282.67

V1	29.358																		
V2	24.882																		
LVI	-10.67																		

PLANETOCENTRIC CONIC

C3	28.868	VHL	5.373	DLA	15.77	RAL	39.10	RAD	6646.6	VEL	12.199	PTH	7.16	VHP	7.364	DPA	10.20	RAP	43.69

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 0 48	3541.11	-46.80	131.93	280.82	99.79	12 59 49	2541.1	-37.69	101.43
60.00	12 22 27	3483.47	-40.05	127.94	282.02	94.93	13 20 30	2483.5	-33.74	98.78
70.00	12 54 9	3390.17	-34.14	120.78	282.41	91.17	13 50 39	2390.2	-30.09	92.80
80.00	13 43 0	3237.07	-29.83	109.16	282.40	88.62	14 36 57	2237.1	-27.36	82.01
90.00	14 55 41	3002.47	-28.19	91.86	282.34	87.68	15 45 43	2002.5	-26.31	65.01
100.00	16 25 52	2711.54	-29.83	70.53	282.40	88.62	17 11 3	1711.5	-27.36	43.38
110.00	17 53 35	2436.99	-34.14	49.70	282.41	91.17	18 34 12	1437.0	-30.09	21.72

DIFFERENTIAL CORRECTIONS												MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3373	TRA	-1.0289	TC3	.3360	BAU	.1547					SGT	1184.0	SGR	634.6	SG3	166.8			ST	23.3	SR	29.0	SS	13.1
RDE	-.5761	RRA	.2288	RC3	-.1059	FAU	.05873					RRT	-.1412	RRF	.1662	RTF	-.6695			CRT	.6346	CRS	.7435	CST	.9800
FDE	.3076	FRA	.6710	FC3	-1.5478	BSP	1777					SGB	1343.4	R23	-.0353	R13	.6725			LSA	35.9	MSA	16.2	SSA	1.4
BDE	.6675	BRA	1.0541	BC3	.3523	FSP	214					SG1	1188.7	SG2	625.8	THA	174.00			EL1	33.8	EL2	15.4	ALF	54.67

DIFFERENTIAL CORRECTIONS												MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3380	TRA	-1.0200	TC3	.3707	BAU	.1634					SGT	1210.0	SGR	638.2	SG3	177.6			ST	23.7	SR	29.0	SS	13.6
RDE	-.5632	RRA	.2278	RC3	-.1176	FAU	.06129					RRT	-.1524	RRF	.1786	RTF	-.6792			CRT	.6368	CRS	.7520	CST	.9785
FDE	.3250	FRA	.6854	FC3	-1.6891	BSP	1850					SGB	1368.0	R23	-.0373	R13	.6824			LSA	36.4	MSA	16.3	SSA	1.5
BDE	.6568	BRA	1.0451	BC3	.3890	FSP	230					SG1	1215.4	SG2	628.0	THA	173.72			EL1	34.1	EL2	15.6	ALF	53.84

DIFFERENTIAL CORRECTIONS												MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3390	TRA	-1.0111	TC3	.4057	BAU	.1714					SGT	1235.7	SGR	641.8	SG3	189.0			ST	24.2	SR	29.0	SS	14.1
RDE	-.5507	RRA	.2270	RC3	-.1302	FAU	.06396					RRT	-.1640	RRF	.1923	RTF	-.6884			CRT	.6393	CRS	.7592	CST	.9773
FDE	.3429	FRA	.7014	FC3	-1.8401	BSP	1894					SGB	1392.4	R23	-.0402	R13	.6919			LSA	36.8	MSA	16.4	SSA	1.5
BDE	.6467	BRA	1.0363	BC3	.4261	FSP	245					SG1	1241.7	SG2	630.0	THA	173.43			EL1	34.3	EL2	15.7	ALF	52.97

DIFFERENTIAL CORRECTIONS												MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3415	TRA	-1.0036	TC3	.4417	BAU	.1793					SGT	1262.8	SGR	645.2	SG3	200.9			ST	24.7	SR	28.9	SS	14.6
RDE	-.5383	RRA	.2262	RC3	-.1439	FAU	.06674					RRT	-.1757	RRF	.2062	RTF	-.6965			CRT	.6428	CRS	.7675	CST	.9759
FDE	.3631	FRA	.7167	FC3	-2.0015	BSP	1930					SGB	1418.1	R23	-.0436	R13	.7003			LSA	37.3	MSA	16.5	SSA	1.6
BDE	.6375	BRA	1.0288	BC3	.4645	FSP	264					SG1	1269.5	SG2	631.8	THA	173.17			EL1	34.6	EL2	15.8	ALF	51.96

LAUNCH DATE AUG 5 1973 FLIGHT TIME 118.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 317.625 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	34.623	GAL	-.22	AZL	89.89	HCA	100.16	SMA	241.16	ECC	.37074	INC	.1056
RP	221.33	LAP	.10	LOP	52.60	VP	25.475	GAP	21.27	AZP	90.02	TAL	359.18	TAP	99.34	RCA	151.75	APO	330.57
RC	89.407	GL	.70	GP	-6.21	ZAL	88.76	ZAP	168.72	ETS	218.69	ZAE	159.79	ETE	341.57	ZAC	76.87	ETC	282.64

VI	29.358																		
V2	24.840																		
LVI	-10.42																		

PLANETOCENTRIC CONIC

C3	27.738	VHL	5.267	DLA	15.86	RAL	38.54	RAD	6646.1	VEL	12.153	PTH	7.12	VHP	7.150	DPA	10.13	RAP	44.03

ECC	1.4565																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 58 13	3532.93	-46.70	131.16	279.37	100.38	12 57 6	2532.9	-37.40	100.87
60.00	12 19 46	3475.58	-40.00	127.28	280.65	95.38	13 17 41	2475.6	-33.52	98.22
70.00	12 51 19	3382.69	-34.12	120.20	281.09	91.52	13 47 42	2382.7	-29.95	92.27
80.00	13 40 2	3230.03	-29.84	108.64	281.11	88.89	14 33 52	2230.0	-27.26	81.51
90.00	14 52 39	2995.65	-28.21	91.37	281.06	87.93	15 42 35	1995.7	-26.23	64.53
100.00	16 22 54	2704.50	-29.84	70.01	281.11	88.89	17 7 59	1704.5	-27.26	42.88
110.00	17 50 45	2429.51	-34.12	49.12	281.09	91.52	18 31 15	1429.5	-29.95	21.19

DIFFERENTIAL CORRECTIONS

TDE	-.3438	TRA	-.9929	TC3	.4814	BAU	.1880
RDE	-.5262	RRA	.2256	RC3	-.1587	FAU	.06975
FDE	.3844	FRA	.7319	FC3	-2.1768	BSP	2007
BDE	.6286	BRA	1.0182	BC3	.5069	FSP	285

MID-COURSE EXECUTION ACCURACY

SGT	1287.6	SGR	648.6	SG3	213.7		
RRT	-.1882	RRF	.2214	RTF	-.7060		
SGB	1441.8	R23	-.0469	R13	.7102		
SG1	1295.2	SG2	633.3	THA	172.87		

ORBIT DETERMINATION ACCURACY

ST	25.2	SR	28.9	SS	15.2		
CRT	.6472	CRS	.7756	CST	.9747		
LSA	37.7	MSA	16.5	SSA	1.6		
EL1	34.9	EL2	15.9	ALF	50.99		

LAUNCH DATE AUG 5 1973 FLIGHT TIME 120.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 320.596 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	34.521	GAL	-.15	AZL	89.86	HCA	101.27	SMA	238.12	ECC	.36269	INC	.1427
RP	221.71	LAP	.14	LOP	53.70	VP	25.295	GAP	20.91	AZP	90.03	TAL	359.42	TAP	100.69	RCA	151.76	APO	324.48
RC	91.436	GL	.96	GP	-6.39	ZAL	88.27	ZAP	168.98	ETS	216.84	ZAE	159.58	ETE	341.05	ZAC	76.64	ETC	282.62

VI	29.358																		
V2	24.799																		
LVI	-10.17																		

PLANETOCENTRIC CONIC

C3	26.693	VHL	5.167	DLA	15.95	RAL	37.97	RAD	6645.7	VEL	12.110	PTH	7.08	VHP	6.943	DPA	10.05	RAP	44.36

ECC	1.4393																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 55 35	3525.25	-46.60	130.45	277.96	100.92	12 54 20	2525.2	-37.12	100.34
60.00	12 17 0	3468.22	-39.95	126.66	279.30	95.79	13 14 49	2468.2	-33.32	97.70
70.00	12 48 25	3375.75	-34.11	119.66	279.79	91.84	13 44 41	2375.8	-29.80	91.78
80.00	13 36 59	3223.55	-29.85	108.16	279.83	89.15	14 30 43	2223.6	-27.16	81.06
90.00	14 49 32	2989.41	-28.22	90.91	279.79	88.15	15 39 21	1989.4	-26.14	64.09
100.00	16 19 51	2698.02	-29.85	69.53	279.83	89.15	17 4 49	1698.0	-27.16	42.43
110.00	17 47 51	2422.57	-34.11	48.57	279.79	91.84	18 28 14	1422.6	-29.80	20.70

DIFFERENTIAL CORRECTIONS

TDE	-.3386	TRA	-.9736	TC3	.5378	BAU	.2017
RDE	-.5138	RRA	.2252	RC3	-.1740	FAU	.07255
FDE	.4132	FRA	.7504	FC3	-2.3529	BSP	1945
BDE	.6154	BRA	.9993	BC3	.5653	FSP	308

MID-COURSE EXECUTION ACCURACY

SGT	1308.0	SGR	651.6	SG3	226.5		
RRT	-.2085	RRF	.2347	RTF	-.7278		
SGB	1461.3	R23	-.0373	R13	.7318		
SG1	1317.2	SG2	632.8	THA	172.28		

ORBIT DETERMINATION ACCURACY

ST	25.2	SR	28.8	SS	15.9		
CRT	.6463	CRS	.7864	CST	.9716		
LSA	38.0	MSA	16.5	SSA	1.6		
EL1	34.8	EL2	15.9	ALF	50.73		

LAUNCH DATE AUG 5 1973 FLIGHT TIME 122.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 323.641 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	34.425	GAL	-.09	AZL	89.82	HCA	102.37	SMA	235.32	ECC	.35510	INC	.1797
RP	222.09	LAP	.18	LOP	54.80	VP	25.123	GAP	20.56	AZP	90.04	TAL	359.67	TAP	102.04	RCA	151.76	APO	318.88
RC	93.523	GL	1.22	GP	-6.57	ZAL	87.78	ZAP	168.17	ETS	215.23	ZAE	159.43	ETE	340.46	ZAC	76.41	ETC	282.59

VI	29.358																		
V2	24.757																		
LVI	-9.91																		

PLANETOCENTRIC CONIC

C3	25.729	VHL	5.072	DLA	16.04	RAL	37.40	RAD	6645.3	VEL	12.070	PTH	7.05	VHP	6.743	DPA	9.96	RAP	44.69

ECC	1.4234																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 52 54	3518.13	-46.51	129.79	276.60	101.42	12 51 32	2518.1	-36.86	99.86
60.00	12 14 12	3461.44	-39.90	126.09	278.00	96.18	13 11 53	2461.4	-33.13	97.23
70.00	12 45 27	3369.43	-34.10	119.16	278.53	92.13	13 41 37	2369.4	-29.67	91.33
80.00	13 33 52	3217.73	-29.85	107.73	278.60	89.37	14 27 30	2217.7	-27.07	80.65
90.00	14 46 20	2983.84	-28.24	90.50	278.56	88.36	15 36 3	1983.8	-26.07	63.70
100.00	16 16 44	2692.21	-29.85	69.10	278.60	89.37	17 1 36	1692.2	-27.07	42.02
110.00	17 44 54	2416.25	-34.10	48.08	278.53	92.13	18 25 10	1416.2	-29.67	20.25

DIFFERENTIAL CORRECTIONS

TDE	-.3436	TRA	-.9671	TC3	.5634	BAU	.2047
RDE	-.5023	RRA	.2245	RC3	-.1912	FAU	.07587
FDE	.4346	FRA	.7622	FC3	-2.5529	BSP	2037
BDE	.6086	BRA	.9928	BC3	.5950	FSP	338

MID-COURSE EXECUTION ACCURACY

SGT	1330.2	SGR	655.2	SG3	240.5		
RRT	-.2187	RRF	.2523	RTF	-.[illegible]61		
SGB	1482.8	R23	-.0477	R13	.7309		
SG1	1340.1	SG2	634.5	THA	172.06		

ORBIT DETERMINATION ACCURACY

ST	25.8	SR	28.6	SS	16.5		
CRT	.6521	CRS	.7934	CST	.9706		
LSA	38.5	MSA	16.5	SSA	1.7		
EL1	35.1	EL2	16.0	ALF	49.49		

LAUNCH DATE AUG 5 1973 FLIGHT TIME 124.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 326.752 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	34.334	GAL	-.02	AZL	89.78	HCA	103.46	SMA	232.74	ECC	.34794	INC	.2166
RP	222.48	LAP	.21	LOP	55.90	VP	24.957	GAP	20.21	AZP	90.05	TAL	359.92	TAP	103.38	RCA	151.76	APO	313.71
RC	95.665	GL	1.50	GP	-6.77	ZAL	87.29	ZAP	167.37	ETS	213.82	ZAE	159.32	ETE	339.82	ZAC	76.17	ETC	282.57

VI	29.358																		
V2	24.715																		
LVI	-9.64																		

PLANETOCENTRIC CONIC

C3	24.836	VHL	4.984	DLA	16.15	RAL	36.82	RAD	6644.9	VEL	12.034	PTH	7.02	VHP	6.550	DPA	9.86	RAP	45.00

ECC	1.4087																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 50 11	3511.53	-46.42	129.18	275.28	101.89	12 48 42	2511.5	-36.62	99.41
60.00	12 11 20	3455.21	-39.86	125.56	276.73	96.53	13 8 55	2455.2	-32.95	96.79
70.00	12 42 26	3363.69	-34.08	118.72	277.30	92.39	13 38 29	2363.7	-29.55	90.93
80.00	13 30 40	3212.53	-29.86	107.34	277.38	89.58	14 24 12	2212.5	-26.99	80.28
90.00	14 43 3	2978.90	-28.25	90.14	277.35	88.54	15 32 42	1978.9	-26.00	63.36
100.00	16 13 32	2687.00	-29.86	68.71	277.38	89.58	16 58 19	1687.0	-26.99	41.65
110.00	17 41 52	2410.51	-34.08	47.63	277.30	92.39	18 22 3	1410.5	-29.55	19.85

DIFFERENTIAL CORRECTIONS

TDE	-.3621	TRA	-.9595	TC3	.5626	BAU	.1989
RDE	-.4904	RRA	.2237	RC3	-.2058	FAU	.07776
FDE	.4657	FRA	.7707	FC3	-2.7106	BSP	2327
BDE	.6096	BRA	.9852	BC3	.5990	FSP	395

MID-COURSE EXECUTION ACCURACY

SGT	1344.1	SGR	657.0	SG3	251.0		
RRT	-.2126	RRF	.2616	RTF	-.7165		
SGB	1496.0	R23	-.0664	R13	.7221		
SG1	1353.4	SG2	637.5	THA	172.36		

ORBIT DETERMINATION ACCURACY

ST	27.0	SR	28.5	SS	17.2		
CRT	.6721	CRS	.8060	CST	.9721		
LSA	39.6	MSA	16.3	SSA	1.7		
EL1	35.9	EL2	15.9	ALF	47.22		

LAUNCH DATE AUG 5 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 329.922 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 34.248 GAL .04 AZL 89.75 HCA 104.56 SMA 230.35 ECC .34118 INC .2537 V1 29.358
RP 222.86 LAP .25 LOP 56.99 VP 24.796 GAP 19.87 AZP 90.06 TAL .17 TAP 104.73 RCA 151.76 APO 308.94 V2 24.673
RC 97.860 GL 1.78 GP -6.97 ZAL 86.79 ZAP 166.54 ETS 212.58 ZAE 159.27 ETE 339.11 ZAC 75.93 ETC 282.58 LVI -9.38

PLANETOCENTRIC CONIC

C3 24.011 VHL 4.900 DLA 16.26 RAL 36.24 RAD 6644.6 VEL 12.000 PTH 6.99 VHP 6.363 DPA 9.74 RAP 45.30 ECC 1.3952

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 47 24	3505.47	-46.33	128.62	274.00	102.31	12 45 50	2505.5	-36.40	99.01
60.00	12 8 25	3449.53	-39.81	125.09	275.50	96.85	13 5 55	2449.5	-32.79	96.40
70.00	12 39 20	3358.53	-34.06	118.31	276.10	92.63	13 35 19	2358.5	-29.45	90.57
80.00	13 27 23	3207.94	-29.86	107.00	276.20	89.76	14 20 51	2207.9	-26.92	79.96
90.00	14 39 41	2974.60	-28.25	89.83	276.18	88.69	15 29 15	1974.6	-25.94	63.06
100.00	16 10 15	2682.41	-29.86	68.37	276.20	89.76	16 54 58	1682.4	-26.92	41.33
110.00	17 38 46	2405.35	-34.06	47.23	276.10	92.63	18 18 52	1405.3	-29.45	19.49

DIFFERENTIAL CORRECTIONS

TDE -.3368 TRA -.9108 TC3 .6506 BAU .2217
RDE -.4621 RRA .2212 RC3 -.2313 FAU .08372
FDE .4503 FRA .7559 FC3-3.0186 BSP 1932
BDE .5881 BRA .9373 BC3 .6905 FSP 334

MID-COURSE EXECUTION ACCURACY

SGT 1338.8 SGR 664.6 SG3 271.5
RRT -.2489 RRF .2978 RTF -.7404
SGB 1494.7 R23 -.0612 R13 .7471
SG1 1351.9 SG2 637.5 THA 170.92

ORBIT DETERMINATION ACCURACY

ST 25.8 SR 28.5 SS 16.5
CRT .6635 CRS .7999 CST .9703
LSA 38.5 MSA 16.1 SSA 1.8
EL1 35.1 EL2 15.7 ALF 49.24

LAUNCH DATE AUG 5 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 333.146 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 34.166 GAL .11 AZL 89.71 HCA 105.65 SMA 228.14 ECC .33480 INC .2914 V1 29.358
RP 223.25 LAP .28 LOP 58.08 VP 24.642 GAP 19.52 AZP 90.08 TAL .42 TAP 106.07 RCA 151.76 APO 304.52 V2 24.631
RC 100.104 GL 2.07 GP -7.18 ZAL 86.30 ZAP 165.70 ETS 211.49 ZAE 159.27 ETE 338.32 ZAC 75.67 ETC 282.54 LVI -9.11

PLANETOCENTRIC CONIC

C3 23.246 VHL 4.821 DLA 16.37 RAL 35.65 RAD 6644.3 VEL 11.968 PTH 6.97 VHP 6.183 DPA 9.61 RAP 45.59 ECC 1.3826

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 44 36	3499.95	-46.25	128.11	272.76	102.69	12 42 56	2499.9	-36.19	98.64
60.00	12 5 27	3444.41	-39.77	124.66	274.31	97.14	13 2 52	2444.4	-32.64	96.04
70.00	12 36 11	3353.96	-34.05	117.96	274.94	92.84	13 32 5	2354.0	-29.35	90.25
80.00	13 24 2	3203.99	-29.86	106.71	275.05	89.91	14 17 26	2204.0	-26.86	79.68
90.00	14 36 14	2970.95	-28.26	89.56	275.03	88.83	15 25 45	1971.0	-25.89	62.80
100.00	16 6 54	2678.46	-29.86	68.07	275.05	89.91	16 51 33	1678.5	-26.86	41.05
110.00	17 35 37	2400.78	-34.05	46.88	274.94	92.84	18 15 38	1400.8	-29.35	19.17

DIFFERENTIAL CORRECTIONS

TDE -.3515 TRA -.9321 TC3 .7000 BAU .2313
RDE -.4683 RRA .2218 RC3 -.2524 FAU .08746
FDE .5147 FRA .7832 FC3-3.2570 BSP 2191
BDE .5856 BRA .9581 BC3 .7441 FSP 403

MID-COURSE EXECUTION ACCURACY

SGT 1401.0 SGR 666.7 SG3 288.9
RRT -.2666 RRF .3097 RTF -.7462
SGB 1551.6 R23 -.0612 R13 .7525
SG1 1415.2 SG2 636.2 THA 170.92

ORBIT DETERMINATION ACCURACY

ST 27.2 SR 28.1 SS 18.3
CRT .6670 CRS .8205 CST .9646
LSA 39.9 MSA 16.2 SSA 1.8
EL1 35.7 EL2 15.9 ALF 46.53

LAUNCH DATE AUG 5 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 336.418 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 34.089 GAL .17 AZL 89.67 HCA 106.73 SMA 226.08 ECC .32877 INC .3292 V1 29.358
RP 223.64 LAP .32 LOP 59.17 VP 24.492 GAP 19.18 AZP 90.09 TAL .67 TAP 107.40 RCA 151.75 APO 300.41 V2 24.590
RC 102.397 GL 2.37 GP -7.40 ZAL 85.80 ZAP 164.84 ETS 210.51 ZAE 159.31 ETE 337.46 ZAC 75.42 ETC 282.52 LVI -8.83

PLANETOCENTRIC CONIC

C3 22.539 VHL 4.747 DLA 16.49 RAL 35.07 RAD 6643.9 VEL 11.939 PTH 6.94 VHP 6.009 DPA 9.47 RAP 45.86 ECC 1.3709

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 41 45	3494.95	-46.17	127.65	271.57	103.04	12 40 0	2494.9	-36.00	98.31
60.00	12 2 27	3439.65	-39.73	124.28	273.16	97.40	12 59 47	2439.8	-32.51	95.73
70.00	12 32 58	3349.99	-34.04	117.65	273.80	93.02	13 28 48	2350.0	-29.26	89.97
80.00	13 20 37	3200.67	-29.86	106.46	273.94	90.04	14 13 58	2200.7	-26.80	79.45
90.00	14 32 43	2967.96	-28.26	89.34	273.92	88.94	15 22 11	1968.0	-25.85	62.59
100.00	16 3 29	2675.14	-29.86	67.83	273.94	90.04	16 48 4	1675.1	-26.80	40.82
110.00	17 32 25	2396.81	-34.04	46.57	273.80	93.02	18 12 21	1396.8	-29.26	18.89

DIFFERENTIAL CORRECTIONS

TDE -.3494 TRA -.9239 TC3 .7351 BAU .2365
RDE -.4581 RRA .2218 RC3 -.2755 FAU .09162
FDE .5328 FRA .8001 FC3-3.5191 BSP 2267
BDE .5761 BRA .9502 BC3 .7850 FSP 430

MID-COURSE EXECUTION ACCURACY

SGT 1420.3 SGR 672.4 SG3 306.6
RRT -.2870 RRF .3352 RTF -.7589
SGB 1571.4 R23 -.0689 R13 .7562
SG1 1436.6 SG2 636.8 THA 170.35

ORBIT DETERMINATION ACCURACY

ST 27.4 SR 28.0 SS 18.6
CRT .6652 CRS .8210 CST .9636
LSA 40.1 MSA 16.3 SSA 1.9
EL1 35.7 EL2 16.0 ALF 45.90

LAUNCH DATE AUG 5 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 339.735 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 34.015 GAL .22 AZL 89.63 HCA 107.81 SMA 224.18 ECC .32308 INC .3672 V1 29.358
RP 224.03 LAP .35 LOP 60.25 VP 24.348 GAP 18.85 AZP 90.11 TAL .92 TAP 108.73 RCA 151.75 APO 296.61 V2 24.548
RC 104.735 GL 2.67 GP -7.63 ZAL 85.31 ZAP 163.98 ETS 209.65 ZAE 159.40 ETE 336.51 ZAC 75.16 ETC 282.51 LVI -8.55

PLANETOCENTRIC CONIC

C3 21.883 VHL 4.678 DLA 16.62 RAL 34.48 RAD 6643.7 VEL 11.911 PTH 6.92 VHP 5.840 DPA 9.31 RAP 46.13 ECC 1.3601

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 38 52	3490.48	-46.10	127.24	270.42	103.35	12 37 3	2490.5	-35.83	98.02
60.00	11 59 24	3435.84	-39.70	123.94	272.04	97.62	12 56 39	2435.8	-32.39	95.45
70.00	12 29 42	3346.62	-34.02	117.39	272.71	93.18	13 25 29	2346.6	-29.19	89.74
80.00	13 17 8	3197.99	-29.86	106.26	272.85	90.15	14 10 26	2198.0	-26.76	79.26
90.00	14 29 7	2965.64	-28.26	89.17	272.84	89.02	15 18 32	1965.6	-25.82	62.43
100.00	16 0 0	2672.46	-29.86	67.63	272.85	90.15	16 44 32	1672.5	-26.76	40.63
110.00	17 29 9	2393.44	-34.02	46.30	272.71	93.18	18 9 2	1393.4	-29.19	18.65

DIFFERENTIAL CORRECTIONS

TDE -.3563 TRA -.9098 TC3 .7762 BAU .2434
RDE -.4468 RRA .2211 RC3 -.2996 FAU .09574
FDE .5692 FRA .8073 FC3-3.7875 BSP 2316
BDE .5715 BRA .9363 BC3 .8320 FSP 462

MID-COURSE EXECUTION ACCURACY

SGT 1438.9 SGR 676.7 SG3 324.5
RRT -.3013 RRF .3553 RTF -.7545
SGB 1590.0 R23 -.0758 R13 .7626
SG1 1456.7 SG2 637.4 THA 170.00

ORBIT DETERMINATION ACCURACY

ST 28.0 SR 27.7 SS 19.4
CRT .6751 CRS .8308 CST .9627
LSA 40.8 MSA 16.1 SSA 1.9
EL1 36.0 EL2 15.9 ALF 44.60

LAUNCH DATE AUG 5 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 343.092 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 33.946 GAL .28 AZL 89.59 HCA 108.89 SMA 222.41 ECC .31770 INC .4057 V1 29.388
RP 224.42 LAP .38 LOP 61.33 VP 24.208 GAP 18.52 AZP 90.13 TAL 1.17 TAP 110.06 RCA 151.75 APO 293.07 V2 24.506
RC 107.119 GL 2.99 GP -7.87 ZAL 84.83 ZAP 163.07 ETS 208.87 ZAE 159.52 ETE 335.47 ZAC 74.89 ETC 282.50 LVI -8.27

PLANETOCENTRIC CONIC

C3 21.276 VHL 4.613 DLA 16.76 RAL 33.89 RAD 6643.4 VEL 11.886 PTH 6.90 VHP 5.678 DPA 9.14 RAP 46.38 ECC 1.3502

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 35 58	3486.54	-46.04	126.88	269.32	103.62	12 34 4	2486.5	-35.69	97.76
60.00	11 56 18	3432.40	-39.66	123.65	270.96	97.81	12 53 30	2432.4	-32.29	95.22
70.00	12 26 23	3343.85	-34.01	117.17	271.65	93.30	13 22 7	2343.9	-29.13	89.54
80.00	13 13 34	3195.97	-29.86	106.11	271.80	90.22	14 6 50	2196.0	-26.73	79.12
90.00	14 25 26	2963.99	-28.27	89.05	271.79	89.08	15 14 50	1964.0	-25.80	62.31
100.00	15 56 26	2670.44	-29.86	67.48	271.80	90.22	16 40 56	1670.4	-26.73	40.49
110.00	17 25 49	2390.67	-34.01	46.09	271.65	93.30	18 5 40	1390.7	-29.13	18.46

DIFFERENTIAL CORRECTIONS

TDE -.3561 TRA -.8998 TC3 .8214 BAU .2515
RDE -.4361 RRA .2209 RC3 -.3267 FAU .10058
FDE .6007 FRA .8207 FC3-4.0924 BSP 2382
BDE .5630 BRA .9265 BC3 .8840 FSP 495

MID-COURSE EXECUTION ACCURACY

SGT 1460.3 SGR 683.0 SG3 345.0
RRT -.3242 RRF .3809 RTF -.7604
SGB 1612.1 R23 -.0805 R13 .7693
SG1 1480.9 SG2 637.1 THA 169.39

ORBIT DETERMINATION ACCURACY

ST 28.2 SR 27.4 SS 20.1
CRT .6757 CRS .8357 CST .9606
LSA 41.1 MSA 16.0 SSA 2.0
EL1 36.0 EL2 15.8 ALF 43.78

LAUNCH DATE AUG 5 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 346.487 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 33.880 GAL .34 AZL 89.56 HCA 109.96 SMA 220.76 ECC .31262 INC .4444 V1 29.358
RP 224.81 LAP .42 LOP 62.40 VP 24.074 GAP 18.19 AZP 90.15 TAL 1.41 TAP 111.38 RCA 151.75 APO 289.78 V2 24.464
RC 109.544 GL 3.31 GP -8.12 ZAL 84.35 ZAP 162.15 ETS 208.17 ZAE 159.68 ETE 334.33 ZAC 74.61 ETC 282.49 LVI -7.98

PLANETOCENTRIC CONIC

C3 20.714 VHL 4.551 DLA 16.91 RAL 33.31 RAD 6643.2 VEL 11.862 PTH 6.88 VHP 5.520 DPA 8.96 RAP 46.62 ECC 1.3409

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 33 2	3483.14	-45.99	126.57	268.26	103.85	12 31 5	2483.1	-35.56	97.53
60.00	11 53 10	3429.52	-39.64	123.41	269.92	97.97	12 50 20	2429.5	-32.21	95.02
70.00	12 23 0	3341.68	-34.00	117.00	270.62	93.40	13 18 42	2341.7	-29.08	89.39
80.00	13 9 56	3194.60	-29.86	106.01	270.78	90.28	14 3 11	2194.6	-26.71	79.03
90.00	14 21 41	2963.03	-28.27	88.98	270.77	89.12	15 11 4	1963.0	-25.78	62.25
100.00	15 52 48	2669.08	-29.86	67.38	270.78	90.28	16 37 17	1669.1	-26.71	40.40
110.00	17 22 27	2388.50	-34.00	45.92	270.62	93.40	18 2 15	1388.5	-29.08	18.31

DIFFERENTIAL CORRECTIONS

TDE -.3613 TRA -.8878 TC3 .8624 BAU .2582
RDE -.4248 RRA .2206 RC3 -.3545 FAU .10525
FDE .6433 FRA .8310 FC3-4.3988 BSP 2408
BDE .5577 BRA .9148 BC3 .9324 FSP 526

MID-COURSE EXECUTION ACCURACY

SGT 1479.1 SGR 688.7 SG3 365.4
RRT -.3427 RRF .4039 RTF -.7656
SGB 1631.6 R23 -.0867 R13 .7754
SG1 1502.0 SG2 637.1 THA 168.91

ORBIT DETERMINATION ACCURACY

ST 28.7 SR 27.1 SS 21.0
CRT .6824 CRS .8439 CST .9591
LSA 41.8 MSA 15.8 SSA 2.1
EL1 36.2 EL2 15.7 ALF 42.53

LAUNCH DATE AUG 5 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 349.915 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 33.818 GAL .39 AZL 89.52 HCA 111.03 SMA 219.23 ECC .30783 INC .4836 V1 29.358
RP 225.20 LAP .45 LOP 63.47 VP 23.943 GAP 17.86 AZP 90.17 TAL 1.66 TAP 112.69 RCA 151.74 APO 286.71 V2 24.422
RC 112.011 GL 3.64 GP -8.38 ZAL 83.88 ZAP 161.22 ETS 207.54 ZAE 159.88 ETE 333.07 ZAC 74.33 ETC 282.49 LVI -7.69

PLANETOCENTRIC CONIC

C3 20.193 VHL 4.494 DLA 17.06 RAL 32.73 RAD 6642.9 VEL 11.841 PTH 6.86 VHP 5.369 DPA 8.75 RAP 46.84 ECC 1.3323

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 30 4	3480.25	-45.94	126.31	267.24	104.05	12 28 4	2480.3	-35.45	97.35
60.00	11 50 0	3427.19	-39.61	123.22	268.93	98.10	12 47 7	2427.2	-32.14	94.86
70.00	12 19 34	3340.13	-34.00	116.88	269.64	93.47	13 15 15	2340.1	-29.05	89.28
80.00	13 6 14	3193.90	-29.86	105.96	269.80	90.31	13 59 28	2193.9	-26.69	78.98
90.00	14 17 50	2962.76	-28.27	88.96	269.79	89.13	15 7 13	1962.8	-25.78	62.23
100.00	15 49 6	2668.37	-29.86	67.32	269.80	90.31	16 33 34	1668.4	-26.69	40.35
110.00	17 19 1	2386.94	-34.00	45.80	269.64	93.47	17 58 48	1386.9	-29.05	18.20

DIFFERENTIAL CORRECTIONS

TDE -.3640 TRA -.8765 TC3 .9010 BAU .2644
RDE -.4138 RRA .2203 RC3 -.3843 FAU .11022
FDE .6835 FRA .8416 FC3-4.7285 BSP 2453
BDE .5511 BRA .9037 BC3 .9796 FSP 560

MID-COURSE EXECUTION ACCURACY

SGT 1495.9 SGR 695.7 SG3 386.9
RRT -.3636 RRF .4291 RTF -.[illegible]96
SGB 1649.7 R23 -.0933 R13 .7806
SG1 1521.8 SG2 637.0 THA 168.33

ORBIT DETERMINATION ACCURACY

ST 29.1 SR 26.7 SS 21.9
CRT .6860 CRS .8499 CST .9575
LSA 42.3 MSA 15.7 SSA 2.1
EL1 36.3 EL2 15.6 ALF 41.48

LAUNCH DATE AUG 5 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 353.374 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 33.759 GAL .44 AZL 89.48 HCA 112.10 SMA 217.80 ECC .30330 INC .5230 V1 29.388
RP 225.59 LAP .48 LOP 64.54 VP 23.817 GAP 17.54 AZP 90.20 TAL 1.90 TAP 114.00 RCA 151.74 APO 283.85 V2 24.380
RC 114.516 GL 3.98 GP -8.65 ZAL 83.42 ZAP 160.27 ETS 206.97 ZAE 160.11 ETE 331.70 ZAC 74.04 ETC 282.48 LVI -7.39

PLANETOCENTRIC CONIC

C3 19.711 VHL 4.440 DLA 17.22 RAL 32.15 RAD 6642.7 VEL 11.820 PTH 6.84 VHP 5.222 DPA 8.54 RAP 47.05 ECC 1.3244

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 27 5	3477.89	-45.90	126.09	266.27	104.21	12 25 3	2477.9	-35.36	97.19
60.00	11 46 48	3425.43	-39.60	123.07	267.97	98.20	12 43 53	2425.4	-32.09	94.74
70.00	12 16 6	3339.18	-33.99	116.81	268.69	93.52	13 11 45	2339.2	-29.03	89.22
80.00	13 2 27	3193.87	-29.86	105.95	268.85	90.31	13 55 41	2193.9	-26.69	78.98
90.00	14 13 55	2963.20	-28.27	88.99	268.84	89.11	15 3 18	1963.2	-25.78	62.26
100.00	15 45 19	2668.34	-29.86	67.32	268.85	90.31	16 29 48	1668.3	-26.69	40.34
110.00	17 15 32	2386.00	-33.99	45.72	268.69	93.52	17 55 18	1386.0	-29.03	18.13

DIFFERENTIAL CORRECTIONS

TDE -.3675 TRA -.8650 TC3 .9396 BAU .2708
RDE -.4026 RRA .2199 RC3 -.4160 FAU .11542
FDE .7279 FRA .8484 FC3-5.0696 BSP 2500
BDE .5451 BRA .8925 BC3 1.0275 FSP 599

MID-COURSE EXECUTION ACCURACY

SGT 1512.2 SGR 703.3 SG3 409.5
RRT -.3845 RRF .4546 RTF -.7731
SGB 1667.8 R23 -.1006 R13 .7853
SG1 1541.3 SG2 637.0 THA 167.74

ORBIT DETERMINATION ACCURACY

ST 29.5 SR 26.4 SS 22.8
CRT .6904 CRS .8566 CST .9557
LSA 42.9 MSA 15.5 SSA 2.2
EL1 36.4 EL2 15.5 ALF 40.34

LAUNCH DATE AUG 5 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC — DISTANCE 356.862 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.704	GAL	.49	AZL	89.44	HCA	113.16	SMA	216.46	ECC	.29902	INC	.5631	V1	29.358
RP	225.98	LAP	.52	LOP	65.60	VP	23.695	GAP	17.22	AZP	90.22	TAL	2.13	TAP	115.30	RCA	151.73	APO	281.19	V2	24.338
RC	117.057	GL	4.33	GP	-8.93	ZAL	82.97	ZAP	159.30	ETS	206.45	ZAE	160.37	ETE	330.20	ZAC	73.74	ETC	282.49	LVI	-7.08

PLANETOCENTRIC CONIC

C3	19.264	VHL	4.389	DLA	17.40	RAL	31.58	RAD	6642.5	VEL	11.802	PTH	6.82	VHP	5.080	DPA	8.30	RAP	47.25	ECC	1.3170

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 24 5	3476.05	-45.87	125.93	265.34	104.34	12 22 1	2476.0	-35.29	97.07
60.00	11 43 33	3424.22	-39.59	122.97	267.05	98.27	12 40 38	2424.2	-32.05	94.66
70.00	12 12 34	3338.84	-33.99	116.78	267.77	93.53	13 8 12	2338.8	-29.02	89.19
80.00	12 58 37	3194.51	-29.86	106.00	267.93	90.28	13 51 51	2194.5	-26.70	79.02
90.00	14 9 55	2964.34	-28.27	89.08	267.92	89.07	14 59 19	1964.3	-25.80	62.34
100.00	15 41 28	2668.98	-29.86	67.37	267.93	90.28	16 25 57	1669.0	-26.70	40.39
110.00	17 12 0	2385.66	-33.99	45.70	267.77	93.53	17 51 46	1385.7	-29.02	18.11

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.3703	TRA	-.8545	TC3	.9765	BAU	.2769	SGT	1528.1	SGR	712.5	SG3	433.8	ST	29.9	SR	25.9	SS	23.7
RDE	-.3913	RRA	.2199	RC3	-.4502	FAU	.12103	RRT	-.4074	RRF	.4820	RTF	-.7769	CRT	.6931	CRS	.8613	CST	.9543
FDE	.7756	FRA	.8623	FC3	-5.4392	BSP	2538	SGB	1686.0	R23	-.1079	R13	.7905	LSA	43.5	MSA	15.3	SSA	2.2
BDE	.5388	BRA	.8823	BC3	1.0753	FSP	642	SG1	1561.1	SG2	637.0	THA	167.05	EL1	36.5	EL2	15.3	ALF	39.21

LAUNCH DATE AUG 5 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC — DISTANCE 360.375 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.651	GAL	.54	AZL	89.40	HCA	114.22	SMA	215.21	ECC	.29498	INC	.6036	V1	29.358
RP	226.37	LAP	.55	LOP	66.66	VP	23.577	GAP	16.90	AZP	90.25	TAL	2.36	TAP	116.58	RCA	151.73	APO	278.70	V2	24.297
RC	119.633	GL	4.69	GP	-9.23	ZAL	82.53	ZAP	158.31	ETS	205.98	ZAE	160.65	ETE	328.54	ZAC	73.43	ETC	282.49	LVI	-6.78

PLANETOCENTRIC CONIC

C3	18.850	VHL	4.342	DLA	17.58	RAL	31.02	RAD	6642.3	VEL	11.784	PTH	6.81	VHP	4.943	DPA	8.05	RAP	47.43	ECC	1.3102

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 21 4	3474.72	-45.85	125.81	264.46	104.43	12 18 59	2474.7	-35.23	96.99
60.00	11 40 17	3423.57	-39.58	122.92	266.17	98.31	12 37 21	2423.6	-32.03	94.61
70.00	12 8 58	3339.12	-33.99	116.80	266.90	93.52	13 4 38	2339.1	-29.03	89.21
80.00	12 54 41	3195.84	-29.86	106.10	267.06	90.23	13 47 57	2195.8	-26.73	79.11
90.00	14 5 50	2966.21	-28.26	89.21	267.04	89.00	14 55 16	1966.2	-25.83	62.47
100.00	15 37 33	2670.31	-29.86	67.47	267.06	90.23	16 22 3	1670.3	-26.73	40.46
110.00	17 8 25	2385.93	-33.99	45.72	266.90	93.52	17 48 11	1385.9	-29.03	18.13

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.3738	TRA	-.8420	TC3	1.0128	BAU	.2831	SGT	1541.2	SGR	722.3	SG3	458.8	ST	30.3	SR	25.5	SS	24.8
RDE	-.3799	RRA	.2194	RC3	-.4861	FAU	.12678	RRT	-.4293	RRF	.5088	RTF	-.7801	CRT	.6973	CRS	.8673	CST	.9525
FDE	.8272	FRA	.8671	FC3	-5.8226	BSP	2582	SGB	1702.1	R23	-.1156	R13	.7952	LSA	44.1	MSA	15.1	SSA	2.3
BDE	.5330	BRA	.8701	BC3	1.1235	FSP	684	SG1	1578.4	SG2	637.0	THA	166.36	EL1	36.6	EL2	15.1	ALF	38.05

LAUNCH DATE AUG 5 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC — DISTANCE 363.913 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.601	GAL	.58	AZL	89.36	HCA	115.28	SMA	214.05	ECC	.29117	INC	.6447	V1	29.358
RP	226.76	LAP	.58	LOP	67.72	VP	23.463	GAP	16.59	AZP	90.28	TAL	2.59	TAP	117.86	RCA	151.72	APO	276.37	V2	24.255
RC	122.240	GL	5.05	GP	-9.53	ZAL	82.10	ZAP	157.29	ETS	205.54	ZAE	160.94	ETE	326.73	ZAC	73.12	ETC	282.50	LVI	-6.46

PLANETOCENTRIC CONIC

C3	18.467	VHL	4.297	DLA	17.77	RAL	30.46	RAD	6642.1	VEL	11.768	PTH	6.79	VHP	4.811	DPA	7.78	RAP	47.59	ECC	1.3039

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 2	3473.92	-45.83	125.73	263.62	104.48	12 15 56	2473.9	-35.20	96.94
60.00	11 36 59	3423.47	-39.58	122.91	265.34	98.31	12 34 3	2423.5	-32.03	94.61
70.00	12 5 20	3340.01	-34.00	116.87	266.06	93.48	13 1 0	2340.0	-29.05	89.27
80.00	12 50 41	3197.86	-29.86	106.25	266.21	90.15	13 43 59	2197.9	-26.76	79.26
90.00	14 1 39	2968.81	-28.26	89.40	266.20	88.91	14 51 8	1968.8	-25.86	62.65
100.00	15 33 33	2672.33	-29.86	67.62	266.21	90.15	16 18 6	1672.3	-26.76	40.62
110.00	17 4 46	2386.83	-34.00	45.79	266.06	93.48	17 44 33	1386.8	-29.05	18.19

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.3759	TRA	-.8292	TC3	1.0470	BAU	.2891	SGT	1552.0	SGR	733.8	SG3	485.1	ST	30.5	SR	25.0	SS	25.8
RDE	-.3684	RRA	.2189	RC3	-.5245	FAU	.13286	RRT	-.4525	RRF	.5366	RTF	-.[illegible]29	CRT	.7000	CRS	.8722	CST	.9506
FDE	.8801	FRA	.8718	FC3	-6.2284	BSP	2616	SGB	1716.8	R23	-.1233	R13	.7997	LSA	44.6	MSA	14.9	SSA	2.4
BDE	.5263	BRA	.8576	BC3	1.1711	FSP	728	SG1	1594.2	SG2	637.1	THA	165.57	EL1	36.5	EL2	14.9	ALF	36.96

LAUNCH DATE AUG 5 1973 FLIGHT TIME 148.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC — DISTANCE 367.472 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.554	GAL	.63	AZL	89.31	HCA	116.33	SMA	212.86	ECC	.28757	INC	.6864	V1	29.358
RP	227.15	LAP	.62	LOP	68.77	VP	23.352	GAP	16.28	AZP	90.30	TAL	2.80	TAP	119.14	RCA	151.72	APO	274.20	V2	24.214
RC	124.878	GL	5.42	GP	-9.85	ZAL	81.69	ZAP	156.26	ETS	205.14	ZAE	161.25	ETE	324.75	ZAC	72.80	ETC	282.52	LVI	-6.14

PLANETOCENTRIC CONIC

C3	18.113	VHL	4.256	DLA	17.98	RAL	29.91	RAD	6642.0	VEL	11.753	PTH	6.78	VHP	4.684	DPA	7.49	RAP	47.74	ECC	1.2981

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 15 0	3473.62	-45.83	125.71	262.83	104.50	12 12 53	2473.6	-35.19	96.92
60.00	11 33 39	3423.93	-39.58	122.95	264.54	98.29	12 30 43	2423.9	-32.04	94.64
70.00	12 1 39	3341.53	-34.00	116.99	265.26	93.41	12 57 20	2341.5	-29.08	89.36
80.00	12 46 37	3200.59	-29.86	106.45	265.40	90.04	13 39 57	2200.6	-26.80	79.45
90.00	13 57 22	2972.16	-28.26	89.65	265.38	88.78	14 46 55	1972.2	-25.91	62.89
100.00	15 29 28	2675.06	-29.86	67.82	265.40	90.04	16 14 4	1675.1	-26.80	40.81
110.00	17 1 5	2388.35	-34.00	45.91	265.26	93.41	17 40 53	1388.3	-29.08	18.30

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.3783	TRA	-.8179	TC3	1.0777	BAU	.2947	SGT	1562.3	SGR	747.0	SG3	512.6	ST	30.9	SR	24.5	SS	26.8
RDE	-.3568	RRA	.2187	RC3	-.5651	FAU	.13916	RRT	-.4755	RRF	.5649	RTF	-.7851	CRT	.7019	CRS	.8759	CST	.9492
FDE	.9361	FRA	.8798	FC3	-6.6515	BSP	2649	SGB	1731.7	R23	-.1322	R13	.8040	LSA	45.2	MSA	14.7	SSA	2.4
BDE	.5200	BRA	.8466	BC3	1.2169	FSP	775	SG1	1610.1	SG2	637.6	THA	164.74	EL1	36.5	EL2	14.7	ALF	35.80

LAUNCH DATE AUG 5 1973 FLIGHT TIME 150.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 371.051 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.509	GAL	.67	AZL	89.27	HCA	117.38	SMA	211.94	ECC	.28417	INC	.7286
RP	227.54	LAP	.65	LOP	69.82	VP	23.245	GAP	15.97	AZP	90.34	TAL	3.02	TAP	120.40	RCA	151.71	APO	272.16
RC	127.544	GL	5.80	GP	-10.19	ZAL	81.28	ZAP	155.21	ETS	204.77	ZAE	161.57	ETE	322.58	ZAC	72.46	ETC	282.53

V1 29.388 V2 24.172 LVI -5.82

PLANETOCENTRIC CONIC

C3	17.785	VHL	4.217	DLA	18.19	RAL	29.37	RAD	6641.8	VEL	11.739	PTH	6.77	VHP	4.561	DPA	7.18	RAP	47.87	ECC	1.2927

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 11 56	3473.83	-45.83	125.73	262.08	104.49	12 9 50	2473.8	-35.20	96.93
60.00	11 30 17	3424.95	-39.59	123.03	263.79	98.23	12 27 22	2425.0	-32.07	94.71
70.00	11 57 54	3343.67	-34.01	117.16	264.49	93.31	12 53 37	2343.7	-29.13	89.53
80.00	12 42 27	3204.02	-29.86	108.71	264.63	89.91	13 35 51	2204.0	-26.86	79.69
90.00	13 53 0	2976.27	-28.25	89.95	264.61	88.63	14 42 36	1976.3	-25.97	63.17
100.00	15 25 19	2678.49	-29.86	68.08	264.63	89.91	16 9 57	1678.5	-26.86	41.05
110.00	16 57 20	2390.49	-34.01	46.07	264.49	93.31	17 37 10	1390.5	-29.13	18.45

DIFFERENTIAL CORRECTIONS

TDE	-.3822	TRA	-.8048	TC3	1.1071	BAU	.3004
RDE	-.3446	RRA	.2182	RC3	-.6086	FAU	.14589
FDE	1.0006	FRA	.8830	FC3	-7.1014	BSP	2679
BDE	.5146	BRA	.8339	BC3	1.2634	FSP	823

MID-COURSE EXECUTION ACCURACY

SGT	1570.5	SGR	761.6	SG3	541.8
RRT	-.4977	RRF	.5930	RTF	-.7873
SGB	1745.4	R23	-.1415	R13	.8084
SG1	1624.3	SG2	638.7	THA	163.87

ORBIT DETERMINATION ACCURACY

ST	31.2	SR	23.9	SS	28.0
CRT	.7055	CRS	.6803	CST	.9479
LSA	46.0	MSA	14.5	SSA	2.5
EL1	36.5	EL2	14.5	ALF	34.51

LAUNCH DATE AUG 5 1973 FLIGHT TIME 152.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 374.650 EARTH TO MARS

RL	151.76	LA_	.00	LOL	312.44	VL	33.466	GAL	.71	AZL	89.23	HCA	118.42	SMA	210.98	ECC	.28095	INC	.7715
RP	227.93	LAP	.68	LOP	70.86	VP	23.141	GAP	15.67	AZP	90.37	TAL	3.22	TAP	121.65	RCA	151.70	APO	270.26
RC	130.237	GL	6.19	GP	-10.53	ZAL	80.89	ZAP	154.13	ETS	204.43	ZAE	161.89	ETE	320.20	ZAC	72.12	ETC	282.55

V1 29.358 V2 24.131 LVI -5.49

PLANETOCENTRIC CONIC

C3	17.482	VHL	4.181	DLA	18.42	RAL	28.83	RAD	6641.7	VEL	11.727	PTH	6.76	VHP	4.442	DPA	6.85	RAP	47.98	ECC	1.2877

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 8 51	3474.53	-45.84	125.79	261.38	104.44	12 6 45	2474.5	-35.23	96.98
60.00	11 26 53	3426.51	-39.61	123.16	263.07	98.14	12 23 59	2426.5	-32.12	94.82
70.00	11 54 5	3346.42	-34.02	117.37	263.76	93.19	12 49 51	2346.4	-29.19	89.72
80.00	12 38 12	3208.15	-29.86	107.02	263.89	89.75	13 31 40	2208.1	-26.92	79.98
90.00	13 48 32	2981.12	-28.24	90.30	263.86	88.46	14 38 13	1981.1	-26.03	63.51
100.00	15 21 4	2682.62	-29.86	68.38	263.89	89.75	16 5 46	1682.6	-26.92	41.34
110.00	16 53 31	2393.24	-34.02	46.29	263.76	93.19	17 33 24	1393.2	-29.19	18.64

DIFFERENTIAL CORRECTIONS

TDE	-.3752	TRA	-.7823	TC3	1.1536	BAU	.3100
RDE	-.3326	RRA	.2172	RC3	-.6548	FAU	.15294
FDE	1.0633	FRA	.8793	FC3	-7.5740	BSP	2601
BDE	.5014	BRA	.8119	BC3	1.3265	FSP	872

MID-COURSE EXECUTION ACCURACY

SGT	1572.2	SGR	778.4	SG3	572.1
RRT	-.5298	RRF	.6213	RTF	-.7967
SGB	1754.3	R23	-.1370	R13	.8192
SG1	1635.5	SG2	634.7	THA	162.60

ORBIT DETERMINATION ACCURACY

ST	30.8	SR	23.3	SS	29.1
CRT	.7035	CRS	.8843	CST	.9444
LSA	46.2	MSA	14.3	SSA	2.5
EL1	35.9	EL2	14.2	ALF	34.00

LAUNCH DATE AUG 5 1973 FLIGHT TIME 154.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 378.264 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.427	GAL	.74	AZL	89.16	HCA	119.47	SMA	210.09	ECC	.27793	INC	.8151
RP	228.32	LAP	.71	LOP	71.90	VP	23.040	GAP	15.37	AZP	90.40	TAL	3.42	TAP	122.89	RCA	151.70	APO	268.48
RC	132.954	GL	6.58	GP	-10.89	ZAL	80.52	ZAP	153.04	ETS	204.11	ZAE	162.20	ETE	317.61	ZAC	71.77	ETC	282.58

V1 29.358 V2 24.090 LVI -5.15

PLANETOCENTRIC CONIC

C3	17.202	VHL	4.147	DLA	18.65	RAL	28.31	RAD	6641.6	VEL	11.715	PTH	6.75	VHP	4.328	DPA	6.51	RAP	48.08	ECC	1.2831

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 5 45	3475.77	-45.86	125.90	260.72	104.35	12 3 41	2475.8	-35.27	97.06
60.00	11 23 27	3428.65	-39.63	123.34	262.40	98.02	12 20 35	2428.7	-32.18	94.96
70.00	11 50 13	3349.85	-34.04	117.64	263.07	93.03	12 46 3	2349.8	-29.26	89.96
80.00	12 33 51	3213.06	-29.85	107.38	263.18	89.56	13 27 24	2213.1	-27.00	80.32
90.00	13 43 56	2986.82	-28.23	90.72	263.15	88.25	14 33 43	1986.8	-26.11	63.91
100.00	15 16 43	2687.53	-29.85	68.75	263.18	89.56	16 1 30	1687.5	-27.00	41.69
110.00	16 49 39	2396.66	-34.04	46.55	263.07	93.03	17 29 36	1396.7	-29.26	18.88

DIFFERENTIAL CORRECTIONS

TDE	-.3817	TRA	-.7750	TC3	1.1657	BAU	.3130
RDE	-.3198	RRA	.2170	RC3	-.7030	FAU	.16009
FDE	1.1348	FRA	.8860	FC3	-8.0573	BSP	2676
BDE	.4980	BRA	.8048	BC3	1.3612	FSP	927

MID-COURSE EXECUTION ACCURACY

SGT	1577.9	SGR	797.1	SG3	603.5
RRT	-.5473	RRF	.6489	RTF	-.[illegible]37
SGB	1767.8	R23	-.1534	R13	.8199
SG1	1648.4	SG2	638.6	THA	161.71

ORBIT DETERMINATION ACCURACY

ST	31.4	SR	22.6	SS	30.4
CRT	.7058	CRS	.8864	CST	.9438
LSA	47.1	MSA	14.0	SSA	2.6
EL1	36.1	EL2	13.9	ALF	32.36

LAUNCH DATE AUG 5 1973 FLIGHT TIME 156.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 381.895 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.389	GAL	.78	AZL	89.14	HCA	120.50	SMA	209.25	ECC	.27507	INC	.8594
RP	228.70	LAP	.74	LOP	72.94	VP	22.942	GAP	15.07	AZP	90.44	TAL	3.62	TAP	124.12	RCA	151.69	APO	266.81
RC	135.694	GL	6.99	GP	-11.27	ZAL	80.17	ZAP	151.92	ETS	203.81	ZAE	162.50	ETE	314.79	ZAC	71.41	ETC	282.61

V1 29.358 V2 24.049 LVI -4.80

PLANETOCENTRIC CONIC

C3	16.943	VHL	4.116	DLA	18.90	RAL	27.80	RAD	6641.4	VEL	11.704	PTH	6.74	VHP	4.217	DPA	6.14	RAP	48.16	ECC	1.2788

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 2 39	3477.51	-45.89	126.06	260.10	104.24	12 0 36	2477.5	-35.34	97.17
60.00	11 19 58	3431.36	-39.65	123.57	261.76	97.87	12 17 10	2431.4	-32.26	95.15
70.00	11 46 17	3353.91	-34.05	117.95	262.42	92.84	12 42 11	2353.9	-29.35	90.24
80.00	12 29 24	3218.72	-29.85	107.80	262.51	89.34	13 23 3	2218.7	-27.09	80.72
90.00	13 39 14	2993.32	-28.22	91.20	262.47	88.01	14 29 7	1993.3	-26.19	64.37
100.00	15 12 16	2693.19	-29.85	69.17	262.51	89.34	15 57 9	1693.2	-27.09	42.09
110.00	16 45 43	2400.73	-34.05	46.87	262.42	92.84	17 25 44	1400.7	-29.35	19.16

DIFFERENTIAL CORRECTIONS

TDE	-.3870	TRA	-.7649	TC3	1.1783	BAU	.3169
RDE	-.3066	RRA	.2164	RC3	-.7538	FAU	.16751
FDE	1.2125	FRA	.8870	FC3	-8.5591	BSP	2730
BDE	.4937	BRA	.7949	BC3	1.3988	FSP	986

MID-COURSE EXECUTION ACCURACY

SGT	1580.4	SGR	817.7	SG3	636.1
RRT	-.5652	RRF	.6758	RTF	-.7918
SGB	1779.4	R23	-.1677	R13	.8218
SG1	1659.4	SG2	642.4	THA	160.69

ORBIT DETERMINATION ACCURACY

ST	31.8	SR	21.9	SS	31.8
CRT	.7076	CRS	.8887	CST	.9430
LSA	48.0	MSA	13.8	SSA	2.6
EL1	36.1	EL2	13.6	ALF	30.78

LAUNCH DATE AUG 5 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 385.540 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 33.353 GAL .81 AZL 89.10 HCA 121.54 SMA 208.47 ECC .27238 INC .9046 V1 29.358
RP 229.09 LAP .77 LOP 73.98 VP 22.847 GAP 14.78 AZP 90.47 TAL 3.80 TAP 125.34 RCA 151.69 APO 265.25 V2 24.008
RC 138.457 GL 7.40 GP -11.66 ZAL 79.83 ZAP 150.78 ETS 203.53 ZAE 162.77 ETE 311.74 ZAC 71.04 ETC 282.65 LVI -4.45

PLANETOCENTRIC CONIC

C3 16.705 VHL 4.087 DLA 19.17 RAL 27.30 RAD 6641.3 VEL 11.694 PTH 6.73 VHP 4.111 DPA 5.75 RAP 48.22 ECC 1.2749

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 59 31	3479.76	-45.93	126.26	259.53	104.08	11 57 31	2479.8	-35.43	97.31
60.00	11 16 28	3434.63	-39.68	123.84	261.17	97.69	12 13 42	2434.6	-32.36	95.37
70.00	11 42 16	3358.63	-34.07	118.32	261.80	92.62	12 38 15	2358.6	-29.45	90.57
80.00	12 24 51	3225.15	-29.85	108.28	261.88	89.08	13 18 36	2225.2	-27.19	81.17
90.00	13 34 24	3000.67	-28.20	91.73	261.83	87.74	14 24 24	2000.7	-26.29	64.89
100.00	15 7 43	2699.62	-29.85	69.65	261.88	89.08	15 52 43	1699.6	-27.19	42.54
110.00	16 41 43	2405.44	-34.06	47.24	261.80	92.62	17 21 48	1405.4	-29.45	19.49

DIFFERENTIAL CORRECTIONS

TDE -.3905 TRA -.7538 TC3 1.1882 BAU .3208
RDE -.2929 RRA .2158 RC3 -.8074 FAU .17521
FDE 1.2946 FRA .8872 FC3-9.0801 BSP 2769
BDE .4882 BRA .7841 BC3 1.4366 FSP 1045

MID-COURSE EXECUTION ACCURACY

SGT 1579.4 SGR 840.7 SG3 669.9
RRT -.5833 RRF .7019 RTF -.7901
SGB 1789.3 R23 -.1807 R13 .8244
SG1 1668.4 SG2 646.5 THA 159.55

ORBIT DETERMINATION ACCURACY

ST 32.1 SR 21.1 SS 33.2
CRT .7074 CRS .8900 CST .9419
LSA 48.9 MSA 13.6 SSA 2.7
EL1 36.1 EL2 13.3 ALF 29.27

LAUNCH DATE AUG 5 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 389.198 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 33.319 GAL .84 AZL 89.05 HCA 122.57 SMA 207.73 ECC .26983 INC .9506 V1 29.358
RP 229.48 LAP .80 LOP 75.01 VP 22.755 GAP 14.48 AZP 90.51 TAL 3.98 TAP 126.54 RCA 151.68 APO 263.79 V2 23.967
RC 141.241 GL 7.83 GP -12.06 ZAL 79.50 ZAP 149.61 ETS 203.26 ZAE 163.01 ETE 308.45 ZAC 70.65 ETC 282.69 LVI -4.09

PLANETOCENTRIC CONIC

C3 16.486 VHL 4.060 DLA 19.44 RAL 26.81 RAD 6641.2 VEL 11.684 PTH 6.72 VHP 4.009 DPA 5.34 RAP 48.26 ECC 1.2713

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 56 22	3482.51	-45.98	126.51	259.01	103.90	11 54 25	2482.5	-35.53	97.49
60.00	11 12 55	3438.46	-39.72	124.16	260.62	97.47	12 10 13	2438.5	-32.47	95.63
70.00	11 38 12	3364.00	-34.08	118.74	261.22	92.38	12 34 16	2364.0	-29.56	90.95
80.00	12 20 11	3232.37	-29.84	108.81	261.27	88.80	13 14 4	2232.4	-27.29	81.68
90.00	13 29 25	3008.88	-28.17	92.33	261.21	87.44	14 19 34	2008.9	-26.39	65.46
100.00	15 3 3	2706.84	-29.84	70.18	261.27	88.80	15 48 10	1706.8	-27.29	43.05
110.00	16 37 38	2410.82	-34.08	47.66	261.22	92.38	17 17 49	1410.8	-29.56	19.87

DIFFERENTIAL CORRECTIONS

TDE -.3935 TRA -.7429 TC3 1.1979 BAU .3256
RDE -.2786 RRA .2151 RC3 -.8647 FAU .18336
FDE 1.3832 FRA .8660 FC3-9.6288 BSP 2797
BDE .4822 BRA .7734 BC3 1.4774 FSP 1108

MID-COURSE EXECUTION ACCURACY

SGT 1578.1 SGR 866.8 SG3 705.7
RRT -.6013 RRF .7275 RTF -.7885
SGB 1800.5 R23 -.1930 R13 .8277
SG1 1678.7 SG2 651.1 THA 158.30

ORBIT DETERMINATION ACCURACY

ST 32.4 SR 20.3 SS 34.7
CRT .7057 CRS .8905 CST .9407
LSA 49.8 MSA 13.4 SSA 2.7
EL1 36.0 EL2 12.9 ALF 27.69

LAUNCH DATE AUG 5 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 392.868 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 33.287 GAL .87 AZL 89.00 HCA 123.59 SMA 207.05 ECC .26744 INC .9976 V1 29.358
RP 229.86 LAP .83 LOP 76.04 VP 22.666 GAP 14.19 AZP 90.55 TAL 4.14 TAP 127.74 RCA 151.67 APO 262.42 V2 23.927
RC 144.046 GL 8.26 GP -12.49 ZAL 79.20 ZAP 148.42 ETS 203.01 ZAE 163.20 ETE 304.92 ZAC 70.26 ETC 282.73 LVI -3.72

PLANETOCENTRIC CONIC

C3 16.285 VHL 4.035 DLA 19.73 RAL 26.33 RAD 6641.1 VEL 11.676 PTH 6.71 VHP 3.911 DPA 4.90 RAP 48.28 ECC 1.2660

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 53 12	3485.77	-46.03	126.81	258.52	103.67	11 51 18	2485.8	-35.66	97.71
60.00	11 9 19	3442.86	-39.78	124.53	260.10	97.23	12 6 42	2442.9	-32.60	95.94
70.00	11 34 2	3370.06	-34.10	119.21	260.68	92.10	12 30 12	2370.1	-29.69	91.38
80.00	12 15 24	3240.40	-29.82	109.41	260.70	88.49	13 9 24	2240.4	-27.41	82.25
90.00	13 24 18	3017.99	-28.14	93.00	260.63	87.11	14 14 36	2018.0	-26.50	66.11
100.00	14 58 16	2714.88	-29.82	70.78	260.70	88.49	15 43 30	1714.9	-27.41	43.61
110.00	16 33 29	2416.68	-34.10	48.13	260.68	92.10	17 13 45	1416.9	-29.69	20.30

DIFFERENTIAL CORRECTIONS

TDE -.3959 TRA -.7318 TC3 1.2028 BAU .3304
RDE -.2638 RRA .2145 RC3 -.9252 FAU .19179
FDE 1.4763 FRA .8849 FC-10.1962 BSP 2816
BDE .4758 BRA .7825 BC3 1.5175 FSP 1170

MID-COURSE EXECUTION ACCURACY

SGT 1573.7 SGR 895.8 SG3 742.7
RRT -.6181 RRF .7520 RTF -.[illegible]65
SGB 1810.8 R23 -.2051 R13 .8313
SG1 1687.6 SG2 656.7 THA 156.93

ORBIT DETERMINATION ACCURACY

ST 32.7 SR 19.4 SS 36.3
CRT .7023 CRS .8897 CST .9395
LSA 50.8 MSA 13.2 SSA 2.8
EL1 35.8 EL2 12.6 ALF 26.08

LAUNCH DATE AUG 5 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 396.550 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 33.257 GAL .90 AZL 88.95 HCA 124.62 SMA 206.40 ECC .26518 INC 1.0455 V1 29.358
RP 230.25 LAP .86 LOP 77.06 VP 22.579 GAP 13.90 AZP 90.59 TAL 4.30 TAP 128.92 RCA 151.67 APO 261.13 V2 23.887
RC 146.870 GL 8.70 GP -12.92 ZAL 78.91 ZAP 147.20 ETS 202.76 ZAE 163.34 ETE 301.16 ZAC 69.85 ETC 282.78 LVI -3.34

PLANETOCENTRIC CONIC

C3 16.100 VHL 4.012 DLA 20.03 RAL 25.86 RAD 6641.0 VEL 11.668 PTH 6.70 VHP 3.816 DPA 4.44 RAP 48.29 ECC 1.2650

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 50 0	3489.54	-46.09	127.15	258.08	103.41	11 48 10	2489.5	-35.80	97.95
60.00	11 5 40	3447.85	-39.80	124.95	259.62	96.95	12 3 8	2447.9	-32.74	96.28
70.00	11 29 47	3376.80	-34.11	119.74	260.17	91.79	12 26 4	2376.8	-29.83	91.85
80.00	12 10 28	3249.28	-29.81	110.07	260.16	88.14	13 4 37	2249.3	-27.54	82.88
90.00	13 19 0	3028.04	-28.11	93.73	260.08	86.75	14 9 28	2028.0	-26.62	66.82
100.00	14 53 20	2723.75	-29.81	71.44	260.16	88.14	15 38 44	1723.8	-27.54	44.24
110.00	16 29 14	2423.62	-34.11	48.66	260.17	91.79	17 9 37	1423.6	-29.83	20.77

DIFFERENTIAL CORRECTIONS

TDE -.3980 TRA -.7190 TC3 1.2025 BAU .3350
RDE -.2484 RRA .2133 RC3 -.9884 FAU .20042
FDE 1.5756 FRA .8768 FC-10.7772 BSP 2837
BDE .4691 BRA .7500 BC3 1.5566 FSP 1238

MID-COURSE EXECUTION ACCURACY

SGT 1564.7 SGR 927.4 SG3 780.7
RRT -.6327 RRF .7751 RTF -.7838
SGB 1818.9 R23 -.2166 R13 .8350
SG1 1693.5 SG2 663.5 THA 155.43

ORBIT DETERMINATION ACCURACY

ST 32.8 SR 18.4 SS 37.9
CRT .6982 CRS .8883 CST .9383
LSA 51.7 MSA 13.0 SSA 2.8
EL1 35.6 EL2 12.2 ALF 24.42

LAUNCH DATE AUG 5 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 400.242 EARTH TO MARS

RL	151.78	LAL	.00	LOL	312.44	VL	33.229	GAL	.93	AZL	88.91	HCA	128.64	SMA	205.80	ECC	.26305	INC	1.0944	V1	29.358
RP	230.63	LAP	.89	LOP	78.08	VP	22.495	GAP	13.62	AZP	90.64	TAL	4.46	TAP	130.09	RCA	151.66	APO	259.93	V2	23.847
RC	149.713	GL	9.15	GP	-13.38	ZAL	78.63	ZAP	145.96	ETS	202.52	ZAE	163.40	ETE	297.19	ZAC	69.44	ETC	282.84	LVI	-2.96

PLANETOCENTRIC CONIC

C3	15.931	VHL	3.991	DLA	20.35	RAL	25.40	RAD	6641.0	VEL	11.661	PTH	6.70	VHP	3.726	DPA	3.96	RAP	48.27	ECC	1.2622

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 46 47	3493.82	-46.16	127.55	257.68	103.12	11 45 1	2493.8	-35.96	98.24
60.00	11 1 58	3453.42	-39.84	125.41	259.19	96.63	11 59 31	2453.4	-32.90	96.67
70.00	11 25 27	3384.25	-34.13	120.32	259.69	91.44	12 21 51	2384.2	-29.98	92.38
80.00	12 5 23	3259.03	-29.78	110.79	259.66	87.76	12 59 42	2259.0	-27.68	83.57
90.00	13 13 31	3039.07	-28.06	94.53	259.55	86.35	14 4 10	2039.1	-26.75	67.60
100.00	14 48 15	2733.51	-29.78	72.16	259.66	87.76	15 33 49	1733.5	-27.68	44.94
110.00	16 24 53	2431.07	-34.13	49.24	259.69	91.44	17 5 24	1431.1	-29.98	21.30

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3987	TRA	-.7071	TC3	1.1969	BAU	.3398	SGT	1553.2	SGR	962.3	SG3	819.9	ST	32.9	SR	17.4	SS	39.6
RDE	-.2323	RRA	.2122	RC3	-1.0550	FAU	.20933	RRT	-.6461	RRF	.7969	RTF	-.7802	CRT	.6906	CRS	.6850	CST	.9369
FDE	1.6799	FRA	.8704	FC	-11.3755	BSP	2854	SGB	1827.1	R23	-.2276	R13	.8391	LSA	52.7	MSA	12.8	SSA	2.9
BDE	.4614	BRA	.7382	BC3	1.5955	FSP	1308	SG1	1699.3	SG2	671.3	THA	153.79	EL1	35.4	EL2	11.7	ALF	22.70

LAUNCH DATE AUG 5 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 403.943 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.202	GAL	.95	AZL	88.86	HCA	126.66	SMA	205.23	ECC	.26104	INC	1.1444	V1	29.358
RP	231.01	LAP	.92	LOP	79.10	VP	22.413	GAP	13.34	AZP	90.68	TAL	4.60	TAP	131.25	RCA	151.66	APO	258.80	V2	23.807
RC	152.572	GL	9.61	GP	-13.85	ZAL	78.38	ZAP	144.69	ETS	202.28	ZAE	163.40	ETE	293.04	ZAC	69.01	ETC	282.90	LVI	-2.56

PLANETOCENTRIC CONIC

C3	15.777	VHL	3.972	DLA	20.68	RAL	24.95	RAD	6640.9	VEL	11.654	PTH	6.69	VHP	3.639	DPA	3.45	RAP	48.24	ECC	1.2597

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 43 32	3498.63	-46.23	127.99	257.33	102.79	11 41 51	2498.6	-36.14	98.55
60.00	10 58 12	3459.59	-39.89	125.93	258.79	96.28	11 55 51	2459.6	-33.08	97.10
70.00	11 21 0	3392.42	-34.14	120.96	259.25	91.07	12 17 33	2392.4	-30.14	92.96
80.00	12 0 9	3269.70	-29.75	111.59	259.18	87.35	12 54 39	2269.7	-27.82	84.33
90.00	13 7 51	3051.14	-28.01	95.41	259.06	85.91	13 58 42	2051.1	-26.88	68.46
100.00	14 43 1	2744.17	-29.75	72.95	259.18	87.35	15 28 45	1744.2	-27.82	45.70
110.00	16 20 27	2439.24	-34.14	49.87	259.25	91.07	17 1 6	1439.2	-30.14	21.88

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3991	TRA	-.6953	TC3	1.1844	BAU	.3445	SGT	1538.2	SGR	1000.2	SG3	860.0	ST	33.0	SR	16.3	SS	41.3
RDE	-.2153	RRA	.2111	RC3	-1.1245	FAU	.21839	RRT	-.6569	RRF	.8171	RTF	-.7753	CRT	.6801	CRS	.8798	CST	.9354
FDE	1.7914	FRA	.8621	FC	-11.9836	BSP	2858	SGB	1834.8	R23	-.2383	R13	.8431	LSA	53.8	MSA	12.7	SSA	2.9
BDE	.4534	BRA	.7267	BC3	1.6332	FSP	1377	SG1	1703.8	SG2	680.8	THA	152.02	EL1	35.1	EL2	11.3	ALF	20.86

LAUNCH DATE AUG 5 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 407.653 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.177	GAL	.97	AZL	88.80	HCA	127.67	SMA	204.70	ECC	.25915	INC	1.1956	V1	29.358
RP	231.39	LAP	.95	LOP	80.11	VP	22.333	GAP	13.06	AZP	90.73	TAL	4.73	TAP	132.40	RCA	151.65	APO	257.75	V2	23.787
RC	155.447	GL	10.08	GP	-14.35	ZAL	78.14	ZAP	143.40	ETS	202.05	ZAE	163.30	ETE	288.76	ZAC	68.57	ETC	282.97	LVI	-2.16

PLANETOCENTRIC CONIC

C3	15.638	VHL	3.954	DLA	21.02	RAL	24.52	RAD	6640.8	VEL	11.648	PTH	6.69	VHP	3.555	DPA	2.92	RAP	48.19	ECC	1.2574

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 40 15	3503.96	-46.31	126.48	257.02	102.42	11 38 39	2504.0	-36.34	98.91
60.00	10 54 22	3466.37	-39.94	126.50	258.42	95.90	11 52 8	2466.4	-33.27	97.57
70.00	11 16 27	3401.34	-34.15	121.65	258.84	90.66	12 13 8	2401.3	-30.31	93.60
80.00	11 54 44	3281.33	-29.71	112.45	258.73	86.90	12 49 25	2281.3	-27.97	85.16
90.00	13 1 57	3064.31	-27.94	96.37	258.59	85.44	13 53 1	2064.3	-27.02	69.40
100.00	14 37 35	2755.80	-29.71	73.82	258.73	86.90	15 23 31	1755.8	-27.97	46.53
110.00	16 15 53	2448.16	-34.15	50.57	258.84	90.66	16 56 41	1448.2	-30.31	22.52

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4002	TRA	-.6833	TC3	1.1702	BAU	.3502	SGT	1522.3	SGR	1042.2	SG3	902.3	ST	33.1	SR	15.2	SS	43.3
RDE	-.1971	RRA	.2096	RC3	-1.1988	FAU	.22796	RRT	-.6661	RRF	.8361	RTF	-.[illegible]02	CRT	.6665	CRS	.8722	CST	.9342
FDE	1.9138	FRA	.8494	FC	-12.6205	BSP	2886	SGB	1844.9	R23	-.2475	R13	.8483	LSA	55.1	MSA	12.5	SSA	2.9
BDE	.4461	BRA	.7147	BC3	1.6782	FSP	1455	SG1	1710.3	SG2	691.9	THA	150.11	EL1	34.8	EL2	10.8	ALF	18.84

LAUNCH DATE AUG 5 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 411.372 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.153	GAL	.99	AZL	88.75	HCA	128.68	SMA	204.20	ECC	.25737	INC	1.2481	V1	29.358
RP	231.77	LAP	.97	LOP	81.12	VP	22.256	GAP	12.78	AZP	90.78	TAL	4.86	TAP	133.54	RCA	151.65	APO	256.76	V2	23.728
RC	158.336	GL	10.56	GP	-14.86	ZAL	77.92	ZAP	142.08	ETS	201.82	ZAE	163.11	ETE	284.38	ZAC	68.11	ETC	283.04	LVI	-1.74

PLANETOCENTRIC CONIC

C3	15.511	VHL	3.938	DLA	21.38	RAL	24.09	RAD	6640.8	VEL	11.643	PTH	6.68	VHP	3.476	DPA	2.36	RAP	48.11	ECC	1.2553

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 36 56	3509.79	-46.39	129.01	256.75	102.01	11 35 25	2509.8	-36.56	99.30
60.00	10 50 28	3473.74	-39.99	127.12	258.10	95.48	11 48 21	2473.7	-33.47	98.09
70.00	11 11 46	3411.00	-34.15	122.41	258.46	90.21	12 8 37	2411.0	-30.50	94.29
80.00	11 49 6	3293.92	-29.66	113.38	258.30	86.41	12 44 0	2293.9	-28.13	86.06
90.00	12 55 48	3078.60	-27.86	97.41	258.15	84.92	13 47 6	2078.6	-27.17	70.42
100.00	14 31 58	2768.39	-29.66	74.75	258.30	86.41	15 18 7	1768.4	-28.13	47.43
110.00	16 11 12	2457.82	-34.15	51.33	258.46	90.21	16 52 10	1457.8	-30.50	23.21

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3868	TRA	-.6613	TC3	1.1742	BAU	.3600	SGT	1497.6	SGR	1089.5	SG3	946.3	ST	32.3	SR	14.0	SS	44.8
RDE	-.1796	RRA	.2068	RC3	-1.2787	FAU	.23816	RRT	-.6850	RRF	.8541	RTF	-.7729	CRT	.6459	CRS	.8631	CST	.9304
FDE	2.0239	FRA	.8222	FC	-13.2926	BSP	2778	SGB	1852.0	R23	-.2407	R13	.8591	LSA	55.6	MSA	12.4	SSA	2.9
BDE	.4282	BRA	.6929	BC3	1.7360	FSP	1515	SG1	1717.9	SG2	692.0	THA	147.64	EL1	33.7	EL2	10.3	ALF	17.33

LAUNCH DATE AUG 5 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 415.096 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.131	GAL	1.01	AZL	88.70	HCA	129.69	SMA	203.74	ECC	.25570	INC	1.3018	V1	29.358
RP	232.14	LAP	1.00	LOP	82.13	VP	22.181	GAP	12.50	AZP	90.83	TAL	4.98	TAP	134.66	RCA	151.64	APO	255.83	V2	23.689
RC	161.238	GL	11.06	GP	-15.38	ZAL	77.73	ZAP	140.74	ETS	201.59	ZAE	162.81	ETE	279.98	ZAC	67.64	ETC	283.12	LVI	-1.31

PLANETOCENTRIC CONIC

C3	15.398	VHL	3.924	DLA	21.76	RAL	23.67	RAD	6640.7	VEL	11.638	PTH	6.68	VHP	3.400	DPA	1.78	RAP	48.03	ECC	1.2534

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 33 34	3516.21	-46.48	129.61	256.52	101.56	11 32 10	2516.2	-36.79	99.73
60.00	10 46 29	3481.79	-40.04	127.80	257.81	95.02	11 44 31	2481.8	-33.69	98.66
70.00	11 6 57	3421.52	-34.15	123.23	258.12	89.72	12 3 58	2421.5	-30.70	95.04
80.00	11 43 16	3307.65	-29.60	114.40	257.91	85.88	12 38 23	2307.6	-28.30	87.05
90.00	12 49 22	3094.24	-27.76	98.54	257.73	84.36	13 40 56	2094.2	-27.31	71.54
100.00	14 26 8	2782.12	-29.60	75.76	257.91	85.88	15 12 30	1782.1	-28.30	48.41
110.00	16 6 23	2468.34	-34.15	52.15	258.12	89.72	16 47 32	1468.3	-30.70	23.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3964	TRA	-.6582	TC3	1.1283	BAU	.3635	SGT	1479.8	SGR	1137.9	SG3	989.8	ST	32.9	SR	12.6	SS	47.1
RDE	-.1584	RRA	.2061	RC3	-1.3583	FAU	.24778	RRT	-.6802	RRF	.8698	RTF	-.7578	CRT	.6186	CRS	.8439	CST	.9304
FDE	2.1707	FRA	.8180	FC	-13.9310	BSP	2892	SGB	1866.7	R23	-.2583	R13	.8609	LSA	57.5	MSA	12.3	SSA	2.9
BDE	.4269	BRA	.6897	BC3	1.7658	FSP	1607	SG1	1723.9	SG2	716.0	THA	145.67	EL1	33.9	EL2	9.6	ALF	14.60

LAUNCH DATE AUG 5 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 418.828 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.110	GAL	1.03	AZL	88.64	HCA	130.69	SMA	203.30	ECC	.25413	INC	1.3570	V1	29.358
RP	232.51	LAP	1.03	LOP	83.13	VP	22.108	GAP	12.23	AZP	90.88	TAL	5.08	TAP	135.77	RCA	151.64	APO	254.97	V2	23.650
RC	164.150	GL	11.56	GP	-15.93	ZAL	77.54	ZAP	139.37	ETS	201.36	ZAE	162.41	ETE	275.61	ZAC	67.16	ETC	283.21	LVI	-.88

PLANETOCENTRIC CONIC

C3	15.297	VHL	3.911	DLA	22.16	RAL	23.27	RAD	6640.7	VEL	11.634	PTH	6.67	VHP	3.327	DPA	1.16	RAP	47.92	ECC	1.2518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 30 9	3523.16	-46.58	130.25	256.34	101.07	11 28 52	2523.2	-37.05	100.20
60.00	10 42 25	3490.48	-40.09	128.54	257.56	94.53	11 40 36	2490.5	-33.93	99.28
70.00	11 1 59	3432.86	-34.15	124.11	257.81	89.20	11 59 12	2432.9	-30.90	95.86
80.00	11 37 10	3322.50	-29.52	115.49	257.55	85.31	12 32 33	2322.5	-28.47	88.12
90.00	12 42 37	3111.20	-27.64	99.76	257.34	83.76	13 34 28	2111.2	-27.46	72.76
100.00	14 20 2	2796.97	-29.52	76.86	257.55	85.31	15 6 39	1797.0	-28.47	49.49
110.00	16 1 25	2479.68	-34.15	53.03	257.81	89.20	16 42 45	1479.7	-30.90	24.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3964	TRA	-.6490	TC3	1.0877	BAU	.3694	SGT	1454.3	SGR	1190.4	SG3	1033.8	ST	32.9	SR	11.3	SS	49.3
RDE	-.1371	RRA	.2043	RC3	-1.4420	FAU	.25764	RRT	-.6786	RRF	.8842	RTF	-.7456	CRT	.5789	CRS	.8176	CST	.9288
FDE	2.3132	FRA	.8024	FC	-14.5806	BSP	2929	SGB	1879.4	R23	-.2654	R13	.8664	LSA	59.0	MSA	12.3	SSA	2.9
BDE	.4194	BRA	.6804	BC3	1.8062	FSP	1688	SG1	1729.6	SG2	735.1	THA	143.27	EL1	33.6	EL2	9.0	ALF	12.11

LAUNCH DATE AUG 5 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 422.567 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.090	GAL	1.04	AZL	88.59	HCA	131.69	SMA	202.89	ECC	.25265	INC	1.4137	V1	29.358
RP	232.89	LAP	1.06	LOP	84.14	VP	22.037	GAP	11.96	AZP	90.94	TAL	5.18	TAP	136.87	RCA	151.63	APO	254.16	V2	23.612
RC	167.073	GL	12.08	GP	-16.50	ZAL	77.38	ZAP	137.98	ETS	201.12	ZAE	161.89	ETE	271.31	ZAC	66.67	ETC	283.30	LVI	-.43

PLANETOCENTRIC CONIC

C3	15.209	VHL	3.900	DLA	22.57	RAL	22.87	RAD	6640.6	VEL	11.630	PTH	6.67	VHP	3.258	DPA	.53	RAP	47.79	ECC	1.2503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 26 40	3530.66	-46.67	130.95	256.20	100.54	11 25 31	2530.7	-37.32	100.71
60.00	10 38 15	3499.82	-40.14	129.33	257.35	93.99	11 36 35	2499.8	-34.17	99.94
70.00	10 56 51	3445.04	-34.13	125.06	257.52	88.64	11 54 16	2445.0	-31.12	96.75
80.00	11 30 48	3338.53	-29.43	116.67	257.20	84.69	12 26 27	2338.5	-28.64	89.28
90.00	12 35 31	3129.62	-27.50	101.09	256.96	83.11	13 27 40	2129.6	-27.61	74.09
100.00	14 13 40	2813.00	-29.43	78.04	257.20	84.69	15 0 33	1813.0	-28.64	50.65
110.00	15 56 17	2491.86	-34.13	53.98	257.52	88.64	16 37 49	1491.9	-31.12	25.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3863	TRA	-.6315	TC3	1.0631	BAU	.3791	SGT	1421.0	SGR	1248.7	SG3	1079.8	ST	32.2	SR	9.9	SS	51.1
RDE	-.1159	RRA	.2013	RC3	-1.5320	FAU	.26814	RRT	-.6852	RRF	.8975	RTF	-.7503	CRT	.5224	CRS	.7812	CST	.9250
FDE	2.4489	FRA	.7722	FC	-15.2634	BSP	2867	SGB	1891.7	R23	-.2581	R13	.8766	LSA	59.9	MSA	12.2	SSA	2.8
BDE	.4033	BRA	.6628	BC3	1.8647	FSP	1756	SG1	1739.7	SG2	742.8	THA	140.36	EL1	32.6	EL2	8.4	ALF	9.82

LAUNCH DATE AUG 5 1973 FLIGHT TIME 180.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 426.310 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.071	GAL	1.06	AZL	88.53	HCA	132.69	SMA	202.51	ECC	.25127	INC	1.4719	V1	29.358
RP	233.25	LAP	1.08	LOP	85.13	VP	21.968	GAP	11.69	AZP	91.00	TAL	5.27	TAP	137.96	RCA	151.63	APO	253.40	V2	23.573
RC	170.003	GL	12.61	GP	-17.09	ZAL	77.24	ZAP	136.56	ETS	200.87	ZAE	161.26	ETE	267.14	ZAC	66.16	ETC	283.40	LVI	.03

PLANETOCENTRIC CONIC

C3	15.131	VHL	3.890	DLA	22.99	RAL	22.48	RAD	6640.6	VEL	11.627	PTH	6.67	VHP	3.192	DPA	-.14	RAP	47.65	ECC	1.2490

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 23 9	3538.76	-46.77	131.71	256.11	99.96	11 22 7	2538.8	-37.61	101.27
60.00	10 33 59	3509.89	-40.18	130.18	257.17	93.42	11 32 29	2509.9	-34.44	100.67
70.00	10 51 32	3458.18	-34.10	126.09	257.27	88.03	11 49 10	2458.2	-31.34	97.70
80.00	11 24 7	3355.95	-29.31	117.96	256.88	84.03	12 20 3	2356.0	-28.82	90.54
90.00	12 27 59	3149.76	-27.32	102.54	256.61	82.40	13 20 29	2149.8	-27.75	75.54
100.00	14 6 59	2830.43	-29.31	79.32	256.88	84.03	14 54 10	1830.4	-28.82	51.91
110.00	15 50 58	2505.00	-34.10	55.01	257.27	88.03	16 32 43	1505.0	-31.34	26.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3913	TRA	-.6280	TC3	.9953	BAU	.3847	SGT	1393.4	SGR	1307.6	SG3	1124.3	ST	32.5	SR	8.4	SS	53.8
RDE	-.0902	RRA	.1999	RC3	-1.6207	FAU	.27780	RRT	-.6702	RRF	.9090	RTF	-.7184	CRT	.4273	CRS	.7081	CST	.9244
FDE	2.6246	FRA	.7605	FC	-15.8945	BSP	2967	SGB	1910.8	R23	-.2658	R13	.8816	LSA	62.2	MSA	12.2	SSA	2.8
BDE	.4016	BRA	.6590	BC3	1.9019	FSP	1850	SG1	1747.1	SG2	773.9	THA	137.71	EL1	32.8	EL2	7.6	ALF	6.66

LAUNCH DATE AUG 5 1973 FLIGHT TIME 182.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 430.058 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.054	GAL	1.07	AZL	88.47	HCA	133.68	SMA	202.16	ECC	.24997	INC	1.5319	V1	29.358
RP	233.62	LAP	1.11	LOP	86.13	VP	21.901	GAP	11.42	AZP	91.06	TAL	5.35	TAP	139.03	RCA	151.63	APO	252.69	V2	23.836
RC	172.941	GL	13.16	GP	-17.69	ZAL	77.11	ZAP	135.11	ETS	200.62	ZAE	160.52	ETE	263.14	ZAC	65.64	ETC	283.51	LVI	.50

PLANETOCENTRIC CONIC

C3	15.065	VHL	3.881	DLA	23.44	RAL	22.10	RAD	6640.6	VEL	11.624	PTH	6.66	VHP	3.130	DPA	-.83	RAP	47.49	ECC	1.2479

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 19 32	3547.43	-46.87	132.52	256.05	99.34	11 18 39	2547.4	-37.92	101.87
60.00	10 29 35	3520.66	-40.22	131.09	257.03	92.80	11 28 16	2520.7	-34.71	101.45
70.00	10 46 0	3472.28	-34.07	127.19	257.04	87.38	11 43 53	2472.3	-31.58	98.74
80.00	11 17 5	3374.79	-29.17	119.34	256.57	83.31	12 13 20	2374.8	-28.99	91.91
90.00	12 19 59	3171.70	-27.11	104.11	256.27	81.64	13 12 50	2171.7	-27.89	77.13
100.00	13 59 57	2849.26	-29.17	80.71	256.57	83.31	14 47 26	1849.3	-28.99	53.28
110.00	15 45 27	2519.09	-34.07	56.11	257.04	87.38	16 27 26	1519.1	-31.58	27.65

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY					
TDE	-.3851	TRA	-.6172	TC3	.9420	BAU	.3943	SGT	1357.9	SGR	1372.9	SG3	1170.3	ST	32.1	SR	7.1	SS	56.0
RDE	-.0653	RRA	.1973	RC3	-1.7162	FAU	.28811	RRT	-.6623	RRF	.9196	RTF	-.7019	CRT	.2815	CRS	.5926	CST	.9211
FDE	2.7844	FRA	.7360	FC	-16.5565	BSP	2989	SGB	1931.0	R23	-.2594	R13	.8910	LSA	63.7	MSA	12.2	SSA	2.8
BDE	.3906	BRA	.6480	BC3	1.9577	FSP	1933	SG1	1760.5	SG2	793.5	THA	134.52	EL1	32.2	EL2	6.8	ALF	3.71

LAUNCH DATE AUG 5 1973 FLIGHT TIME 184.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 433.812 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.037	GAL	1.08	AZL	88.41	HCA	134.67	SMA	201.82	ECC	.24874	INC	1.5937	V1	29.358
RP	233.99	LAP	1.13	LOP	87.12	VP	21.836	GAP	11.16	AZP	91.12	TAL	5.43	TAP	140.10	RCA	151.62	APO	252.03	V2	23.498
RC	175.886	GL	13.72	GP	-18.32	ZAL	77.00	ZAP	133.64	ETS	200.35	ZAE	159.67	ETE	259.34	ZAC	65.10	ETC	283.62	LVI	.99

PLANETOCENTRIC CONIC

C3	15.010	VHL	3.874	DLA	23.91	RAL	21.73	RAD	6640.5	VEL	11.622	PTH	6.66	VHP	3.071	DPA	-1.55	RAP	47.31	ECC	1.2470

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 15 51	3556.70	-46.97	133.40	256.04	98.68	11 15 7	2556.7	-38.24	102.52
60.00	10 25 3	3532.16	-40.25	132.07	256.92	92.13	11 23 55	2532.2	-35.00	102.29
70.00	10 40 15	3487.38	-34.01	128.37	256.84	86.69	11 38 22	2487.4	-31.82	99.85
80.00	11 9 38	3395.20	-29.00	120.83	256.28	82.55	12 6 13	2395.2	-29.16	93.41
90.00	12 11 24	3195.73	-26.87	105.83	255.93	80.82	13 4 40	2195.7	-28.02	78.88
100.00	13 52 30	2869.67	-29.00	82.20	256.28	82.55	14 40 19	1869.7	-29.16	54.77
110.00	15 39 41	2534.20	-34.01	57.28	256.84	86.69	16 21 55	1534.2	-31.82	28.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY					
TDE	-.3728	TRA	-.6004	TC3	.8995	BAU	.4072	SGT	1316.5	SGR	1444.9	SG3	1218.5	ST	31.2	SR	5.9	SS	58.2
RDE	-.0395	RRA	.1931	RC3	-1.8191	FAU	.29911	RRT	-.6590	RRF	.9293	RTF	-.6899	CRT	.0549	CRS	.3973	CST	.9163
FDE	2.9440	FRA	.6948	FC	-17.2514	BSP	2954	SGB	1954.7	R23	-.2427	R13	.9030	LSA	65.1	MSA	12.2	SSA	2.7
BDE	.3749	BRA	.6307	BC3	2.0293	FSP	2001	SG1	1782.3	SG2	802.7	THA	130.97	EL1	31.2	EL2	5.9	ALF	.62

LAUNCH DATE AUG 5 1973 FLIGHT TIME 186.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 437.569 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.022	GAL	1.09	AZL	88.34	HCA	135.66	SMA	201.92	ECC	.24760	INC	1.6575	V1	29.358
RP	234.35	LAP	1.16	LOP	88.11	VP	21.773	GAP	10.89	AZP	91.19	TAL	5.49	TAP	141.15	RCA	151.62	APO	251.41	V2	23.461
RC	178.836	GL	14.29	GP	-18.97	ZAL	76.92	ZAP	132.15	ETS	200.08	ZAE	158.72	ETE	255.76	ZAC	64.55	ETC	283.74	LVI	1.49

PLANETOCENTRIC CONIC

C3	14.966	VHL	3.869	DLA	24.39	RAL	21.37	RAD	6640.5	VEL	11.620	PTH	6.66	VHP	3.016	DPA	-2.30	RAP	47.12	ECC	1.2463

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 12 4	3586.63	-47.06	134.34	256.08	97.96	11 11 31	2566.6	-38.58	103.22
60.00	10 20 23	3544.49	-40.28	133.12	256.85	91.42	11 19 27	2544.5	-35.31	103.19
70.00	10 34 14	3503.64	-33.94	129.63	256.66	85.95	11 32 38	2503.6	-32.06	101.05
80.00	11 1 42	3417.48	-28.79	122.45	256.01	81.72	11 58 40	2417.5	-29.33	95.04
90.00	12 2 8	3222.31	-26.56	107.71	255.60	79.92	12 55 51	2222.3	-28.13	80.81
100.00	13 44 34	2891.95	-28.79	83.82	256.01	81.72	14 32 46	1891.9	-29.33	56.41
110.00	15 33 41	2550.46	-33.94	58.55	256.66	85.95	16 16 11	1550.5	-32.06	29.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY					
TDE	-.3739	TRA	-.5995	TC3	.8077	BAU	.4162	SGT	1283.5	SGR	1515.7	SG3	1262.6	ST	31.3	SR	5.2	SS	61.0
RDE	-.0092	RRA	.1914	RC3	-1.9171	FAU	.30856	RRT	-.6286	RRF	.9375	RTF	-.6548	CRT	-.3149	CRS	.0289	CST	.9139
FDE	3.1400	FRA	.6801	FC	-17.8488	BSP	3082	SGB	1986.1	R23	-.2377	R13	.9107	LSA	67.6	MSA	12.3	SSA	2.6
BDE	.3740	BRA	.6293	BC3	2.0802	FSP	2105	SG1	1799.3	SG2	840.9	THA	127.56	EL1	31.4	EL2	4.9	ALF	176.92

LAUNCH DATE AUG 5 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 441.330 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.008	GAL	1.09	AZL	88.28	HCA	136.64	SMA	201.23	ECC	.24653	INC	1.7233	V1	29.358
RP	234.71	LAP	1.18	LOP	89.09	VP	21.711	GAP	10.63	AZP	91.25	TAL	5.54	TAP	142.18	RCA	151.62	APO	250.84	V2	23.424
RC	181.791	GL	14.88	GP	-19.64	ZAL	76.85	ZAP	130.64	ETS	199.79	ZAE	157.68	ETE	252.39	ZAC	63.99	ETC	283.86	LVI	2.00

PLANETOCENTRIC CONIC

C3	14.933	VHL	3.864	DLA	24.90	RAL	21.01	RAD	6640.5	VEL	11.618	PTH	6.66	VHP	2.964	DPA	-3.08	RAP	46.92	ECC	1.2458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 8 11	3577.19	-47.16	135.34	256.15	97.19	11 7 49	2577.2	-38.95	103.97
60.00	10 15 32	3557.61	-40.30	134.23	256.80	90.67	11 14 50	2557.6	-35.62	104.16
70.00	10 27 56	3521.06	-33.85	130.98	256.51	85.15	11 26 37	2521.1	-32.31	102.35
80.00	10 53 13	3441.75	-28.54	124.21	255.74	80.83	11 50 35	2441.8	-29.48	96.83
90.00	11 52 2	3251.77	-26.20	109.79	255.27	78.94	12 46 14	2251.8	-28.22	82.96
100.00	13 36 5	2916.22	-28.54	85.58	255.74	80.83	14 24 41	1916.2	-29.48	58.20
110.00	15 27 23	2567.88	-33.85	59.90	256.51	85.15	16 10 10	1567.9	-32.31	31.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY					
TDE	-.3660	TRA	-.5908	TC3	.7295	BAU	.4291	SGT	1243.0	SGR	1592.8	SG3	1308.0	ST	30.8	SR	5.4	SS	63.6
RDE	.0218	RRA	.1883	RC3	-2.0217	FAU	.31849	RRT	-.6039	RRF	.9449	RTF	-.6246	CRT	-.6752	CRS	-.3880	CST	.9093
FDE	3.3312	FRA	.6507	FC	-18.4646	BSP	3132	SGB	2020.5	R23	-.2201	R13	.9214	LSA	69.7	MSA	12.4	SSA	2.6
BDE	.3667	BRA	.6201	BC3	2.1493	FSP	2188	SG1	1826.4	SG2	864.1	THA	123.74	EL1	31.0	EL2	4.0	ALF	173.10

LAUNCH DATE AUG 5 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 445.095 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.994 GAL 1.10 AZL 88.21 HCA 137.63 SMA 200.96 ECC .24554 INC 1.7914 V1 29.358
RP 235.06 LAP 1.21 LOP 90.08 VP 21.651 GAP 10.37 AZP 91.32 TAL 5.59 TAP 143.21 RCA 151.62 APO 250.30 V2 23.387
RC 184.750 GL 15.49 GP -20.33 ZAL 76.79 ZAP 129.11 ETS 199.49 ZAE 156.54 ETE 249.25 ZAC 63.41 ETC 284.00 LVI 2.53

PLANETOCENTRIC CONIC

C3 14.910 VHL 3.861 DLA 25.42 RAL 20.66 RAD 6640.5 VEL 11.617 PTH 6.66 VHP 2.915 DPA -3.88 RAP 46.69 ECC 1.2454

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 4 12	3588.43	-47.25	136.41	256.27	98.37	11 4 0	2588.4	-39.32	104.78
60.00	10 10 31	3571.61	-40.30	135.42	256.79	89.86	11 10 2	2571.6	-35.94	105.21
70.00	10 21 18	3539.78	-33.73	132.43	256.37	84.30	11 20 18	2539.8	-32.56	103.75
80.00	10 44 3	3468.39	-28.23	126.13	255.48	79.86	11 41 52	2468.4	-29.62	98.80
90.00	11 40 52	3284.87	-25.74	112.11	254.93	77.87	12 35 37	2284.9	-28.27	85.38
100.00	13 26 55	2942.86	-28.23	87.50	255.48	79.86	14 15 58	1942.9	-29.62	60.16
110.00	15 20 45	2586.60	-33.73	61.35	256.37	84.30	16 3 51	1586.6	-32.56	32.67

DIFFERENTIAL CORRECTIONS

TDE -.3564 TRA -.5828 TC3 .6458 BAU .4438
RDE .0548 RRA .1847 RC3-2.1305 FAU .32843
FDE 3.5293 FRA .6179 FC-19.0695 BSP 3202
BDE .3606 BRA .6114 BC3 2.2262 FSP 2274

MID-COURSE EXECUTION ACCURACY

SGT 1202.2 SGR 1675.0 SG3 1353.3
RRT -.5731 RRF .9515 RTF -.5888
SGB 2061.8 R23 -.1987 R13 .9320
SG1 1861.5 SG2 886.4 THA 119.74

ORBIT DETERMINATION ACCURACY

ST 30.1 SR 6.6 SS 66.3
CRT -.8817 CRS -.6858 CST .9036
LSA 72.0 MSA 12.5 SSA 2.5
EL1 30.7 EL2 3.0 ALF 168.98

LAUNCH DATE AUG 5 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 448.863 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.982 GAL 1.10 AZL 88.14 HCA 138.60 SMA 200.71 ECC .24460 INC 1.8618 V1 29.358
RP 235.42 LAP 1.23 LOP 91.06 VP 21.593 GAP 10.11 AZP 91.40 TAL 5.62 TAP 144.23 RCA 151.61 APO 249.80 V2 23.351
RC 187.714 GL 16.12 GP -21.04 ZAL 76.76 ZAP 127.55 ETS 199.17 ZAE 155.31 ETE 246.33 ZAC 62.82 ETC 284.14 LVI 3.08

PLANETOCENTRIC CONIC

C3 14.899 VHL 3.860 DLA 25.97 RAL 20.31 RAD 6640.5 VEL 11.617 PTH 6.66 VHP 2.870 DPA -4.71 RAP 46.46 ECC 1.2452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 0 5	3600.37	-47.33	137.55	256.43	95.49	11 0 5	2600.4	-39.72	105.65
60.00	10 5 17	3586.52	-40.29	136.69	256.81	89.00	11 5 3	2586.5	-36.28	106.33
70.00	10 14 18	3559.91	-33.59	133.98	256.25	83.39	11 13 38	2559.9	-32.81	105.27
80.00	10 34 5	3497.82	-27.86	128.24	255.21	78.81	11 32 23	2497.8	-29.74	100.97
90.00	11 28 18	3322.66	-25.18	114.73	254.56	76.67	12 23 41	2322.7	-28.27	88.15
100.00	13 16 57	2972.29	-27.86	89.61	255.21	78.81	14 6 29	1972.3	-29.74	62.34
110.00	15 13 45	2606.73	-33.59	62.90	256.25	83.39	15 57 11	1606.7	-32.81	34.19

DIFFERENTIAL CORRECTIONS

TDE -.3454 TRA -.5744 TC3 .5532 BAU .4598
RDE .0899 RRA .1801 RC3-2.2412 FAU .33795
FDE 3.7338 FRA .5763 FC-19.6380 BSP 3268
BDE .3569 BRA .6020 BC3 2.3084 FSP 2350

MID-COURSE EXECUTION ACCURACY

SGT 1159.7 SGR 1760.6 SG3 1397.0
RRT -.5336 RRF .9573 RTF -.5450
SGB 2108.2 R23 -.1736 R13 .9423
SG1 1902.9 SG2 907.4 THA 115.58

ORBIT DETERMINATION ACCURACY

ST 29.3 SR 8.4 SS 69.0
CRT -.9548 CRS -.8397 CST .8967
LSA 74.4 MSA 12.6 SSA 2.4
EL1 30.4 EL2 2.4 ALF 164.54

LAUNCH DATE AUG 5 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 452.634 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.970 GAL 1.11 AZL 88.07 HCA 139.58 SMA 200.48 ECC .24373 INC 1.9348 V1 29.358
RP 235.77 LAP 1.25 LOP 92.03 VP 21.536 GAP 9.86 AZP 91.47 TAL 5.65 TAP 145.23 RCA 151.61 APO 249.34 V2 23.315
RC 190.680 GL 16.76 GP -21.77 ZAL 76.74 ZAP 125.98 ETS 198.83 ZAE 154.01 ETE 243.61 ZAC 62.22 ETC 284.29 LVI 3.63

PLANETOCENTRIC CONIC

C3 14.898 VHL 3.860 DLA 26.54 RAL 19.97 RAD 6640.5 VEL 11.617 PTH 6.66 VHP 2.828 DPA -5.57 RAP 46.22 ECC 1.2452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 55 49	3613.05	-47.41	138.77	256.63	94.56	10 56 2	2613.1	-40.13	106.59
60.00	9 59 49	3602.40	-40.26	138.04	256.86	88.08	10 59 51	2602.4	-36.62	107.54
70.00	10 6 52	3581.60	-33.40	135.65	256.15	82.42	11 6 34	2581.6	-33.06	106.91
80.00	10 23 5	3530.67	-27.41	130.58	254.93	77.66	11 21 56	2530.7	-29.82	103.41
90.00	11 13 46	3366.95	-24.45	117.77	254.14	75.32	12 9 53	2366.9	-28.20	91.38
100.00	13 5 57	3005.14	-27.41	91.94	254.93	77.66	13 56 2	2005.1	-29.82	64.78
110.00	15 6 19	2628.42	-33.40	64.57	256.15	82.42	15 50 7	1628.4	-33.06	35.83

DIFFERENTIAL CORRECTIONS

TDE -.3311 TRA -.5651 TC3 .4573 BAU .4779
RDE .1288 RRA .1743 RC3-2.3557 FAU .34736
FDE 3.9393 FRA .5252 FC-20.1859 BSP 3350
BDE .3546 BRA .5914 BC3 2.3997 FSP 2427

MID-COURSE EXECUTION ACCURACY

SGT 1116.0 SGR 1851.0 SG3 1440.0
RRT -.4869 RRF .9624 RTF -.4742
SGB 2161.4 R23 -.1459 R13 .9518
SG1 1954.2 SG2 923.3 THA 111.34

ORBIT DETERMINATION ACCURACY

ST 28.3 SR 10.7 SS 71.7
CRT -.9679 CRS -.9128 CST .8878
LSA 76.8 MSA 12.7 SSA 2.3
EL1 30.2 EL2 2.5 ALF 159.73

LAUNCH DATE AUG 5 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 456.407 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.960 GAL 1.11 AZL 87.99 HCA 140.55 SMA 200.26 ECC .24292 INC 2.0106 V1 29.358
RP 236.12 LAP 1.28 LOP 93.01 VP 21.481 GAP 9.61 AZP 91.55 TAL 5.67 TAP 146.22 RCA 151.61 APO 248.91 V2 23.279
RC 193.649 GL 17.42 GP -22.52 ZAL 76.74 ZAP 124.39 ETS 198.47 ZAE 152.63 ETE 241.09 ZAC 61.60 ETC 284.44 LVI 4.21

PLANETOCENTRIC CONIC

C3 14.908 VHL 3.861 DLA 27.13 RAL 19.63 RAD 6640.5 VEL 11.617 PTH 6.66 VHP 2.790 DPA -6.45 RAP 45.96 ECC 1.2453

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 51 24	3626.51	-47.47	140.07	256.87	93.56	10 51 51	2626.5	-40.55	107.60
60.00	9 54 6	3619.33	-40.21	139.48	256.93	87.11	10 54 25	2619.3	-36.97	108.84
70.00	9 58 56	3605.04	-33.18	137.44	256.05	81.39	10 59 2	2605.0	-33.29	108.70
80.00	10 10 46	3567.87	-26.84	133.19	254.61	76.40	11 10 14	2567.9	-29.86	106.18
90.00	10 56 6	3421.38	-23.46	121.45	253.62	73.73	11 53 7	2421.4	-27.99	95.35
100.00	12 53 38	3042.34	-26.84	94.56	254.61	76.40	13 44 21	2042.3	-29.86	67.54
110.00	14 58 23	2651.86	-33.18	66.36	256.05	81.39	15 42 35	1651.9	-33.29	37.62

DIFFERENTIAL CORRECTIONS

TDE -.3138 TRA -.5572 TC3 .3549 BAU .4977
RDE .1656 RRA .1689 RC3-2.4720 FAU .35629
FDE 4.1451 FRA .4791 FC-20.6902 BSP 3441
BDE .3548 BRA .5822 BC3 2.4974 FSP 2499

MID-COURSE EXECUTION ACCURACY

SGT 1074.7 SGR 1945.2 SG3 1480.8
RRT -.4302 RRF .9669 RTF -.4335
SGB 2222.4 R23 -.1183 R13 .9599
SG1 2015.5 SG2 936.4 THA 107.19

ORBIT DETERMINATION ACCURACY

ST 27.1 SR 13.3 SS 74.4
CRT -.9586 CRS -.9490 CST .8758
LSA 79.3 MSA 12.8 SSA 2.2
EL1 30.0 EL2 3.4 ALF 154.47

LAUNCH DATE AUG 5 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 460.183 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.950	GAL	1.11	AZL	87.91	HCA	141.52	SMA	200.06	ECC	.24217	INC	2.0893	V1	29.358
RP	236.46	LAP	1.30	LOP	93.98	VP	21.427	GAP	9.35	AZP	91.64	TAL	5.68	TAP	147.20	RCA	151.61	APO	248.51	V2	23.244
RC	198.819	GL	18.11	GP	-23.29	ZAL	76.76	ZAP	122.78	ETS	198.09	ZAE	151.18	ETE	238.74	ZAC	60.97	ETC	284.60	LVI	4.60

PLANETOCENTRIC CONIC

C3	14.930	VHL	3.864	DLA	27.75	RAL	19.29	RAD	6640.5	VEL	11.618	PTH	6.66	VHP	2.755	DPA	-7.36	RAP	45.70	ECC	1.2457

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 46 48	3640.78	-47.53	141.44	257.16	92.51	10 47 29	2640.8	-41.00	108.68
60.00	9 48 5	3637.37	-40.14	141.01	257.03	86.07	10 48 42	2637.4	-37.33	110.24
70.00	9 50 26	3630.44	-32.90	139.37	255.95	80.28	10 50 56	2630.4	-33.52	110.65
80.00	9 56 38	3610.94	-26.11	136.19	254.24	74.98	10 56 49	2610.9	-29.82	109.38
90.00	10 32 11	3495.98	-21.95	126.39	252.88	71.70	11 30 27	2496.0	-27.50	100.75
100.00	12 39 30	3085.41	-26.11	97.56	254.24	74.98	13 30 55	2085.4	-29.82	70.74
110.00	14 49 52	2677.26	-32.90	68.29	255.95	80.28	15 34 29	1677.3	-33.52	39.57

DIFFERENTIAL CORRECTIONS

TDE	-.2909	TRA	-.5458	TC3	.2590	BAU	.5210												
RDE	.2054	RRA	.1610	RC3	-2.5972	FAU	.36578												
FDE	4.3428	FRA	.4127	FC	-21.2108	BSP	3506												
BDE	.3561	BRA	.5690	BC3	2.6101	FSP	2545												

MID-COURSE EXECUTION ACCURACY

SGT	1030.7	SGR	2047.9	SG3	1522.8														
RRT	-.3695	RRF	.9710	RTF	-.3683														
SGB	2292.7	R23	-.0915	R13	.9867														
SG1	2092.2	SG2	937.5	THA	103.24														

ORBIT DETERMINATION ACCURACY

ST	25.6	SR	16.0	SS	76.9														
CRT	-.9385	CRS	-.9684	C3T	.8590														
LSA	81.6	MSA	12.8	SSA	2.1														
EL1	29.8	EL2	4.7	ALF	148.61														

LAUNCH DATE AUG 5 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 463.959 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.940	GAL	1.10	AZL	87.83	HCA	142.49	SMA	199.88	ECC	.24147	INC	2.1712	V1	29.358
RP	236.81	LAP	1.32	LOP	94.95	VP	21.375	GAP	9.10	AZP	91.72	TAL	5.68	TAP	148.17	RCA	151.61	APO	248.14	V2	23.209
RC	199.589	GL	18.82	GP	-24.08	ZAL	76.80	ZAP	121.17	ETS	197.68	ZAE	149.68	ETE	236.56	ZAC	60.32	ETC	284.77	LVI	5.41

PLANETOCENTRIC CONIC

C3	14.963	VHL	3.868	DLA	28.39	RAL	18.95	RAD	6640.5	VEL	11.620	PTH	6.66	VHP	2.723	DPA	-8.29	RAP	45.43	ECC	1.2463

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 42 1	3655.95	-47.56	142.91	257.49	91.38	10 42 57	2656.0	-41.45	109.85
60.00	9 41 44	3656.68	-40.04	142.64	257.15	84.97	10 42 41	2656.7	-37.69	111.75
70.00	9 41 14	3658.19	-32.56	141.47	255.86	79.08	10 42 12	2658.2	-33.73	112.79
80.00	9 39 43	3662.95	-25.15	139.75	253.78	73.35	10 40 46	2662.9	-29.65	113.23
87.39	9 20 44	3724.35	-18.32	141.67	251.20	67.92	10 22 48	2724.4	-25.83	117.13
100.00	12 22 35	3137.42	-25.15	101.12	253.78	73.35	13 14 52	2137.4	-29.65	74.60
110.00	14 40 40	2705.01	-32.56	70.38	255.86	79.08	15 25 45	1705.0	-33.73	41.71

DIFFERENTIAL CORRECTIONS

TDE	-.2797	TRA	-.5486	TC3	.1156	BAU	.5417												
RDE	.2545	RRA	.1582	RC3	-2.7052	FAU	.37193												
FDE	4.6001	FRA	.3922	FC	-21.5184	BSP	3715												
BDE	.3761	BRA	.5709	BC3	2.7077	FSP	2648												

MID-COURSE EXECUTION ACCURACY

SGT	1016.2	SGR	2143.2	SG3	1555.2														
RRT	-.2706	RRF	.9743	RTF	-.2691														
SGB	2371.9	R23	-.0644	R13	.9722														
SG1	2165.3	SG2	968.4	THA	99.16														

ORBIT DETERMINATION ACCURACY

ST	24.9	SR	19.5	SS	80.4														
CRT	-.9171	CRS	-.9802	C3T	.8451														
LSA	85.4	MSA	13.1	SSA	2.0														
EL1	31.0	EL2	6.2	ALF	142.52														

LAUNCH DATE AUG 5 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 467.737 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.932	GAL	1.10	AZL	87.74	HCA	143.43	SMA	199.71	ECC	.24083	INC	2.2585	V1	29.358
RP	237.14	LAP	1.34	LOP	95.91	VP	21.324	GAP	8.85	AZP	91.81	TAL	5.67	TAP	149.13	RCA	151.61	APO	247.80	V2	23.174
RC	202.557	GL	19.55	GP	-24.89	ZAL	76.85	ZAP	119.55	ETS	197.26	ZAE	148.12	ETE	234.52	ZAC	59.66	ETC	284.95	LVI	6.03

PLANETOCENTRIC CONIC

C3	15.010	VHL	3.874	DLA	29.06	RAL	18.61	RAD	6640.5	VEL	11.622	PTH	6.66	VHP	2.695	DPA	-9.25	RAP	45.15	ECC	1.2470

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 37 0	3672.03	-47.58	144.46	257.85	90.18	10 38 12	2672.0	-41.92	111.11
60.00	9 35 2	3677.28	-39.90	144.38	257.29	83.80	10 36 19	2677.3	-38.05	113.38
70.00	9 31 11	3688.60	-32.15	143.74	255.74	77.80	10 32 40	2688.6	-33.91	115.14
80.00	9 17 48	3730.74	-23.75	144.30	253.12	71.35	10 19 59	2730.7	-29.25	118.23
83.02	8 43 31	3840.91	-18.71	150.40	251.08	67.35	9 47 32	2840.9	-26.41	125.83
100.00	12 0 40	3205.21	-23.75	105.66	253.12	71.35	12 54 5	2205.2	-29.25	79.60
110.00	14 30 38	2735.42	-32.15	72.66	255.74	77.80	15 16 13	1735.4	-33.91	44.06

DIFFERENTIAL CORRECTIONS

TDE	-.2566	TRA	-.5433	TC3	-.0087	BAU	.5670												
RDE	.3018	RRA	.1504	RC3	-2.8258	FAU	.37918												
FDE	4.8193	FRA	.3317	FC	-21.8708	BSP	3864												
BDE	.3961	BRA	.5637	BC3	2.8258	FSP	2710												

MID-COURSE EXECUTION ACCURACY

SGT	994.4	SGR	2249.0	SG3	1589.1														
RRT	-.1737	RRF	.9773	RTF	-.1698														
SGB	2459.1	R23	-.0399	R13	.9765														
SG1	2257.2	SG2	975.8	THA	95.40														

ORBIT DETERMINATION ACCURACY

ST	23.5	SR	22.9	SS	83.2														
CRT	-.8871	CRS	-.9869	C3T	.8205														
LSA	88.4	MSA	13.2	SSA	1.9														
EL1	31.8	EL2	7.8	ALF	135.81														

LAUNCH DATE AUG 5 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 471.517 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.924	GAL	1.10	AZL	87.65	HCA	144.41	SMA	199.58	ECC	.24023	INC	2.3456	V1	29.358
RP	237.48	LAP	1.36	LOP	96.87	VP	21.275	GAP	8.61	AZP	91.91	TAL	5.66	TAP	150.08	RCA	151.61	APO	247.49	V2	23.140
RC	205.523	GL	20.31	GP	-25.71	ZAL	76.92	ZAP	117.92	ETS	196.80	ZAE	146.51	ETE	232.62	ZAC	58.99	ETC	285.13	LVI	6.67

PLANETOCENTRIC CONIC

C3	15.069	VHL	3.882	DLA	29.76	RAL	18.27	RAD	6640.6	VEL	11.624	PTH	6.66	VHP	2.670	DPA	-10.24	RAP	44.88	ECC	1.2480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 31 44	3689.09	-47.57	146.11	258.25	88.91	10 33 13	2689.1	-42.40	112.46
60.00	9 27 53	3699.35	-39.72	146.23	257.44	82.56	10 29 32	2699.3	-38.41	115.15
70.00	9 20 7	3722.26	-31.64	146.23	255.60	76.41	10 22 10	2722.3	-34.05	117.76
80.00	8 39 8	3851.73	-20.89	152.14	251.78	68.17	9 43 20	2851.7	-28.03	127.01
80.33	8 21 6	3909.33	-19.11	155.64	250.99	66.75	9 26 16	2909.3	-27.02	131.05
100.00	11 22 0	3326.20	-20.89	113.51	251.78	68.17	12 17 26	2326.2	-28.03	88.38
110.00	14 19 34	2769.08	-31.64	75.15	255.60	76.41	15 5 43	1769.1	-34.05	46.66

DIFFERENTIAL CORRECTIONS

TDE	-.2316	TRA	-.5404	TC3	-.1402	BAU	.5939												
RDE	.3531	RRA	.1439	RC3	-2.9449	FAU	.38544												
FDE	5.0479	FRA	.2845	FC	-22.1445	BSP	4029												
BDE	.4222	BRA	.5592	BC3	2.9482	FSP	2766												

MID-COURSE EXECUTION ACCURACY

SGT	986.3	SGR	2357.7	SG3	1619.5														
RRT	-.0662	RRF	.9800	RTF	-.0606														
SGB	2555.7	R23	-.0180	R13	.9799														
SG1	2358.8	SG2	983.7	THA	91.92														

ORBIT DETERMINATION ACCURACY

ST	22.0	SR	26.5	SS	86.2														
CRT	-.8502	CRS	-.9910	C3T	.7881														
LSA	91.8	MSA	13.4	SSA	1.8														
EL1	33.2	EL2	9.2	ALF	128.68														

LAUNCH DATE AUG 5 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC — DISTANCE 475.299 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.917	GAL	1.09	AZL	87.56	HCA	145.37	SMA	199.41	ECC	.23968	INC	2.4386	V1	29.358
RP	237.81	LAP	1.39	LOP	97.83	VP	21.227	GAP	6.36	AZP	92.01	TAL	5.64	TAP	151.01	RCA	151.62	APO	247.20	V2	23.106
RC	208.485	GL	21.09	GP	-26.56	ZAL	77.01	ZAP	116.28	ETS	196.32	ZAE	144.86	ETE	230.84	ZAC	58.30	ETC	285.32	LVI	7.33

PLANETOCENTRIC CONIC

C3	15.142	VHL	3.891	DLA	30.48	RAL	17.93	RAD	6640.6	VEL	11.627	PTH	6.67	VHP	2.649	DPA	-11.25	RAP	44.60	ECC	1.2492

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 26 11	3707.20	-47.53	147.86	258.69	87.56	10 27 58	2707.2	-42.89	113.92
60.00	9 20 15	3723.03	-39.50	148.20	257.60	81.23	10 22 18	2723.0	-38.77	117.06
70.00	9 7 44	3760.01	-31.00	148.99	255.40	74.89	10 10 24	2760.0	-34.14	120.70
76.12	8 3 6	3963.37	-19.52	159.85	250.92	66.11	9 9 10	2963.4	-27.65	135.24
76.12	8 3 6	3963.37	-19.52	159.85	250.92	66.11	9 9 10	2963.4	-27.65	135.24
76.12	8 3 6	3963.37	-19.52	159.85	250.92	66.11	9 9 10	2963.4	-27.65	135.24
110.00	14 7 10	2806.82	-31.00	77.90	255.40	74.89	14 53 57	1806.8	-34.14	49.62

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.2032	TRA	-.5371	TC3	-.2767	BAU	.6225	SGT	988.9	SGR	2468.8	SG3	1645.7	ST	20.3	SR	30.4	SS	89.1
RDE	.4074	RRA	.1387	RC3	-3.0626	FAU	.39077	RRT	.0496	RRF	.9823	RTF	.0566	CRT	-.8014	CRS	-.9937	CST	.7431
FDE	5.2749	FRA	.2267	FC	-22.3419	BSP	4210	SGB	2659.5	R23	.0014	R13	.9824	LSA	95.3	MSA	13.6	SSA	1.7
BDE	.4553	BRA	.5539	BC3	3.0751	FSP	2815	SG1	2469.3	SG2	987.5	THA	88.65	EL1	35.0	EL2	10.6	ALF	121.35

LAUNCH DATE AUG 5 1973 FLIGHT TIME 208.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC — DISTANCE 479.081 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.910	GAL	1.08	AZL	87.46	HCA	146.33	SMA	199.28	ECC	.23917	INC	2.5360	V1	29.358
RP	238.14	LAP	1.41	LOP	98.79	VP	21.181	GAP	8.12	AZP	92.11	TAL	5.61	TAP	151.94	RCA	151.62	APO	246.94	V2	23.073
RC	211.443	GL	21.91	GP	-27.43	ZAL	77.12	ZAP	114.64	ETS	195.82	ZAE	143.17	ETE	229.16	ZAC	57.60	ETC	285.52	LVI	8.01

PLANETOCENTRIC CONIC

C3	15.230	VHL	3.903	DLA	31.24	RAL	17.58	RAD	6640.6	VEL	11.631	PTH	6.67	VHP	2.631	DPA	-12.27	RAP	44.32	ECC	1.2506

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 20 19	3726.46	-47.46	149.72	259.15	86.13	10 22 25	2726.5	-43.39	115.50
60.00	9 12 3	3748.52	-39.21	150.31	257.76	79.83	10 14 32	2748.5	-39.11	119.14
70.00	8 53 34	3803.13	-30.19	152.09	255.13	73.22	9 56 58	2803.1	-34.14	124.07
76.14	7 47 30	4009.59	-19.94	163.52	250.87	65.44	8 54 19	3009.6	-28.30	138.89
76.14	7 47 30	4009.59	-19.94	163.52	250.87	65.44	8 54 19	3009.6	-28.30	138.89
76.14	7 47 30	4009.59	-19.94	163.52	250.87	65.44	8 54 19	3009.6	-28.30	138.89
110.00	13 53 1	2849.95	-30.19	81.00	255.13	73.22	14 40 31	1849.9	-34.14	52.99

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.1709	TRA	-.5337	TC3	-.4143	BAU	.6536	SGT	1003.6	SGR	2585.3	SG3	1669.5	ST	18.6	SR	34.4	SS	91.9
RDE	.4641	RRA	.1250	RC3	-3.1833	FAU	.39573	RRT	.1679	RRF	.9844	RTF	.1760	CRT	-.7333	CRS	-.9955	CST	.6780
FDE	5.4920	FRA	.1533	FC	-22.4951	BSP	4401	SGB	2773.2	R23	.0178	R13	.9843	LSA	98.9	MSA	13.7	SSA	1.6
BDE	.4946	BRA	.5481	BC3	3.2101	FSP	2853	SG1	2591.7	SG2	986.9	THA	85.64	EL1	37.4	EL2	11.7	ALF	114.13

LAUNCH DATE AUG 5 1973 FLIGHT TIME 210.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC — DISTANCE 482.865 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.904	GAL	1.07	AZL	87.36	HCA	147.28	SMA	199.16	ECC	.23871	INC	2.6380	V1	29.358
RP	238.47	LAP	1.43	LOP	99.75	VP	21.135	GAP	7.87	AZP	92.22	TAL	5.57	TAP	152.85	RCA	151.62	APO	246.70	V2	23.040
RC	214.394	GL	22.75	GP	-28.32	ZAL	77.24	ZAP	113.01	ETS	195.28	ZAE	141.44	ETE	227.57	ZAC	56.89	ETC	285.73	LVI	8.71

PLANETOCENTRIC CONIC

C3	15.334	VHL	3.916	DLA	32.02	RAL	17.21	RAD	6640.7	VEL	11.635	PTH	6.67	VHP	2.617	DPA	-13.33	RAP	44.04	ECC	1.2524

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 14 5	3746.93	-47.34	151.69	259.64	84.62	10 16 32	2746.9	-43.90	117.21
60.00	9 3 11	3776.05	-38.86	152.56	257.91	78.34	10 6 7	2776.1	-39.43	121.41
70.00	8 36 51	3853.93	-29.14	155.66	254.74	71.34	9 41 5	2853.9	-34.02	126.03
74.31	7 33 25	4050.74	-20.36	166.85	250.84	64.73	8 40 56	3050.7	-28.98	142.20
74.31	7 33 25	4050.74	-20.36	166.85	250.84	64.73	8 40 56	3050.7	-28.98	142.20
74.31	7 33 25	4050.74	-20.36	166.85	250.84	64.73	8 40 56	3050.7	-28.98	142.20
110.00	13 36 18	2900.75	-29.14	84.58	254.74	71.34	14 24 39	1900.7	-34.02	56.95

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.1320	TRA	-.5286	TC3	-.5476	BAU	.6873	SGT	1026.4	SGR	2707.6	SG3	1690.4	ST	16.8	SR	38.5	SS	94.3
RDE	.5223	RRA	.1120	RC3	-3.3074	FAU	.40040	RRT	.2832	RRF	.9862	RTF	.2027	CRT	-.6293	CRS	-.9968	CST	.5761
FDE	5.6910	FRA	.0678	FC	-22.6062	BSP	4584	SGB	2895.6	R23	.0296	R13	.9859	LSA	102.3	MSA	13.8	SSA	1.6
BDE	.5388	BRA	.5403	BC3	3.3524	FSP	2866	SG1	2725.5	SG2	977.9	THA	82.96	EL1	40.1	EL2	12.5	ALF	107.02

LAUNCH DATE AUG 5 1973 FLIGHT TIME 212.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC — DISTANCE 486.647 — EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.899	GAL	1.06	AZL	87.25	HCA	148.23	SMA	199.05	ECC	.23829	INC	2.7453	V1	29.358
RP	238.79	LAP	1.44	LOP	100.70	VP	21.091	GAP	7.63	AZP	92.33	TAL	5.53	TAP	153.78	RCA	151.62	APO	246.48	V2	23.008
RC	217.340	GL	23.63	GP	-29.22	ZAL	77.38	ZAP	111.38	ETS	194.71	ZAE	139.69	ETE	226.08	ZAC	56.16	ETC	285.94	LVI	9.43

PLANETOCENTRIC CONIC

C3	15.455	VHL	3.931	DLA	32.85	RAL	16.85	RAD	6640.7	VEL	11.641	PTH	6.68	VHP	2.607	DPA	-14.40	RAP	43.78	ECC	1.2544

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 7 27	3768.79	-47.18	153.78	260.16	83.02	10 10 16	2768.8	-44.40	119.07
60.00	8 53 31	3806.00	-38.42	154.98	258.03	76.75	9 56 57	2806.0	-39.72	123.91
70.00	8 15 53	3917.53	-27.68	160.03	254.11	69.14	9 21 10	2917.5	-33.66	132.96
72.55	7 20 25	4088.36	-20.79	169.95	250.84	63.98	8 28 34	3088.4	-29.67	145.28
72.55	7 20 25	4088.36	-20.79	169.95	250.84	63.98	8 28 34	3088.4	-29.67	145.28
72.55	7 20 25	4088.36	-20.79	169.95	250.84	63.98	8 28 34	3088.4	-29.67	145.28
110.00	13 15 19	2964.35	-27.68	88.95	254.11	69.14	14 4 43	1964.3	-33.66	61.88

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	-.0989	TRA	-.5332	TC3	-.7097	BAU	.7196	SGT	1089.8	SGR	2822.6	SG3	1701.6	ST	15.7	SR	43.5	SS	97.8
RDE	.5928	RRA	.1041	RC3	-3.4098	FAU	.40156	RRT	.3916	RRF	.9878	RTF	.3999	CRT	-.5075	CRS	-.9976	CST	.4573
FDE	5.9460	FRA	.0239	FC	-22.4937	BSP	4864	SGB	3025.7	R23	.0447	R13	.9869	LSA	107.2	MSA	14.0	SSA	1.5
BDE	.6010	BRA	.5432	BC3	3.4829	FSP	2926	SG1	2859.1	SG2	989.9	THA	80.22	EL1	44.3	EL2	13.2	ALF	101.39

LAUNCH DATE AUG 5 1973 FLIGHT TIME 214.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 490.432 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.894	GAL	1.05	AZL	87.14	HCA	149.18	SMA	198.96	ECC	.23790	INC	2.8581	V1	29.358
RP	239.10	LAP	1.46	LOP	101.65	VP	21.049	GAP	7.39	AZP	92.46	TAL	5.47	TAP	154.65	RCA	151.62	APO	246.29	V2	22.975
RC	220.278	GL	24.54	GP	-30.15	ZAL	77.54	ZAP	109.76	ETS	194.12	ZAE	137.91	ETE	224.65	ZAC	55.41	ETC	286.16	LVI	10.17

PLANETOCENTRIC CONIC

C3	15.596	VHL	3.949	DLA	33.70	RAL	16.46	RAD	6640.8	VEL	11.647	PTH	6.68	VHP	2.600	DPA	-15.49	RAP	43.52	ECC	1.2867

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 0 21	3792.10	-46.97	155.99	260.69	81.33	10 3 33	2792.1	-44.91	121.09
60.00	8 42 54	3838.72	-37.87	157.59	258.12	75.05	9 46 53	2838.7	-39.97	126.65
70.00	7 45 2	4010.65	-25.27	166.19	252.93	66.22	8 51 53	3010.6	-32.75	140.07
70.86	7 8 14	4123.23	-21.23	172.88	250.86	63.19	8 16 57	3123.2	-30.39	148.20
70.86	7 8 14	4123.23	-21.23	172.88	250.86	63.19	8 16 57	3123.2	-30.39	148.20
70.86	7 8 14	4123.23	-21.23	172.88	250.86	63.19	8 16 57	3123.2	-30.39	148.20
110.00	12 44 29	3057.47	-25.27	95.11	252.93	66.22	13 35 26	2057.5	-32.75	68.99

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0561	TRA	-.5341	TC3	-.8598	BAU	.7554	SGT	1155.5	SGR	2945.3	SG3	1710.5	ST	14.6	SR	48.2	SS	100.4
RDE	.6613	RRA	.0913	RC3	-3.5198	FAU	.40305	RRT	.4882	RRF	.9892	RTF	.4963	CRT	-.3188	CRS	-.9983	CST	.2714
FDE	6.1513	FRA	-.0494	FC	-22.3739	BSP	5094	SGB	3163.8	R23	.0547	R13	.9878	LSA	111.4	MSA	14.2	SSA	1.4
BDE	.6637	BRA	.5418	BC3	3.6233	FSP	2935	SG1	3005.5	SG2	988.3	THA	77.82	EL1	48.5	EL2	13.8	ALF	95.99

LAUNCH DATE AUG 5 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC DISTANCE 494.216 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.889	GAL	1.04	AZL	87.02	HCA	150.13	SMA	198.87	ECC	.23755	INC	2.9771	V1	29.358
RP	239.42	LAP	1.48	LOP	102.60	VP	21.007	GAP	7.15	AZP	92.58	TAL	5.41	TAP	155.54	RCA	151.63	APO	246.11	V2	22.944
RC	223.209	GL	25.48	GP	-31.09	ZAL	77.71	ZAP	108.15	ETS	193.49	ZAE	136.12	ETE	223.30	ZAC	54.66	ETC	286.39	LVI	10.93

PLANETOCENTRIC CONIC

C3	15.757	VHL	3.969	DLA	34.59	RAL	16.07	RAD	6640.9	VEL	11.653	PTH	6.69	VHP	2.597	DPA	-16.60	RAP	43.27	ECC	1.2593

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 52 43	3817.04	-46.69	158.33	261.22	79.55	9 56 20	2817.0	-45.40	123.29
60.00	8 31 6	3874.80	-37.20	160.42	258.14	73.23	9 35 41	2874.8	-40.17	129.70
69.19	6 56 40	4155.95	-21.68	175.68	250.89	62.36	8 5 56	3156.0	-31.13	151.00
69.19	6 56 40	4155.95	-21.68	175.68	250.89	62.36	8 5 56	3156.0	-31.13	151.00
69.19	6 56 40	4155.95	-21.68	175.68	250.89	62.36	8 5 56	3156.0	-31.13	151.00
69.19	6 56 40	4155.95	-21.68	175.68	250.89	62.36	8 5 56	3156.0	-31.13	151.00
69.19	6 56 40	4155.95	-21.68	175.68	250.89	62.36	8 5 56	3156.0	-31.13	151.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0090	TRA	-.5363	TC3	-1.0105	BAU	.7925	SGT	1236.1	SGR	3069.6	SG3	1714.0	ST	14.2	SR	53.3	SS	103.1
RDE	.7353	RRA	.0783	RC3	-3.6239	FAU	.40319	RRT	.5706	RRF	.9904	RTF	.5784	CRT	-.0775	CRS	-.9987	CST	.0344
FDE	6.3562	FRA	-.1184	FC	-22.1532	BSP	5355	SGB	3309.1	R23	.0628	R13	.9885	LSA	116.0	MSA	14.3	SSA	1.3
BDE	.7354	BRA	.5420	BC3	3.7622	FSP	2945	SG1	3158.7	SG2	986.5	THA	75.63	EL1	53.3	EL2	14.1	ALF	91.27

LAUNCH DATE AUG 5 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC DISTANCE 498.000 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.885	GAL	1.02	AZL	86.90	HCA	151.07	SMA	198.79	ECC	.23724	INC	3.1027	V1	29.358
RP	239.73	LAP	1.50	LOP	103.54	VP	20.967	GAP	6.92	AZP	92.72	TAL	5.35	TAP	156.42	RCA	151.63	APO	245.96	V2	22.913
RC	226.132	GL	26.47	GP	-32.05	ZAL	77.90	ZAP	106.56	ETS	192.83	ZAE	134.31	ETE	221.99	ZAC	53.88	ETC	286.63	LVI	11.72

PLANETOCENTRIC CONIC

C3	15.941	VHL	3.993	DLA	35.52	RAL	15.65	RAD	6641.0	VEL	11.661	PTH	6.70	VHP	2.599	DPA	-17.73	RAP	43.04	ECC	1.2623

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 44 27	3843.79	-46.33	160.81	261.74	77.66	9 48 31	2843.8	-45.88	125.69
60.00	8 17 48	3915.08	-36.37	163.52	258.06	71.28	9 23 3	2915.1	-40.29	133.12
67.55	6 45 33	4187.05	-22.12	178.39	250.95	61.47	7 55 20	3187.0	-31.89	153.71
67.55	6 45 33	4187.05	-22.12	178.39	250.95	61.47	7 55 20	3187.0	-31.89	153.71
67.55	6 45 33	4187.05	-22.12	178.39	250.95	61.47	7 55 20	3187.0	-31.89	153.71
67.55	6 45 33	4187.05	-22.12	178.39	250.95	61.47	7 55 20	3187.0	-31.89	153.71
67.55	6 45 33	4187.05	-22.12	178.39	250.95	61.47	7 55 20	3187.0	-31.89	153.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0424	TRA	-.5400	TC3	-1.1625	BAU	.8312	SGT	1331.1	SGR	3195.9	SG3	1712.0	ST	14.7	SR	58.6	SS	103.7
RDE	.8137	RRA	.0837	RC3	-3.7230	FAU	.40217	RRT	.6402	RRF	.9915	RTF	.6476	CRT	.1859	CRS	-.9990	CST	-.2228
FDE	6.5493	FRA	-.1905	FC	-21.8420	BSP	5616	SGB	3462.0	R23	.0697	R13	.9891	LSA	120.8	MSA	14.5	SSA	1.2
BDE	.8148	BRA	.5437	BC3	3.9002	FSP	2937	SG1	3319.1	SG2	984.6	THA	73.58	EL1	58.6	EL2	14.4	ALF	87.16

LAUNCH DATE AUG 5 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 13 1974

HELIOCENTRIC CONIC DISTANCE 501.785 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.882	GAL	1.01	AZL	86.76	HCA	152.01	SMA	198.73	ECC	.23696	INC	3.2357	V1	29.358
RP	240.03	LAP	1.52	LOP	104.48	VP	20.928	GAP	6.88	AZP	92.86	TAL	5.28	TAP	157.28	RCA	151.63	APO	245.82	V2	22.882
RC	229.048	GL	27.50	GP	-33.03	ZAL	78.11	ZAP	104.98	ETS	192.15	ZAE	132.49	ETE	220.74	ZAC	53.09	ETC	286.88	LVI	12.53

PLANETOCENTRIC CONIC

C3	16.150	VHL	4.019	DLA	36.49	RAL	15.21	RAD	6641.1	VEL	11.670	PTH	6.71	VHP	2.604	DPA	-18.87	RAP	42.83	ECC	1.2658

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 35 27	3872.60	-45.87	163.44	262.24	75.68	9 40 0	2872.6	-46.33	128.33
60.00	8 2 29	3960.87	-35.31	166.94	257.84	69.16	9 8 29	2960.9	-40.28	137.02
65.91	6 34 50	4216.74	-22.57	181.04	251.03	60.53	7 45 6	3216.7	-32.68	156.37
65.91	6 34 50	4216.74	-22.57	181.04	251.03	60.53	7 45 6	3216.7	-32.68	156.37
65.91	6 34 50	4216.74	-22.57	181.04	251.03	60.53	7 45 6	3216.7	-32.68	156.37
65.91	6 34 50	4216.74	-22.57	181.04	251.03	60.53	7 45 6	3216.7	-32.68	156.37
65.91	6 34 50	4216.74	-22.57	181.04	251.03	60.53	7 45 6	3216.7	-32.68	156.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0987	TRA	-.5452	TC3	-1.3137	BAU	.8711	SGT	1438.6	SGR	3322.5	SG3	1703.7	ST	16.2	SR	64.1	SS	108.0
RDE	.8960	RRA	.0470	RC3	-3.8146	FAU	.39978	RRT	.6981	RRF	.9924	RTF	.7049	CRT	.4226	CRS	-.9992	CST	-.4522
FDE	6.7252	FRA	-.2688	FC	-21.4303	BSP	5912	SGB	3620.6	R23	.0753	R13	.9897	LSA	125.8	MSA	14.6	SSA	1.1
BDE	.9014	BRA	.5472	BC3	4.0345	FSP	2933	SG1	3484.9	SG2	982.1	THA	71.68	EL1	64.4	EL2	14.6	ALF	83.57

LAUNCH DATE AUG 5 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 15 1974

HELIOCENTRIC CONIC DISTANCE 505.569 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.879 GAL .99 AZL 86.62 HCA 152.95 SMA 198.67 ECC .23672 INC 3.5767 V1 29.358
RP 240.34 LAP 1.54 LOP 105.42 VP 20.890 GAP 6.44 AZP 93.01 TAL 5.20 TAP 158.14 RCA 151.64 APO 245.69 V2 22.851
RC 231.955 GL 28.58 GP -34.03 ZAL 78.33 ZAP 103.44 ETS 191.43 ZAE 130.67 ETE 219.54 ZAC 52.28 ETC 287.14 LVI 13.36

PLANETOCENTRIC CONIC

C3 16.389 VHL 4.048 DLA 37.51 RAL 14.74 RAD 6641.2 VEL 11.680 PTH 6.72 VHP 2.613 DPA -20.04 RAP 42.64 ECC 1.2697

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 25 36	3903.73	-45.31	166.24	262.69	73.59	9 30 40	2903.7	-46.74	131.22
60.00	7 44 17	4014.47	-33.94	170.83	257.39	66.83	8 51 11	3014.5	-40.09	141.56
64.26	6 24 22	4245.34	-23.02	183.64	251.13	59.54	7 35 7	3245.3	-33.48	158.99
64.26	6 24 22	4245.34	-23.02	183.64	251.13	59.54	7 35 7	3245.3	-33.48	158.99
64.26	6 24 22	4245.34	-23.02	183.64	251.13	59.54	7 35 7	3245.3	-33.48	158.99
64.26	6 24 22	4245.34	-23.02	183.64	251.13	59.54	7 35 7	3245.3	-33.48	158.99
64.26	6 24 22	4245.34	-23.02	183.64	251.13	59.54	7 35 7	3245.3	-33.48	158.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1597 TRA -.5518 TC3-1.4626 BAU .9127 SGT 1556.5 SGR 3452.2 SG3 1690.5 ST 18.7 SR 69.8 SS 110.3
RDE .9844 RRA .0281 RC3-3.9006 FAU .39631 RRT .7455 RRF .9932 RTF .7518 CRT .6016 CRS -.9994 CST -.6243
FDE 6.8921 FRA -.3513 FC-20.9348 BSP 6208 SGB 3786.9 R23 .0798 R13 .9902 LSA 131.0 MSA 14.7 SSA 1.1
BDE .9973 BRA .5525 BC3 4.1658 FSP 2913 SG1 3658.1 SG2 979.0 THA 69.92 EL1 70.8 EL2 14.7 ALF 80.44

LAUNCH DATE AUG 5 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 17 1974

HELIOCENTRIC CONIC DISTANCE 509.353 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.876 GAL .98 AZL 86.47 HCA 153.88 SMA 198.62 ECC .23650 INC 3.5268 V1 29.358
RP 240.63 LAP 1.55 LOP 106.36 VP 20.853 GAP 6.21 AZP 93.17 TAL 5.11 TAP 158.99 RCA 151.64 APO 245.59 V2 22.821
RC 234.852 GL 29.70 GP -35.06 ZAL 78.57 ZAP 101.92 ETS 190.67 ZAE 128.84 ETE 218.37 ZAC 51.45 ETC 287.41 LVI 14.22

PLANETOCENTRIC CONIC

C3 16.660 VHL 4.082 DLA 38.56 RAL 14.24 RAD 6641.3 VEL 11.692 PTH 6.73 VHP 2.628 DPA -21.21 RAP 42.47 ECC 1.2742

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 14 43	3937.57	-44.62	169.20	263.07	71.40	9 20 20	2937.6	-47.10	134.41
60.00	7 21 23	4080.76	-32.07	175.45	256.55	64.16	8 29 24	3080.8	-39.59	147.13
62.61	6 14 9	4272.94	-23.47	186.20	251.25	58.48	7 25 22	3272.9	-34.31	161.59
62.61	6 14 9	4272.94	-23.47	186.20	251.25	58.48	7 25 22	3272.9	-34.31	161.59
62.61	6 14 9	4272.94	-23.47	186.20	251.25	58.48	7 25 22	3272.9	-34.31	161.59
62.61	6 14 9	4272.94	-23.47	186.20	251.25	58.48	7 25 22	3272.9	-34.31	161.59
62.61	6 14 9	4272.94	-23.47	186.20	251.25	58.48	7 25 22	3272.9	-34.31	161.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .2265 TRA -.5602 TC3-1.6081 BAU .9550 SGT 1684.0 SGR 3581.2 SG3 1670.6 ST 22.0 SR 75.9 SS 112.5
RDE 1.0798 RRA .0088 RC3-3.9746 FAU .39116 RRT .7836 RRF .9940 RTF .7893 CRT .7247 CRS -.9996 CST -.7418
FDE 7.0502 FRA -.4260 FC-20.3269 BSP 6511 SGB 3957.4 R23 .0836 R13 .9906 LSA 136.7 MSA 14.9 SSA 1.0
BDE 1.1034 BRA .5602 BC3 4.2876 FSP 2879 SG1 3834.9 SG2 977.1 THA 68.29 EL1 77.7 EL2 14.8 ALF 77.69

LAUNCH DATE AUG 5 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 19 1974

HELIOCENTRIC CONIC DISTANCE 513.137 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.874 GAL .98 AZL 86.31 HCA 154.81 SMA 198.57 ECC .23632 INC 3.6868 V1 29.358
RP 240.93 LAP 1.57 LOP 107.30 VP 20.817 GAP 5.98 AZP 93.34 TAL 5.02 TAP 159.83 RCA 151.65 APO 245.50 V2 22.792
RC 237.739 GL 30.87 GP -36.10 ZAL 78.82 ZAP 100.43 ETS 189.89 ZAE 127.02 ETE 217.24 ZAC 50.60 ETC 287.69 LVI 15.10

PLANETOCENTRIC CONIC

C3 16.967 VHL 4.119 DLA 39.67 RAL 13.70 RAD 6641.5 VEL 11.705 PTH 6.74 VHP 2.646 DPA -22.41 RAP 42.33 ECC 1.2792

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 2 34	3974.60	-43.77	172.35	263.33	69.09	9 8 49	2974.6	-47.38	137.94
60.00	6 47 59	4175.69	-29.08	181.71	254.83	60.77	7 57 35	3175.7	-38.38	154.90
60.94	6 4 3	4299.87	-23.92	188.75	251.38	57.36	7 15 43	3299.9	-35.16	164.20
60.94	6 4 3	4299.87	-23.92	188.75	251.38	57.36	7 15 43	3299.9	-35.16	164.20
60.94	6 4 3	4299.87	-23.92	188.75	251.38	57.36	7 15 43	3299.9	-35.16	164.20
60.94	6 4 3	4299.87	-23.92	188.75	251.38	57.36	7 15 43	3299.9	-35.16	164.20
60.94	6 4 3	4299.87	-23.92	188.75	251.38	57.36	7 15 43	3299.9	-35.16	164.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .2989 TRA -.5707 TC3-1.7499 BAU .9987 SGT 1820.6 SGR 3710.8 SG3 1644.4 ST 26.0 SR 82.2 SS 114.4
RDE 1.1796 RRA -.0134 RC3-4.0401 FAU .38482 RRT .8149 RRF .9946 RTF .8200 CRT .8057 CRS -.9997 CST -.8186
FDE 7.1807 FRA -.5063 FC-19.6347 BSP 6817 SGB 4133.4 R23 .0867 R13 .9910 LSA 142.4 MSA 15.0 SSA .9
BDE 1.2168 BRA .5709 BC3 4.4028 FSP 2834 SG1 4016.8 SG2 975.0 THA 66.76 EL1 84.9 EL2 14.9 ALF 75.23

LAUNCH DATE AUG 5 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 21 1974

HELIOCENTRIC CONIC DISTANCE 516.919 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.872 GAL .94 AZL 86.14 HCA 155.74 SMA 198.54 ECC .23616 INC 3.8577 V1 29.358
RP 241.22 LAP 1.58 LOP 108.23 VP 20.783 GAP 5.75 AZP 93.52 TAL 4.92 TAP 160.66 RCA 151.65 APO 245.42 V2 22.783
RC 240.615 GL 32.10 GP -37.17 ZAL 79.10 ZAP 98.98 ETS 189.08 ZAE 125.21 ETE 216.13 ZAC 49.73 ETC 287.99 LVI 16.01

PLANETOCENTRIC CONIC

C3 17.317 VHL 4.161 DLA 40.82 RAL 13.11 RAD 6641.6 VEL 11.720 PTH 6.75 VHP 2.670 DPA -23.62 RAP 42.23 ECC 1.2850

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 48 52	4015.49	-42.72	175.72	263.44	66.67	8 55 47	3015.5	-47.55	141.88
59.24	5 54 3	4326.13	-24.35	191.30	251.53	56.17	7 6 9	3326.1	-36.02	166.83
59.24	5 54 3	4326.13	-24.35	191.30	251.53	56.17	7 6 9	3326.1	-36.02	166.83
59.24	5 54 3	4326.13	-24.35	191.30	251.53	56.17	7 6 9	3326.1	-36.02	166.83
59.24	5 54 3	4326.13	-24.35	191.30	251.53	56.17	7 6 9	3326.1	-36.02	166.83
59.24	5 54 3	4326.13	-24.35	191.30	251.53	56.17	7 6 9	3326.1	-36.02	166.83
59.24	5 54 3	4326.13	-24.35	191.30	251.53	56.17	7 6 9	3326.1	-36.02	166.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .3776 TRA -.5833 TC3-1.8849 BAU 1.0432 SGT 1964.0 SGR 3839.6 SG3 1611.7 ST 30.6 SR 88.7 SS 116.0
RDE 1.2857 RRA -.0385 RC3-4.0931 FAU .37700 RRT .8405 RRF .9952 RTF .8452 CRT .8594 CRS -.9997 CST -.8692
FDE 7.2903 FRA -.5897 FC-18.8473 BSP 7136 SGB 4312.8 R23 .0892 R13 .9913 LSA 148.4 MSA 15.1 SSA .9
BDE 1.3399 BRA .5845 BC3 4.5062 FSP 2780 SG1 4201.8 SG2 972.3 THA 65.33 EL1 92.6 EL2 15.0 ALF 73.04

LAUNCH DATE AUG 5 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 23 1974

HELIOCENTRIC CONIC DISTANCE 520.702 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.871	GAL	.92	AZL	85.96	HCA	156.67	SMA	198.51	ECC	.23603	INC	4.0410	V1	29.358
RP	241.80	LAP	1.80	LOP	109.16	VP	20.749	GAP	5.52	AZP	93.71	TAL	4.61	TAP	161.48	RCA	151.66	APO	245.36	V2	22.734
RC	243.479	GL	33.39	GP	-38.26	ZAL	79.38	ZAP	97.56	ETS	188.24	ZAE	123.40	ETE	215.06	ZAC	48.84	ETC	288.30	LVI	18.85

PLANETOCENTRIC CONIC

C3	17.715	VHL	4.209	DLA	42.02	RAL	12.48	RAD	6641.6	VEL	11.736	PTH	6.77	VHP	2.700	DPA	-24.84	RAP	42.18	ECC	1.2915

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 33 7	4061.27	-41.42	179.35	263.31	64.11	8 40 48	3061.3	-47.56	146.31
57.52	5 44 3	4352.00	-24.77	193.85	251.68	54.90	6 56 35	3352.0	-36.90	169.49
57.52	5 44 3	4352.00	-24.77	193.85	251.68	54.90	6 56 35	3352.0	-36.90	169.49
57.52	5 44 3	4352.00	-24.77	193.85	251.68	54.90	6 56 35	3352.0	-36.90	169.49
57.52	5 44 3	4352.00	-24.77	193.85	251.68	54.90	6 56 35	3352.0	-36.90	169.49
57.52	5 44 3	4352.00	-24.77	193.85	251.68	54.90	6 56 35	3352.0	-36.90	169.49
57.52	5 44 3	4352.00	-24.77	193.85	251.68	54.90	6 56 35	3352.0	-36.90	169.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4627	TRA	-.5982	TC3	-2.0117	BAU	1.0899	SGT	2113.3	SGR	3973.1	SG3	1574.6	ST	35.6	SR	95.4	SS	117.4
RDE	1.3999	RRA	-.0668	RC3	-4.1390	FAU	.36835	RRT	.8616	RRF	.9957	RTF	.8658	CRT	.8955	CRS	-.9998	CST	-.9030
FDE	7.3827	FRA	-.6755	FC	-18.0011	BSP	7464	SGB	4500.2	R23	.0910	R13	.9917	LSA	154.7	MSA	15.2	SSA	.8
BDE	1.4744	BRA	.6019	BC3	4.6019	FSP	2716	SG1	4394.5	SG2	969.7	THA	64.02	EL1	100.8	EL2	15.0	ALF	71.08

LAUNCH DATE AUG 5 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 25 1974

HELIOCENTRIC CONIC DISTANCE 524.483 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.870	GAL	.90	AZL	85.76	HCA	157.60	SMA	198.49	ECC	.23593	INC	4.2382	V1	29.358
RP	241.78	LAP	1.61	LOP	110.09	VP	20.717	GAP	5.29	AZP	93.92	TAL	4.70	TAP	162.30	RCA	151.66	APO	245.32	V2	22.706
RC	246.330	GL	34.74	GP	-39.37	ZAL	79.69	ZAP	96.20	ETS	187.36	ZAE	121.61	ETE	214.00	ZAC	47.92	ETC	288.63	LVI	17.93

PLANETOCENTRIC CONIC

C3	18.169	VHL	4.263	DLA	43.28	RAL	11.78	RAD	6642.0	VEL	11.756	PTH	6.78	VHP	2.735	DPA	-26.08	RAP	42.13	ECC	1.2990

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 14 36	4113.57	-39.79	183.30	262.84	61.39	8 23 10	3113.6	-47.35	151.35
55.76	5 34 2	4377.47	-25.17	196.42	251.85	53.56	6 46 59	3377.5	-37.79	172.20
55.76	5 34 2	4377.47	-25.17	196.42	251.85	53.56	6 46 59	3377.5	-37.79	172.20
55.76	5 34 2	4377.47	-25.17	196.42	251.85	53.56	6 46 59	3377.5	-37.79	172.20
55.76	5 34 2	4377.47	-25.17	196.42	251.85	53.56	6 46 59	3377.5	-37.79	172.20
55.76	5 34 2	4377.47	-25.17	196.42	251.85	53.56	6 46 59	3377.5	-37.79	172.20
55.76	5 34 2	4377.47	-25.17	196.42	251.85	53.56	6 46 59	3377.5	-37.79	172.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5552	TRA	-.6156	TC3	-2.1291	BAU	1.1359	SGT	2267.9	SGR	4100.1	SG3	1529.0	ST	41.1	SR	102.4	SS	118.5
RDE	1.5211	RRA	-.0965	RC3	-4.1636	FAU	.35764	RRT	.8787	RRF	.9961	RTF	.8825	CRT	.9203	CRS	-.9998	CST	-.9260
FDE	7.4463	FRA	-.7528	FC	-17.0410	BSP	7799	SGB	4685.6	R23	.0927	R13	.9919	LSA	161.2	MSA	15.4	SSA	.7
BDE	1.6193	BRA	.6231	BC3	4.6764	FSP	2642	SG1	4584.5	SG2	968.1	THA	62.76	EL1	109.3	EL2	15.1	ALF	69.31

LAUNCH DATE AUG 5 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 27 1974

HELIOCENTRIC CONIC DISTANCE 528.264 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.869	GAL	.87	AZL	85.55	HCA	158.52	SMA	198.47	ECC	.23584	INC	4.4509	V1	29.358
RP	242.06	LAP	1.63	LOP	111.02	VP	20.685	GAP	5.06	AZP	94.14	TAL	4.58	TAP	163.10	RCA	151.66	APO	245.28	V2	22.679
RC	249.167	GL	36.16	GP	-40.51	ZAL	80.01	ZAP	94.88	ETS	186.46	ZAE	119.84	ETE	212.97	ZAC	46.97	ETC	288.98	LVI	18.93

PLANETOCENTRIC CONIC

C3	18.688	VHL	4.323	DLA	44.59	RAL	11.00	RAD	6642.2	VEL	11.777	PTH	6.80	VHP	2.776	DPA	-27.33	RAP	42.15	ECC	1.3076

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 51 59	4175.44	-37.68	187.71	261.84	58.47	8 1 34	3175.4	-46.79	157.22
53.97	5 23 54	4402.78	-25.55	199.02	252.02	52.12	6 37 17	3402.8	-36.68	174.98
53.97	5 23 54	4402.78	-25.55	199.02	252.02	52.12	6 37 17	3402.8	-36.68	174.98
53.97	5 23 54	4402.78	-25.55	199.02	252.02	52.12	6 37 17	3402.8	-36.68	174.98
53.97	5 23 54	4402.78	-25.55	199.02	252.02	52.12	6 37 17	3402.8	-36.68	174.98
53.97	5 23 54	4402.78	-25.55	199.02	252.02	52.12	6 37 17	3402.8	-36.68	174.98
53.97	5 23 54	4402.78	-25.55	199.02	252.02	52.12	6 37 17	3402.8	-36.68	174.98

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6547	TRA	-.6359	TC3	-2.2356	BAU	1.1835	SGT	2426.8	SGR	4228.4	SG3	1478.1	ST	47.0	SR	109.5	SS	119.1
RDE	1.6489	RRA	-.1332	RC3	-4.1760	FAU	.34589	RRT	.8936	RRF	.9965	RTF	.8969	CRT	.9380	CRS	-.9999	CST	-.9424
FDE	7.4795	FRA	-.8437	FC	-16.0231	BSP	8126	SGB	4875.3	R23	.0938	R13	.9922	LSA	167.8	MSA	15.4	SSA	.7
BDE	1.7750	BRA	.6497	BC3	4.7367	FSP	2553	SG1	4779.1	SG2	963.8	THA	61.59	EL1	118.2	EL2	15.1	ALF	67.71

LAUNCH DATE AUG 5 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 29 1974

HELIOCENTRIC CONIC DISTANCE 532.043 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.869	GAL	.85	AZL	85.32	HCA	159.44	SMA	198.47	ECC	.23579	INC	4.6812	V1	29.358
RP	242.33	LAP	1.64	LOP	111.94	VP	20.655	GAP	4.83	AZP	94.38	TAL	4.46	TAP	163.90	RCA	151.67	APO	245.26	V2	22.652
RC	251.989	GL	37.65	GP	-41.68	ZAL	80.34	ZAP	93.61	ETS	185.54	ZAE	118.10	ETE	211.96	ZAC	46.00	ETC	289.35	LVI	18.97

PLANETOCENTRIC CONIC

C3	19.284	VHL	4.391	DLA	45.96	RAL	10.14	RAD	6642.5	VEL	11.803	PTH	6.82	VHP	2.825	DPA	-28.60	RAP	42.21	ECC	1.3174

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 22 5	4254.29	-34.74	192.95	259.91	55.18	7 32 59	3254.3	-45.62	164.47
52.13	5 13 35	4428.04	-25.88	201.66	252.17	50.60	6 27 23	3428.0	-39.57	177.85
52.13	5 13 35	4428.04	-25.88	201.66	252.17	50.60	6 27 23	3428.0	-39.57	177.85
52.13	5 13 35	4428.04	-25.88	201.66	252.17	50.60	6 27 23	3428.0	-39.57	177.85
52.13	5 13 35	4428.04	-25.88	201.66	252.17	50.60	6 27 23	3428.0	-39.57	177.85
52.13	5 13 35	4428.04	-25.88	201.66	252.17	50.60	6 27 23	3428.0	-39.57	177.85
52.13	5 13 35	4428.04	-25.88	201.66	252.17	50.60	6 27 23	3428.0	-39.57	177.85

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7619	TRA	-.6597	TC3	-2.3292	BAU	1.2322	SGT	2589.6	SGR	4356.6	SG3	1421.5	ST	53.1	SR	116.9	SS	119.4
RDE	1.7882	RRA	-.1698	RC3	-4.1734	FAU	.33297	RRT	.9052	RRF	.9969	RTF	.9081	CRT	.9504	CRS	-.9999	CST	-.9538
FDE	7.4847	FRA	-.9155	FC	-14.9482	BSP	8463	SGB	5068.1	R23	.0950	R13	.9924	LSA	174.7	MSA	15.6	SSA	.6
BDE	1.9437	BRA	.6812	BC3	4.7793	FSP	2457	SG1	4975.6	SG2	963.8	THA	60.50	EL1	127.5	EL2	15.2	ALF	66.27

LAUNCH DATE AUG 5 1973 FLIGHT TIME 238.00 ARRIVAL DATE MAR 31 1974

HELIOCENTRIC CONIC DISTANCE 538.822 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.868	GAL	.83	AZL	85.07	HCA	160.36	SMA	198.46	ECC	.23575	INC	4.9317	V1	29.358
RP	242.60	LAP	1.66	LOP	112.86	VP	20.625	GAP	4.61	AZP	94.65	TAL	4.34	TAP	164.69	RCA	151.67	APO	245.25	V2	22.625
RC	254.795	GL	39.21	GP	-42.88	ZAL	80.69	ZAP	92.41	ETS	184.58	ZAE	116.38	ETE	210.96	ZAC	44.99	ETC	289.75	LVI	21.06

PLANETOCENTRIC CONIC

C3	19.971	VHL	4.469	DLA	47.39	RAL	9.18	RAD	6642.8	VEL	11.831	PTH	6.85	VHP	2.881	DPA	-29.88	RAP	42.33	ECC	1.3287

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	5 28 19	4390.34	-29.13	201.09	255.13	50.56	6 41 29	3390.3	-42.51	176.06
50.25	5 3 0	4453.37	-26.18	204.34	252.31	48.97	6 17 14	3453.4	-40.45	180.83
50.25	5 3 0	4453.37	-26.18	204.34	252.31	48.97	6 17 14	3453.4	-40.45	180.83
50.25	5 3 0	4453.37	-26.18	204.34	252.31	48.97	6 17 14	3453.4	-40.45	180.83
50.25	5 3 0	4453.37	-26.18	204.34	252.31	48.97	6 17 14	3453.4	-40.45	180.83
50.25	5 3 0	4453.37	-26.18	204.34	252.31	48.97	6 17 14	3453.4	-40.45	180.83
50.25	5 3 0	4453.37	-26.18	204.34	252.31	48.97	6 17 14	3453.4	-40.45	180.83

DIFFERENTIAL CORRECTIONS

TDE	.8775	TRA	-.6865	TC3	-2.4068	BAU	1.2818
RDE	1.9354	RRA	-.2153	RC3	-4.1539	FAU	.31889
FDE	7.4535	FRA	-1.0010	FC	-13.8238	BSP	8806
BDE	2.1251	BRA	.7195	BC3	4.8008	FSP	2351

MID-COURSE EXECUTION ACCURACY

SGT	2753.8	SGR	4484.2	SG3	1359.4		
RRT	.9158	RRF	.9972	RTF	.9184		
SGB	5262.2	R23	.0953	R13	.9927		
SG1	5174.2	SG2	958.7	THA	59.49		

ORBIT DETERMINATION ACCURACY

ST	59.6	SR	124.3	SS	119.2		
CRT	.9599	CRS	-.9999	CST	-.9626		
LSA	181.6	MSA	15.6	SSA	.6		
EL1	137.1	EL2	15.2	ALF	64.96		

LAUNCH DATE AUG 5 1973 FLIGHT TIME 240.00 ARRIVAL DATE APR 2 1974

HELIOCENTRIC CONIC DISTANCE 539.599 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.869	GAL	.80	AZL	84.79	HCA	161.27	SMA	198.47	ECC	.23574	INC	5.2049	V1	29.358
RP	242.86	LAP	1.67	LOP	113.78	VP	20.597	GAP	4.38	AZP	94.93	TAL	4.20	TAP	165.48	RCA	151.68	APO	245.25	V2	22.599
RC	257.584	GL	40.87	GP	-44.11	ZAL	81.06	ZAP	91.26	ETS	183.61	ZAE	114.69	ETE	209.98	ZAC	43.95	ETC	290.17	LVI	22.17

PLANETOCENTRIC CONIC

C3	20.766	VHL	4.557	DLA	48.88	RAL	8.10	RAD	6643.2	VEL	11.865	PTH	6.88	VHP	2.946	DPA	-31.18	RAP	42.51	ECC	1.3418

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.31	4 52 6	4478.84	-26.41	207.07	252.41	47.25	6 6 45	3478.8	-41.31	183.92
48.31	4 52 6	4478.84	-26.41	207.07	252.41	47.25	6 6 45	3478.8	-41.31	183.92
48.31	4 52 6	4478.84	-26.41	207.07	252.41	47.25	6 6 45	3478.8	-41.31	183.92
48.31	4 52 6	4478.84	-26.41	207.07	252.41	47.25	6 6 45	3478.8	-41.31	183.92
48.31	4 52 6	4478.84	-26.41	207.07	252.41	47.25	6 6 45	3478.8	-41.31	183.92
48.31	4 52 6	4478.84	-26.41	207.07	252.41	47.25	6 6 45	3478.8	-41.31	183.92
48.31	4 52 6	4478.84	-26.41	207.07	252.41	47.25	6 6 45	3478.8	-41.31	183.92

DIFFERENTIAL CORRECTIONS

TDE	1.0009	TRA	-.7180	TC3	-2.4689	BAU	1.3326
RDE	2.0947	RRA	-.2633	RC3	-4.1164	FAU	.30368
FDE	7.3908	FRA	-1.0720	FC	-12.6604	BSP	9165
BDE	2.3215	BRA	.7647	BC3	4.8001	FSP	2242

MID-COURSE EXECUTION ACCURACY

SGT	2920.8	SGR	4611.4	SG3	1292.2		
RRT	.9241	RRF	.9975	RTF	.9264		
SGB	5458.6	R23	.0960	R13	.9929		
SG1	5373.9	SG2	957.5	THA	58.55		

ORBIT DETERMINATION ACCURACY

ST	66.3	SR	132.0	SS	118.6		
CRT	.9667	CRS	-.9999	CST	-.9686		
LSA	188.8	MSA	15.7	SSA	.5		
EL1	146.9	EL2	15.2	ALF	63.80		

LAUNCH DATE AUG 5 1973 FLIGHT TIME 242.00 ARRIVAL DATE APR 4 1974

HELIOCENTRIC CONIC DISTANCE 543.374 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.869	GAL	.78	AZL	84.50	HCA	162.19	SMA	198.48	ECC	.23575	INC	5.5046	V1	29.358
RP	243.12	LAP	1.68	LOP	114.70	VP	20.569	GAP	4.16	AZP	95.24	TAL	4.07	TAP	166.25	RCA	151.68	APO	245.27	V2	22.573
RC	260.356	GL	42.60	GP	-45.37	ZAL	81.44	ZAP	90.18	ETS	182.62	ZAE	113.04	ETE	209.01	ZAC	42.88	ETC	290.64	LVI	23.32

PLANETOCENTRIC CONIC

C3	21.692	VHL	4.657	DLA	50.43	RAL	6.86	RAD	6643.6	VEL	11.903	PTH	6.91	VHP	3.020	DPA	-32.49	RAP	42.76	ECC	1.3570

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.33	4 40 44	4504.72	-26.58	209.86	252.46	45.42	5 55 49	3504.7	-42.13	187.17
46.33	4 40 44	4504.72	-26.58	209.86	252.46	45.42	5 55 49	3504.7	-42.13	187.17
46.33	4 40 44	4504.72	-26.58	209.86	252.46	45.42	5 55 49	3504.7	-42.13	187.17
46.33	4 40 44	4504.72	-26.58	209.86	252.46	45.42	5 55 49	3504.7	-42.13	187.17
46.33	4 40 44	4504.72	-26.58	209.86	252.46	45.42	5 55 49	3504.7	-42.13	187.17
46.33	4 40 44	4504.72	-26.58	209.86	252.46	45.42	5 55 49	3504.7	-42.13	187.17
46.33	4 40 44	4504.72	-26.58	209.86	252.46	45.42	5 55 49	3504.7	-42.13	187.17

DIFFERENTIAL CORRECTIONS

TDE	1.1321	TRA	-.7541	TC3	-2.5128	BAU	1.3846
RDE	2.2626	RRA	-.3212	RC3	-4.0598	FAU	.28742
FDE	7.2794	FRA	-1.1498	FC	-11.4709	BSP	9487
BDE	2.5300	BRA	.8197	BC3	4.7745	FSP	2112

MID-COURSE EXECUTION ACCURACY

SGT	3086.6	SGR	4736.4	SG3	1219.7		
RRT	.9318	RRF	.9977	RTF	.9538		
SGB	5654.4	R23	.0961	R13	.9931		
SG1	5573.6	SG2	952.5	THA	57.66		

ORBIT DETERMINATION ACCURACY

ST	73.1	SR	139.6	SS	117.2		
CRT	.9720	CRS	-1.0000	CST	-.9737		
LSA	195.8	MSA	15.8	SSA	.5		
EL1	156.8	EL2	15.3	ALF	62.75		

LAUNCH DATE AUG 5 1973 FLIGHT TIME 244.00 ARRIVAL DATE APR 6 1974

HELIOCENTRIC CONIC DISTANCE 547.148 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.870	GAL	.75	AZL	84.17	HCA	163.10	SMA	198.49	ECC	.23578	INC	5.8347	V1	29.358
RP	243.37	LAP	1.69	LOP	115.62	VP	20.543	GAP	3.93	AZP	95.58	TAL	3.92	TAP	167.02	RCA	151.69	APO	245.29	V2	22.548
RC	263.112	GL	44.44	GP	-46.66	ZAL	81.83	ZAP	89.18	ETS	181.61	ZAE	111.43	ETE	208.06	ZAC	41.77	ETC	291.14	LVI	24.52

PLANETOCENTRIC CONIC

C3	22.776	VHL	4.772	DLA	52.04	RAL	5.45	RAD	6644.1	VEL	11.948	PTH	6.95	VHP	3.106	DPA	-33.81	RAP	43.08	ECC	1.3748

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.30	4 28 48	4531.11	-26.65	212.70	252.42	43.49	5 44 19	3531.1	-42.89	190.57
44.30	4 28 48	4531.11	-26.65	212.70	252.42	43.49	5 44 19	3531.1	-42.89	190.57
44.30	4 28 48	4531.11	-26.65	212.70	252.42	43.49	5 44 19	3531.1	-42.89	190.57
44.30	4 28 48	4531.11	-26.65	212.70	252.42	43.49	5 44 19	3531.1	-42.89	190.57
44.30	4 28 48	4531.11	-26.65	212.70	252.42	43.49	5 44 19	3531.1	-42.89	190.57
44.30	4 28 48	4531.11	-26.65	212.70	252.42	43.49	5 44 19	3531.1	-42.89	190.57
44.30	4 28 48	4531.11	-26.65	212.70	252.42	43.49	5 44 19	3531.1	-42.89	190.57

DIFFERENTIAL CORRECTIONS

TDE	1.2714	TRA	-.7963	TC3	-2.5378	BAU	1.4373
RDE	2.4476	RRA	-.3844	RC3	-3.9800	FAU	.26994
FDE	7.1385	FRA	-1.2143	FC	-10.2605	BSP	9829
BDE	2.7581	BRA	.8842	BC3	4.7202	FSP	1982

MID-COURSE EXECUTION ACCURACY

SGT	3257.7	SGR	4860.9	SG3	1142.9		
RRT	.9380	RRF	.9979	RTF	.9395		
SGB	5851.6	R23	.0967	R13	.9933		
SG1	5773.8	SG2	951.1	THA	56.83		

ORBIT DETERMINATION ACCURACY

ST	79.9	SR	147.5	SS	115.5		
CRT	.9759	CRS	-1.0000	CST	-.9772		
LSA	203.0	MSA	15.9	SSA	.4		
EL1	167.0	EL2	15.4	ALF	61.88		

LAUNCH DATE AUG 5 1973 FLIGHT TIME 246.00 ARRIVAL DATE APR 8 1974

HELIOCENTRIC CONIC DISTANCE 550,920 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.871 GAL .72 AZL 83.80 HCA 164.01 SMA 198.51 ECC .23583 INC 6.2007 V1 29.358
RP 243.62 LAP 1.71 LOP 116.53 VP 20.517 GAP 3.71 AZP 95.96 TAL 3.78 TAP 167.79 RCA 151.69 APO 245.32 V2 22.523
RC 265.850 GL 46.37 GP -48.00 ZAL 82.24 ZAP 88.25 ETS 180.59 ZAE 109.86 ETE 207.13 ZAC 40.62 ETC 291.68 LVI 25.76

PLANETOCENTRIC CONIC

C3 24.055 VHL 4.905 DLA 53.72 RAL 3.83 RAD 6644.6 VEL 12.001 PTH 6.99 VHP 3.205 DPA -35.15 RAP 43.47 ECC 1.3959

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.22	4 16 7	4558.20	-26.62	215.60	252.26	41.45	5 32 6	3558.2	-43.57	194.14
42.22	4 16 7	4558.20	-26.62	215.60	252.26	41.45	5 32 6	3558.2	-43.57	194.14
42.22	4 16 7	4558.20	-26.62	215.60	252.26	41.45	5 32 6	3558.2	-43.57	194.14
42.22	4 16 7	4558.20	-26.62	215.60	252.26	41.45	5 32 6	3558.2	-43.57	194.14
42.22	4 16 7	4558.20	-26.62	215.60	252.26	41.45	5 32 6	3558.2	-43.57	194.14
42.22	4 16 7	4558.20	-26.62	215.60	252.26	41.45	5 32 6	3558.2	-43.57	194.14
42.22	4 16 7	4558.20	-26.62	215.60	252.26	41.45	5 32 6	3558.2	-43.57	194.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.4184 TRA -.8433 TC3-2.5387 BAU 1.4916 SGT 3423.2 SGR 4984.6 SG3 1062.0 ST 86.6 SR 155.0 SS 112.8
RDE 2.6420 RRA -.4594 RC3-3.8816 FAU .25176 RRT .9439 RRF .9981 RTF .9451 CRT .9791 CRS-1.0000 CST -.9801
FDE 6.9394 FRA-1.2789 FC3-9.0606 BSP 10174 SGB 6046.8 R23 .0962 R13 .9935 LSA 209.8 MSA 16.0 SSA .4
BDE 2.9987 BRA .9603 BC3 4.6381 FSP 1843 SG1 5972.8 SG2 943.5 THA 56.09 EL1 176.9 EL2 15.4 ALF 61.08

LAUNCH DATE AUG 5 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 10 1974

HELIOCENTRIC CONIC DISTANCE 554,690 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.872 GAL .69 AZL 83.39 HCA 164.91 SMA 198.53 ECC .23589 INC 6.6086 V1 29.358
RP 243.86 LAP 1.72 LOP 117.45 VP 20.493 GAP 3.49 AZP 96.38 TAL 3.63 TAP 168.54 RCA 151.70 APO 245.36 V2 22.499
RC 268.570 GL 48.42 GP -49.36 ZAL 82.66 ZAP 87.40 ETS 179.56 ZAE 108.34 ETE 206.21 ZAC 39.43 ETC 292.28 LVI 27.04

PLANETOCENTRIC CONIC

C3 25.577 VHL 5.057 DLA 55.45 RAL 1.94 RAD 6645.2 VEL 12.064 PTH 7.08 VHP 3.319 DPA -36.49 RAP 43.96 ECC 1.4209

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.10	4 2 32	4586.21	-26.45	218.56	251.92	39.31	5 18 58	3586.2	-44.14	197.90
40.10	4 2 32	4586.21	-26.45	218.56	251.92	39.31	5 18 58	3586.2	-44.14	197.90
40.10	4 2 32	4586.21	-26.45	218.56	251.92	39.31	5 18 58	3586.2	-44.14	197.90
40.10	4 2 32	4586.21	-26.45	218.56	251.92	39.31	5 18 58	3586.2	-44.14	197.90
40.10	4 2 32	4586.21	-26.45	218.56	251.92	39.31	5 18 58	3586.2	-44.14	197.90
40.10	4 2 32	4586.21	-26.45	218.56	251.92	39.31	5 18 58	3586.2	-44.14	197.90
40.10	4 2 32	4586.21	-26.45	218.56	251.92	39.31	5 18 58	3586.2	-44.14	197.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.5715 TRA -.8972 TC3-2.5168 BAU 1.5467 SGT 3586.4 SGR 5107.0 SG3 977.5 ST 93.1 SR 162.6 SS 109.5
RDE 2.8543 RRA -.5425 RC3-3.7583 FAU .23255 RRT .9487 RRF .9982 RTF .9496 CRT .9814 CRS-1.0000 CST -.9822
FDE 6.6983 FRA-1.3273 FC3-7.8714 BSP 10534 SGB 6240.5 R23 .0961 R13 .9936 LSA 216.4 MSA 16.1 SSA .4
BDE 3.2583 BRA 1.0484 BC3 4.5232 FSP 1701 SG1 6169.5 SG2 938.5 THA 55.41 EL1 186.7 EL2 15.5 ALF 60.45

LAUNCH DATE AUG 5 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 12 1974

HELIOCENTRIC CONIC DISTANCE 558,458 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.873 GAL .66 AZL 82.93 HCA 165.82 SMA 198.56 ECC .23598 INC 7.0662 V1 29.358
RP 244.10 LAP 1.73 LOP 118.36 VP 20.469 GAP 3.27 AZP 96.85 TAL 3.48 TAP 169.29 RCA 151.70 APO 245.41 V2 22.475
RC 271.273 GL 50.58 GP -50.77 ZAL 83.10 ZAP 86.64 ETS 178.54 ZAE 108.88 ETE 205.32 ZAC 38.21 ETC 292.94 LVI 26.36

PLANETOCENTRIC CONIC

C3 27.403 VHL 5.235 DLA 57.23 RAL 359.72 RAD 6646.0 VEL 12.139 PTH 7.11 VHP 3.451 DPA -37.85 RAP 44.53 ECC 1.4510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.93	3 47 46	4615.39	-26.12	221.55	251.33	37.08	5 4 41	3615.4	-44.57	201.85
37.93	3 47 46	4615.39	-26.12	221.55	251.33	37.08	5 4 41	3615.4	-44.57	201.85
37.93	3 47 46	4615.39	-26.12	221.55	251.33	37.08	5 4 41	3615.4	-44.57	201.85
37.93	3 47 46	4615.39	-26.12	221.55	251.33	37.08	5 4 41	3615.4	-44.57	201.85
37.93	3 47 46	4615.39	-26.12	221.55	251.33	37.08	5 4 41	3615.4	-44.57	201.85
37.93	3 47 46	4615.39	-26.12	221.55	251.33	37.08	5 4 41	3615.4	-44.57	201.85
37.93	3 47 46	4615.39	-26.12	221.55	251.33	37.08	5 4 41	3615.4	-44.57	201.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.7227 TRA -.9614 TC3-2.4739 BAU 1.6048 SGT 3747.3 SGR 5226.4 SG3 889.7 ST 98.8 SR 169.3 SS 104.9
RDE 3.0711 RRA -.6433 RC3-3.6151 FAU .21279 RRT .9532 RRF .9983 RTF .9537 CRT .9831 CRS-1.0000 CST -.9836
FDE 6.3815 FRA-1.3746 FC3-6.7225 BSP 10848 SGB 6431.0 R23 .0958 R13 .9937 LSA 221.7 MSA 16.2 SSA .3
BDE 3.5213 BRA 1.1568 BC3 4.3805 FSP 1548 SG1 6363.4 SG2 930.2 THA 54.78 EL1 195.4 EL2 15.7 ALF 59.95

LAUNCH DATE AUG 5 1973 FLIGHT TIME 252.00 ARRIVAL DATE APR 14 1974

HELIOCENTRIC CONIC DISTANCE 562,224 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.875 GAL .63 AZL 82.42 HCA 166.72 SMA 198.59 ECC .23608 INC 7.5837 V1 29.358
RP 244.34 LAP 1.74 LOP 119.27 VP 20.446 GAP 3.05 AZP 97.38 TAL 3.32 TAP 170.04 RCA 151.71 APO 245.47 V2 22.452
RC 273.957 GL 52.86 GP -52.20 ZAL 83.54 ZAP 85.97 ETS 177.53 ZAE 105.47 ETE 204.46 ZAC 36.94 ETC 293.67 LVI 29.73

PLANETOCENTRIC CONIC

C3 29.619 VHL 5.442 DLA 59.05 RAL 357.09 RAD 6646.9 VEL 12.229 PTH 7.18 VHP 3.604 DPA -39.20 RAP 45.21 ECC 1.4874

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.74	3 31 32	4646.00	-25.60	224.57	250.41	34.77	4 48 58	3646.0	-44.80	205.96
35.74	3 31 32	4646.00	-25.60	224.57	250.41	34.77	4 48 58	3646.0	-44.80	205.96
35.74	3 31 32	4646.00	-25.60	224.57	250.41	34.77	4 48 58	3646.0	-44.80	205.96
35.74	3 31 32	4646.00	-25.60	224.57	250.41	34.77	4 48 58	3646.0	-44.80	205.96
35.74	3 31 32	4646.00	-25.60	224.57	250.41	34.77	4 48 58	3646.0	-44.80	205.96
35.74	3 31 32	4646.00	-25.60	224.57	250.41	34.77	4 48 58	3646.0	-44.80	205.96
35.74	3 31 32	4646.00	-25.60	224.57	250.41	34.77	4 48 58	3646.0	-44.80	205.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.8721 TRA-1.0343 TC3-2.4046 BAU 1.6649 SGT 3900.8 SGR 5348.7 SG3 800.4 ST 103.6 SR 175.6 SS 99.5
RDE 3.3045 RRA -.7586 RC3-3.4492 FAU .19241 RRT .9571 RRF .9984 RTF .9571 CRT .9841 CRS-1.0000 CST -.9845
FDE 6.0134 FRA-1.4043 FC3-5.6240 BSP 11188 SGB 6620.1 R23 .0955 R13 .9938 LSA 226.3 MSA 16.4 SSA .3
BDE 3.7980 BRA 1.2827 BC3 4.2046 FSP 1394 SG1 6555.6 SG2 921.9 THA 54.27 EL1 203.3 EL2 15.9 ALF 59.65

LAUNCH DATE AUG 5 1973 FLIGHT TIME 284.00 ARRIVAL DATE APR 16 1974

HELIOCENTRIC CONIC DISTANCE 565.986 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.877 GAL .60 AZL 81.83 HCA 167.62 SMA 198.63 ECC .23619 INC 8.1739 V1 29.358
RP 244.56 LAP 1.75 LOP 120.17 VP 20.425 GAP 2.83 AZP 97.99 TAL 3.16 TAP 170.77 RCA 151.71 APO 245.54 V2 22.430
RC 276.623 GL 55.28 GP -53.68 ZAL 84.00 ZAP 85.40 ETS 176.55 ZAE 104.14 ETE 203.63 ZAC 35.63 ETC 294.48 LVI 31.14

PLANETOCENTRIC CONIC

C3 32.338 VHL 5.687 DLA 60.89 RAL 353.96 RAD 6647.9 VEL 12.339 PTH 7.27 VHP 3.784 DPA -40.56 RAP 45.99 ECC 1.5322

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.53	3 13 28	4678.33	-24.85	227.58	249.02	32.42	4 31 26	3678.3	-44.79	210.21
33.53	3 13 28	4678.33	-24.85	227.58	249.02	32.42	4 31 26	3678.3	-44.79	210.21
33.53	3 13 28	4678.33	-24.85	227.58	249.02	32.42	4 31 26	3678.3	-44.79	210.21
33.53	3 13 28	4678.33	-24.85	227.58	249.02	32.42	4 31 26	3678.3	-44.79	210.21
33.53	3 13 28	4678.33	-24.85	227.58	249.02	32.42	4 31 26	3678.3	-44.79	210.21
33.53	3 13 28	4678.33	-24.85	227.58	249.02	32.42	4 31 26	3678.3	-44.79	210.21
33.53	3 13 28	4678.33	-24.85	227.58	249.02	32.42	4 31 26	3678.3	-44.79	210.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 2.0079 TRA-1.1182 TC3-2.3102 BAU 1.7287 SGT 4044.7 SGR 5475.0 SG3 710.1 ST 107.0 SR 180.8 SS 93.0
RDE 3.5437 RRA -.8967 RC3-3.2637 FAU .17171 RRT .9608 RRF .9985 RTF .9602 CRT .9846 CRS-1.0000 CST -.9847
FDE 5.5743 FRA-1.4219 FC3-4.5969 BSP 11534 SGB 6806.9 R23 .0948 R13 .9939 LSA 229.1 MSA 16.6 SSA .3
BDE 4.0731 BRA 1.4333 BC3 3.9986 FSP 1238 SG1 6745.9 SG2 909.8 THA 53.87 EL1 209.5 EL2 16.2 ALF 59.56

LAUNCH DATE AUG 5 1973 FLIGHT TIME 256.00 ARRIVAL DATE APR 18 1974

HELIOCENTRIC CONIC DISTANCE 569.747 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.879 GAL .57 AZL 81.15 HCA 168.51 SMA 198.67 ECC .23633 INC 8.8532 V1 29.358
RP 244.79 LAP 1.76 LOP 121.08 VP 20.404 GAP 2.61 AZP 98.68 TAL 3.00 TAP 171.51 RCA 151.72 APO 245.62 V2 22.407
RC 279.268 GL 57.84 GP -55.17 ZAL 84.46 ZAP 84.92 ETS 175.61 ZAE 102.88 ETE 202.84 ZAC 34.29 ETC 295.38 LVI 32.59

PLANETOCENTRIC CONIC

C3 35.724 VHL 5.977 DLA 62.73 RAL 350.17 RAD 6649.2 VEL 12.475 PTH 7.37 VHP 3.995 DPA -41.90 RAP 46.89 ECC 1.5879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.35	2 53 4	4712.69	-23.83	230.55	247.02	30.06	4 11 37	3712.7	-44.49	214.54
31.35	2 53 4	4712.69	-23.83	230.55	247.02	30.06	4 11 37	3712.7	-44.49	214.54
31.35	2 53 4	4712.69	-23.83	230.55	247.02	30.06	4 11 37	3712.7	-44.49	214.54
31.35	2 53 4	4712.69	-23.83	230.55	247.02	30.06	4 11 37	3712.7	-44.49	214.54
31.35	2 53 4	4712.69	-23.83	230.55	247.02	30.06	4 11 37	3712.7	-44.49	214.54
31.35	2 53 4	4712.69	-23.83	230.55	247.02	30.06	4 11 37	3712.7	-44.49	214.54
31.35	2 53 4	4712.69	-23.83	230.55	247.02	30.06	4 11 37	3712.7	-44.49	214.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 2.1073 TRA-1.2188 TC3-2.1938 BAU 1.8049 SGT 4178.5 SGR 5623.1 SG3 621.6 ST 108.1 SR 183.4 SS 84.7
RDE 3.7579 RRA-1.0807 RC3-3.0772 FAU .15180 RRT .9656 RRF .9985 RTF .9645 CRT .9846 CRS-1.0000 CST -.9848
FDE 5.0305 FRA-1.4472 FC3-3.6788 BSP 11659 SGB 7005.7 R23 .0912 R13 .9943 LSA 228.5 MSA 16.7 SSA .2
BDE 4.3084 BRA 1.6289 BC3 3.7791 FSP 1053 SG1 6950.4 SG2 878.8 THA 53.67 EL1 212.2 EL2 16.3 ALF 59.68

LAUNCH DATE AUG 5 1973 FLIGHT TIME 308.00 ARRIVAL DATE JUN 9 1974

HELIOCENTRIC CONIC DISTANCE 668.078 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.978 GAL -.68 AZL 98.98 HCA 191.89 SMA 200.64 ECC .24390 INC 8.9796 V1 29.358
RP 248.71 LAP 1.84 LOP 144.19 VP 20.144 GAP -2.69 AZP 81.21 TAL 356.52 TAP 188.42 RCA 151.70 APO 249.57 V2 22.023
RC 339.321 GL -57.99 GP 50.76 ZAL 91.36 ZAP 69.81 ETS 209.29 ZAE 84.11 ETE 189.16 ZAC 136.89 ETC 290.94 LVI -70.81

PLANETOCENTRIC CONIC

C3 36.849 VHL 6.070 DLA -38.96 RAL 61.17 RAD 6649.6 VEL 12.519 PTH 7.40 VHP 4.040 DPA 51.78 RAP 349.77 ECC 1.6064

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 38 37	2427.17	-3.75	63.35	292.26	137.46	18 19 4	1427.2	14.56	47.43
60.00	19 57 12	2056.85	8.34	41.58	303.70	129.57	20 31 29	1056.9	23.44	22.04
62.00	21 16 20	1831.76	16.29	28.97	309.98	125.90	21 46 52	831.8	29.47	7.07
62.00	21 16 20	1831.76	16.29	28.97	309.98	125.90	21 46 52	831.8	29.47	7.07
62.00	21 16 20	1831.76	16.29	28.97	309.98	125.90	21 46 52	831.8	29.47	7.07
62.00	21 16 20	1831.76	16.29	28.97	309.98	125.90	21 46 52	831.8	29.47	7.07
62.00	21 16 20	1831.76	16.29	28.97	309.98	125.90	21 46 52	831.8	29.47	7.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-5.5636 TRA 3.1596 TC3-4.4925 BAU 2.4912 SGT 8487.3 SGR 4694.2 SG3 578.5 ST 268.9 SR 130.3 SS 57.5
RDE 2.6085 RRA-2.3344 RC3 2.3216 FAU .15057 RRT -.9832 RRF -.9967 RTF .9731 CRT -.9932 CRS .9986 CST -.9856
FDE-3.2340 FRA 3.4039 FC3-3.5375 BSP 16884 SGB 9699.0 R23 .1772 R13 -.9815 LSA 303.9 MSA 16.0 SSA .3
BDE 6.1448 BRA 3.9284 BC3 5.0569 FSP 987 SG1 9669.7 SG2 753.1 THA 151.27 EL1 298.5 EL2 13.7 ALF 154.24

LAUNCH DATE AUG 5 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 11 1974

HELIOCENTRIC CONIC DISTANCE 671.812 EARTH TO MARS

RL 151.76 LAL .00 LOL 312.44 VL 32.983 GAL -.73 AZL 98.36 HCA 192.76 SMA 200.74 ECC .24431 INC 8.3627 V1 29.358
RP 248.78 LAP 1.84 LOP 145.06 VP 20.144 GAP -2.89 AZP 81.84 TAL 356.26 TAP 189.02 RCA 151.69 APO 249.78 V2 22.015
RC 341.246 GL -55.66 GP 48.91 ZAL 91.71 ZAP 68.34 ETS 209.52 ZAE 82.94 ETE 189.98 ZAC 135.18 ETC 290.27 LVI -69.83

PLANETOCENTRIC CONIC

C3 33.751 VHL 5.810 DLA -36.69 RAL 60.44 RAD 6648.4 VEL 12.396 PTH 7.31 VHP 3.873 DPA 50.25 RAP 351.45 ECC 1.5558

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 16 48	2469.19	-5.86	65.11	288.74	137.30	17 57 57	1469.2	12.50	49.30
60.00	19 10 24	2166.38	3.55	46.88	297.72	130.17	19 46 31	1166.4	19.16	28.14
65.58	21 31 24	1757.19	16.29	22.86	307.33	123.34	22 0 41	757.2	28.50	.42
65.58	21 31 24	1757.19	16.29	22.86	307.33	123.34	22 0 41	757.2	28.50	.42
65.58	21 31 24	1757.19	16.29	22.86	307.33	123.34	22 0 41	757.2	28.50	.42
65.58	21 31 24	1757.19	16.29	22.86	307.33	123.34	22 0 41	757.2	28.50	.42
65.58	21 31 24	1757.19	16.29	22.86	307.33	123.34	22 0 41	757.2	28.50	.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-5.3014 TRA 3.1104 TC3-4.9418 BAU 2.4780 SGT 8656.9 SGR 4511.1 SG3 647.1 ST 267.8 SR 122.3 SS 59.9
RDE 2.3399 RRA-2.1931 RC3 2.3958 FAU .16544 RRT -.9825 RRF -.9966 RTF .9727 CRT -.9927 CRS .9984 CST -.9844
FDE-3.3523 FRA 3.7121 FC3-4.2437 BSP 17033 SGB 9761.8 R23 .1810 R13 -.9807 LSA 300.0 MSA 16.3 SSA .3
BDE 5.7948 BRA 3.8059 BC3 5.4919 FSP 1106 SG1 9733.1 SG2 747.6 THA 152.71 EL1 294.1 EL2 13.5 ALF 155.55

LAUNCH DATE AUG 5 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 13 1974

HELIOCENTRIC CONIC DISTANCE 675.547 EARTH TO MARS

RL	131.76	LAL	.00	LOL	312.44	VL	32.988	GAL	-.79	AZL	97.82	HCA	193.63	SMA	200.84	ECC	.24474	INC	7.6233	V1	29.358
RP	248.65	LAP	1.84	LOP	145.94	VP	20.145	GAP	-3.09	AZP	82.39	TAL	356.00	TAP	189.63	RCA	151.68	APO	249.99	V2	22.009
RC	343.139	GL	-53.46	GP	47.11	ZAL	92.09	ZAP	66.91	ETS	209.67	ZAE	81.77	ETE	190.65	ZAC	133.49	ETC	289.67	LVI	-67.65

PLANETOCENTRIC CONIC

C3	31.231	VHL	5.588	DLA	-34.53	RAL	59.83	RAD	6647.5	VEL	12.295	PTH	7.23	VHP	3.734	DPA	48.77	RAP	353.03	ECC	1.5140

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 58 37	2506.55	-7.72	66.70	285.92	137.09	17 40 23	1506.5	10.66	50.93
60.00	18 39 5	2239.01	.36	50.35	293.64	130.30	19 16 24	1239.0	16.20	31.99
69.30	21 49 47	1675.41	16.12	16.24	304.98	120.96	22 17 42	675.4	27.42	353.40
69.30	21 49 47	1675.41	16.12	16.24	304.98	120.96	22 17 42	675.4	27.42	353.40
69.30	21 49 47	1675.41	16.12	16.24	304.98	120.96	22 17 42	675.4	27.42	353.40
69.30	21 49 47	1675.41	16.12	16.24	304.98	120.96	22 17 42	675.4	27.42	353.40
69.30	21 49 47	1675.41	16.12	16.24	304.98	120.96	22 17 42	675.4	27.42	353.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-5.0597	TRA 3.0708	TC3-5.3865	BAU 2.4707	SGT 8818.3	SGR 4330.1	SG3 710.7		ST 265.8	SR 114.5	SS 61.4					
RDE 2.1020	RRA-2.0655	RC3 2.4499	FAU .17904	RRT -.9818	RRF -.9965	RTF .9722		CRT -.9921	CRS .9982	CST -.9829					
FDE-3.4126	FRA 3.9895	FC3-4.9630	BSP 17205	SGB 9824.1	R23 .1850	R13 -.9797		LSA 295.4	MSA 16.5	SSA .3					
BDE 5.4790	BRA 3.7008	BC3 5.9175	FSP 1222	SG1 9796.1	SG2 740.5	THA 154.10		EL1 289.1	EL2 13.2	ALF 156.80					

LAUNCH DATE AUG 5 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 15 1974

HELIOCENTRIC CONIC DISTANCE 679.283 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.993	GAL	-.84	AZL	97.35	HCA	194.49	SMA	200.94	ECC	.24516	INC	7.3476	V1	29.358
RP	248.92	LAP	1.83	LOP	146.82	VP	20.146	GAP	-3.28	AZP	82.88	TAL	355.73	TAP	190.23	RCA	151.67	APO	250.20	V2	22.003
RC	345.001	GL	-51.38	GP	45.38	ZAL	92.49	ZAP	65.52	ETS	209.75	ZAE	80.59	ETE	191.27	ZAC	131.85	ETC	289.14	LVI	-66.07

PLANETOCENTRIC CONIC

C3	29.158	VHL	5.400	DLA	-32.48	RAL	59.34	RAD	6646.7	VEL	12.211	PTH	7.17	VHP	3.618	DPA	47.34	RAP	354.51	ECC	1.4799

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 43 6	2540.73	-9.43	68.16	283.64	136.86	17 25 27	1540.7	8.96	52.40
60.00	18 14 48	2296.68	-2.18	53.10	290.55	130.25	18 53 5	1296.7	13.79	34.96
70.00	20 31 17	1894.68	7.55	27.85	297.83	123.41	21 2 52	894.7	20.47	6.98
73.32	22 12 50	1581.36	15.81	8.78	302.91	118.74	22 39 12	581.4	26.26	345.62
73.32	22 12 50	1581.36	15.81	8.78	302.91	118.74	22 39 12	581.4	26.26	345.62
73.32	22 12 50	1581.36	15.81	8.78	302.91	118.74	22 39 12	581.4	26.26	345.62
110.00	1 34 39	6229.54	7.55	294.67	297.83	123.41	3 18 29	5229.5	20.47	273.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-4.8388	TRA 3.0401	TC3-5.8268	BAU 2.4700	SGT 8976.6	SGR 4157.8	SG3 770.1		ST 263.2	SR 107.1	SS 62.2					
RDE 1.8954	RRA-1.9496	RC3 2.4898	FAU .19170	RRT -.9812	RRF -.9962	RTF .9718		CRT -.9915	CRS .9980	CST -.9813					
FDE-3.4326	FRA 4.2371	FC3-5.6920	BSP 17328	SGB 9892.8	R23 .1882	R13 -.9787		LSA 290.4	MSA 16.7	SSA .4					
BDE 5.1968	BRA 3.6115	BC3 6.3364	FSP 1323	SG1 9865.9	SG2 729.8	THA 155.42		EL1 283.9	EL2 13.0	ALF 157.97					

LAUNCH DATE AUG 5 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 17 1974

HELIOCENTRIC CONIC DISTANCE 683.020 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	32.998	GAL	-.89	AZL	96.92	HCA	195.36	SMA	201.04	ECC	.24560	INC	6.9248	V1	29.358
RP	248.97	LAP	1.83	LOP	147.69	VP	20.148	GAP	-3.48	AZP	83.32	TAL	355.46	TAP	190.82	RCA	151.66	APO	250.41	V2	21.997
RC	346.831	GL	-49.42	GP	43.71	ZAL	92.91	ZAP	64.18	ETS	209.76	ZAE	79.43	ETE	191.81	ZAC	130.26	ETC	288.66	LVI	-64.53

PLANETOCENTRIC CONIC

C3	27.433	VHL	5.238	DLA	-30.92	RAL	58.95	RAD	6646.0	VEL	12.140	PTH	7.11	VHP	3.521	DPA	45.97	RAP	355.89	ECC	1.4518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 29 41	2572.57	-11.00	69.54	281.79	136.59	17 12 34	1572.6	7.37	53.76
60.00	17 54 53	2345.89	-4.34	55.46	288.12	130.11	18 33 59	1345.9	11.70	37.44
70.00	19 52 8	2000.91	3.54	33.45	294.06	123.99	20 25 29	1000.9	16.96	13.21
78.02	22 43 55	1463.59	15.40	359.65	301.08	116.68	23 8 19	463.6	25.06	336.26
78.02	22 43 55	1463.59	15.40	359.65	301.08	116.68	23 8 19	463.6	25.06	336.26
78.02	22 43 55	1463.59	15.40	359.65	301.08	116.68	23 8 19	463.6	25.06	336.26
110.00	0 55 30	1047.73	3.54	322.37	294.06	123.99	1 12 58	47.7	16.96	302.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-4.6359	TRA 3.0190	TC3-6.2578	BAU 2.4732	SGT 9131.6	SGR 3992.7	SG3 824.9		ST 260.2	SR 100.3	SS 62.6					
RDE 1.7159	RRA-1.8449	RC3 2.5131	FAU .20314	RRT -.9807	RRF -.9959	RTF .9715		CRT -.9909	CRS .9977	CST -.9794					
FDE-3.4199	FRA 4.4591	FC3-6.4108	BSP 17455	SGB 9966.3	R23 .1905	R13 -.9779		LSA 285.3	MSA 16.9	SSA .4					
BDE 4.9433	BRA 3.5381	BC3 6.7435	FSP 1413	SG1 9940.5	SG2 716.8	THA 156.66		EL1 278.6	EL2 12.8	ALF 159.05					

LAUNCH DATE AUG 5 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 19 1974

HELIOCENTRIC CONIC DISTANCE 686.758 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.004	GAL	-.95	AZL	96.55	HCA	196.23	SMA	201.14	ECC	.24604	INC	6.5463	V1	29.358
RP	249.02	LAP	1.83	LOP	148.57	VP	20.151	GAP	-3.67	AZP	83.71	TAL	355.19	TAP	191.42	RCA	151.65	APO	250.63	V2	21.992
RC	348.628	GL	-47.56	GP	42.10	ZAL	93.36	ZAP	62.88	ETS	209.73	ZAE	78.27	ETE	192.28	ZAC	128.72	ETC	288.24	LVI	-63.02

PLANETOCENTRIC CONIC

C3	25.985	VHL	5.098	DLA	-28.65	RAL	58.65	RAD	6645.4	VEL	12.081	PTH	7.06	VHP	3.439	DPA	44.65	RAP	357.20	ECC	1.4276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 17 55	2602.60	-12.49	70.85	280.28	136.29	17 1 18	1602.6	5.87	55.03
60.00	17 38 0	2389.56	-6.25	57.57	286.18	129.89	18 17 50	1389.6	9.83	39.61
70.00	19 24 14	2077.13	.63	37.43	291.37	124.15	19 58 51	1077.1	14.31	17.53
80.00	21 46 17	1632.26	8.30	8.38	296.07	118.78	22 13 29	632.3	19.40	346.51
85.20	23 38 51	1270.10	14.91	345.08	299.47	114.75	24 0 1	270.1	23.84	321.52
100.00	0 33 5	1106.73	8.30	329.75	296.07	118.78	0 51 32	106.7	19.40	307.88
110.00	0 27 37	1123.95	.63	326.35	291.37	124.15	0 46 20	123.9	14.31	306.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-4.4464	TRA 3.0064	TC3-6.6759	BAU 2.4787	SGT 9280.5	SGR 3831.1	SG3 874.1		ST 256.7	SR 93.8	SS 62.3					
RDE 1.5559	RRA-1.7504	RC3 2.5184	FAU .21311	RRT -.9801	RRF -.9956	RTF .9711		CRT -.9902	CRS .9972	CST -.9771					
FDE-3.3703	FRA 4.6581	FC3-7.1000	BSP 17617	SGB10040.2	R23 .1929	R13 -.9770		LSA 279.8	MSA 17.1	SSA .5					
BDE 4.7108	BRA 3.4789	BC3 7.1351	FSP 1501	SG110015.5	SG2 704.0	THA 157.86		EL1 273.0	EL2 12.3	ALF 160.07					

LAUNCH DATE AUG 5 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 21 1974

HELIOCENTRIC CONIC DISTANCE 690.496 EARTH TO MARS

RL	151.76	LAL	.00	LOL	312.44	VL	33.000	GAL	-1.01	AZL	96.21	HCA	197.10	SMA	201.24	ECC	.24649	INC	0.2054	V1	29.388
RP	249.07	LAP	1.82	LOP	149.44	VP	20.155	GAP	-3.87	AZP	84.07	TAL	354.91	TAP	192.01	RCA	151.64	APO	250.65	V2	21.988
RC	350.392	GL	-45.80	GP	40.57	ZAL	93.81	ZAP	61.63	ETS	209.65	ZAE	77.12	ETE	192.69	ZAC	127.23	ETC	287.86	LVI	-61.56

PLANETOCENTRIC CONIC

C3	24.760	VHL	4.976	DLA	-26.87	RAL	58.41	RAD	6644.9	VEL	12.031	PTH	7.02	VHP	3.370	DPA	43.40	RAP	358.43	ECC	1.4078

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 7 32	2631.13	-13.89	72.11	279.05	135.98	16 51 23	1631.1	4.45	56.24
60.00	17 23 25	2429.27	-7.98	59.50	284.61	129.64	18 3 54	1429.3	8.11	41.56
70.00	19 2 3	2139.25	-1.75	40.67	289.30	124.11	19 37 42	1139.3	12.08	20.96
80.00	21 4 45	1755.15	4.21	15.21	293.00	119.59	21 34 1	755.1	15.94	354.00
90.00	22 59 39	1384.62	7.42	349.71	294.75	117.37	23 22 44	384.6	18.04	327.71
100.00	23 47 37	1229.62	4.21	336.58	293.00	119.59	24 8 7	229.6	15.94	315.36
110.00	0 5 25	1186.07	-1.75	329.59	289.30	124.11	0 25 11	186.1	12.08	309.88

DIFFERENTIAL CORRECTIONS

TDE	-4.2698	TRA	3.0006	TC3	-7.0838	BAU	2.4880
RDE	1.4146	RRA	-1.6641	RC3	2.5126	FAU	.22206
FDE	-3.2936	FRA	4.8342	FC3	-7.7644	BSP	17766
BDE	4.4981	BRA	3.4312	BC3	7.5162	FSP	1576

MID-COURSE EXECUTION ACCURACY

SGT	9427.3	SGR	3676.9	SG3	918.6		
RRT	-.9796	RRF	-.9952	RTF	.9707		
SGB	10118.9	R23	.1948	R13	-.9761		
SG1	10095.4	SG2	690.0	THA	158.99		

ORBIT DETERMINATION ACCURACY

ST	252.8	SR	87.7	SS	61.7		
CRT	-.9896	CRS	.9966	CST	-.9744		
LSA	274.0	MSA	17.4	SSA	.5		
EL1	267.3	EL2	11.9	ALF	161.02		

LAUNCH DATE AUG 6 1973 FLIGHT TIME 102.00 ARRIVAL DATE NOV 16 1973

HELIOCENTRIC CONIC DISTANCE 296.201 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	35.630	GAL	-.55	AZL	90.17	HCA	90.80	SMA	276.60	ECC	.45151	INC	.1657	V1	29.363
RP	218.53	LAP	-.17	LOP	44.20	VP	27.108	GAP	24.13	AZP	90.00	TAL	358.22	TAP	89.02	RCA	151.71	APO	401.49	V2	25.148
RC	76.362	GL	-.95	GP	-5.05	ZAL	90.81	ZAP	174.52	ETS	248.99	ZAE	163.07	ETE	344.02	ZAC	78.44	ETC	282.85	LVI	-12.20

PLANETOCENTRIC CONIC

C3	39.289	VHL	6.268	DLA	15.20	RAL	42.03	RAD	6650.4	VEL	12.616	PTH	7.47	VHP	9.017	DPA	10.47	RAP	41.43	ECC	1.6466

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 10 52	3607.02	-47.38	138.19	290.87	95.00	13 10 59	2607.0	-39.93	106.14
60.00	12 33 16	3547.40	-40.28	133.36	291.40	91.28	13 32 23	2547.4	-35.38	103.41
70.00	13 8 52	3481.46	-34.12	128.87	291.38	88.34	14 3 23	2481.5	-31.23	97.21
80.00	13 55 36	3295.48	-29.65	113.60	291.13	86.35	14 50 34	2295.5	-28.15	86.17
90.00	15 6 46	3059.48	-27.96	96.02	291.00	85.61	15 59 45	2059.5	-26.97	69.08
100.00	16 36 30	2769.96	-29.65	74.86	291.13	86.35	17 24 40	1770.0	-28.15	47.54
110.00	18 5 18	2498.28	-34.12	54.48	291.38	88.34	18 46 56	1498.3	-31.23	26.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3282	TRA	-1.0452	TC3	.2280	BAU	.1254	SGT	1073.3	SGR	619.9	SG3	131.1	ST	21.1	SR	28.8	SS	11.1
RDE	-.6261	RRA	.2331	RC3	-.0710	FAU	.05048	RRT	-.1087	RRF	.1240	RTF	-.6236	CRT	.6248	CRS	.7244	CST	.9811
FDE	.2483	FRA	.5857	FC3	-1.1124	BSP	1544	SGB	1239.4	R23	-.0233	R13	.6258	LSA	34.1	MSA	15.4	SSA	1.3
BDE	.7069	BRA	1.0709	BC3	.2388	FSP	158	SG1	1076.4	SG2	614.4	THA	174.66	EL1	32.6	EL2	14.6	ALF	58.41

LAUNCH DATE AUG 6 1973 FLIGHT TIME 104.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 298.234 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	35.474	GAL	-.48	AZL	90.13	HCA	91.93	SMA	270.34	ECC	.43879	INC	.1288	V1	29.363
RP	218.89	LAP	-.13	LOP	45.33	VP	26.864	GAP	23.75	AZP	90.00	TAL	358.43	TAP	90.36	RCA	151.72	APO	388.96	V2	25.107
RC	77.855	GL	-.75	GP	-5.18	ZAL	90.39	ZAP	174.06	ETS	242.56	ZAE	162.43	ETE	343.89	ZAC	78.25	ETC	282.82	LVI	-11.97

PLANETOCENTRIC CONIC

C3	37.351	VHL	6.112	DLA	15.26	RAL	41.56	RAD	6649.7	VEL	12.539	PTH	7.42	VHP	8.743	DPA	10.47	RAP	41.82	ECC	1.6147

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 8 45	3595.44	-47.30	137.08	289.18	95.86	13 8 40	2595.4	-39.56	105.29
60.00	12 31 4	3536.02	-40.26	132.40	289.84	91.91	13 30 0	2536.0	-35.10	102.57
70.00	13 3 34	3440.34	-34.14	124.70	289.89	88.85	14 0 55	2440.3	-31.04	96.41
80.00	13 53 15	3284.66	-29.70	112.69	289.69	86.77	14 48 0	2284.7	-28.02	85.40
90.00	15 6 20	3048.79	-28.02	95.24	289.57	85.99	15 57 9	2048.8	-26.86	68.29
100.00	16 36 7	2759.13	-29.70	74.06	289.69	86.77	17 22 6	1759.1	-28.02	46.76
110.00	18 3 1	2487.16	-34.14	53.62	289.89	88.85	18 44 28	1487.2	-31.04	25.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3322	TRA	-1.0371	TC3	.2565	BAU	.1341	SGT	1100.4	SGR	624.4	SG3	139.7	ST	21.7	SR	28.9	SS	11.4
RDE	-.6125	RRA	.2315	RC3	-.0795	FAU	.05256	RRT	-.1141	RRF	.1344	RTF	-.6342	CRT	.6310	CRS	.7303	CST	.9811
FDE	.2595	FRA	.5983	FC3	-1.2183	BSP	1633	SGB	1265.2	R23	-.0288	R13	.6366	LSA	34.6	MSA	15.5	SSA	1.3
BDE	.6968	BRA	1.0627	BC3	.2685	FSP	170	SG1	1103.8	SG2	618.4	THA	174.60	EL1	33.0	EL2	14.8	ALF	57.36

LAUNCH DATE AUG 6 1973 FLIGHT TIME 106.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 300.445 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	35.326	GAL	-.41	AZL	90.09	HCA	93.06	SMA	264.70	ECC	.42682	INC	.0920	V1	29.363
RP	219.26	LAP	-.09	LOP	46.46	VP	26.631	GAP	23.37	AZP	90.00	TAL	358.64	TAP	91.70	RCA	151.72	APO	377.68	V2	25.067
RC	79.428	GL	-.55	GP	-5.32	ZAL	89.95	ZAP	173.54	ETS	237.10	ZAE	161.84	ETE	343.71	ZAC	78.05	ETC	282.79	LVI	-11.74

PLANETOCENTRIC CONIC

C3	35.568	VHL	5.964	DLA	15.32	RAL	41.06	RAD	6649.1	VEL	12.469	PTH	7.36	VHP	8.479	DPA	10.45	RAP	42.20	ECC	1.5854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 6 32	3584.32	-47.22	136.02	287.51	96.67	13 6 16	2584.3	-39.19	104.48
60.00	12 28 47	3525.11	-40.23	131.47	288.29	92.54	13 27 32	2525.1	-34.83	101.77
70.00	13 1 11	3429.71	-34.15	123.87	288.42	89.35	13 58 21	2429.7	-30.85	95.64
80.00	13 50 46	3274.33	-29.74	111.93	288.26	87.17	14 45 21	2274.3	-27.88	84.66
90.00	15 3 48	3038.61	-28.06	94.50	288.15	86.36	15 54 27	2038.6	-26.75	67.57
100.00	16 33 38	2748.80	-29.74	73.30	288.26	87.17	17 19 27	1748.8	-27.88	46.03
110.00	18 0 38	2476.53	-34.15	52.79	288.42	89.35	18 41 54	1476.5	-30.85	24.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3311	TRA	-1.0279	TC3	.2869	BAU	.1428	SGT	1125.5	SGR	628.5	SG3	148.8	ST	22.1	SR	29.0	SS	11.9
RDE	-.5991	RRA	.2302	RC3	-.0886	FAU	.05472	RRT	-.1243	RRF	.1442	RTF	-.6462	CRT	.6315	CRS	.7392	CST	.9795
FDE	.2747	FRA	.6127	FC3	-1.3319	BSP	1648	SGB	1289.1	R23	-.0288	R13	.6488	LSA	35.0	MSA	15.7	SSA	1.4
BDE	.6845	BRA	1.0534	BC3	.3003	FSP	185	SG1	1129.4	SG2	621.5	THA	174.30	EL1	33.3	EL2	14.9	ALF	56.71

LAUNCH DATE AUG 6 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 302.813 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	35.188	GAL	-.33	AZL	90.06	HCA	94.19	SMA	259.60	ECC	.41555	INC	.0551	V1	29.363
RP	219.63	LAP	-.06	LOP	47.58	VP	26.407	GAP	22.99	AZP	90.00	TAL	358.86	TAP	93.05	RCA	151.73	APO	367.48	V2	25.026
RC	81.081	GL	-.35	GP	-5.46	ZAL	89.50	ZAP	172.95	ETS	232.48	ZAE	161.31	ETE	343.48	ZAC	77.84	ETC	282.75	LVI	-11.51

PLANETOCENTRIC CONIC

C3	33.926	VHL	5.825	DLA	15.38	RAL	40.55	RAD	6648.5	VEL	12.403	PTH	7.31	VHP	8.225	DPA	10.43	RAP	42.57	ECC	1.5583

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 15	3573.69	-47.13	135.01	285.88	97.45	13 3 48	2573.7	-38.83	103.72
60.00	12 26 24	3514.69	-40.20	130.59	286.77	93.14	13 24 59	2514.7	-34.56	101.01
70.00	12 58 43	3419.58	-34.15	123.08	286.96	89.81	13 55 42	2419.6	-30.66	94.91
80.00	13 48 12	3264.51	-29.77	111.20	286.84	87.55	14 42 37	2264.5	-27.75	83.96
90.00	15 1 11	3028.95	-28.10	93.79	286.75	86.71	15 51 40	2028.9	-26.64	66.88
100.00	16 31 4	2738.98	-29.77	72.57	286.84	87.55	17 16 43	1739.0	-27.75	45.33
110.00	17 58 9	2466.40	-34.15	52.00	286.96	89.81	18 39 16	1466.4	-30.66	23.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3333	TRA	-1.0183	TC3	.3195	BAU	.1517	SGT	1151.2	SGR	632.5	SG3	158.5	ST	22.6	SR	29.0	SS	12.4
RDE	-.5859	RRA	.2290	RC3	-.0987	FAU	.05705	RRT	-.1326	RRF	.1549	RTF	-.6575	CRT	.6360	CRS	.7479	CST	.9785
FDE	.2903	FRA	.6264	FC3	-1.4557	BSP	1714	SGB	1313.5	R23	-.0316	R13	.6603	LSA	35.4	MSA	15.8	SSA	1.4
BDE	.6741	BRA	1.0437	BC3	.3344	FSP	199	SG1	1155.5	SG2	624.5	THA	174.11	EL1	33.6	EL2	15.1	ALF	55.80

LAUNCH DATE AUG 6 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC — DISTANCE 305.319 — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 35.054 GAL -.26 AZL 90.02 HCA 95.31 SMA 254.98 ECC .40493 INC .0156 V1 29.363
RP 220.00 LAP -.02 LOP 48.70 VP 26.191 GAP 22.62 AZP 90.00 TAL 359.09 TAP 94.40 RCA 151.73 APO 358.23 V2 24.988
RC 82.809 GL -.13 GP -5.61 ZAL 88.04 ZAP 172.32 ETS 228.59 ZAE 160.84 ETE 343.20 ZAC 77.64 ETC 282.72 LVI -11.27

PLANETOCENTRIC CONIC

C3 32.413 VHL 5.693 DLA 15.45 RAL 40.03 RAD 6647.9 VEL 12.342 PTH 7.27 VHP 7.980 DPA 10.40 RAP 42.94 ECC 1.5334

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 1 53	3563.54	-47.04	134.04	284.28	98.18	13 1 16	2563.5	-36.48	103.00
60.00	12 23 57	3504.77	-40.16	129.74	285.27	93.71	13 22 22	2504.8	-34.30	100.30
70.00	12 56 10	3409.97	-34.15	122.33	285.53	90.26	13 53 0	2410.0	-30.48	94.22
80.00	13 45 33	3255.23	-29.79	110.51	285.45	87.91	14 39 48	2255.2	-27.62	83.30
90.00	14 58 28	3019.83	-28.14	93.13	285.37	87.04	15 48 48	2019.8	-26.53	66.24
100.00	16 28 24	2729.70	-29.79	71.88	285.45	87.91	17 13 54	1729.7	-27.62	44.67
110.00	17 55 36	2456.79	-34.15	51.25	285.53	90.26	18 36 33	1456.8	-30.48	23.13

DIFFERENTIAL CORRECTIONS

TDE -.3346 TRA-1.0101 TC3 .3541 BAU .1607
RDE -.5731 RRA .2280 RC3 -.1098 FAU .05953
FDE .3066 FRA .6426 FC3-1.5900 BSP 1776
BDE .6636 BRA 1.0355 BC3 .3708 FSP 216

MID-COURSE EXECUTION ACCURACY

SGT 1178.2 SGR 636.4 SG3 188.9
RRT -.1431 RRF .1672 RTF -.6691
SGB 1339.1 R23 -.0339 R13 .6722
SG1 1183.1 SG2 627.2 THA 173.85

ORBIT DETERMINATION ACCURACY

ST 23.1 SR 29.1 SS 12.8
CRT .6387 CRS .7549 CST .9775
LSA 35.9 MSA 16.0 SSA 1.5
EL1 33.8 EL2 15.3 ALF 54.94

LAUNCH DATE AUG 6 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC — DISTANCE 307.947 — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 34.929 GAL -.19 AZL 89.98 HCA 96.43 SMA 250.77 ECC .39493 INC .0000 V1 29.363
RP 220.38 LAP .02 LOP 49.82 VP 25.984 GAP 22.25 AZP 90.00 TAL 359.33 TAP 95.75 RCA 151.73 APO 349.80 V2 24.944
RC 84.610 GL .10 GP -5.76 ZAL 88.56 ZAP 171.66 ETS 225.30 ZAE 160.43 ETE 342.87 ZAC 77.43 ETC 282.69 LVI -11.03

PLANETOCENTRIC CONIC

C3 31.019 VHL 5.569 DLA 15.52 RAL 39.49 RAD 6647.4 VEL 12.286 PTH 7.22 VHP 7.743 DPA 10.36 RAP 43.30 ECC 1.5105

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 59 26	3553.90	-46.94	133.13	282.72	98.88	12 58 40	2553.9	-38.14	102.32
60.00	12 21 26	3495.38	-40.11	128.95	283.80	94.25	13 19 41	2495.4	-34.06	99.62
70.00	12 53 31	3400.90	-34.15	121.62	284.12	90.68	13 50 12	2400.9	-30.31	93.57
80.00	13 42 48	3246.50	-29.81	109.86	284.08	88.25	14 36 54	2246.5	-27.50	82.68
90.00	14 55 40	3011.27	-28.17	92.51	284.00	87.36	15 45 52	2011.3	-26.42	65.63
100.00	16 25 40	2720.97	-29.81	71.23	284.08	88.25	17 11 1	1721.0	-27.50	44.05
110.00	17 52 58	2447.71	-34.15	50.54	284.12	90.68	18 33 46	1447.7	-30.31	22.48

DIFFERENTIAL CORRECTIONS

TDE -.3345 TRA-1.0010 TC3 .3869 BAU .1682
RDE -.5605 RRA .2268 RC3 -.1216 FAU .06207
FDE .3250 FRA .6524 FC3-1.7324 BSP 1865
BDE .6527 BRA 1.0263 BC3 .4055 FSP 235

MID-COURSE EXECUTION ACCURACY

SGT 1202.6 SGR 639.9 SG3 179.6
RRT -.1543 RRF .1784 RTF -.6765
SGB 1362.2 R23 -.0350 R13 .6797
SG1 1208.2 SG2 629.3 THA 173.55

ORBIT DETERMINATION ACCURACY

ST 23.5 SR 29.1 SS 13.3
CRT .6402 CRS .7658 CST .9749
LSA 36.3 MSA 16.1 SSA 1.5
EL1 34.1 EL2 15.4 ALF 54.19

LAUNCH DATE AUG 6 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC — DISTANCE 310.683 — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 34.811 GAL -.12 AZL 89.95 HCA 97.54 SMA 246.92 ECC .38549 INC .0495 V1 29.363
RP 220.76 LAP .05 LOP 50.94 VP 25.785 GAP 21.89 AZP 90.01 TAL 359.57 TAP 97.11 RCA 151.73 APO 342.11 V2 24.902
RC 86.480 GL .33 GP -5.92 ZAL 88.08 ZAP 170.96 ETS 222.50 ZAE 160.08 ETE 342.49 ZAC 77.21 ETC 282.66 LVI -10.79

PLANETOCENTRIC CONIC

C3 29.733 VHL 5.453 DLA 15.59 RAL 38.93 RAD 6646.9 VEL 12.234 PTH 7.18 VHP 7.515 DPA 10.31 RAP 43.65 ECC 1.4893

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 56 56	3544.78	-46.84	132.27	281.20	99.53	12 56 1	2544.8	-37.82	101.68
60.00	12 18 50	3486.50	-40.07	128.20	282.37	94.75	13 16 56	2486.5	-33.82	98.99
70.00	12 50 49	3392.36	-34.14	120.95	282.74	91.07	13 47 21	2392.4	-30.14	92.96
80.00	13 39 58	3238.34	-29.83	109.26	282.73	88.57	14 33 56	2238.3	-27.38	82.10
90.00	14 52 47	3003.29	-28.19	91.92	282.67	87.65	15 42 50	2003.3	-26.32	65.07
100.00	16 22 50	2712.81	-29.83	70.63	282.73	88.57	17 8 3	1712.8	-27.38	43.47
110.00	17 50 15	2439.18	-34.14	49.87	282.74	91.07	18 30 54	1439.2	-30.14	21.88

DIFFERENTIAL CORRECTIONS

TDE -.3395 TRA -.9928 TC3 .4200 BAU .1753
RDE -.5484 RRA .2262 RC3 -.1346 FAU .06484
FDE .3400 FRA .6705 FC3-1.8881 BSP 1908
BDE .6450 BRA 1.0183 BC3 .4410 FSP 259

MID-COURSE EXECUTION ACCURACY

SGT 1228.9 SGR 643.9 SG3 191.3
RRT -.1629 RRF .1943 RTF -.6946
SGB 1387.3 R23 -.0431 R13 .6884
SG1 1234.9 SG2 632.1 THA 173.38

ORBIT DETERMINATION ACCURACY

ST 24.1 SR 29.1 SS 13.8
CRT .6470 CRS .7690 CST .9797
LSA 36.8 MSA 16.1 SSA 1.5
EL1 34.4 EL2 15.5 ALF 53.04

LAUNCH DATE AUG 6 1973 FLIGHT TIME 116.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC — DISTANCE 313.517 — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 34.699 GAL -.05 AZL 89.91 HCA 98.65 SMA 243.40 ECC .37660 INC .0868 V1 29.363
RP 221.14 LAP .09 LOP 52.05 VP 25.594 GAP 21.52 AZP 90.01 TAL 359.81 TAP 98.46 RCA 151.73 APO 335.06 V2 24.861
RC 88.416 GL .57 GP -6.08 ZAL 87.59 ZAP 170.23 ETS 220.10 ZAE 159.79 ETE 342.05 ZAC 76.99 ETC 282.64 LVI -10.54

PLANETOCENTRIC CONIC

C3 28.545 VHL 5.343 DLA 15.67 RAL 38.37 RAD 6646.4 VEL 12.186 PTH 7.15 VHP 7.295 DPA 10.25 RAP 43.99 ECC 1.4698

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 22	3536.17	-46.74	131.47	279.71	100.15	12 53 19	2536.2	-37.52	101.09
60.00	12 16 10	3478.17	-40.02	127.50	280.96	95.23	13 14 8	2478.2	-33.59	98.40
70.00	12 48 2	3384.38	-34.13	120.33	281.39	91.44	13 44 26	2384.4	-29.98	92.39
80.00	13 37 3	3230.75	-29.84	108.69	281.40	88.87	14 30 54	2230.7	-27.27	81.56
90.00	14 49 49	2995.89	-28.21	91.38	281.35	87.92	15 39 45	1995.9	-26.23	64.55
100.00	16 19 55	2705.22	-29.84	70.06	281.40	88.87	17 5 0	1705.2	-27.27	42.93
110.00	17 47 28	2431.20	-34.13	49.25	281.39	91.44	18 27 59	1431.2	-29.98	21.31

DIFFERENTIAL CORRECTIONS

TDE -.3413 TRA -.9840 TC3 .4506 BAU .1810
RDE -.5357 RRA .2251 RC3 -.1483 FAU .06757
FDE .3702 FRA .6804 FC3-2.0493 BSP 1911
BDE .6352 BRA 1.0094 BC3 .4744 FSP 264

MID-COURSE EXECUTION ACCURACY

SGT 1251.7 SGR 646.5 SG3 203.1
RRT -.1741 RRF .2033 RTF -.6899
SGB 1408.8 R23 -.0424 R13 .6937
SG1 1258.5 SG2 633.2 THA 173.11

ORBIT DETERMINATION ACCURACY

ST 24.6 SR 29.0 SS 14.6
CRT .6503 CRS .7866 CST .9715
LSA 37.3 MSA 16.2 SSA 1.6
EL1 34.6 EL2 15.6 ALF 52.07

LAUNCH DATE AUG 6 1973 FLIGHT TIME 118.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 316.439 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	34.594	GAL	.02	AZL	89.88	HCA	99.76	SMA	240.17	ECC	.36821	INC	.1237	V1	29.363
RP	221.52	LAP	.12	LOP	53.15	VP	25.410	GAP	21.16	AZP	90.02	TAL	.06	TAP	99.82	RCA	151.73	APO	328.60	V2	24.819
RC	90.414	GL	.82	GP	-6.26	ZAL	87.09	ZAP	169.48	ETS	218.04	ZAE	159.56	ETE	341.56	ZAC	76.77	ETC	282.61	LVI	-10.29

PLANETOCENTRIC CONIC

C3	27.449	VHL	5.239	DLA	15.75	RAL	37.80	RAD	6646.0	VEL	12.141	PTH	7.11	VHP	7.082	DPA	10.17	RAP	44.33	ECC	1.4517

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 48	3528.09	-46.84	130.71	278.27	100.72	12 50 33	2528.1	-37.22	100.53
60.00	12 13 26	3470.37	-39.97	126.84	278.59	95.67	13 11 17	2470.4	-33.38	97.85
70.00	12 48 10	3376.97	-34.11	119.78	280.06	91.78	13 41 27	2377.0	-29.83	91.87
80.00	13 34 4	3223.75	-29.88	108.17	280.10	89.14	14 27 48	2223.8	-27.17	81.07
90.00	14 46 46	2989.10	-28.23	90.89	280.06	88.16	15 36 35	1989.1	-26.14	64.07
100.00	16 16 56	2698.22	-29.85	69.54	280.10	89.14	17 1 54	1690.2	-27.17	42.44
110.00	17 44 37	2423.79	-34.11	48.67	280.06	91.78	18 25 0	1423.8	-29.83	20.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2635	TRA	-1.0056	TC3	.5400	BAU	.2071	SGT	1307.1	SGR	664.0	SG3	214.1	ST	22.4	SR	29.7	SS	9.5
RDE	-.5387	RRA	.2229	RC3	-.1644	FAU	.07109	RRT	-.2502	RRF	.2930	RTF	-.6974	CRT	.5395	CRS	.5339	CST	.9817
FDE	.1805	FRA	.6726	FC3	-2.2420	BSP	2001	SGB	1466.1	R23	-.0662	R13	.7049	LSA	33.9	MSA	17.9	SSA	1.7
BDE	.5997	BRA	1.0300	BC3	.5644	FSP	268	SG1	1320.9	SG2	636.2	THA	170.54	EL1	33.1	EL2	16.9	ALF	58.94

LAUNCH DATE AUG 6 1973 FLIGHT TIME 120.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 319.437 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	34.493	GAL	.08	AZL	89.84	HCA	100.88	SMA	237.19	ECC	.36029	INC	.1604	V1	29.363
RP	221.90	LAP	.16	LOP	54.25	VP	25.232	GAP	20.81	AZP	90.03	TAL	.32	TAP	101.18	RCA	151.73	APO	322.65	V2	24.778
RC	92.473	GL	1.08	GP	-6.44	ZAL	86.58	ZAP	168.70	ETS	216.26	ZAE	159.38	ETE	341.01	ZAC	76.54	ETC	282.59	LVI	-10.03

PLANETOCENTRIC CONIC

C3	26.436	VHL	5.142	DLA	15.83	RAL	37.21	RAD	6645.6	VEL	12.099	PTH	7.08	VHP	6.877	DPA	10.09	RAP	44.65	ECC	1.4351

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 49 5	3520.52	-46.54	130.01	276.86	101.26	12 47 45	2520.5	-36.95	100.02
60.00	12 10 39	3463.09	-39.92	126.23	278.24	96.08	13 8 22	2463.1	-33.17	97.34
70.00	12 42 15	3370.10	-34.10	119.22	278.76	92.10	13 38 25	2370.1	-29.69	91.38
80.00	13 31 0	3217.32	-29.85	107.70	278.83	89.39	14 24 37	2217.3	-27.07	80.62
90.00	14 43 38	2982.89	-28.24	90.43	278.79	88.39	15 33 20	1982.9	-26.06	63.64
100.00	16 13 52	2691.79	-29.85	69.06	278.83	89.39	16 58 43	1691.8	-27.07	41.99
110.00	17 41 41	2416.92	-34.10	48.13	278.76	92.10	18 21 58	1416.9	-29.69	20.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3289	TRA	-.9395	TC3	.5685	BAU	.2108	SGT	1288.6	SGR	654.7	SG3	229.5	ST	24.6	SR	28.9	SS	14.9
RDE	-.5140	RRA	.2220	RC3	-.1805	FAU	.07419	RRT	-.2115	RRF	.2403	RTF	-.7242	CRT	.6505	CRS	.7959	CST	.9677
FDE	.3899	FRA	.6810	FC3	-2.4295	BSP	1796	SGB	1445.3	R23	-.0388	R13	.7287	LSA	37.4	MSA	16.1	SSA	1.7
BDE	.6102	BRA	.9654	BC3	.5965	FSP	303	SG1	1298.4	SG2	635.0	THA	171.92	EL1	34.6	EL2	15.6	ALF	52.05

LAUNCH DATE AUG 6 1973 FLIGHT TIME 122.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 322.505 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	34.398	GAL	.15	AZL	89.80	HCA	101.96	SMA	234.46	ECC	.35283	INC	.1972	V1	29.363
RP	222.28	LAP	.19	LOP	55.35	VP	25.061	GAP	20.45	AZP	90.04	TAL	.57	TAP	102.53	RCA	151.73	APO	317.18	V2	24.736
RC	94.587	GL	1.35	GP	-6.63	ZAL	86.08	ZAP	167.91	ETS	214.70	ZAE	159.26	ETE	340.41	ZAC	76.31	ETC	282.56	LVI	-9.77

PLANETOCENTRIC CONIC

C3	25.500	VHL	5.050	DLA	15.93	RAL	36.63	RAD	6645.2	VEL	12.061	PTH	7.04	VHP	6.679	DPA	9.99	RAP	44.96	ECC	1.4197

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 46 22	3513.50	-46.45	129.36	275.50	101.75	12 44 55	2513.5	-36.69	99.55
60.00	12 7 49	3456.40	-39.87	125.66	276.94	96.46	13 5 25	2456.4	-32.99	96.86
70.00	12 39 15	3363.84	-34.08	118.73	277.50	92.38	13 35 19	2363.8	-29.56	90.94
80.00	13 27 52	3211.54	-29.86	107.27	277.59	89.62	14 21 23	2211.5	-26.98	80.21
90.00	14 40 25	2977.34	-28.25	90.03	277.56	88.59	15 30 2	1977.3	-25.98	63.25
100.00	16 10 43	2686.01	-29.86	68.64	277.59	89.62	16 55 29	1686.0	-26.98	41.58
110.00	17 38 42	2410.66	-34.08	47.65	277.50	92.38	18 18 52	1410.7	-29.56	19.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3371	TRA	-.9433	TC3	.5987	BAU	.2150	SGT	1323.2	SGR	658.0	SG3	244.4	ST	25.4	SR	28.7	SS	15.9
RDE	-.5017	RRA	.2226	RC3	-.1980	FAU	.07753	RRT	-.2245	RRF	.2580	RTF	-.7281	CRT	.6552	CRS	.8092	CST	.9682
FDE	.4259	FRA	.7105	FC3	-2.6323	BSP	1943	SGB	1477.8	R23	-.0445	R13	.7329	LSA	36.2	MSA	16.2	SSA	1.7
BDE	.6044	BRA	.9692	BC3	.6306	FSP	327	SG1	1333.8	SG2	636.1	THA	171.74	EL1	35.0	EL2	15.8	ALF	50.34

LAUNCH DATE AUG 6 1973 FLIGHT TIME 124.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 325.638 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	34.309	GAL	.21	AZL	89.77	HCA	103.05	SMA	231.93	ECC	.34579	INC	.2343	V1	29.363
RP	222.67	LAP	.23	LOP	56.45	VP	24.896	GAP	20.11	AZP	90.05	TAL	.83	TAP	103.88	RCA	151.73	APO	312.13	V2	24.694
RC	96.756	GL	1.62	GP	-6.82	ZAL	85.57	ZAP	167.10	ETS	213.34	ZAE	159.18	ETE	339.74	ZAC	76.07	ETC	282.54	LVI	-9.51

PLANETOCENTRIC CONIC

C3	24.635	VHL	4.963	DLA	16.02	RAL	36.04	RAD	6644.8	VEL	12.025	PTH	7.01	VHP	6.487	DPA	9.89	RAP	45.27	ECC	1.4054

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 43 36	3507.02	-46.35	128.76	274.18	102.20	12 42 3	2507.0	-36.45	99.11
60.00	12 4 55	3450.26	-39.82	125.15	275.68	96.81	13 2 26	2450.3	-32.81	96.45
70.00	12 36 13	3358.17	-34.06	118.29	276.27	92.65	13 32 11	2358.2	-29.44	90.54
80.00	13 24 39	3206.37	-29.86	106.88	276.38	89.82	14 18 5	2206.4	-26.90	79.85
90.00	14 37 8	2972.43	-28.26	89.67	276.36	88.77	15 26 40	1972.4	-25.91	62.90
100.00	16 7 31	2680.84	-29.86	68.25	276.38	89.82	16 52 12	1680.8	-26.90	41.22
110.00	17 35 39	2404.99	-34.06	47.20	276.27	92.65	18 15 44	1405.0	-29.44	19.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3428	TRA	-.9317	TC3	.6364	BAU	.2215	SGT	1344.6	SGR	662.0	SG3	260.4	ST	26.0	SR	28.6	SS	16.4
RDE	-.4906	RRA	.2215	RC3	-.2177	FAU	.08146	RRT	-.2361	RRF	.2753	RTF	-.7311	CRT	.6629	CRS	.8139	CST	.9652
FDE	.4491	FRA	.7159	FC3	-2.8628	BSP	2072	SGB	1498.7	R23	-.0540	R13	.7367	LSA	38.7	MSA	16.1	SSA	1.8
BDE	.5985	BRA	.9577	BC3	.6726	FSP	355	SG1	1356.3	SG2	637.8	THA	171.47	EL1	35.3	EL2	15.7	ALF	49.15

LAUNCH DATE AUG 6 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 10 1973

DISTANCE 328.828

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 34.224 GAL .27 AZL 89.73 HCA 104.14 SMA 229.59 ECC .33914 INC .2716 V1 29.363
RP 223.06 LAP .26 LOP 57.54 VP 24.737 GAP 19.76 AZP 90.07 TAL 1.08 TAP 105.23 RCA 151.73 APO 307.46 V2 24.652
RC 98.878 GL 1.91 GP -7.03 ZAL 85.07 ZAP 166.27 ETS 212.14 ZAE 159.16 ETE 339.00 ZAC 75.82 ETC 282.52 LVI -9.25

PLANETOCENTRIC CONIC

C3 23.835 VHL 4.882 DLA 16.13 RAL 38.44 RAD 6644.5 VEL 11.992 PTH 6.99 VHP 6.303 DPA 9.77 RAP 45.56 ECC 1.3923

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 40 48	3501.07	-46.27	128.21	272.91	102.62	12 39 9	2501.1	-36.23	98.71
60.00	12 1 59	3444.68	-39.77	124.68	274.45	97.12	12 59 24	2444.7	-32.65	96.06
70.00	12 33 6	3383.08	-34.05	117.89	275.08	92.88	13 28 59	2383.1	-29.33	90.19
80.00	13 21 22	3201.82	-29.86	106.54	275.20	90.00	14 14 44	2201.8	-26.82	79.53
90.00	14 33 46	2968.15	-28.26	89.36	275.18	88.93	15 23 14	1968.1	-25.85	62.60
100.00	16 4 14	2676.29	-29.86	67.91	275.20	90.00	16 48 51	1676.3	-26.82	40.90
110.00	17 32 33	2399.89	-34.05	46.81	275.08	92.88	18 12 33	1399.9	-29.33	19.10

DIFFERENTIAL CORRECTIONS

TDE -.3447 TRA -.9223 TC3 .6743 BAU .2278
RDE -.4799 RRA .2209 RC3 -.2375 FAU .08502
FDE .4723 FRA .7261 FC3-3.0880 BSP 2113
BDE .5908 BRA .9483 BC3 .7149 FSP 376

MID-COURSE EXECUTION ACCURACY

SGT 1366.2 SGR 666.1 SG3 275.7
RRT -.2515 RRF .2946 RTF -.7359
SGB 1520.0 R23 -.0595 R13 .7422
SG1 1379.3 SG2 638.6 THA 171.08

ORBIT DETERMINATION ACCURACY

ST 26.4 SR 28.4 SS 16.9
CRT .6674 CRS .6201 CST .9637
LSA 39.1 MSA 16.1 SSA 1.8
EL1 35.4 EL2 15.8 ALF 48.24

LAUNCH DATE AUG 6 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 12 1973

DISTANCE 332.070

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 34.143 GAL .34 AZL 89.69 HCA 105.23 SMA 227.43 ECC .33287 INC .3088 V1 29.363
RP 223.44 LAP .30 LOP 58.63 VP 24.584 GAP 19.42 AZP 90.08 TAL 1.34 TAP 106.57 RCA 151.72 APO 303.13 V2 24.611
RC 101.244 GL 2.20 GP -7.24 ZAL 84.56 ZAP 165.41 ETS 211.08 ZAE 159.18 ETE 338.19 ZAC 75.57 ETC 282.51 LVI -8.98

PLANETOCENTRIC CONIC

C3 23.095 VHL 4.806 DLA 16.24 RAL 34.84 RAD 6644.2 VEL 11.962 PTH 6.96 VHP 6.124 DPA 9.63 RAP 45.84 ECC 1.3801

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 37 58	3495.65	-46.18	127.71	271.68	102.99	12 36 14	2495.6	-36.03	98.36
60.00	11 59 0	3439.65	-39.73	124.26	273.26	97.41	12 56 20	2439.6	-32.51	95.72
70.00	12 29 57	3348.57	-34.03	117.54	273.92	93.09	13 25 45	2348.6	-29.23	89.87
80.00	13 18 2	3197.90	-29.86	106.25	274.05	90.15	14 11 20	2197.9	-26.76	79.26
90.00	14 30 20	2964.52	-28.27	89.09	274.04	89.06	15 19 44	1964.5	-25.80	62.35
100.00	16 0 53	2672.37	-29.86	67.62	274.05	90.15	16 45 26	1672.4	-26.76	40.63
110.00	17 29 23	2395.39	-34.03	46.46	273.92	93.09	18 9 19	1395.4	-29.23	18.79

DIFFERENTIAL CORRECTIONS

TDE -.3467 TRA -.9116 TC3 .7156 BAU .2350
RDE -.4689 RRA .2203 RC3 -.2593 FAU .08903
FDE .5010 FRA .7356 FC3-3.3374 BSP 2178
BDE .5832 BRA .9378 BC3 .7612 FSP 406

MID-COURSE EXECUTION ACCURACY

SGT 1387.6 SGR 670.5 SG3 292.7
RRT -.2687 RRF .3149 RTF -.7417
SGB 1541.1 R23 -.0642 R13 .7486
SG1 1402.4 SG2 639.0 THA 170.64

ORBIT DETERMINATION ACCURACY

ST 26.8 SR 28.3 SS 17.6
CRT .6713 CRS .8279 CST .9617
LSA 39.5 MSA 16.0 SSA 1.9
EL1 35.6 EL2 15.8 ALF 47.30

LAUNCH DATE AUG 6 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 14 1973

DISTANCE 335.359

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 34.067 GAL .38 AZL 89.65 HCA 106.31 SMA 225.42 ECC .32694 INC .3462 V1 29.363
RP 223.83 LAP .33 LOP 59.71 VP 24.436 GAP 19.08 AZP 90.10 TAL 1.60 TAP 107.91 RCA 151.72 APO 299.12 V2 24.569
RC 103.560 GL 2.50 GP -7.46 ZAL 84.06 ZAP 164.55 ETS 210.13 ZAE 159.25 ETE 337.29 ZAC 75.32 ETC 282.49 LVI -8.70

PLANETOCENTRIC CONIC

C3 22.410 VHL 4.734 DLA 16.36 RAL 34.25 RAD 6643.9 VEL 11.933 PTH 6.94 VHP 5.951 DPA 9.49 RAP 46.11 ECC 1.3688

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 35 6	3490.75	-46.11	127.27	270.49	103.33	12 33 17	2490.8	-35.84	98.03
60.00	11 55 59	3435.17	-39.69	123.89	272.11	97.66	12 53 14	2435.2	-32.37	95.41
70.00	12 26 44	3344.66	-34.02	117.23	272.79	93.27	13 22 29	2344.7	-29.15	89.60
80.00	13 14 37	3194.61	-29.86	106.01	272.94	90.28	14 7 51	2194.6	-26.71	79.03
90.00	14 28 49	2961.54	-28.27	88.87	272.93	89.17	15 16 11	1961.5	-25.76	62.14
100.00	15 57 29	2669.08	-29.86	67.38	272.94	90.28	16 41 58	1669.1	-26.71	40.40
110.00	17 26 10	2391.48	-34.02	46.15	272.79	93.27	18 6 2	1391.5	-29.15	18.52

DIFFERENTIAL CORRECTIONS

TDE -.3503 TRA -.9010 TC3 .7536 BAU .2411
RDE -.4581 RRA .2198 RC3 -.2822 FAU .09309
FDE .5317 FRA .7456 FC3-3.5961 BSP 2250
BDE .5767 BRA .9274 BC3 .8047 FSP 439

MID-COURSE EXECUTION ACCURACY

SGT 1407.3 SGR 675.0 SG3 310.2
RRT -.2849 RRF .3357 RTF -.7463
SGB 1560.8 R23 -.0705 R13 .7540
SG1 1423.7 SG2 639.6 THA 170.23

ORBIT DETERMINATION ACCURACY

ST 27.2 SR 28.0 SS 18.3
CRT .6765 CRS .8352 CST .9602
LSA 40.0 MSA 15.9 SSA 1.9
EL1 35.8 EL2 15.7 ALF 46.24

LAUNCH DATE AUG 6 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 16 1973

DISTANCE 338.691

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 33.998 GAL .45 AZL 89.62 HCA 107.39 SMA 223.58 ECC .32135 INC .3842 V1 29.363
RP 224.22 LAP .37 LOP 60.79 VP 24.293 GAP 18.74 AZP 90.12 TAL 1.85 TAP 109.25 RCA 151.72 APO 295.39 V2 24.527
RC 105.921 GL 2.80 GP -7.69 ZAL 83.56 ZAP 163.66 ETS 209.29 ZAE 159.36 ETE 336.31 ZAC 75.06 ETC 282.48 LVI -8.43

PLANETOCENTRIC CONIC

C3 21.776 VHL 4.666 DLA 16.48 RAL 33.65 RAD 6643.6 VEL 11.907 PTH 6.92 VHP 5.784 DPA 9.33 RAP 46.36 ECC 1.3584

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 32 13	3486.39	-46.04	126.87	269.35	103.63	12 30 19	2486.4	-35.68	97.75
60.00	11 52 56	3431.25	-39.65	123.56	271.00	97.88	12 50 7	2431.3	-32.26	95.14
70.00	12 23 28	3341.35	-34.00	116.98	271.70	93.42	13 19 9	2341.3	-29.07	89.37
80.00	13 11 8	3191.96	-29.86	105.81	271.86	90.38	14 4 20	2192.0	-26.66	78.84
90.00	14 23 14	2959.23	-28.27	88.70	271.85	89.26	15 12 33	1959.2	-25.73	61.98
100.00	15 54 0	2666.43	-29.86	67.18	271.86	90.38	16 38 26	1666.4	-26.66	40.21
110.00	17 22 54	2388.17	-34.00	45.89	271.70	93.42	18 2 43	1388.2	-29.07	18.29

DIFFERENTIAL CORRECTIONS

TDE -.3527 TRA -.8903 TC3 .7965 BAU .2485
RDE -.4475 RRA .2191 RC3 -.3073 FAU .09759
FDE .5619 FRA .7522 FC3-3.8797 BSP 2288
BDE .5698 BRA .9169 BC3 .8537 FSP 465

MID-COURSE EXECUTION ACCURACY

SGT 1428.1 SGR 680.4 SG3 329.2
RRT -.3037 RRF .3587 RTF -.7514
SGB 1581.9 R23 -.0766 R13 .7599
SG1 1446.7 SG2 639.9 THA 169.74

ORBIT DETERMINATION ACCURACY

ST 27.6 SR 27.8 SS 18.9
CRT .6806 CRS .8420 CST .9583
LSA 40.5 MSA 15.8 SSA 2.0
EL1 35.9 EL2 15.7 ALF 45.28

LAUNCH DATE AUG 6 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 342.063 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.926	GAL	.51	AZL	89.58	HCA	108.47	SMA	221.82	ECC	.31607	INC	.4225	V1	29.363
RP	224.61	LAP	.40	LOP	61.87	VP	24.154	GAP	18.41	AZP	90.13	TAL	2.11	TAP	110.58	RCA	151.71	APO	291.93	V2	24.485
RC	108.326	GL	3.12	GP	-7.93	ZAL	83.07	ZAP	162.76	ETS	208.53	ZAE	159.51	ETE	335.24	ZAC	74.79	ETC	282.47	LVI	-8.15

PLANETOCENTRIC CONIC

C3	21.189	VHL	4.603	DLA	16.62	RAL	33.06	RAD	6643.4	VEL	11.882	PTH	6.89	VHP	5.623	DPA	9.15	RAP	46.61	ECC	1.3487

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 29 18	3482.55	-45.98	126.52	268.25	103.89	12 27 20	2482.6	-35.53	97.50
60.00	11 49 50	3427.89	-39.62	123.28	269.93	98.06	12 46 58	2427.9	-32.16	94.91
70.00	12 20 9	3338.63	-33.99	116.76	270.64	93.54	13 15 48	2338.6	-29.02	89.18
80.00	13 7 36	3189.96	-29.85	105.66	270.81	90.46	14 0 46	2190.0	-26.63	78.70
90.00	14 19 35	2957.58	-28.27	88.58	270.81	89.32	15 8 53	1957.6	-25.70	61.87
100.00	15 50 27	2664.43	-29.85	67.03	270.81	90.46	16 34 52	1664.4	-26.63	40.07
110.00	17 19 36	2385.45	-33.99	45.68	270.64	93.54	17 59 21	1385.4	-29.02	18.10

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3558	TRA	-.8788	TC3	.8380	BAU	.2555	SGT	1447.2	SGR	686.0	SG3	349.0	ST	28.0	SR	27.5	SS	19.7
RDE	-.4367	RRA	.2188	RC3	-.3339	FAU	.10223	RRT	-.3229	RRF	.3818	RTF	-.7569	CRT	.6854	CRS	.8492	CST	.9565
FDE	.5981	FRA	.7609	FC3	-4.1769	BSP	2342	SGB	1601.5	R23	-.0821	R13	.7663	LSA	41.0	MSA	15.7	SSA	2.1
BDE	.5633	BRA	.9056	BC3	.9021	FSP	501	SG1	1468.1	SG2	640.0	THA	169.23	EL1	36.0	EL2	15.6	ALF	44.25

LAUNCH DATE AUG 6 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 345.471 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.862	GAL	.56	AZL	89.54	HCA	109.54	SMA	220.21	ECC	.31108	INC	.4610	V1	29.363
RP	225.00	LAP	.43	LOP	62.94	VP	24.021	GAP	18.08	AZP	90.15	TAL	2.36	TAP	111.90	RCA	151.70	APO	288.71	V2	24.443
RC	110.773	GL	3.44	GP	-8.18	ZAL	82.59	ZAP	161.83	ETS	207.85	ZAE	159.70	ETE	334.06	ZAC	74.51	ETC	282.47	LVI	-7.86

PLANETOCENTRIC CONIC

C3	20.645	VHL	4.544	DLA	16.76	RAL	32.47	RAD	6643.1	VEL	11.860	PTH	6.87	VHP	5.468	DPA	8.96	RAP	46.84	ECC	1.3398

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 26 22	3479.24	-45.92	126.22	267.20	104.12	12 24 21	2479.2	-35.41	97.28
60.00	11 46 42	3425.08	-39.59	123.04	268.90	98.22	12 43 47	2425.1	-32.08	94.72
70.00	12 16 47	3336.51	-33.98	116.60	269.63	93.64	13 12 24	2336.5	-28.97	89.03
80.00	13 3 59	3188.60	-29.85	105.56	269.80	90.51	13 57 8	2188.6	-26.61	78.61
90.00	14 15 51	2956.62	-28.27	88.51	269.80	89.35	15 5 8	1956.6	-25.69	61.80
100.00	15 46 51	2663.08	-29.85	66.93	269.80	90.51	16 31 14	1663.1	-26.61	39.98
110.00	17 16 14	2383.33	-33.98	45.52	269.63	93.64	17 55 57	1383.3	-28.97	17.95

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3592	TRA	-.8685	TC3	.8769	BAU	.2619	SGT	1465.8	SGR	692.3	SG3	369.7	ST	28.4	SR	27.2	SS	20.5
RDE	-.4259	RRA	.2181	RC3	-.3621	FAU	.10706	RRT	-.3424	RRF	.4058	RTF	-.7609	CRT	.6899	CRS	.8559	CST	.9548
FDE	.6363	FRA	.7689	FC3	-4.4894	BSP	2377	SGB	1621.0	R23	-.0889	R13	.7713	LSA	41.5	MSA	15.6	SSA	2.1
BDE	.5572	BRA	.8955	BC3	.9488	FSP	533	SG1	1489.3	SG2	640.2	THA	168.70	EL1	36.2	EL2	15.5	ALF	43.16

LAUNCH DATE AUG 6 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 348.911 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.801	GAL	.61	AZL	89.50	HCA	110.61	SMA	218.70	ECC	.30637	INC	.5000	V1	29.363
RP	225.39	LAP	.47	LOP	64.01	VP	23.892	GAP	17.76	AZP	90.18	TAL	2.60	TAP	113.21	RCA	151.70	APO	285.71	V2	24.401
RC	113.259	GL	3.77	GP	-8.44	ZAL	82.11	ZAP	160.89	ETS	207.23	ZAE	159.92	ETE	332.77	ZAC	74.23	ETC	282.46	LVI	-7.57

PLANETOCENTRIC CONIC

C3	20.142	VHL	4.488	DLA	16.91	RAL	31.88	RAD	6642.9	VEL	11.839	PTH	6.86	VHP	5.317	DPA	8.76	RAP	47.03	ECC	1.3315

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 23 24	3476.44	-45.88	125.96	266.19	104.31	12 21 21	2476.4	-35.30	97.10
60.00	11 43 33	3422.82	-39.57	122.86	267.91	98.35	12 40 35	2422.8	-32.01	94.56
70.00	12 13 23	3334.99	-33.98	116.48	268.65	93.71	13 8 58	2335.0	-28.93	88.93
80.00	13 0 19	3187.90	-29.85	105.51	268.83	90.54	13 53 27	2187.9	-26.60	78.56
90.00	14 12 3	2956.33	-28.27	88.49	268.83	89.36	15 1 20	1956.3	-25.69	61.78
100.00	15 43 11	2662.38	-29.85	66.88	268.83	90.54	16 27 33	1662.4	-26.60	39.93
110.00	17 12 49	2381.81	-33.98	45.40	268.65	93.71	17 52 31	1381.8	-28.93	17.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3619	TRA	-.8553	TC3	.9160	BAU	.2683	SGT	1480.5	SGR	699.2	SG3	391.4	ST	28.8	SR	26.9	SS	21.3
RDE	-.4151	RRA	.2174	RC3	-.3921	FAU	.11212	RRT	-.3628	RRF	.4304	RTF	-.7652	CRT	.6947	CRS	.8631	CST	.9527
FDE	.6771	FRA	.7724	FC3	-4.8192	BSP	2431	SGB	1637.3	R23	-.0951	R13	.7768	LSA	42.0	MSA	15.4	SSA	2.2
BDE	.5507	BRA	.8825	BC3	.9964	FSP	570	SG1	1507.0	SG2	640.1	THA	168.10	EL1	36.3	EL2	15.3	ALF	42.16

LAUNCH DATE AUG 6 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 352.381 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.743	GAL	.66	AZL	89.46	HCA	111.68	SMA	217.30	ECC	.30193	INC	.5393	V1	29.363
RP	225.78	LAP	.50	LOP	65.07	VP	23.767	GAP	17.43	AZP	90.20	TAL	2.84	TAP	114.52	RCA	151.69	APO	282.91	V2	24.359
RC	115.782	GL	4.11	GP	-8.71	ZAL	81.65	ZAP	159.93	ETS	206.67	ZAE	160.17	ETE	331.35	ZAC	73.94	ETC	282.46	LVI	-7.27

PLANETOCENTRIC CONIC

C3	19.676	VHL	4.436	DLA	17.06	RAL	31.30	RAD	6642.7	VEL	11.819	PTH	6.84	VHP	5.172	DPA	8.53	RAP	47.25	ECC	1.3238

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 20 26	3474.16	-45.84	125.76	265.23	104.46	12 18 20	2474.2	-35.21	96.95
60.00	11 40 21	3421.12	-39.56	122.71	266.96	98.44	12 37 22	2421.1	-31.96	94.45
70.00	12 9 56	3334.07	-33.97	116.41	267.71	93.75	13 5 30	2334.1	-28.91	88.86
80.00	12 56 35	3187.87	-29.85	105.51	267.89	90.54	13 49 42	2187.9	-26.60	78.56
90.00	14 8 11	2956.74	-28.27	88.52	267.89	89.35	14 57 28	1956.7	-25.69	61.81
100.00	15 39 26	2662.34	-29.85	66.88	267.89	90.54	16 23 49	1662.3	-26.60	39.93
110.00	17 9 22	2380.89	-33.97	45.33	267.71	93.75	17 49 3	1380.9	-28.91	17.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3648	TRA	-.8425	TC3	.9563	BAU	.2752	SGT	1495.8	SGR	707.4	SG3	414.8	ST	29.1	SR	26.5	SS	22.2
RDE	-.4043	RRA	.2167	RC3	-.4246	FAU	.11764	RRT	-.3845	RRF	.4567	RTF	-.7698	CRT	.6994	CRS	.8693	CST	.9510
FDE	.7207	FRA	.7767	FC3	-5.1759	BSP	2470	SGB	1654.7	R23	-.1017	R13	.7827	LSA	42.5	MSA	15.2	SSA	2.2
BDE	.5446	BRA	.8699	BC3	1.0463	FSP	609	SG1	1525.8	SG2	640.2	THA	167.45	EL1	36.3	EL2	15.2	ALF	41.12

LAUNCH DATE AUG 6 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 355.879 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.688	GAL	.71	AZL	89.42	HCA	112.74	SMA	215.99	ECC	.29773	INC	.5791	VI	29.363
RP	226.17	LAP	.53	LOP	66.13	VP	23.646	GAP	17.12	AZP	90.22	TAL	3.08	TAP	115.82	RCA	151.68	APO	280.30	V2	24.318
RC	118.341	GL	4.45	GP	-9.00	ZAL	81.20	ZAP	158.95	ETS	206.16	ZAE	160.44	ETE	329.80	ZAC	73.65	ETC	282.47	LVI	-6.97

PLANETOCENTRIC CONIC

C3	19.245	VHL	4.387	DLA	17.23	RAL	30.73	RAD	6642.5	VEL	11.801	PTH	6.82	VHP	5.032	DPA	8.30	RAP	47.43	ECC	1.3167

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 17 27	3472.40	-45.81	125.60	264.32	104.58	12 15 19	2472.4	-35.14	96.84
60.00	11 37 8	3419.96	-39.54	122.62	266.06	98.51	12 34 8	2420.0	-31.93	94.37
70.00	12 6 25	3333.76	-33.97	116.39	266.80	93.77	13 1 59	2333.8	-28.91	88.84
80.00	12 52 46	3188.49	-29.85	105.55	266.98	90.52	13 45 55	2188.5	-26.61	78.60
90.00	14 4 14	2957.85	-28.27	88.60	266.98	89.31	14 53 31	1957.8	-25.71	61.89
100.00	15 35 38	2662.97	-29.85	66.92	266.98	90.52	16 20 1	1663.0	-26.61	39.97
110.00	17 5 52	2380.57	-33.97	45.30	266.80	93.77	17 45 32	1380.6	-28.91	17.76

DIFFERENTIAL CORRECTIONS

TDE	-.3669	TRA	-.8318	TC3	.9897	BAU	.2808
RDE	-.3936	RRA	.2162	RC3	-.4582	FAU	.12310
FDE	.7648	FRA	.7831	FC3	-5.5377	BSP	2507
BDE	.5381	BRA	.8595	BC3	1.0906	FSP	649

MID-COURSE EXECUTION ACCURACY

SGT	1509.1	SGR	716.4	SG3	438.4		
RRT	-.4061	RRF	.4831	RTF	-.7725		
SGB	1670.6	R23	-.1095	R13	.7868		
SG1	1543.0	SG2	640.3	THA	166.77		

ORBIT DETERMINATION ACCURACY

ST	29.4	SR	26.1	SS	23.0		
CRT	.7022	CRS	.8742	CST	.9491		
LSA	43.0	MSA	15.1	SSA	2.3		
EL1	36.3	EL2	15.0	ALF	40.10		

LAUNCH DATE AUG 6 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 359.402 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.636	GAL	.75	AZL	89.38	HCA	113.79	SMA	214.77	ECC	.29377	INC	.6194	VI	29.363
RP	226.56	LAP	.57	LOP	67.19	VP	23.529	GAP	16.80	AZP	90.25	TAL	3.31	TAP	117.11	RCA	151.68	APO	277.86	V2	24.276
RC	120.933	GL	4.81	GP	-9.29	ZAL	80.75	ZAP	157.95	ETS	205.70	ZAE	160.74	ETE	328.09	ZAC	73.34	ETC	282.48	LVI	-6.67

PLANETOCENTRIC CONIC

C3	18.846	VHL	4.341	DLA	17.41	RAL	30.16	RAD	6642.3	VEL	11.784	PTH	6.81	VHP	4.896	DPA	8.04	RAP	47.60	ECC	1.3102

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 14 27	3471.14	-45.79	125.48	263.45	104.67	12 12 18	2471.1	-35.10	96.76
60.00	11 33 54	3419.36	-39.54	122.57	265.19	98.54	12 30 53	2419.4	-31.91	94.33
70.00	12 2 52	3334.05	-33.97	116.41	265.94	93.75	12 58 26	2334.0	-28.91	88.86
80.00	12 48 54	3189.80	-29.85	105.65	266.12	90.47	13 42 4	2189.8	-26.63	78.69
90.00	14 0 12	2959.67	-28.27	88.74	266.11	89.24	14 49 31	1959.7	-25.73	62.01
100.00	15 31 46	2664.27	-29.85	67.02	266.12	90.47	16 16 10	1664.3	-26.63	40.06
110.00	17 2 19	2380.87	-33.97	45.33	265.94	93.75	17 42 0	1380.9	-28.91	17.78

DIFFERENTIAL CORRECTIONS

TDE	-.3704	TRA	-.8204	TC3	1.0246	BAU	.2867
RDE	-.3822	RRA	.2157	RC3	-.4946	FAU	.12907
FDE	.8180	FRA	.7880	FC3	-5.9292	BSP	2545
BDE	.5323	BRA	.8483	BC3	1.1378	FSP	693

MID-COURSE EXECUTION ACCURACY

SGT	1522.6	SGR	726.6	SG3	464.1		
RRT	-.4285	RRF	.5102	RTF	-.7757		
SGB	1687.1	R23	-.1171	R13	.7917		
SG1	1560.8	SG2	640.5	THA	166.05		

ORBIT DETERMINATION ACCURACY

ST	29.8	SR	25.6	SS	24.1		
CRT	.7061	CRS	.8798	CST	.9474		
LSA	43.6	MSA	14.9	SSA	2.4		
EL1	36.4	EL2	14.9	ALF	38.92		

LAUNCH DATE AUG 6 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 362.948 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.587	GAL	.80	AZL	89.34	HCA	114.85	SMA	213.63	ECC	.29003	INC	.6602	VI	29.363
RP	226.95	LAP	.60	LOP	68.24	VP	23.416	GAP	16.49	AZP	90.28	TAL	3.54	TAP	118.39	RCA	151.67	APO	275.58	V2	24.234
RC	123.556	GL	5.17	GP	-9.60	ZAL	80.32	ZAP	156.93	ETS	205.27	ZAE	161.05	ETE	326.22	ZAC	73.03	ETC	282.49	LVI	-6.36

PLANETOCENTRIC CONIC

C3	18.476	VHL	4.298	DLA	17.60	RAL	29.60	RAD	6642.2	VEL	11.769	PTH	6.79	VHP	4.766	DPA	7.77	RAP	47.75	ECC	1.3041

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 11 26	3470.39	-45.77	125.42	262.62	104.72	12 9 16	2470.4	-35.07	96.71
60.00	11 30 37	3419.30	-39.54	122.56	264.36	98.54	12 27 36	2419.3	-31.91	94.33
70.00	11 59 16	3334.95	-33.98	116.48	265.11	93.71	12 54 51	2334.9	-28.93	88.92
80.00	12 44 57	3191.78	-29.86	105.80	265.28	90.39	13 38 9	2191.8	-26.66	78.83
90.00	13 56 5	2962.20	-28.27	88.92	265.28	89.15	14 45 27	1962.2	-25.77	62.19
100.00	15 27 49	2666.25	-29.86	67.17	265.28	90.39	16 12 15	1666.2	-26.66	40.20
110.00	16 58 43	2381.77	-33.98	45.40	265.11	93.71	17 38 25	1381.8	-28.93	17.84

DIFFERENTIAL CORRECTIONS

TDE	-.3734	TRA	-.8074	TC3	1.0571	BAU	.2925
RDE	-.3710	RRA	.2147	RC3	-.5333	FAU	.13331
FDE	.8714	FRA	.7870	FC3	-6.3309	BSP	2576
BDE	.5263	BRA	.8354	BC3	1.1840	FSP	737

MID-COURSE EXECUTION ACCURACY

SGT	1532.4	SGR	738.2	SG3	490.8		
RRT	-.4505	RRF	.5378	RTF	-.7782		
SGB	1700.9	R23	-.1257	R13	.7961		
SG1	1575.5	SG2	641.0	THA	165.26		

ORBIT DETERMINATION ACCURACY

ST	30.1	SR	25.1	SS	25.1		
CRT	.7102	CRS	.8852	CST	.9456		
LSA	44.1	MSA	14.6	SSA	2.4		
EL1	36.4	EL2	14.6	ALF	37.81		

LAUNCH DATE AUG 6 1973 FLIGHT TIME 148.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 366.516 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.540	GAL	.84	AZL	89.30	HCA	115.90	SMA	212.58	ECC	.28650	INC	.7015	VI	29.363
RP	227.34	LAP	.63	LOP	69.29	VP	23.306	GAP	16.18	AZP	90.31	TAL	3.76	TAP	119.66	RCA	151.66	APO	273.46	V2	24.193
RC	126.208	GL	5.53	GP	-9.92	ZAL	79.91	ZAP	155.89	ETS	204.87	ZAE	161.38	ETE	324.17	ZAC	72.71	ETC	282.50	LVI	-6.04

PLANETOCENTRIC CONIC

C3	18.135	VHL	4.258	DLA	17.80	RAL	29.05	RAD	6642.0	VEL	11.754	PTH	6.78	VHP	4.639	DPA	7.47	RAP	47.89	ECC	1.2985

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 8 24	3470.15	-45.77	125.39	261.84	104.74	12 6 15	2470.2	-35.06	96.69
60.00	11 27 19	3419.80	-39.54	122.60	263.58	98.52	12 24 19	2419.8	-31.92	94.36
70.00	11 55 38	3336.46	-33.98	116.60	264.32	93.64	12 51 14	2336.5	-28.97	89.03
80.00	12 40 56	3194.45	-29.86	106.00	264.48	90.28	13 34 11	2194.4	-26.70	79.02
90.00	13 51 52	2965.47	-28.26	89.16	264.47	89.03	14 41 18	1965.5	-25.82	62.42
100.00	15 23 48	2668.92	-29.86	67.37	264.48	90.28	16 8 17	1668.9	-26.70	40.38
110.00	16 55 4	2383.28	-33.98	45.51	264.32	93.64	17 34 47	1383.3	-28.97	17.95

DIFFERENTIAL CORRECTIONS

TDE	-.3755	TRA	-.7961	TC3	1.0869	BAU	.2980
RDE	-.3596	RRA	.2142	RC3	-.5741	FAU	.14178
FDE	.9273	FRA	.7903	FC3	-6.7685	BSP	2610
BDE	.5200	BRA	.8244	BC3	1.2292	FSP	785

MID-COURSE EXECUTION ACCURACY

SGT	1542.0	SGR	751.5	SG3	518.7		
RRT	-.4734	RRF	.5659	RTF	-.7803		
SGB	1715.4	R23	-.1344	R13	.8004		
SG1	1590.9	SG2	641.6	THA	164.41		

ORBIT DETERMINATION ACCURACY

ST	30.4	SR	24.6	SS	26.1		
CRT	.7125	CRS	.8891	CST	.9439		
LSA	44.7	MSA	14.5	SSA	2.5		
EL1	36.4	EL2	14.5	ALF	36.69		

LAUNCH DATE AUG 6 1973 FLIGHT TIME 150.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 370.103 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.496	GAL	.88	AZL	89.26	HCA	116.84	SMA	211.56	ECC	.28316	INC	.7435
RP	227.73	LAP	.66	LOP	70.34	VP	23.199	GAP	15.87	AZP	90.34	TAL	3.98	TAP	120.92	RCA	151.65	APO	271.46
RC	128.887	GL	5.91	GP	-10.25	ZAL	79.50	ZAP	154.83	ETS	204.51	ZAE	161.71	ETE	321.92	ZAC	72.38	ETC	282.52

V1	29.363																		
V2	24.152																		
LVI	-5.72																		

PLANETOCENTRIC CONIC

C3	17.818	VHL	4.221	DLA	18.00	RAL	28.51	RAD	6641.8	VEL	11.741	PTH	6.77	VHP	4.517	DPA	7.16	RAP	48.01
ECC	1.2932																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 5 22	3470.38	-45.77	125.41	261.10	104.72	12 3 12	2470.4	-35.07	96.71
60.00	11 23 59	3420.80	-39.55	122.69	262.83	98.46	12 21 0	2420.8	-31.95	94.43
70.00	11 51 55	3338.54	-33.99	116.76	263.56	93.55	12 47 34	2338.5	-29.01	89.17
80.00	12 36 50	3197.76	-29.86	106.24	263.72	90.15	13 30 8	2197.8	-26.76	79.25
90.00	13 47 35	2969.43	-28.26	89.45	263.70	88.88	14 37 4	1969.4	-25.87	62.69
100.00	15 19 42	2672.24	-29.86	67.61	263.72	90.15	16 4 14	1672.2	-26.76	40.62
110.00	16 51 22	2385.36	-33.99	45.68	263.56	93.55	17 31 7	1385.4	-29.01	18.09

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3638	TRA	-.7687	TC3	1.1475	BAU	.3105	SGT	1544.7	SGR	767.0	SG3	548.6	ST	29.7	SR	24.1	SS	27.1
RDE	-.3483	RRA	.2128	RC3	-.6185	FAU	.14886	RRT	-.5111	RRF	.5948	RTF	-.7953	CRT	.7093	CRS	.8936	CST	.9392
FDE	.9837	FRA	.7828	FC3	-7.2324	BSP	2470	SGB	1724.6	R23	-.1219	R13	.8159	LSA	44.6	MSA	14.2	SSA	2.5
BDE	.5036	BRA	.7976	BC3	1.3036	FSP	831	SG1	1603.4	SG2	635.1	THA	163.01	EL1	35.5	EL2	14.2	ALF	36.70

LAUNCH DATE AUG 6 1973 FLIGHT TIME 152.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 373.708 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.455	GAL	.92	AZL	89.21	HCA	117.99	SMA	210.62	ECC	.28002	INC	.7860
RP	228.12	LAP	.69	LOP	71.38	VP	23.096	GAP	15.57	AZP	90.37	TAL	4.19	TAP	122.17	RCA	151.65	APO	269.60
RC	131.592	GL	6.29	GP	-10.59	ZAL	79.12	ZAP	153.74	ETS	204.17	ZAE	162.04	ETE	319.47	ZAC	72.04	ETC	282.54

V1	29.363																		
V2	24.110																		
LVI	-5.39																		

PLANETOCENTRIC CONIC

C3	17.526	VHL	4.186	DLA	18.23	RAL	27.98	RAD	6641.7	VEL	11.728	PTH	6.76	VHP	4.400	DPA	6.83	RAP	48.11
ECC	1.2884																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 2 19	3471.15	-45.79	125.48	260.41	104.67	12 0 10	2471.1	-35.10	96.76
60.00	11 20 38	3422.40	-39.57	122.82	262.13	98.37	12 17 40	2422.4	-32.00	94.54
70.00	11 48 10	3341.30	-34.00	116.97	262.85	93.42	12 43 52	2341.3	-29.07	89.36
80.00	12 32 40	3201.86	-29.86	106.55	262.99	89.99	13 26 2	2201.9	-26.82	79.53
90.00	13 43 11	2974.22	-28.25	89.80	262.97	88.71	14 32 45	1974.2	-25.94	63.03
100.00	15 15 32	2676.33	-29.86	67.92	262.99	89.99	16 0 8	1676.3	-26.82	40.90
110.00	16 47 37	2388.12	-34.00	45.89	262.85	93.42	17 27 25	1388.1	-29.07	18.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3723	TRA	-.7626	TC3	1.1569	BAU	.3125	SGT	1550.9	SGR	783.7	SG3	578.8	ST	30.4	SR	23.5	SS	28.3
RDE	-.3362	RRA	.2120	RC3	-.6640	FAU	.15583	RRT	-.5263	RRF	.6224	RTF	-.7906	CRT	.7144	CRS	.8969	CST	.9390
FDE	1.0490	FRA	.7829	FC3	-7.6974	BSP	2568	SGB	1737.7	R23	-.1411	R13	.8149	LSA	45.5	MSA	14.0	SSA	2.6
BDE	.5017	BRA	.7915	BC3	1.3339	FSP	884	SG1	1615.7	SG2	639.7	THA	162.23	EL1	35.8	EL2	14.0	ALF	34.98

LAUNCH DATE AUG 6 1973 FLIGHT TIME 154.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 377.329 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.415	GAL	.95	AZL	89.17	HCA	119.03	SMA	209.75	ECC	.27705	INC	.8293
RP	228.51	LAP	.73	LOP	72.42	VP	22.996	GAP	15.26	AZP	90.40	TAL	4.38	TAP	123.41	RCA	151.64	APO	267.86
RC	134.321	GL	6.69	GP	-10.95	ZAL	78.75	ZAP	152.64	ETS	203.85	ZAE	162.36	ETE	316.79	ZAC	71.69	ETC	282.57

V1	29.363																		
V2	24.069																		
LVI	-5.06																		

PLANETOCENTRIC CONIC

C3	17.257	VHL	4.154	DLA	18.46	RAL	27.46	RAD	6641.6	VEL	11.717	PTH	6.75	VHP	4.287	DPA	6.48	RAP	48.20
ECC	1.2840																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 59 16	3472.41	-45.81	125.60	259.76	104.58	11 57 8	2472.4	-35.15	96.84
60.00	11 17 15	3424.54	-39.59	123.00	261.47	98.25	12 14 19	2424.5	-32.06	94.68
70.00	11 44 22	3344.68	-34.02	117.23	262.17	93.27	12 40 7	2344.7	-29.15	89.60
80.00	12 28 24	3206.67	-29.86	106.91	262.30	89.81	13 21 51	2206.7	-26.90	79.87
90.00	13 38 41	2979.77	-28.24	90.21	262.27	88.51	14 28 21	1979.8	-26.01	63.42
100.00	15 11 16	2681.14	-29.86	68.27	262.30	89.81	15 55 57	1681.1	-26.90	41.24
110.00	16 43 48	2391.50	-34.02	46.15	262.17	93.27	17 23 40	1391.5	-29.15	18.52

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3789	TRA	-.7545	TC3	1.1689	BAU	.3156	SGT	1555.6	SGR	802.1	SG3	610.3	ST	30.9	SR	22.8	SS	29.6
RDE	-.3235	RRA	.2112	RC3	-.7120	FAU	.16309	RRT	-.5436	RRF	.6494	RTF	-.[illegible]80	CRT	.7178	CRS	.8998	CST	.9383
FDE	1.1232	FRA	.7825	FC3	-8.1816	BSP	2638	SGB	1750.2	R23	-.1566	R13	.8160	LSA	46.4	MSA	13.8	SSA	2.7
BDE	.4982	BRA	.7835	BC3	1.3687	FSP	941	SG1	1627.6	SG2	643.5	THA	161.32	EL1	35.9	EL2	13.7	ALF	33.34

LAUNCH DATE AUG 6 1973 FLIGHT TIME 156.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 380.965 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.378	GAL	.98	AZL	89.13	HCA	120.06	SMA	208.93	ECC	.27425	INC	.8733
RP	228.90	LAP	.76	LOP	73.46	VP	22.900	GAP	14.97	AZP	90.44	TAL	4.58	TAP	124.64	RCA	151.63	APO	266.23
RC	137.073	GL	7.09	GP	-11.33	ZAL	78.40	ZAP	151.51	ETS	203.55	ZAE	162.66	ETE	313.89	ZAC	71.33	ETC	282.60

V1	29.363																		
V2	24.028																		
LVI	-4.71																		

PLANETOCENTRIC CONIC

C3	17.008	VHL	4.124	DLA	18.70	RAL	26.96	RAD	6641.5	VEL	11.707	PTH	6.74	VHP	4.178	DPA	6.11	RAP	48.26
ECC	1.2799																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 56 12	3474.17	-45.84	125.76	259.16	104.46	11 54 6	2474.2	-35.21	96.95
60.00	11 13 49	3427.23	-39.61	123.22	260.85	98.10	12 10 57	2427.2	-32.14	94.86
70.00	11 40 30	3348.68	-34.03	117.55	261.53	93.08	12 36 19	2348.7	-29.23	89.68
80.00	12 24 3	3212.21	-29.86	107.32	261.64	89.59	13 17 35	2212.2	-26.99	80.26
90.00	13 34 5	2986.12	-28.23	90.67	261.61	88.27	14 23 51	1986.1	-26.10	63.86
100.00	15 6 54	2686.68	-29.86	68.68	261.64	89.59	15 51 41	1686.7	-26.99	41.63
110.00	16 39 56	2395.50	-34.03	46.46	261.53	93.08	17 19 52	1395.5	-29.23	18.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3836	TRA	-.7443	TC3	1.1790	BAU	.3193	SGT	1556.1	SGR	822.9	SG3	643.3	ST	31.3	SR	22.1	SS	31.0
RDE	-.3106	RRA	.2100	RC3	-.7630	FAU	.17069	RRT	-.5610	RRF	.6761	RTF	-.7855	CRT	.7200	CRS	.9024	CST	.9372
FDE	1.1998	FRA	.7769	FC3	-8.6885	BSP	2686	SGB	1760.3	R23	-.1711	R13	.8177	LSA	47.3	MSA	13.6	SSA	2.7
BDE	.4935	BRA	.7734	BC3	1.4043	FSP	997	SG1	1636.8	SG2	647.6	THA	160.26	EL1	35.9	EL2	13.4	ALF	31.84

LAUNCH DATE AUG 6 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 384.616 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.343	GAL	1.02	AZL	89.08	HCA	121.09	SMA	208.16	ECC	.27161	INC	.9180	V1	29.363
RP	229.28	LAP	.79	LOP	74.49	VP	22.806	GAP	14.67	AZP	90.47	TAL	4.76	TAP	125.86	RCA	151.62	APO	264.70	V2	23.968
RC	139.847	GL	7.49	GP	-11.72	ZAL	78.06	ZAP	150.36	ETS	203.27	ZAE	162.93	ETE	310.73	ZAC	70.98	ETC	282.64	LVI	-4.37

PLANETOCENTRIC CONIC

C3	16.779	VHL	4.096	DLA	18.96	RAL	26.46	RAD	6641.4	VEL	11.697	PTH	6.73	VHP	4.073	DPA	5.71	RAP	48.31	ECC	1.2761

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 53 7	3478.42	-45.88	125.96	258.60	104.31	11 51 3	2476.4	-35.30	97.10
60.00	11 10 22	3430.47	-39.85	123.49	260.26	97.92	12 7 33	2430.5	-32.24	95.09
70.00	11 36 34	3353.33	-34.05	117.91	260.92	92.87	12 32 28	2353.3	-29.33	90.20
80.00	12 19 35	3218.49	-29.85	107.78	261.02	89.34	13 13 14	2218.5	-27.08	80.70
90.00	13 29 21	2993.28	-28.22	91.19	260.98	88.01	14 19 14	1993.3	-26.19	64.37
100.00	15 2 27	2692.96	-29.85	69.15	261.02	89.34	15 47 20	1693.0	-27.08	42.07
110.00	16 36 1	2400.14	-34.05	46.83	260.92	92.87	17 16 1	1400.1	-29.33	19.12

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3866	TRA	-.7335	TC1	1.1890	BAU	.3236	SGT	1555.0	SGR	846.4	SG3	677.8			ST	31.6	SR	21.3	SS	32.3
RDE	-.2973	RRA	.2088	RC3	-.8171	FAU	.17868	RRT	-.5791	RRF	.7023	RTF	-.7837			CRT	.7205	CRS	.9042	CST	.9358
FDE	1.2798	FRA	.7701	FC3	-9.2190	BSP	2725	SGB	1770.4	R23	-.1840	R13	.8205			LSA	48.1	MSA	13.4	SSA	2.8
BDE	.4877	BRA	.7626	BC3	1.4428	FSP	1058	SG1	1646.1	SG2	651.9	THA	159.07			EL1	35.8	EL2	13.0	ALF	30.38

LAUNCH DATE AUG 6 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 388.279 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.310	GAL	1.05	AZL	89.04	HCA	122.12	SMA	207.44	ECC	.26913	INC	.9637	V1	29.363
RP	229.67	LAP	.82	LOP	75.52	VP	22.714	GAP	14.38	AZP	90.51	TAL	4.94	TAP	127.06	RCA	151.62	APO	263.27	V2	23.947
RC	142.641	GL	7.91	GP	-12.12	ZAL	77.74	ZAP	149.18	ETS	203.00	ZAE	163.16	ETE	307.34	ZAC	70.58	ETC	282.68	LVI	-4.01

PLANETOCENTRIC CONIC

C3	16.568	VHL	4.070	DLA	19.23	RAL	25.97	RAD	6641.3	VEL	11.688	PTH	6.72	VHP	3.972	DPA	5.30	RAP	48.34	ECC	1.2727

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 50 1	3479.16	-45.92	126.21	258.08	104.12	11 48 0	2479.2	-35.40	97.28
60.00	11 6 53	3434.27	-39.68	123.81	259.72	97.71	12 4 7	2434.3	-32.35	95.35
70.00	11 32 34	3358.61	-34.06	118.32	260.36	92.63	12 28 33	2358.6	-29.45	90.57
80.00	12 15 1	3225.54	-29.84	108.31	260.43	89.07	13 8 47	2225.5	-27.19	81.20
90.00	13 24 30	3001.28	-28.20	91.78	260.38	87.72	14 14 31	2001.3	-26.30	64.93
100.00	14 57 53	2700.01	-29.84	69.68	260.43	89.07	15 42 53	1700.0	-27.19	42.57
110.00	16 32 1	2405.43	-34.06	47.24	260.36	92.63	17 12 6	1405.4	-29.45	19.49

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3893	TRA	-.7225	TC3	1.1958	BAU	.3281	SGT	1551.8	SGR	872.8	SG3	713.9			ST	31.8	SR	20.5	SS	33.8
RDE	-.2834	RRA	.2077	RC3	-.8744	FAU	.18700	RRT	-.5965	RRF	.7278	RTF	-.7819			CRT	.7196	CRS	.9048	CST	.9347
FDE	1.3662	FRA	.7651	FC3	-9.7710	BSP	2743	SGB	1780.4	R23	-.1963	R13	.8240			LSA	48.9	MSA	13.2	SSA	2.9
BDE	.4815	BRA	.7518	BC3	1.4814	FSP	1119	SG1	1654.8	SG2	656.9	THA	157.77			EL1	35.7	EL2	12.7	ALF	28.87

LAUNCH DATE AUG 6 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 391.954 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.279	GAL	1.07	AZL	88.99	HCA	123.15	SMA	206.77	ECC	.26678	INC	1.0101	V1	29.363
RP	230.05	LAP	.85	LOP	76.55	VP	22.626	GAP	14.09	AZP	90.55	TAL	5.11	TAP	128.25	RCA	151.61	APO	261.93	V2	23.907
RC	145.456	GL	8.34	GP	-12.54	ZAL	77.44	ZAP	147.98	ETS	202.74	ZAE	163.35	ETE	303.70	ZAC	70.19	ETC	282.73	LVI	-3.65

PLANETOCENTRIC CONIC

C3	16.375	VHL	4.047	DLA	19.51	RAL	25.50	RAD	6641.2	VEL	11.680	PTH	6.72	VHP	3.875	DPA	4.86	RAP	48.35	ECC	1.2695

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 46 54	3482.40	-45.98	126.50	257.61	103.90	11 44 57	2482.4	-35.53	97.49
60.00	11 3 21	3438.62	-39.72	124.17	259.22	97.46	12 0 39	2438.6	-32.48	95.64
70.00	11 28 30	3364.55	-34.08	118.78	259.82	92.35	12 24 34	2364.6	-29.57	90.99
80.00	12 10 20	3233.38	-29.83	108.89	259.87	88.76	13 4 14	2233.4	-27.31	81.75
90.00	13 19 30	3010.14	-28.17	92.42	259.81	87.40	14 9 40	2010.1	-26.41	65.55
100.00	14 53 12	2707.86	-29.83	70.26	259.87	88.76	15 38 20	1707.9	-27.31	43.12
110.00	16 27 56	2411.37	-34.08	47.70	259.82	92.35	17 8 8	1411.4	-29.57	19.91

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3914	TRA	-.7108	TC3	1.1966	BAU	.3323	SGT	1544.4	SGR	901.1	SG3	750.5			ST	32.0	SR	19.6	SS	35.3
RDE	-.2688	RRA	.2061	RC3	-.9339	FAU	.19540	RRT	-.6119	RRF	.7517	RTF	-.7791			CRT	.7179	CRS	.9052	CST	.9333
FDE	1.4590	FRA	.7543	FC3	-10.3310	BSP	2777	SGB	1788.1	R23	-.2084	R13	.8273			LSA	49.8	MSA	13.0	SSA	2.9
BDE	.4748	BRA	.7401	BC3	1.5179	FSP	1189	SG1	1660.7	SG2	662.8	THA	156.36			EL1	35.5	EL2	12.3	ALF	27.30

LAUNCH DATE AUG 6 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 395.640 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.249	GAL	1.10	AZL	88.94	HCA	124.17	SMA	206.14	ECC	.26457	INC	1.0575	V1	29.363
RP	230.44	LAP	.87	LOP	77.57	VP	22.540	GAP	13.80	AZP	90.59	TAL	5.27	TAP	129.44	RCA	151.60	APO	260.68	V2	23.867
RC	148.289	GL	8.77	GP	-12.98	ZAL	77.16	ZAP	146.75	ETS	202.49	ZAE	163.47	ETE	299.84	ZAC	69.79	ETC	282.78	LVI	-3.27

PLANETOCENTRIC CONIC

C3	16.197	VHL	4.025	DLA	19.80	RAL	25.03	RAD	6641.1	VEL	11.672	PTH	6.71	VHP	3.782	DPA	4.40	RAP	48.34	ECC	1.2686

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 43 46	3486.14	-46.04	126.84	257.18	103.65	11 41 52	2486.1	-35.67	97.73
60.00	10 59 46	3443.54	-39.76	124.59	258.75	97.19	11 57 10	2443.5	-32.62	95.98
70.00	11 24 21	3371.17	-34.10	119.30	259.32	92.05	12 20 32	2371.2	-29.71	91.46
80.00	12 5 32	3242.04	-29.82	109.53	259.35	88.42	12 59 34	2242.0	-27.44	82.36
90.00	13 14 20	3019.92	-28.14	93.14	259.27	87.04	14 4 40	2019.9	-26.53	66.24
100.00	14 48 24	2716.51	-29.82	70.90	259.35	88.42	15 33 40	1716.5	-27.44	43.73
110.00	16 23 47	2417.99	-34.10	48.22	259.32	92.05	17 4 5	1418.0	-29.71	20.37

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3936	TRA	-.7005	TC3	1.1957	BAU	.3372	SGT	1537.4	SGR	933.3	SG3	789.3			ST	32.2	SR	18.7	SS	36.9
RDE	-.2536	RRA	.2049	RC3	-.9974	FAU	.20430	RRT	-.6265	RRF	.7748	RTF	-.7761			CRT	.7140	CRS	.9038	CST	.9322
FDE	1.5581	FRA	.7472	FC3	-10.9198	BSP	2788	SGB	1798.5	R23	-.2201	R13	.8313			LSA	50.8	MSA	12.9	SSA	2.9
BDE	.4682	BRA	.7298	BC3	1.5571	FSP	1254	SG1	1669.1	SG2	670.0	THA	154.85			EL1	35.3	EL2	11.9	ALF	25.62

LAUNCH DATE AUG 6 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 399.336 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.221	GAL	1.13	AZL	88.89	HCA	125.19	SMA	205.55	ECC	.26249	INC	1.1059	V1	29.363
RP	230.82	LAP	.90	LOP	78.59	VP	22.456	GAP	13.51	AZP	90.64	TAL	5.42	TAP	130.61	RCA	151.59	APO	259.50	V2	23.827
RC	151.140	GL	9.21	GP	-13.44	ZAL	76.69	ZAP	145.50	ETS	202.24	ZAE	163.53	ETE	295.77	ZAC	69.38	ETC	282.84	LVI	-2.69

PLANETOCENTRIC CONIC

C3	16.035	VHL	4.004	DLA	20.11	RAL	24.58	RAD	6641.0	VEL	11.665	PTH	6.70	VHP	3.692	DPA	3.91	RAP	48.32	ECC	1.2639

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 40 37	3490.38	-46.10	127.23	256.79	103.36	11 38 47	2490.4	-35.83	98.01
60.00	10 56 8	3449.03	-39.81	125.04	258.33	96.88	11 53 37	2449.0	-32.78	96.36
70.00	11 20 6	3378.46	-34.12	119.87	258.86	91.71	12 16 25	2378.5	-29.86	91.97
80.00	12 0 35	3251.55	-29.80	110.24	258.85	88.05	12 54 47	2251.5	-27.57	83.04
90.00	13 9 1	3030.64	-28.10	93.92	258.76	86.65	13 59 32	2030.6	-26.65	67.00
100.00	14 43 27	2726.02	-29.80	71.61	258.85	88.05	15 28 53	1726.0	-27.57	44.40
110.00	16 19 32	2425.28	-34.12	48.79	258.86	91.71	16 59 58	1425.3	-29.86	20.89

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3939	TRA	-.6882	TC3	1.1881	BAU	.3419	SGT	1524.1	SGR	968.3	SG3	828.9	ST	32.3	SR	17.7	SS	36.5
RDE	-.2379	RRA	.2029	RC3	-1.0640	FAU	.21341	RRT	-.6391	RRF	.7965	RTF	-.7720	CRT	.7086	CRS	.9021	CST	.9306
FDE	1.6608	FRA	.7309	FC	-11.5221	BSP	2800	SGB	1605.6	R23	-.2309	R13	.8354	LSA	51.7	MSA	12.7	SSA	3.0
BDE	.4602	BRA	.7175	BC3	1.5948	FSP	1323	SG1	1673.4	SG2	678.2	THA	153.15	EL1	35.0	EL2	11.5	ALF	23.96

LAUNCH DATE AUG 6 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 403.041 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.195	GAL	1.15	AZL	88.84	HCA	126.20	SMA	204.99	ECC	.26053	INC	1.1554	V1	29.363
RP	231.20	LAP	.93	LOP	79.60	VP	22.375	GAP	13.23	AZP	90.68	TAL	5.56	TAP	131.76	RCA	151.59	APO	258.40	V2	23.787
RC	154.008	GL	9.67	GP	-13.91	ZAL	76.64	ZAP	144.23	ETS	202.01	ZAE	163.50	ETE	291.53	ZAC	68.95	ETC	282.90	LVI	-2.50

PLANETOCENTRIC CONIC

C3	15.887	VHL	3.986	DLA	20.44	RAL	24.14	RAD	6640.9	VEL	11.659	PTH	6.70	VHP	3.606	DPA	3.41	RAP	48.27	ECC	1.2615

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 37 26	3495.12	-46.18	127.66	256.45	103.03	11 35 41	2495.1	-36.01	98.32
60.00	10 52 27	3455.09	-39.86	125.55	257.94	96.54	11 50 3	2455.1	-32.95	96.78
70.00	11 15 46	3386.47	-34.13	120.49	258.43	91.34	12 12 12	2386.5	-30.02	92.54
80.00	11 55 29	3261.93	-29.77	111.01	258.39	87.65	12 49 51	2261.9	-27.72	83.77
90.00	13 3 30	3042.35	-28.05	94.77	258.28	86.23	13 54 12	2042.3	-26.79	67.83
100.00	14 38 21	2736.40	-29.77	72.38	258.39	87.65	15 23 57	1736.4	-27.72	45.14
110.00	16 15 12	2433.28	-34.13	49.41	258.43	91.34	16 55 45	1433.3	-30.02	21.46

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3942	TRA	-.6774	TC3	1.1732	BAU	.3464	SGT	1508.5	SGR	1006.1	SG3	869.1	ST	32.4	SR	16.6	SS	40.2
RDE	-.2213	RRA	.2012	RC3	-1.1330	FAU	.22258	RRT	-.6491	RRF	.8165	RTF	-.7664	CRT	.7000	CRS	.8982	CST	.9290
FDE	1.7699	FRA	.7178	FC	-12.1292	BSP	2827	SGB	1613.2	R23	-.2415	R13	.8396	LSA	52.7	MSA	12.6	SSA	3.0
BDE	.4521	BRA	.7066	BC3	1.6309	FSP	1400	SG1	1677.5	SG2	688.2	THA	151.33	EL1	34.7	EL2	11.1	ALF	22.16

LAUNCH DATE AUG 6 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 406.754 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.170	GAL	1.17	AZL	88.79	HCA	127.22	SMA	204.48	ECC	.25868	INC	1.2059	V1	29.363
RP	231.58	LAP	.96	LOP	80.62	VP	22.297	GAP	12.95	AZP	90.73	TAL	5.69	TAP	132.91	RCA	151.58	APO	257.37	V2	23.748
RC	156.890	GL	10.13	GP	-14.40	ZAL	76.41	ZAP	142.93	ETS	201.77	ZAE	163.38	ETE	287.17	ZAC	68.52	ETC	282.97	LVI	-2.11

PLANETOCENTRIC CONIC

C3	15.753	VHL	3.969	DLA	20.78	RAL	23.71	RAD	6640.9	VEL	11.653	PTH	6.69	VHP	3.524	DPA	2.87	RAP	48.21	ECC	1.2593

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 34 13	3500.38	-46.26	128.15	256.15	102.66	11 32 33	2500.4	-36.21	98.67
60.00	10 48 43	3461.75	-39.91	126.11	257.59	96.16	11 46 25	2461.8	-33.14	97.25
70.00	11 11 19	3395.19	-34.14	121.17	258.03	90.94	12 7 54	2395.2	-30.19	93.16
80.00	11 50 13	3273.23	-29.74	111.85	257.95	87.21	12 44 46	2273.2	-27.87	84.58
90.00	12 57 47	3055.11	-27.99	95.70	257.83	85.77	13 48 42	2055.1	-26.93	68.74
100.00	14 33 5	2747.70	-29.74	73.22	257.95	87.21	15 18 53	1747.7	-27.87	45.95
110.00	16 10 45	2442.01	-34.14	50.09	258.03	90.94	16 51 27	1442.0	-30.19	22.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3948	TRA	-.6662	TC3	1.1567	BAU	.3521	SGT	1492.0	SGR	1048.3	SG3	911.8	ST	32.4	SR	15.5	SS	42.1
RDE	-.2035	RRA	.1990	RC3	-1.2071	FAU	.23237	RRT	-.6575	RRF	.8355	RTF	-.7705	CRT	.6889	CRS	.8925	CST	.9276
FDE	1.6905	FRA	.6995	FC	-12.7703	BSP	2838	SGB	1823.4	R23	-.2506	R13	.8449	LSA	53.8	MSA	12.5	SSA	3.0
BDE	.4442	BRA	.6853	BC3	1.6718	FSP	1473	SG1	1683.8	SG2	699.8	THA	149.36	EL1	34.3	EL2	10.6	ALF	20.18

LAUNCH DATE AUG 6 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 410.476 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.147	GAL	1.19	AZL	88.74	HCA	128.23	SMA	203.99	ECC	.25694	INC	1.2577	V1	29.363
RP	231.95	LAP	.99	LOP	81.63	VP	22.220	GAP	12.67	AZP	90.78	TAL	5.82	TAP	134.04	RCA	151.57	APO	256.40	V2	23.708
RC	159.785	GL	10.60	GP	-14.90	ZAL	76.20	ZAP	141.60	ETS	201.53	ZAE	163.16	ETE	282.72	ZAC	68.07	ETC	283.05	LVI	-1.70

PLANETOCENTRIC CONIC

C3	15.632	VHL	3.954	DLA	21.13	RAL	23.29	RAD	6640.8	VEL	11.648	PTH	6.69	VHP	3.445	DPA	2.31	RAP	48.12	ECC	1.2573

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 30 58	3506.13	-46.34	128.68	255.88	102.26	11 29 24	2506.1	-36.42	99.05
60.00	10 44 54	3468.99	-39.96	126.72	257.27	95.75	11 42 43	2469.0	-33.34	97.76
70.00	11 6 45	3404.63	-34.15	121.91	257.67	90.50	12 3 30	2404.6	-30.38	93.83
80.00	11 44 46	3285.46	-29.70	112.75	257.54	86.74	12 39 31	2285.5	-28.03	85.45
90.00	12 51 50	3068.94	-27.91	96.70	257.40	85.27	13 42 59	2068.9	-27.07	69.73
100.00	14 27 38	2759.94	-29.70	74.12	257.54	86.74	15 13 38	1759.9	-28.03	46.82
110.00	16 6 12	2451.45	-34.15	50.83	257.67	90.50	16 47 3	1451.4	-30.38	22.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3853	TRA	-.6461	TC3	1.1548	BAU	.3612	SGT	1467.3	SGR	1095.2	SG3	956.1	ST	31.7	SR	14.3	SS	43.7
RDE	-.1861	RRA	.1955	RC3	-1.2862	FAU	.24268	RRT	-.6740	RRF	.8533	RTF	-.7615	CRT	.6727	CRS	.8858	CST	.9240
FDE	2.0031	FRA	.6662	FC	-13.4400	BSP	2741	SGB	1831.0	R23	-.2453	R13	.8553	LSA	54.4	MSA	12.3	SSA	3.0
BDE	.4278	BRA	.6750	BC3	1.7285	FSP	1534	SG1	1691.1	SG2	702.0	THA	146.88	EL1	33.3	EL2	10.1	ALF	18.64

LAUNCH DATE AUG 6 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 414.203 EARTH TO MARS

RL	191.73	LAL	.00	LOL	313.39	VL	33.128	GAL	1.21	AZL	88.69	HCA	128.23	SMA	203.53	ECC	.25531	INC	1.3109	V1	29.36
RP	232.33	LAP	1.02	LOP	82.83	VP	22.146	GAP	12.40	AZP	90.83	TAL	5.93	TAP	135.16	RCA	151.57	APO	255.50	V2	23.67
RC	162.693	GL	11.09	GP	-15.43	ZAL	76.01	ZAP	140.25	ETS	201.29	ZAE	162.84	ETE	278.28	ZAC	67.60	ETC	283.13	LVI	-1.28

PLANETOCENTRIC CONIC

C3	15.323	VHL	3.940	DLA	21.50	RAL	22.88	RAD	6640.8	VEL	11.643	PTH	6.68	VHP	3.370	DPA	1.73	RAP	48.02	ECC	1.2555

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 27 41	3512.44	-46.43	129.26	255.67	101.82	11 26 13	2512.4	-36.65	99.47
60.00	10 41 1	3476.88	-40.01	127.39	256.99	95.30	11 38 58	2476.9	-33.56	98.31
70.00	11 2 4	3414.90	-34.15	122.71	257.34	90.03	11 58 59	2414.9	-30.57	94.57
80.00	11 39 6	3298.78	-29.64	113.74	257.16	86.22	12 34 5	2298.8	-28.19	86.41
90.00	12 45 37	3084.04	-27.82	97.80	257.00	84.73	13 37 1	2084.0	-27.22	70.81
100.00	14 21 58	2773.25	-29.64	75.11	257.16	86.22	15 8 11	1773.3	-28.19	47.78
110.00	16 1 31	2461.71	-34.15	51.63	257.34	90.03	16 42 32	1461.7	-30.57	23.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3912	TRA	-.6432	TC3	1.1043	BAU	.3642	SGT	1446.2	SGR	1142.2	SG3	998.4	ST	32.2	SR	13.0	SS	45.9
RDE	-.1656	RRA	.1940	RC3	-1.3637	FAU	.25212	RRT	-.6677	RRF	.8687	RTF	-.7448	CRT	.6503	CRS	.8713	CST	.9236
FDE	2.1448	FRA	.6561	FC	-14.0605	BSP	2838	SGB	1842.9	R23	-.2621	R13	.8572	LSA	56.1	MSA	12.3	SSA	3.0
BDE	.4248	BRA	.6718	BC3	1.7548	FSP	1624	SG1	1693.8	SG2	726.0	THA	144.81	EL1	33.4	EL2	9.5	ALF	16.00

LAUNCH DATE AUG 6 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 417.938 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.104	GAL	1.22	AZL	88.63	HCA	130.23	SMA	203.11	ECC	.25378	INC	1.3654	V1	29.363
RP	232.70	LAP	1.04	LOP	83.63	VP	22.073	GAP	12.12	AZP	90.88	TAL	6.04	TAP	136.27	RCA	151.56	APO	254.66	V2	23.631
RC	165.610	GL	11.58	GP	-15.97	ZAL	75.84	ZAP	138.87	ETS	201.05	ZAE	162.40	ETE	273.88	ZAC	67.13	ETC	283.22	LVI	-.85

PLANETOCENTRIC CONIC

C3	15.427	VHL	3.928	DLA	21.89	RAL	22.49	RAD	6640.7	VEL	11.639	PTH	6.68	VHP	3.299	DPA	1.12	RAP	47.90	ECC	1.2539

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 24 21	3519.27	-46.52	129.89	255.50	101.34	11 23 0	2519.3	-36.90	99.93
60.00	10 37 4	3485.40	-40.06	128.11	256.76	94.82	11 35 9	2485.4	-33.79	98.91
70.00	10 57 15	3425.95	-34.15	123.57	257.04	89.52	11 54 20	2425.9	-30.78	95.36
80.00	11 33 13	3313.16	-29.57	114.80	256.81	85.67	12 28 26	2313.2	-28.36	87.44
90.00	12 39 7	3100.39	-27.72	98.98	256.62	84.14	13 30 47	2100.4	-27.37	71.98
100.00	14 16 4	2787.63	-29.57	76.17	256.81	85.67	15 2 32	1787.6	-28.36	48.81
110.00	15 56 41	2472.77	-34.15	52.49	257.04	89.52	16 37 54	1472.8	-30.78	24.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3912	TRA	-.6352	TC3	1.0625	BAU	.3702	SGT	1421.1	SGR	1194.6	SG3	1043.0	ST	32.3	SR	11.6	SS	48.0
RDE	-.1444	RRA	.1919	RC3	-1.4468	FAU	.26216	RRT	-.6653	RRF	.8830	RTF	-.7318	CRT	.6171	CRS	.8504	CST	.9220
FDE	2.2891	FRA	.6383	FC	-14.7119	BSP	2873	SGB	1856.5	R23	-.2682	R13	.8632	LSA	57.6	MSA	12.3	SSA	3.0
BDE	.4170	BRA	.6636	BC3	1.7950	FSP	1707	SG1	1700.3	SG2	745.4	THA	142.35	EL1	33.1	EL2	8.9	ALF	13.49

LAUNCH DATE AUG 6 1973 FLIGHT TIME 178.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 421.678 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.085	GAL	1.23	AZL	88.58	HCA	131.23	SMA	202.71	ECC	.25234	INC	1.4212	V1	29.363
RP	233.07	LAP	1.07	LOP	84.63	VP	22.003	GAP	11.85	AZP	90.94	TAL	6.13	TAP	137.36	RCA	151.56	APO	253.86	V2	23.593
RC	168.537	GL	12.09	GP	-16.53	ZAL	75.68	ZAP	137.47	ETS	200.81	ZAE	161.85	ETE	269.57	ZAC	66.64	ETC	283.31	LVI	-.41

PLANETOCENTRIC CONIC

C3	15.342	VHL	3.917	DLA	22.29	RAL	22.10	RAD	6640.7	VEL	11.636	PTH	6.67	VHP	3.231	DPA	.48	RAP	47.76	ECC	1.2525

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 20 57	3526.64	-46.62	130.58	255.36	100.82	11 19 44	2526.6	-37.17	100.44
60.00	10 33 0	3494.55	-40.11	128.88	256.55	94.29	11 31 15	2494.5	-34.03	99.57
70.00	10 52 15	3437.83	-34.14	124.50	256.76	88.97	11 49 33	2437.8	-30.99	96.22
80.00	11 27 4	3328.69	-29.48	115.95	256.48	85.07	12 22 32	2328.7	-28.54	88.56
90.00	12 32 16	3118.14	-27.59	100.26	256.26	83.51	13 24 14	2118.1	-27.52	73.26
100.00	14 9 55	2803.16	-29.48	77.32	256.48	85.07	14 56 39	1803.2	-28.54	49.93
110.00	15 51 42	2484.65	-34.14	53.42	256.76	88.97	16 33 6	1484.6	-30.99	25.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3877	TRA	-.6243	TC3	1.0212	BAU	.3781	SGT	1391.3	SGR	1251.6	SG3	1088.7	ST	32.0	SR	10.2	SS	50.1
RDE	-.1225	RRA	.1887	RC3	-1.5347	FAU	.27255	RRT	-.6630	RRF	.8962	RTF	-.7193	CRT	.5700	CRS	.8199	CST	.9195
FDE	2.4350	FRA	.6098	FC	-15.3800	BSP	2881	SGB	1871.4	R23	-.2676	R13	.8715	LSA	59.0	MSA	12.3	SSA	2.9
BDE	.4066	BRA	.6522	BC3	1.8434	FSP	1786	SG1	1708.9	SG2	762.8	THA	139.54	EL1	32.6	EL2	8.2	ALF	10.98

LAUNCH DATE AUG 6 1973 FLIGHT TIME 180.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 425.424 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.067	GAL	1.25	AZL	88.52	HCA	132.23	SMA	202.34	ECC	.25099	INC	1.4787	V1	29.363
RP	233.44	LAP	1.09	LOP	85.63	VP	21.935	GAP	11.58	AZP	90.99	TAL	6.22	TAP	138.45	RCA	151.56	APO	253.13	V2	23.554
RC	171.472	GL	12.61	GP	-17.12	ZAL	75.55	ZAP	136.04	ETS	200.55	ZAE	161.19	ETE	265.42	ZAC	66.14	ETC	283.41	LVI	.04

PLANETOCENTRIC CONIC

C3	15.268	VHL	3.907	DLA	22.71	RAL	21.72	RAD	6640.7	VEL	11.633	PTH	6.67	VHP	3.166	DPA	-.19	RAP	47.60	ECC	1.2513

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 17 31	3534.57	-46.72	131.32	255.27	100.26	11 16 25	2534.6	-37.46	100.98
60.00	10 28 51	3504.38	-40.16	129.71	256.38	93.73	11 27 15	2504.4	-34.29	100.27
70.00	10 47 6	3450.60	-34.12	125.50	256.52	88.38	11 44 37	2450.6	-31.22	97.15
80.00	11 20 37	3345.48	-29.38	117.19	256.17	84.43	12 16 23	2345.5	-28.71	89.78
90.00	12 25 3	3137.43	-27.43	101.65	255.92	82.84	13 17 21	2137.4	-27.66	74.65
100.00	14 3 29	2819.95	-29.38	78.55	256.17	84.43	14 50 29	1819.9	-28.71	51.15
110.00	15 46 32	2497.42	-34.12	54.42	256.52	88.38	16 28 10	1497.4	-31.22	26.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3845	TRA	-.6156	TC3	.9670	BAU	.3859	SGT	1358.9	SGR	1311.6	SG3	1134.0	ST	31.8	SR	8.7	SS	52.3
RDE	-.0993	RRA	.1855	RC3	-1.6248	FAU	.28278	RRT	-.6542	RRF	.9079	RTF	-.7016	CRT	.4976	CRS	.7696	CST	.9167
FDE	2.5884	FRA	.5813	FC	-16.0346	BSP	2927	SGB	1888.7	R23	-.2662	R13	.8796	LSA	60.5	MSA	12.3	SSA	2.9
BDE	.3971	BRA	.6430	BC3	1.8908	FSP	1876	SG1	1717.9	SG2	784.7	THA	136.55	EL1	32.1	EL2	7.5	ALF	8.23

LAUNCH DATE AUG 6 1973 FLIGHT TIME 182.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC — DISTANCE 429.175 — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 33.050 GAL 1.26 AZL 88.46 HCA 133.22 SMA 201.99 ECC .24972 INC 1.5377 V1 29.363
RP 233.80 LAP 1.12 LOP 86.62 VP 21.869 GAP 11.32 AZP 91.05 TAL 6.30 TAP 139.52 RCA 151.55 APO 252.43 V2 23.517
RC 174.413 GL 13.15 GP -17.72 ZAL 75.43 ZAP 134.59 ETS 200.29 ZAE 160.42 ETE 261.44 ZAC 65.63 ETC 283.52 LVI .51

PLANETOCENTRIC CONIC

C3 15.204 VHL 3.899 DLA 23.14 RAL 21.35 RAD 6640.6 VEL 11.630 PTH 6.67 VHP 3.105 DPA -.88 RAP 47.43 ECC 1.2502

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 14 0	3543.07	-46.82	132.11	255.22	99.66	11 13 3	2543.1	-37.76	101.56
60.00	10 24 34	3514.89	-40.20	130.60	256.25	93.13	11 23 9	2514.9	-34.57	101.03
70.00	10 41 45	3464.29	-34.09	126.57	256.30	87.75	11 39 29	2464.3	-31.45	98.15
80.00	11 13 51	3363.61	-29.25	118.52	255.88	83.74	12 9 55	2363.6	-28.89	91.10
90.00	12 17 24	3158.42	-27.24	103.16	255.60	82.10	13 10 2	2158.4	-27.81	76.17
100.00	13 56 43	2838.08	-29.25	79.89	255.88	83.74	14 44 1	1838.1	-28.89	52.47
110.00	15 41 11	2511.11	-34.09	55.48	256.30	87.75	16 23 3	1511.1	-31.45	27.07

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.3785 TRA -.6046 TC3 .9140 BAU .3960 — SGT 1323.2 SGR 1376.9 SG3 1180.8 — ST 31.4 SR 7.3 SS 54.6
RDE -.0746 RRA .1815 RC3-1.7202 FAU .29337 — RRT -.6452 RRF .9186 RTF -.6843 — CRT .3817 CRS .6827 CST .9133
FDE 2.7493 FRA .5455 FC-16.7044 BSP 2938 — SGB 1909.6 R23 -.2573 R13 .8899 — LSA 62.1 MSA 12.3 SSA 2.8
BDE .3858 BRA .6313 BC3 1.9479 FSP 1956 — SG1 1732.3 SG2 803.5 THA 133.24 — EL1 31.5 EL2 6.7 ALF 5.30

LAUNCH DATE AUG 6 1973 FLIGHT TIME 184.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC — DISTANCE 432.931 — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 33.034 GAL 1.27 AZL 88.40 HCA 134.21 SMA 201.67 ECC .24853 INC 1.5987 V1 29.363
RP 234.17 LAP 1.15 LOP 87.61 VP 21.804 GAP 11.05 AZP 91.11 TAL 6.37 TAP 140.58 RCA 151.55 APO 251.79 V2 23.479
RC 177.360 GL 13.69 GP -18.34 ZAL 75.33 ZAP 133.11 ETS 200.02 ZAE 159.54 ETE 257.67 ZAC 65.11 ETC 283.63 LVI .98

PLANETOCENTRIC CONIC

C3 15.152 VHL 3.893 DLA 23.60 RAL 20.99 RAD 6640.6 VEL 11.628 PTH 6.67 VHP 3.047 DPA -1.59 RAP 47.24 ECC 1.2494

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 10 25	3552.13	-46.92	132.97	255.21	99.00	11 9 37	2552.1	-38.08	102.20
60.00	10 20 11	3526.11	-40.24	131.55	256.14	92.48	11 18 57	2526.1	-34.85	101.84
70.00	10 36 11	3478.94	-34.04	127.71	256.11	87.08	11 34 10	2478.9	-31.68	99.23
80.00	11 6 42	3383.21	-29.10	119.95	255.61	83.00	12 3 5	2383.2	-29.06	92.53
90.00	12 9 14	3181.31	-27.02	104.80	255.28	81.31	13 2 15	2181.3	-27.94	77.83
100.00	13 49 34	2857.68	-29.10	81.32	255.61	83.00	14 37 12	1857.7	-29.06	53.90
110.00	15 35 38	2525.76	-34.04	56.63	256.11	87.08	16 17 43	1525.8	-31.68	28.14

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.3647 TRA -.5883 TC3 .8708 BAU .4092 — SGT 1280.9 SGR 1448.7 SG3 1229.4 — ST 30.4 SR 6.0 SS 56.5
RDE -.0500 RRA .1760 RC3-1.8226 FAU .30461 — RRT -.6411 RRF .9284 RTF -.6710 — CRT .1997 CRS .5361 CST .9075
FDE 2.9011 FRA .4951 FC-17.4046 BSP 2891 — SGB 1933.8 R23 -.2388 R13 .9026 — LSA 63.2 MSA 12.3 SSA 2.8
BDE .3681 BRA .6141 BC3 2.0200 FSP 2019 — SG1 1755.3 SG2 811.3 THA 129.55 — EL1 30.4 EL2 5.9 ALF 2.35

LAUNCH DATE AUG 6 1973 FLIGHT TIME 186.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC — DISTANCE 436.689 — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 33.019 GAL 1.27 AZL 88.34 HCA 135.19 SMA 201.37 ECC .24742 INC 1.6614 V1 29.363
RP 234.53 LAP 1.17 LOP 88.60 VP 21.742 GAP 10.79 AZP 91.18 TAL 6.43 TAP 141.62 RCA 151.55 APO 251.19 V2 23.442
RC 180.313 GL 14.25 GP -18.98 ZAL 75.25 ZAP 131.62 ETS 199.74 ZAE 158.56 ETE 254.13 ZAC 64.57 ETC 283.75 LVI 1.47

PLANETOCENTRIC CONIC

C3 15.110 VHL 3.887 DLA 24.07 RAL 20.64 RAD 6640.6 VEL 11.626 PTH 6.67 VHP 2.992 DPA -2.34 RAP 47.04 ECC 1.2487

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 6 45	3561.85	-47.02	133.88	255.25	98.30	11 6 7	2561.8	-38.42	102.88
60.00	10 15 39	3538.14	-40.27	132.58	256.08	91.79	11 14 37	2538.1	-35.15	102.72
70.00	10 30 23	3494.70	-33.98	128.94	255.95	86.35	11 28 38	2494.7	-31.93	100.39
80.00	10 59 7	3404.56	-28.91	121.51	255.35	82.20	11 55 52	2404.6	-29.23	94.09
90.00	12 0 27	3206.52	-26.75	106.59	254.98	80.45	12 53 53	2206.5	-28.06	79.66
100.00	13 41 59	2879.03	-28.91	82.88	255.35	82.20	14 29 58	1879.0	-29.23	55.46
110.00	15 29 49	2541.52	-33.98	57.85	255.95	86.35	16 12 11	1541.5	-31.93	29.31

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.3678 TRA -.5905 TC3 .7717 BAU .4176 — SGT 1250.1 SGR 1517.5 SG3 1272.7 — ST 30.7 SR 5.0 SS 59.5
RDE -.0195 RRA .1744 RC3-1.9178 FAU .31387 — RRT -.6048 RRF .9364 RTF -.6507 — CRT -.1534 CRS .2022 CST .9057
FDE 3.1031 FRA .4849 FC-17.9837 BSP 3035 — SGB 1966.1 R23 -.2335 R13 .9104 — LSA 65.9 MSA 12.4 SSA 2.7
BDE .3683 BRA .6157 BC3 2.0672 FSP 2128 — SG1 1771.5 SG2 852.8 THA 126.06 — EL1 30.7 EL2 4.9 ALF 178.53

LAUNCH DATE AUG 6 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC — DISTANCE 440.452 — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 33.005 GAL 1.28 AZL 88.27 HCA 136.18 SMA 201.09 ECC .24638 INC 1.7262 V1 29.363
RP 234.89 LAP 1.20 LOP 89.59 VP 21.681 GAP 10.53 AZP 91.25 TAL 6.48 TAP 142.65 RCA 151.54 APO 250.63 V2 23.405
RC 183.270 GL 14.83 GP -19.64 ZAL 75.19 ZAP 130.10 ETS 199.44 ZAE 157.48 ETE 250.82 ZAC 64.01 ETC 283.88 LVI 1.97

PLANETOCENTRIC CONIC

C3 15.078 VHL 3.883 DLA 24.57 RAL 20.29 RAD 6640.6 VEL 11.624 PTH 6.66 VHP 2.941 DPA -3.11 RAP 46.81 ECC 1.2481

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 2 59	3572.17	-47.12	134.86	255.33	97.56	11 2 31	2572.2	-38.77	103.61
60.00	10 10 57	3550.92	-40.29	133.66	256.04	91.05	11 10 8	2550.9	-35.46	103.67
70.00	10 24 19	3511.56	-33.90	130.24	255.81	85.58	11 22 50	2511.6	-32.18	101.64
80.00	10 51 2	3427.73	-28.69	123.20	255.11	81.34	11 48 10	2427.7	-29.40	95.80
90.00	11 50 56	3234.29	-26.42	108.56	254.68	79.52	12 44 50	2234.3	-28.17	81.69
100.00	13 33 54	2902.20	-28.69	84.57	255.11	81.34	14 22 16	1902.2	-29.40	57.16
110.00	15 23 45	2558.38	-33.90	59.16	255.81	85.58	16 6 23	1558.4	-32.18	30.56

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE -.3593 TRA -.5824 TC3 .6922 BAU .4307 — SGT 1209.5 SGR 1594.0 SG3 1318.2 — ST 30.1 SR 4.8 SS 62.0
RDE .0105 RRA .1697 RC3-2.0216 FAU .32398 — RRT -.5769 RRF .9439 RTF -.5972 — CRT -.5588 CRS -.2413 CST .9005
FDE 3.2884 FRA .4450 FC-18.6026 BSP 3084 — SGB 2000.9 R23 -.2135 R13 .9217 — LSA 67.8 MSA 12.5 SSA 2.6
BDE .3595 BRA .6066 BC3 2.1368 FSP 2209 — SG1 1799.4 SG2 875.1 THA 122.07 — EL1 30.2 EL2 4.0 ALF 174.79

LAUNCH DATE AUG 6 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 444.218 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.38	VL	32.992	GAL	1.28	AZL	88.21	HCA	137.16	SMA	200.82	ECC	.24540	INC	1.7931	V1	29.363
RP	235.24	LAP	1.22	LOP	90.57	VP	21.621	GAP	10.27	AZP	91.32	TAL	6.52	TAP	143.68	RCA	151.54	APO	250.11	V2	23.369
RC	186.232	GL	15.43	GP	-20.32	ZAL	75.15	ZAP	128.56	ETS	199.13	ZAE	156.32	ETE	247.73	ZAC	63.45	ETC	284.01	LVI	2.49

PLANETOCENTRIC CONIC

C3	15.056	VHL	3.880	DLA	26.08	RAL	19.95	RAD	6640.6	VEL	11.624	PTH	6.66	VHP	2.894	DPA	-3.90	RAP	46.58	ECC	1.2476

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 59 7	3583.14	-47.21	135.91	255.45	96.76	10 58 50	2583.1	-39.15	104.40
60.00	10 6 6	3564.53	-40.30	134.82	256.04	90.27	11 5 30	2564.5	-35.78	104.68
70.00	10 17 56	3529.64	-33.80	131.65	255.69	84.76	11 16 46	2529.6	-32.43	102.99
80.00	10 42 21	3453.04	-28.41	125.03	254.87	80.41	11 39 54	2453.0	-29.55	97.66
90.00	11 40 30	3265.22	-26.02	110.73	254.37	78.50	12 34 55	2265.2	-28.24	83.95
100.00	13 25 12	2927.51	-28.41	86.40	254.87	80.41	14 14 0	1927.5	-29.55	59.03
110.00	15 17 22	2576.46	-33.80	60.56	255.69	84.76	16 0 19	1576.5	-32.43	31.91

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY				
TDE	-.3493	TRA	-.5755	TC3	.6067	BAU	.4456	SGT 1169.7 SGR 1675.2 SG3 1363.5	ST	29.4	SR	5.7	SS	64.5
RDE	.0423	RRA	.1649	RC3	-2.1291	FAU	.33405	RRT -.5422 RRF .9505 RTF -.5573	CRT	-.8344	CRS	-.6134	CST	.8940
FDE	3.4798	FRA	.4048	FC	-19.2080	BSP	3152	SGB 2043.1 R23 -.1902 R13 .9326	LSA	69.9	MSA	12.6	SSA	2.5
BDE	.3518	BRA	.5987	BC3	2.2139	FSP	2294	SG1 1835.8 SG2 896.8 THA 117.96	EL1	29.8	EL2	3.1	ALF	170.75

LAUNCH DATE AUG 6 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 14 1974

HELIOCENTRIC CONIC DISTANCE 447.987 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.980	GAL	1.29	AZL	88.14	HCA	138.14	SMA	200.58	ECC	.24450	INC	1.8623	V1	29.363
RP	235.59	LAP	1.24	LOP	91.54	VP	21.564	GAP	10.01	AZP	91.39	TAL	6.55	TAP	144.69	RCA	151.54	APO	249.62	V2	23.332
RC	189.197	GL	16.04	GP	-21.01	ZAL	75.12	ZAP	127.00	ETS	198.80	ZAE	155.07	ETE	244.86	ZAC	62.87	ETC	284.15	LVI	3.02

PLANETOCENTRIC CONIC

C3	15.045	VHL	3.879	DLA	25.62	RAL	19.61	RAD	6640.5	VEL	11.623	PTH	6.66	VHP	2.849	DPA	-4.73	RAP	46.33	ECC	1.2476

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 55 8	3594.79	-47.30	137.02	255.61	95.90	10 55 2	2594.8	-39.53	105.24
60.00	10 1 2	3579.03	-40.30	136.05	256.07	89.43	11 0 41	2579.0	-36.11	105.77
70.00	10 11 13	3549.04	-33.67	133.14	255.58	83.88	11 10 22	2549.0	-32.68	104.45
80.00	10 32 56	3480.86	-28.08	127.03	254.63	79.41	11 30 57	2480.9	-29.68	99.72
90.00	11 28 53	3300.12	-25.52	113.17	254.04	77.38	12 23 54	2300.1	-28.28	86.50
100.00	13 15 48	2955.33	-28.08	88.40	254.63	79.41	14 5 3	1955.3	-29.68	61.09
110.00	15 10 39	2595.86	-33.67	62.06	255.58	83.88	15 53 55	1595.9	-32.68	33.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY				
TDE	-.3376	TRA	-.5607	TC3	.5123	BAU	.4618	SGT 1129.0 SGR 1759.4 SG3 1407.0	ST	28.6	SR	7.3	SS	67.2
RDE	.0763	RRA	.1596	RC3	-2.2381	FAU	.34363	RRT -.4983 RRF .9563 RTF -.5090	CRT	-.9378	CRS	-.8117	CST	.8862
FDE	3.6790	FRA	.3609	FC	-19.7736	BSP	3222	SGB 2090.5 R23 -.1636 R13 .9430	LSA	72.2	MSA	12.7	SSA	2.4
BDE	.3461	BRA	.5906	BC3	2.2960	FSP	2372	SG1 1878.8 SG2 916.6 THA 113.69	EL1	29.4	EL2	2.5	ALF	166.36

LAUNCH DATE AUG 6 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 16 1974

HELIOCENTRIC CONIC DISTANCE 451.759 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.968	GAL	1.29	AZL	88.07	HCA	139.11	SMA	200.36	ECC	.24365	INC	1.9340	V1	29.363
RP	235.94	LAP	1.27	LOP	92.52	VP	21.508	GAP	9.76	AZP	91.46	TAL	6.58	TAP	145.69	RCA	151.54	APO	249.17	V2	23.297
RC	192.165	GL	16.67	GP	-21.73	ZAL	75.12	ZAP	125.43	ETS	198.45	ZAE	153.74	ETE	242.19	ZAC	62.28	ETC	284.30	LVI	3.56

PLANETOCENTRIC CONIC

C3	15.044	VHL	3.879	DLA	26.17	RAL	19.28	RAD	6640.5	VEL	11.623	PTH	6.66	VHP	2.808	DPA	-5.58	RAP	46.08	ECC	1.2476

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 51 0	3607.15	-47.38	138.20	255.82	95.00	10 51 7	2607.1	-39.94	106.15
60.00	9 55 46	3594.45	-40.28	137.37	256.12	88.54	10 55 41	2594.4	-36.45	106.93
70.00	10 4 6	3569.90	-33.50	134.75	255.49	82.95	11 3 36	2569.9	-32.93	106.03
80.00	10 22 39	3511.67	-27.68	129.23	254.37	78.32	11 21 10	2511.7	-29.78	102.00
90.00	11 15 42	3340.26	-24.89	115.94	253.67	76.13	12 11 22	2340.3	-28.25	89.43
100.00	13 5 30	2986.14	-27.68	90.60	254.37	78.32	13 55 17	1986.1	-29.78	63.37
110.00	15 3 32	2616.72	-33.50	63.67	255.49	82.95	15 47 9	1616.7	-32.93	34.94

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY				
TDE	-.3234	TRA	-.5621	TC3	.4152	BAU	.4804	SGT 1089.9 SGR 1849.4 SG3 1450.5	ST	27.6	SR	9.5	SS	69.8
RDE	.1122	RRA	.1535	RC3	-2.3520	FAU	.35327	RRT -.4468 RRF .9615 RTF -.4933	CRT	-.9581	CRS	-.9020	CST	.8762
FDE	3.8810	FRA	.3123	FC	-20.3295	BSP	3297	SGB 2146.7 R23 -.1354 R13 .9523	LSA	74.5	MSA	12.9	SSA	2.4
BDE	.3424	BRA	.5827	BC3	2.3884	FSP	2442	SG1 1933.5 SG2 932.7 THA 109.45	EL1	29.1	EL2	2.6	ALF	161.59

LAUNCH DATE AUG 6 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 18 1974

HELIOCENTRIC CONIC DISTANCE 455.534 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.958	GAL	1.29	AZL	87.99	HCA	140.08	SMA	200.15	ECC	.24286	INC	2.0083	V1	29.363
RP	236.29	LAP	1.29	LOP	93.49	VP	21.453	GAP	9.50	AZP	91.54	TAL	6.59	TAP	146.67	RCA	151.54	APO	248.76	V2	23.261
RC	195.134	GL	17.31	GP	-22.47	ZAL	75.13	ZAP	123.83	ETS	198.08	ZAE	152.35	ETE	239.72	ZAC	61.68	ETC	284.45	LVI	4.12

PLANETOCENTRIC CONIC

C3	15.054	VHL	3.880	DLA	26.75	RAL	18.96	RAD	6640.6	VEL	11.623	PTH	6.66	VHP	2.770	DPA	-6.45	RAP	45.81	ECC	1.2478

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 46 44	3620.25	-47.45	139.46	256.06	94.03	10 47 4	2620.2	-40.36	107.13
60.00	9 50 15	3610.85	-40.24	138.76	256.20	87.60	10 50 26	2610.9	-36.80	108.19
70.00	9 56 32	3592.38	-33.30	136.47	255.41	81.95	10 56 24	2592.4	-33.17	107.73
80.00	10 11 14	3546.19	-27.18	131.67	254.10	77.13	11 10 20	2546.2	-29.85	104.57
90.00	11 0 12	3387.95	-24.08	119.19	253.24	74.70	11 56 40	2388.0	-28.13	92.91
100.00	12 54 6	3020.67	-27.18	93.04	254.10	77.13	13 44 26	2020.7	-29.85	65.93
110.00	14 55 58	2639.20	-33.30	65.39	255.41	81.95	15 39 57	1639.2	-33.17	36.65

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY				
TDE	-.3059	TRA	-.5543	TC3	.3128	BAU	.5007	SGT 1050.3 SGR 1943.0 SG3 1492.0	ST	26.4	SR	12.0	SS	72.4
RDE	.1498	RRA	.1461	RC3	-2.4680	FAU	.36249	RRT -.3853 RRF .9661 RTF -.3878	CRT	-.9484	CRS	-.9450	CST	.8630
FDE	4.0831	FRA	.2530	FC	-20.8462	BSP	3392	SGB 2208.7 R23 -.1065 R13 .9604	LSA	76.9	MSA	13.0	SSA	2.3
BDE	.3406	BRA	.5732	BC3	2.4877	FSP	2514	SG1 1997.3 SG2 942.9 THA 105.24	EL1	28.8	EL2	3.5	ALF	156.36

LAUNCH DATE AUG 6 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 20 1974

HELIOCENTRIC CONIC DISTANCE 459.310 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.848	GAL	1.29	AZL	87.91	HCA	141.05	SMA	199.85	ECC	.24213	INC	2.0854	V1	29.363
RP	236.63	LAP	1.31	LOP	94.46	VP	21.400	GAP	9.25	AZP	91.62	TAL	6.60	TAP	147.65	RCA	151.54	APO	248.37	V2	23.226
RC	198.104	GL	17.98	GP	-23.23	ZAL	75.15	ZAP	122.23	ETS	197.69	ZAE	150.89	ETE	237.41	ZAC	61.06	ETC	284.61	LVI	4.70

PLANETOCENTRIC CONIC

C3	15.075	VHL	3.883	DLA	27.36	RAL	18.63	RAD	6640.6	VEL	11.624	PTH	6.66	VHP	2.736	DPA	-7.35	RAP	45.93	ECC	1.2481

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 42 18	3634.13	-47.50	140.80	256.34	93.00	10 42 52	2634.1	-40.79	108.17
60.00	9 44 28	3628.32	-40.18	140.24	256.31	86.59	10 44 57	2628.3	-37.15	109.54
70.00	9 46 26	3616.66	-33.06	136.33	255.33	80.88	10 48 42	2616.7	-33.40	109.59
80.00	9 58 20	3585.53	-26.55	134.43	253.79	75.81	10 58 6	2585.5	-29.85	107.49
90.00	10 40 49	3448.22	-22.93	123.24	252.68	72.98	11 38 17	2448.2	-27.84	97.30
100.00	12 41 12	3060.00	-26.55	95.79	253.79	75.81	13 32 12	2060.0	-29.85	68.86
110.00	14 47 52	2663.48	-33.06	67.24	255.33	80.88	15 32 16	1663.5	-33.40	38.51

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2831	TRA	-.5445	TC3	.2129	BAU	.5236	SGT	1010.1	SGR	2042.6	SG3	1532.9	ST	24.9	SR	14.6	SS	74.8
RDE	.1865	RRA	.1368	RC3	-2.5894	FAU	.37177	RRT	-.3171	RRF	.9702	RTF	-.3152	CRT	-.9260	CRS	-.9668	CST	.8444
FDE	4.2770	FRA	.1805	FC	-21.3502	BSP	3461	SGB	2278.7	R23	-.0797	R13	.9669	LSA	79.1	MSA	13.0	SSA	2.2
BDE	.3401	BRA	.5614	BC3	2.5981	FSP	2559	SG1	2074.3	SG2	943.3	THA	101.27	EL1	28.5	EL2	4.8	ALF	150.53

LAUNCH DATE AUG 6 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 463.087 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.939	GAL	1.28	AZL	87.83	HCA	142.01	SMA	199.78	ECC	.24146	INC	2.1657	V1	29.363
RP	236.98	LAP	1.33	LOP	95.43	VP	21.349	GAP	9.00	AZP	91.71	TAL	6.60	TAP	148.61	RCA	151.54	APO	248.01	V2	23.191
RC	201.073	GL	18.67	GP	-24.00	ZAL	75.20	ZAP	120.62	ETS	197.28	ZAE	149.37	ETE	235.28	ZAC	60.43	ETC	284.78	LVI	5.29

PLANETOCENTRIC CONIC

C3	15.107	VHL	3.887	DLA	27.99	RAL	18.31	RAD	6640.6	VEL	11.626	PTH	6.67	VHP	2.705	DPA	-8.28	RAP	45.25	ECC	1.2486

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 37 41	3648.87	-47.55	142.22	256.67	91.90	10 38 30	2648.9	-41.24	109.30
60.00	9 38 23	3646.98	-40.09	141.82	256.44	85.52	10 39 10	2647.0	-37.51	110.99
70.00	9 39 42	3643.09	-32.75	140.33	255.26	79.73	10 40 25	2643.1	-33.62	111.62
80.00	9 43 19	3631.76	-25.74	137.62	253.41	74.32	10 43 50	2631.8	-29.77	110.92
90.00	10 11 53	3539.30	-20.99	129.21	251.78	70.61	11 10 53	2539.3	-27.11	103.66
100.00	12 26 11	3106.23	-25.74	98.99	253.41	74.32	13 17 57	2106.2	-29.77	72.29
110.00	14 39 9	2689.91	-32.75	69.25	255.26	79.73	15 23 59	1689.9	-33.62	40.54

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2720	TRA	-.5495	TC3	.0680	BAU	.5448	SGT	1002.5	SGR	2136.4	SG3	1565.5	ST	24.3	SR	16.0	SS	78.3
RDE	.2361	RRA	.1334	RC3	-2.6964	FAU	.37806	RRT	-.2123	RRF	.9735	RTF	-.2101	CRT	-.9029	CRS	-.9796	CST	.8292
FDE	4.5303	FRA	.1620	FC	-21.6651	BSP	3680	SGB	2359.9	R23	-.0518	R13	.9722	LSA	82.8	MSA	13.3	SSA	2.1
BDE	.3602	BRA	.5654	BC3	2.6973	FSP	2668	SG1	2149.8	SG2	973.5	THA	97.17	EL1	29.6	EL2	6.4	ALF	144.35

LAUNCH DATE AUG 6 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 466.867 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.931	GAL	1.28	AZL	87.75	HCA	142.98	SMA	199.61	ECC	.24083	INC	2.2492	V1	29.363
RP	237.31	LAP	1.35	LOP	96.39	VP	21.298	GAP	8.75	AZP	91.80	TAL	6.59	TAP	149.57	RCA	151.54	APO	247.69	V2	23.157
RC	204.040	GL	19.39	GP	-24.79	ZAL	75.27	ZAP	118.99	ETS	196.84	ZAE	147.80	ETE	233.28	ZAC	59.79	ETC	284.95	LVI	5.90

PLANETOCENTRIC CONIC

C3	15.151	VHL	3.892	DLA	28.64	RAL	17.98	RAD	6640.6	VEL	11.628	PTH	6.67	VHP	2.677	DPA	-9.22	RAP	44.97	ECC	1.2494

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 32 51	3664.48	-47.57	143.73	257.03	90.74	10 33 55	2664.5	-41.70	110.51
60.00	9 31 57	3666.86	-39.97	143.50	256.59	84.39	10 33 4	2666.9	-37.87	112.56
70.00	9 30 15	3671.91	-32.38	142.49	255.17	78.50	10 31 27	2671.9	-33.82	113.85
80.00	9 24 56	3688.61	-24.63	141.48	252.90	72.57	10 26 25	2688.6	-29.53	115.13
85.27	8 55 22	3783.96	-18.40	146.07	250.48	67.66	9 58 26	2784.0	-26.01	121.55
100.00	12 7 48	3163.08	-24.63	102.85	252.90	72.57	13 0 31	2163.1	-29.53	76.50
110.00	14 29 41	2718.73	-32.38	71.41	255.17	78.50	15 15 0	1718.7	-33.82	42.77

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2497	TRA	-.5464	TC3	-.0591	BAU	.5701	SGT	988.4	SGR	2239.4	SG3	1599.0	ST	22.9	SR	21.3	SS	81.1
RDE	.2926	RRA	.1253	RC3	-2.8137	FAU	.38518	RRT	-.1106	RRF	.9766	RTF	-.1063	CRT	-.8705	CRS	-.9866	CST	.8029
FDE	4.7518	FRA	.1049	FC	-22.0077	BSP	3830	SGB	2447.9	R23	-.0275	R13	.9762	LSA	85.9	MSA	13.5	SSA	2.0
BDE	.3771	BRA	.5605	BC3	2.8143	FSP	2729	SG1	2242.7	SG2	980.9	THA	93.46	EL1	30.3	EL2	7.9	ALF	137.46

LAUNCH DATE AUG 6 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 470.647 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.923	GAL	1.27	AZL	87.66	HCA	143.94	SMA	199.46	ECC	.24025	INC	2.3363	V1	29.363
RP	237.65	LAP	1.36	LOP	97.35	VP	21.250	GAP	8.51	AZP	91.89	TAL	6.57	TAP	150.51	RCA	151.54	APO	247.38	V2	23.123
RC	207.005	GL	20.13	GP	-25.60	ZAL	75.35	ZAP	117.36	ETS	196.38	ZAE	146.18	ETE	231.41	ZAC	59.14	ETC	285.13	LVI	6.52

PLANETOCENTRIC CONIC

C3	15.208	VHL	3.900	DLA	29.32	RAL	17.66	RAD	6640.6	VEL	11.630	PTH	6.67	VHP	2.653	DPA	-10.19	RAP	44.68	ECC	1.2503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 27 47	3681.02	-47.57	145.33	257.43	89.51	10 29 8	2681.0	-42.18	111.82
60.00	9 25 8	3688.11	-39.82	145.29	256.75	83.19	10 26 36	2688.1	-38.23	114.25
70.00	9 19 53	3703.60	-31.93	144.85	255.07	77.17	10 21 36	2703.6	-33.98	116.31
80.00	8 59 38	3767.39	-22.93	146.71	252.11	70.33	10 2 25	2767.4	-28.95	120.91
81.91	8 27 0	3872.02	-18.79	152.73	250.39	67.07	9 31 32	2872.0	-26.60	128.18
100.00	11 42 30	3241.86	-22.93	108.08	252.11	70.33	12 36 32	2241.9	-28.95	82.28
110.00	14 19 19	2750.42	-31.93	73.77	255.07	77.17	15 5 10	1750.4	-33.98	45.23

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2238	TRA	-.5444	TC3	-.1906	BAU	.5974	SGT	985.8	SGR	2346.3	SG3	1629.3	ST	21.4	SR	24.7	SS	83.8
RDE	.3308	RRA	.1168	RC3	-2.9322	FAU	.39168	RRT	-.0002	RRF	.9793	RTF	.0060	CRT	-.8291	CRS	-.9909	CST	.7663
FDE	4.9641	FRA	.0487	FC	-22.2967	BSP	3998	SGB	2544.9	R23	-.0062	R13	.9793	LSA	88.9	MSA	13.6	SSA	1.9
BDE	.3994	BRA	.5568	BC3	2.9384	FSP	2785	SG1	2346.3	SG2	985.8	THA	90.01	EL1	31.3	EL2	9.5	ALF	130.12

LAUNCH DATE AUG 6 1973 FLIGHT TIME 206.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 474.429 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.916	GAL	1.26	AZL	87.57	HCA	144.89	SMA	199.33	ECC	.23972	INC	2.4272	V1	29.363
RP	237.98	LAP	1.40	LOP	98.31	VP	21.202	GAP	8.26	AZP	91.99	TAL	6.55	TAP	151.44	RCA	151.54	APO	247.11	V2	23.090
RC	209.965	GL	20.89	GP	-26.43	ZAL	75.45	ZAP	115.73	ETS	195.89	ZAE	144.52	ETE	229.66	ZAC	58.47	ETC	285.32	LVI	7.16

PLANETOCENTRIC CONIC

C3	15.278	VHL	3.909	DLA	30.03	RAL	17.33	RAD	6640.7	VEL	11.633	PTH	6.67	VHP	2.632	DPA	-11.18	RAP	44.39	ECC	1.2514

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 22 28	3698.56	-47.55	147.03	257.87	88.20	10 24 6	2698.6	-42.66	113.22
60.00	9 17 51	3710.87	-39.62	147.19	256.92	81.91	10 19 42	2710.9	-38.59	116.08
70.00	9 8 23	3738.81	-31.37	147.44	254.92	75.74	10 10 42	2738.8	-34.10	119.05
79.45	8 6 41	3933.83	-19.19	157.49	250.32	66.45	9 12 15	2933.8	-27.22	132.92
79.45	8 6 41	3933.83	-19.19	157.49	250.32	66.45	9 12 15	2933.8	-27.22	132.92
79.45	8 6 41	3933.83	-19.19	157.49	250.32	66.45	9 12 15	2933.8	-27.22	132.92
110.00	14 7 50	2785.63	-31.37	76.36	254.92	75.74	14 54 15	1785.6	-34.10	47.97

DIFFERENTIAL CORRECTIONS

TDE	-.1959	TRA	-.5428	TC3	-.3298	BAU	.6259												
RDE	.3834	RRA	.1073	RC3	-3.0466	FAU	.39685												
FDE	5.1883	FRA	-.0124	FC	-22.4879	BSP	4181												
BDE	.4306	BRA	.5533	BC3	3.0644	FSP	2834												

MID-COURSE EXECUTION ACCURACY

SGT	996.7	SGR	2453.8	SG3	1654.9														
RRT	.1167	RRF	.9817	RTF	.1240														
SGB	2648.5	R23	.0129	R13	.9816														
SG1	2457.1	SG2	988.6	THA	86.76														

ORBIT DETERMINATION ACCURACY

ST	19.9	SR	28.5	SS	86.7														
CRT	-.7761	CRS	-.9937	CST	.7176														
LSA	92.3	MSA	13.8	SSA	1.8														
EL1	33.0	EL2	10.8	ALF	122.41														

LAUNCH DATE AUG 6 1973 FLIGHT TIME 208.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 478.212 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.910	GAL	1.26	AZL	87.48	HCA	145.85	SMA	199.20	ECC	.23923	INC	2.5223	V1	29.363
RP	238.30	LAP	1.42	LOP	99.27	VP	21.156	GAP	8.02	AZP	92.09	TAL	6.51	TAP	152.36	RCA	151.55	APO	246.85	V2	23.056
RC	212.919	GL	21.68	GP	-27.28	ZAL	75.56	ZAP	114.10	ETS	195.37	ZAE	142.83	ETE	228.01	ZAC	57.79	ETC	285.51	LVI	7.82

PLANETOCENTRIC CONIC

C3	15.362	VHL	3.919	DLA	30.77	RAL	16.99	RAD	6640.7	VEL	11.637	PTH	6.68	VHP	2.614	DPA	-12.20	RAP	44.10	ECC	1.2528

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 16 50	3717.19	-47.50	148.83	258.34	86.82	10 18 48	2717.2	-43.16	114.74
60.00	9 10 3	3735.31	-39.36	149.22	257.10	80.56	10 12 16	2735.3	-38.93	118.06
70.00	8 55 25	3778.52	-30.66	150.32	254.72	74.17	9 58 24	2778.5	-34.15	122.15
77.35	7 49 46	3984.57	-19.60	161.48	250.27	65.80	8 56 10	2984.6	-27.85	136.88
77.35	7 49 46	3984.57	-19.60	161.48	250.27	65.80	8 56 10	2984.6	-27.85	136.88
77.35	7 49 46	3984.57	-19.60	161.48	250.27	65.80	8 56 10	2984.6	-27.85	136.88
110.00	13 54 52	2825.34	-30.66	79.24	254.72	74.17	14 41 57	1825.3	-34.15	51.07

DIFFERENTIAL CORRECTIONS

TDE	-.1639	TRA	-.5414	TC3	-.4679	BAU	.6573												
RDE	.4385	RRA	.0961	RC3	-3.1660	FAU	.40196												
FDE	5.4045	FRA	-.0829	FC	-22.6530	BSP	4374												
BDE	.4681	BRA	.5498	BC3	3.2003	FSP	2871												

MID-COURSE EXECUTION ACCURACY

SGT	1019.9	SGR	2568.4	SG3	1679.3														
RRT	.2313	RRF	.9838	RTF	.2396														
SGB	2763.5	R23	.0282	R13	.9835														
SG1	2581.1	SG2	987.4	THA	83.85														

ORBIT DETERMINATION ACCURACY

ST	18.3	SR	32.4	SS	89.4														
CRT	-.7024	CRS	-.9955	CST	.6473														
LSA	95.8	MSA	13.9	SSA	1.7														
EL1	35.2	EL2	12.0	ALF	114.71														

LAUNCH DATE AUG 6 1973 FLIGHT TIME 210.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 481.997 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.904	GAL	1.25	AZL	87.38	HCA	146.80	SMA	199.09	ECC	.23878	INC	2.6219	V1	29.363
RP	238.63	LAP	1.44	LOP	100.22	VP	21.112	GAP	7.77	AZP	92.19	TAL	6.47	TAP	153.27	RCA	151.55	APO	246.62	V2	23.024
RC	215.868	GL	22.50	GP	-28.14	ZAL	75.70	ZAP	112.46	ETS	194.83	ZAE	141.10	ETE	226.45	ZAC	57.10	ETC	285.71	LVI	8.50

PLANETOCENTRIC CONIC

C3	15.461	VHL	3.932	DLA	31.54	RAL	16.65	RAD	6640.7	VEL	11.641	PTH	6.68	VHP	2.601	DPA	-13.23	RAP	43.81	ECC	1.2544

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 10 53	3736.97	-47.40	150.73	258.83	85.36	10 13 10	2737.0	-43.66	116.36
60.00	9 1 39	3761.62	-39.05	151.38	257.27	79.12	10 4 20	2761.6	-39.26	120.22
70.00	8 40 27	3824.30	-29.77	153.59	254.42	72.43	9 44 11	2824.3	-34.11	125.72
75.43	7 34 52	4028.66	-20.02	165.00	250.25	65.11	8 42 0	3028.7	-28.51	140.39
75.43	7 34 52	4028.66	-20.02	165.00	250.25	65.11	8 42 0	3028.7	-28.51	140.39
75.43	7 34 52	4028.66	-20.02	165.00	250.25	65.11	8 42 0	3028.7	-28.51	140.39
110.00	13 39 53	2871.12	-29.77	82.50	254.42	72.43	14 27 44	1871.1	-34.11	54.64

DIFFERENTIAL CORRECTIONS

TDE	-.1250	TRA	-.5380	TC3	-.6032	BAU	.6907												
RDE	.4941	RRA	.0822	RC3	-3.2867	FAU	.40650												
FDE	5.5965	FRA	-.1680	FC	-22.7620	BSP	4548												
BDE	.5096	BRA	.5443	BC3	3.3416	FSP	2877												

MID-COURSE EXECUTION ACCURACY

SGT	1050.8	SGR	2686.8	SG3	1699.7														
RRT	.3420	RRF	.9857	RTF	.3516														
SGB	2884.9	R23	.0392	R13	.9850														
SG1	2714.3	SG2	977.4	THA	81.24														

ORBIT DETERMINATION ACCURACY

ST	16.5	SR	36.3	SS	91.8														
CRT	-.5903	CRS	-.9968	CST	.5377														
LSA	99.1	MSA	14.0	SSA	1.6														
EL1	37.7	EL2	12.8	ALF	107.12														

LAUNCH DATE AUG 6 1973 FLIGHT TIME 212.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 485.780 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.899	GAL	1.23	AZL	87.27	HCA	147.75	SMA	198.98	ECC	.23837	INC	2.7263	V1	29.363
RP	238.95	LAP	1.45	LOP	101.17	VP	21.068	GAP	7.53	AZP	92.31	TAL	6.42	TAP	154.17	RCA	151.55	APO	246.42	V2	22.991
RC	218.810	GL	23.35	GP	-29.03	ZAL	75.85	ZAP	110.84	ETS	194.26	ZAE	139.35	ETE	224.98	ZAC	56.39	ETC	285.92	LVI	9.20

PLANETOCENTRIC CONIC

C3	15.577	VHL	3.947	DLA	32.34	RAL	16.30	RAD	6640.8	VEL	11.646	PTH	6.68	VHP	2.590	DPA	-14.28	RAP	43.54	ECC	1.2564

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 4 33	3758.05	-47.27	152.75	259.35	83.81	10 7 11	2758.0	-44.16	118.16
60.00	8 52 32	3790.14	-38.66	153.70	257.42	77.59	9 55 42	2790.1	-39.57	122.58
70.00	8 22 25	3879.29	-28.58	157.42	253.96	70.45	9 27 4	2879.3	-33.90	130.00
73.63	7 21 16	4068.49	-20.44	168.24	250.25	64.38	8 29 4	3068.5	-29.19	143.62
73.63	7 21 16	4068.49	-20.44	168.24	250.25	64.38	8 29 4	3068.5	-29.19	143.62
73.63	7 21 16	4068.49	-20.44	168.24	250.25	64.38	8 29 4	3068.5	-29.19	143.62
110.00	13 21 51	2926.11	-28.58	86.34	253.96	70.45	14 10 37	1926.1	-33.90	58.92

DIFFERENTIAL CORRECTIONS

TDE	-.0923	TRA	-.5452	TC3	-.7659	BAU	.7237												
RDE	.5606	RRA	.0741	RC3	-3.3896	FAU	.40797												
FDE	5.8383	FRA	-.2049	FC	-22.6749	BSP	4835												
BDE	.5681	BRA	.5502	BC3	3.4750	FSP	2943												

MID-COURSE EXECUTION ACCURACY

SGT	1122.8	SGR	2799.5	SG3	1711.3														
RRT	.4420	RRF	.9872	RTF	.4503														
SGB	3016.3	R23	.0537	R13	.9859														
SG1	2849.3	SG2	989.6	THA	78.55														

ORBIT DETERMINATION ACCURACY

ST	15.6	SR	40.9	SS	95.0														
CRT	-.4634	CRS	-.9976	CST	.4138														
LSA	103.7	MSA	14.3	SSA	1.5														
EL1	41.6	EL2	13.6	ALF	101.22														

LAUNCH DATE AUG 6 1973 FLIGHT TIME 214.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 489.564 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.894	GAL	1.22	AZL	87.16	HCA	148.70	SMA	198.89	ECC	.23600	INC	2.8362	VI	29.363
RP	239.26	LAP	1.47	LOP	102.12	VP	21.026	GAP	7.29	AZP	92.42	TAL	6.37	TAP	155.06	RCA	151.55	APO	246.23	VE	22.960
RC	221.744	GL	24.24	GP	-29.93	ZAL	76.02	ZAP	109.23	ETS	193.65	ZAE	137.58	ETE	223.58	ZAC	55.67	ETC	286.13	LVI	9.92

PLANETOCENTRIC CONIC

C3	15.710	VHL	3.964	DLA	33.17	RAL	15.93	RAD	6640.9	VEL	11.651	PTH	6.69	VHP	2.584	DPA	-15.35	RAP	43.27	ECC	1.2585

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 57 47	3780.49	-47.08	154.89	259.88	82.17	10 0 48	2780.5	-44.66	120.08
60.00	8 42 34	3821.15	-38.17	156.20	257.55	75.96	9 46 15	2821.1	-39.85	125.17
70.00	7 58 52	3950.71	-26.85	162.26	253.20	68.06	9 4 43	2950.7	-33.39	135.51
71.90	7 8 40	4104.93	-20.87	171.27	250.27	63.62	8 17 5	3104.9	-29.89	146.63
71.90	7 8 40	4104.93	-20.87	171.27	250.27	63.62	8 17 5	3104.9	-29.89	146.63
71.90	7 8 40	4104.93	-20.87	171.27	250.27	63.62	8 17 5	3104.9	-29.89	146.63
110.00	12 58 18	2997.53	-26.85	91.18	253.20	66.06	13 48 16	1997.5	-33.39	64.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0504	TRA	-.5479	TC3	-.9175	BAU	.7590	SGT	1195.6	SGR	2917.7	SG3	1719.9	ST	14.7	SR	45.6	SS	97.8
RDE	.6278	RRA	.0610	RC3	-3.4956	FAU	.40922	RRT	.5303	RRF	.9866	RTF	.5383	CRT	-.2733	CRS	-.9983	CST	.2272
FDE	6.0500	FRA	-.2729	FC	-22.5509	BSP	5066	SGB	3153.2	R23	.0633	R13	.9868	LSA	107.9	NSA	14.4	SSA	1.4
BDE	.6298	BRA	.5512	BC3	3.6140	FSP	2952	SG1	2994.5	SG2	987.7	THA	76.21	EL1	45.8	EL2	14.1	ALF	95.56

LAUNCH DATE AUG 6 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 493.349 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.890	GAL	1.21	AZL	87.05	HCA	149.64	SMA	198.81	ECC	.23767	INC	2.9518	VI	29.363
RP	239.57	LAP	1.49	LOP	103.07	VP	20.985	GAP	7.05	AZP	92.55	TAL	6.30	TAP	155.94	RCA	151.56	APO	246.06	VE	22.928
RC	224.672	GL	25.16	GP	-30.84	ZAL	76.20	ZAP	107.63	ETS	193.02	ZAE	135.79	ETE	222.24	ZAC	54.94	ETC	286.36	LVI	10.66

PLANETOCENTRIC CONIC

C3	15.863	VHL	3.983	DLA	34.04	RAL	15.55	RAD	6640.9	VEL	11.658	PTH	6.70	VHP	2.581	DPA	-16.44	RAP	43.01	ECC	1.2611

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 50 31	3804.46	-46.83	157.15	260.43	80.44	9 53 56	2804.5	-45.16	122.18
60.00	8 31 34	3855.13	-37.58	158.89	257.62	74.22	9 35 49	2855.1	-40.07	128.04
70.00	7 16 34	4078.62	-23.33	170.52	251.39	64.32	8 24 32	3078.6	-31.81	145.15
70.21	6 56 45	4139.02	-21.31	174.15	250.30	62.81	8 5 44	3139.0	-30.62	149.50
70.21	6 56 45	4139.02	-21.31	174.15	250.30	62.81	8 5 44	3139.0	-30.62	149.50
70.21	6 56 45	4139.02	-21.31	174.15	250.30	62.81	8 5 44	3139.0	-30.62	149.50
110.00	12 16 0	3125.44	-23.33	99.44	251.39	64.32	13 8 5	2125.4	-31.81	74.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0040	TRA	-.5517	TC3	-1.0690	BAU	.7963	SGT	1281.6	SGR	3039.2	SG3	1724.1	ST	14.4	SR	50.4	SS	100.4
RDE	.6981	RRA	.0462	RC3	-3.5995	FAU	.40960	RRT	.6057	RRF	.9899	RTF	.6134	CRT	-.0358	CRS	-.9987	CST	-.0055
FDE	6.2483	FRA	-.3456	FC	-22.3536	BSP	5329	SGB	3298.3	R23	.0707	R13	.9875	LSA	112.3	NSA	14.5	SSA	1.3
BDE	.6981	BRA	.5536	BC3	3.7549	FSP	2963	SG1	3148.0	SG2	984.4	THA	74.07	EL1	50.4	EL2	14.4	ALF	90.64

LAUNCH DATE AUG 6 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 12 1974

HELIOCENTRIC CONIC DISTANCE 497.134 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.886	GAL	1.19	AZL	86.93	HCA	150.58	SMA	198.74	ECC	.23737	INC	3.0739	VI	29.363
RP	239.88	LAP	1.51	LOP	104.01	VP	20.946	GAP	6.82	AZP	92.68	TAL	6.23	TAP	156.82	RCA	151.56	APO	245.91	VE	22.897
RC	227.591	GL	26.12	GP	-31.78	ZAL	76.40	ZAP	106.04	ETS	192.36	ZAE	133.99	ETE	220.96	ZAC	54.19	ETC	286.59	LVI	11.42

PLANETOCENTRIC CONIC

C3	16.038	VHL	4.005	DLA	34.95	RAL	15.16	RAD	6641.0	VEL	11.665	PTH	6.70	VHP	2.582	DPA	-17.54	RAP	42.77	ECC	1.2639

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 42 42	3830.13	-46.52	159.55	260.97	78.62	9 46 32	2830.1	-45.64	124.46
60.00	8 19 16	3892.75	-36.84	161.81	257.62	72.35	9 24 9	2892.7	-40.24	131.22
68.56	6 45 24	4171.17	-21.75	176.92	250.36	61.95	7 54 55	3171.2	-31.36	152.27
68.56	6 45 24	4171.17	-21.75	176.92	250.36	61.95	7 54 55	3171.2	-31.36	152.27
68.56	6 45 24	4171.17	-21.75	176.92	250.36	61.95	7 54 55	3171.2	-31.36	152.27
68.56	6 45 24	4171.17	-21.75	176.92	250.36	61.95	7 54 55	3171.2	-31.36	152.27
68.56	6 45 24	4171.17	-21.75	176.92	250.36	61.95	7 54 55	3171.2	-31.36	152.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0462	TRA	-.5574	TC3	-1.2225	BAU	.8350	SGT	1301.9	SGR	3162.0	SG3	1722.8	ST	15.0	SR	55.5	SS	102.9
RDE	.7732	RRA	.0309	RC3	-3.6976	FAU	.40868	RRT	.6684	RRF	.9910	RTF	.6155	CRT	.2127	CRS	-.9990	CST	-.2478
FDE	6.4398	FRA	-.4142	FC	-22.0602	BSP	5601	SGB	3450.8	R23	.0772	R13	.9882	LSA	117.0	NSA	14.7	SSA	1.3
BDE	.7746	BRA	.9583	BC3	3.8945	FSP	2964	SG1	3307.9	SG2	982.6	THA	72.08	EL1	55.6	EL2	14.7	ALF	86.45

LAUNCH DATE AUG 6 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC DISTANCE 500.918 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.883	GAL	1.18	AZL	86.80	HCA	151.52	SMA	198.67	ECC	.23710	INC	3.2029	VI	29.363
RP	240.18	LAP	1.53	LOP	104.95	VP	20.907	GAP	6.58	AZP	92.82	TAL	6.16	TAP	157.68	RCA	151.57	APO	245.78	VE	22.866
RC	230.502	GL	27.12	GP	-32.73	ZAL	76.62	ZAP	104.48	ETS	191.67	ZAE	132.18	ETE	219.72	ZAC	53.42	ETC	286.83	LVI	12.20

PLANETOCENTRIC CONIC

C3	16.237	VHL	4.030	DLA	35.89	RAL	14.74	RAD	6641.1	VEL	11.674	PTH	6.71	VHP	2.586	DPA	-18.66	RAP	42.54	ECC	1.2672

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 34 12	3857.68	-46.12	162.09	261.49	76.70	9 38 30	2857.7	-46.10	126.96
60.00	8 5 18	3934.98	-35.92	165.02	257.50	70.35	9 10 53	2935.0	-40.30	134.81
66.92	6 34 30	4201.72	-22.19	179.60	250.44	61.04	7 44 32	3201.7	-32.13	154.96
66.92	6 34 30	4201.72	-22.19	179.60	250.44	61.04	7 44 32	3201.7	-32.13	154.96
66.92	6 34 30	4201.72	-22.19	179.60	250.44	61.04	7 44 32	3201.7	-32.13	154.96
66.92	6 34 30	4201.72	-22.19	179.60	250.44	61.04	7 44 32	3201.7	-32.13	154.96
66.92	6 34 30	4201.72	-22.19	179.60	250.44	61.04	7 44 32	3201.7	-32.13	154.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1012	TRA	-.5644	TC3	-1.3746	BAU	.8750	SGT	1493.0	SGR	3285.8	SG3	1715.8	ST	16.6	SR	60.8	SS	105.4
RDE	.8528	RRA	.0138	RC3	-3.7893	FAU	.40648	RRT	.7202	RRF	.9920	RTF	.7268	CRT	.4345	CRS	-.9993	CST	-.4626
FDE	6.6190	FRA	-.4866	FC	-21.6724	BSP	5881	SGB	3609.1	R23	.0823	R13	.9887	LSA	121.9	NSA	14.8	SSA	1.2
BDE	.8587	BRA	.5646	BC3	4.0309	FSP	2952	SG1	3473.6	SG2	979.8	THA	70.24	EL1	61.3	EL2	14.8	ALF	82.81

LAUNCH DATE AUG 6 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 16 1974

HELIOCENTRIC CONIC DISTANCE 504.703 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.880	GAL	1.16	AZL	86.66	HCA	152.46	SMA	198.62	ECC	.23687	INC	3.3395	V1	29.363
RP	240.48	LAP	1.54	LOP	105.89	VP	20.870	GAP	6.35	AZP	92.96	TAL	6.07	TAP	158.53	RCA	151.57	APO	245.66	V2	22.836
RC	233.405	GL	28.16	GP	-33.71	ZAL	76.86	ZAP	102.94	ETS	190.95	ZAE	130.37	ETE	218.53	ZAC	52.64	ETC	287.07	LVI	13.00

PLANETOCENTRIC CONIC

C3	16.463	VHL	4.058	DLA	36.68	RAL	14.30	RAD	6641.2	VEL	11.683	PTH	6.72	VHP	2.595	DPA	-19.80	RAP	42.34	ECC	1.2709

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 24 56	3887.37	-45.62	164.78	261.98	74.68	9 29 43	2887.4	-46.54	129.69
60.00	7 49 4	3983.43	-34.75	168.60	257.21	68.16	8 59 27	2983.4	-40.22	136.93
65.28	6 23 57	4230.94	-22.64	182.22	250.54	60.08	7 34 27	3230.9	-32.92	157.61
65.28	6 23 57	4230.94	-22.64	182.22	250.54	60.08	7 34 27	3230.9	-32.92	157.61
65.28	6 23 57	4230.94	-22.64	182.22	250.54	60.08	7 34 27	3230.9	-32.92	157.61
65.28	6 23 57	4230.94	-22.64	182.22	250.54	60.08	7 34 27	3230.9	-32.92	157.61
65.28	6 23 57	4230.94	-22.64	182.22	250.54	60.08	7 34 27	3230.9	-32.92	157.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1612	TRA	-.5734	TC3	-1.5255	BAU	.9160	SGT	1615.2	SGR	3409.3	SG3	1702.2	ST	19.1	SR	66.3	SS	107.6
RDE	.9369	RRA	-.0036	RC3	-3.8720	FAU	.40280	RRT	.7622	RRF	.9928	RTF	.7682	CRT	.6035	CRS	-.9994	CST	-.6253
FDE	6.7837	FRA	-.5523	FC-21	.1812	BSP	6167	SGB	3772.6	R23	.0867	R13	.9892	LSA	126.9	MSA	15.0	SSA	1.1
BDE	.9507	BRA	.5734	BC3	4.1617	FSP	2928	SG1	3643.5	SG2	978.4	THA	68.52	EL1	67.4	EL2	15.0	ALF	79.64

LAUNCH DATE AUG 6 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 18 1974

HELIOCENTRIC CONIC DISTANCE 508.487 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.878	GAL	1.14	AZL	86.52	HCA	153.39	SMA	198.57	ECC	.23666	INC	3.4847	V1	29.363
RP	240.78	LAP	1.56	LOP	106.83	VP	20.833	GAP	6.11	AZP	93.12	TAL	5.98	TAP	159.37	RCA	151.58	APO	245.57	V2	22.807
RC	236.297	GL	29.25	GP	-34.70	ZAL	77.11	ZAP	101.43	ETS	190.20	ZAE	128.55	ETE	217.38	ZAC	51.84	ETC	287.33	LVI	13.63

PLANETOCENTRIC CONIC

C3	16.720	VHL	4.089	DLA	37.90	RAL	13.82	RAD	6641.3	VEL	11.694	PTH	6.73	VHP	2.609	DPA	-20.95	RAP	42.17	ECC	1.2752

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 14 45	3919.52	-45.00	167.63	262.42	72.56	9 20 4	2919.5	-46.92	132.70
60.00	7 29 25	4041.06	-33.21	172.71	256.64	65.72	8 36 46	3041.1	-39.93	143.81
63.63	6 13 37	4259.20	-23.08	184.81	250.65	59.06	7 24 36	3259.2	-33.73	160.22
63.63	6 13 37	4259.20	-23.08	184.81	250.65	59.06	7 24 36	3259.2	-33.73	160.22
63.63	6 13 37	4259.20	-23.08	184.81	250.65	59.06	7 24 36	3259.2	-33.73	160.22
63.63	6 13 37	4259.20	-23.08	184.81	250.65	59.06	7 24 36	3259.2	-33.73	160.22
63.63	6 13 37	4259.20	-23.08	184.81	250.65	59.06	7 24 36	3259.2	-33.73	160.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2263	TRA	-.5836	TC3	-1.6735	BAU	.9580	SGT	1745.7	SGR	3533.2	SG3	1682.8	ST	22.3	SR	72.1	SS	109.8
RDE	1.0269	RRA	-.0242	RC3	-3.9455	FAU	.39772	RRT	.7971	RRF	.9936	RTF	.8025	CRT	.7217	CRS	-.9996	CST	-.7383
FDE	6.9367	FRA	-.6272	FC-20	.5935	BSP	6473	SGB	3941.0	R23	.0903	R13	.9896	LSA	132.3	MSA	15.1	SSA	1.0
BDE	1.0516	BRA	.5841	BC3	4.2858	FSP	2900	SG1	3818.4	SG2	975.4	THA	66.91	EL1	74.0	EL2	15.0	ALF	76.87

LAUNCH DATE AUG 6 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 20 1974

HELIOCENTRIC CONIC DISTANCE 512.271 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.876	GAL	1.12	AZL	86.36	HCA	154.32	SMA	198.53	ECC	.23649	INC	3.6392	V1	29.363
RP	241.07	LAP	1.58	LOP	107.76	VP	20.798	GAP	5.88	AZP	93.28	TAL	5.89	TAP	160.21	RCA	151.58	APO	245.48	V2	22.777
RC	239.179	GL	30.39	GP	-35.71	ZAL	77.38	ZAP	99.93	ETS	189.41	ZAE	126.74	ETE	216.26	ZAC	51.02	ETC	287.60	LVI	14.69

PLANETOCENTRIC CONIC

C3	17.011	VHL	4.124	DLA	38.98	RAL	13.32	RAD	6641.5	VEL	11.707	PTH	6.74	VHP	2.627	DPA	-22.11	RAP	42.02	ECC	1.2800

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 3 27	3954.52	-44.24	170.66	262.76	70.33	9 9 22	2954.5	-47.24	136.02
60.00	7 3 46	4114.96	-31.03	177.75	255.56	62.88	8 12 21	3115.0	-39.22	149.96
61.98	6 3 29	4286.55	-23.53	187.37	250.78	57.98	7 14 55	3286.6	-34.56	162.83
61.98	6 3 29	4286.55	-23.53	187.37	250.78	57.98	7 14 55	3286.6	-34.56	162.83
61.98	6 3 29	4286.55	-23.53	187.37	250.78	57.98	7 14 55	3286.6	-34.56	162.83
61.98	6 3 29	4286.55	-23.53	187.37	250.78	57.98	7 14 55	3286.6	-34.56	162.83
61.98	6 3 29	4286.55	-23.53	187.37	250.78	57.98	7 14 55	3286.6	-34.56	162.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2971	TRA	-.5958	TC3	-1.8158	BAU	1.0019	SGT	1883.4	SGR	3660.2	SG3	1658.5	ST	26.2	SR	78.1	SS	111.6
RDE	1.1213	RRA	-.0463	RC3	-4.0142	FAU	.39181	RRT	.8255	RRF	.9943	RTF	.8303	CRT	.8014	CRS	-.9997	CST	-.8139
FDE	7.0657	FRA	-.7002	FC-19	.9406	BSP	6784	SGB	4116.4	R23	.0929	R13	.9901	LSA	137.8	MSA	15.2	SSA	1.0
BDE	1.1600	BRA	.5976	BC3	4.4058	FSP	2860	SG1	3999.8	SG2	972.9	THA	65.44	EL1	80.9	EL2	15.1	ALF	74.39

LAUNCH DATE AUG 6 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 22 1974

HELIOCENTRIC CONIC DISTANCE 516.054 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.874	GAL	1.10	AZL	86.20	HCA	155.25	SMA	198.50	ECC	.23634	INC	3.8041	V1	29.363
RP	241.36	LAP	1.59	LOP	108.69	VP	20.764	GAP	5.65	AZP	93.46	TAL	5.78	TAP	161.04	RCA	151.59	APO	245.41	V2	22.749
RC	242.049	GL	31.58	GP	-36.75	ZAL	77.66	ZAP	98.51	ETS	188.60	ZAE	124.94	ETE	215.17	ZAC	50.17	ETC	287.68	LVI	15.57

PLANETOCENTRIC CONIC

C3	17.341	VHL	4.164	DLA	40.10	RAL	12.77	RAD	6641.6	VEL	11.721	PTH	6.75	VHP	2.649	DPA	-23.29	RAP	41.90	ECC	1.2854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 50 47	3992.93	-43.31	173.88	262.97	67.99	8 57 20	2992.9	-47.47	139.71
60.00	6 19 23	4240.26	-26.86	185.74	252.95	58.75	7 30 4	3240.3	-37.24	160.01
60.30	5 53 28	4313.18	-23.96	189.91	250.93	56.83	7 5 22	3313.2	-35.41	165.44
60.30	5 53 28	4313.18	-23.96	189.91	250.93	56.83	7 5 22	3313.2	-35.41	165.44
60.30	5 53 28	4313.18	-23.96	189.91	250.93	56.83	7 5 22	3313.2	-35.41	165.44
60.30	5 53 28	4313.18	-23.96	189.91	250.93	56.83	7 5 22	3313.2	-35.41	165.44
60.30	5 53 28	4313.18	-23.96	189.91	250.93	56.83	7 5 22	3313.2	-35.41	165.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.3738	TRA	-.6099	TC3	-1.9520	BAU	1.0464	SGT	2027.6	SGR	3785.9	SG3	1627.5	ST	30.6	SR	84.3	SS	113.3
RDE	1.2223	RRA	-.0712	RC3	-4.0698	FAU	.38429	RRT	.8488	RRF	.9949	RTF	.8532	CRT	.8549	CRS	-.9997	CST	-.8644
FDE	7.1793	FRA	-.7759	FC-19	.1856	BSP	7094	SGB	4294.7	R23	.0951	R13	.9905	LSA	143.6	MSA	15.4	SSA	.9
BDE	1.2781	BRA	.6141	BC3	4.5137	FSP	2804	SG1	4183.7	SG2	970.0	THA	64.06	EL1	88.4	EL2	15.2	ALF	72.20

LAUNCH DATE AUG 6 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 24 1974

HELIOCENTRIC CONIC DISTANCE 519.836 EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 32.873 GAL 1.08 AZL 86.02 HCA 156.18 SMA 198.48 ECC .23622 INC 3.9807 V1 29.363
RP 241.64 LAP 1.61 LOP 109.62 VP 20.731 GAP 5.42 AZP 93.64 TAL 5.68 TAP 161.85 RCA 151.59 APO 245.36 V2 22.720
RC 244.907 GL 32.83 GP -37.80 ZAL 77.97 ZAP 97.11 ETS 187.76 ZAE 123.16 ETE 214.10 ZAC 49.31 ETC 288.18 LVI 16.48

PLANETOCENTRIC CONIC

C3 17.715 VHL 4.209 DLA 41.27 RAL 12.17 RAD 6641.8 VEL 11.736 PTH 6.77 VHP 2.677 DPA -24.49 RAP 41.81 ECC 1.2916

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 36 25	4035.54	-42.17	177.33	262.99	65.53	8 43 40	3035.5	-47.57	143.82
58.60	5 43 30	4339.34	-24.38	192.46	251.08	55.61	6 55 49	3339.3	-36.27	168.08
58.60	5 43 30	4339.34	-24.38	192.46	251.08	55.61	6 55 49	3339.3	-36.27	168.08
58.60	5 43 30	4339.34	-24.38	192.46	251.08	55.61	6 55 49	3339.3	-36.27	168.08
58.60	5 43 30	4339.34	-24.38	192.46	251.08	55.61	6 55 49	3339.3	-36.27	168.08
58.60	5 43 30	4339.34	-24.38	192.46	251.08	55.61	6 55 49	3339.3	-36.27	168.08
58.60	5 43 30	4339.34	-24.38	192.46	251.08	55.61	6 55 49	3339.3	-36.27	168.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4569 TRA -.6260 TC3-2.0804 BAU 1.0918 SGT 2177.0 SGR 3912.2 SG3 1590.9 ST 35.5 SR 90.6 SS 114.8
RDE 1.3307 RRA -.0986 RC3-4.1137 FAU .37545 RRT .8681 RRF .9954 RTF .8721 CRT .8915 CRS -.9998 CST -.8988
FDE 7.2760 FRA -.8507 FC-18.3478 BSP 7425 SGB 4477.1 R23 .0967 R13 .9908 LSA 149.8 MSA 15.5 SSA .8
BDE 1.4070 BRA .6337 BC3 4.6099 FSP 2745 SG1 4371.4 SG2 967.0 THA 62.77 EL1 96.3 EL2 15.2 ALF 70.24

LAUNCH DATE AUG 6 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 26 1974

HELIOCENTRIC CONIC DISTANCE 523.618 EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 32.872 GAL 1.06 AZL 85.83 HCA 157.10 SMA 198.46 ECC .23612 INC 4.1701 V1 29.363
RP 241.92 LAP 1.62 LOP 110.55 VP 20.699 GAP 5.19 AZP 93.84 TAL 5.56 TAP 162.66 RCA 151.60 APO 245.32 V2 22.692
RC 247.751 GL 34.13 GP -38.88 ZAL 78.29 ZAP 95.75 ETS 186.89 ZAE 121.38 ETE 213.06 ZAC 48.42 ETC 288.49 LVI 17.43

PLANETOCENTRIC CONIC

C3 18.142 VHL 4.259 DLA 42.49 RAL 11.51 RAD 6642.0 VEL 11.754 PTH 6.78 VHP 2.710 DPA -25.69 RAP 41.77 ECC 1.2986

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 19 46	4083.52	-40.74	181.05	262.75	62.93	8 27 50	3083.5	-47.50	148.46
56.86	5 33 33	4365.02	-24.79	195.01	251.25	54.32	6 46 18	3365.0	-37.14	170.76
56.86	5 33 33	4365.02	-24.79	195.01	251.25	54.32	6 46 18	3365.0	-37.14	170.76
56.86	5 33 33	4365.02	-24.79	195.01	251.25	54.32	6 46 18	3365.0	-37.14	170.76
56.86	5 33 33	4365.02	-24.79	195.01	251.25	54.32	6 46 18	3365.0	-37.14	170.76
56.86	5 33 33	4365.02	-24.79	195.01	251.25	54.32	6 46 18	3365.0	-37.14	170.76
56.86	5 33 33	4365.02	-24.79	195.01	251.25	54.32	6 46 18	3365.0	-37.14	170.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .5459 TRA -.6456 TC3-2.2019 BAU 1.1383 SGT 2333.4 SGR 4036.7 SG3 1547.5 ST 40.8 SR 97.3 SS 115.9
RDE 1.4442 RRA -.1288 RC3-4.1446 FAU .36527 RRT .8839 RRF .9959 RTF .8874 CRT .9165 CRS -.9998 CST -.9221
FDE 7.3399 FRA -.9240 FC-17.4307 BSP 7740 SGB 4662.5 R23 .0984 R13 .9911 LSA 156.0 MSA 15.6 SSA .8
BDE 1.5439 BRA .6583 BC3 4.6932 FSP 2668 SG1 4561.5 SG2 965.6 THA 61.54 EL1 104.5 EL2 15.2 ALF 68.49

LAUNCH DATE AUG 6 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 28 1974

HELIOCENTRIC CONIC DISTANCE 527.399 EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 32.872 GAL 1.04 AZL 85.63 HCA 158.03 SMA 198.45 ECC .23605 INC 4.3742 V1 29.363
RP 242.19 LAP 1.64 LOP 111.48 VP 20.668 GAP 4.96 AZP 94.06 TAL 5.44 TAP 163.47 RCA 151.60 APO 245.29 V2 22.665
RC 250.580 GL 35.51 GP -39.99 ZAL 78.62 ZAP 94.44 ETS 186.00 ZAE 119.63 ETE 212.04 ZAC 47.51 ETC 288.82 LVI 18.40

PLANETOCENTRIC CONIC

C3 18.629 VHL 4.316 DLA 43.76 RAL 10.79 RAD 6642.2 VEL 11.775 PTH 6.80 VHP 2.749 DPA -26.91 RAP 41.77 ECC 1.3066

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 59 58	4138.91	-38.95	185.14	262.10	60.16	8 8 57	3138.9	-47.16	153.77
55.09	5 23 30	4390.49	-25.17	197.59	251.42	52.94	6 36 40	3390.5	-38.03	173.50
55.09	5 23 30	4390.49	-25.17	197.59	251.42	52.94	6 36 40	3390.5	-38.03	173.50
55.09	5 23 30	4390.49	-25.17	197.59	251.42	52.94	6 36 40	3390.5	-38.03	173.50
55.09	5 23 30	4390.49	-25.17	197.59	251.42	52.94	6 36 40	3390.5	-38.03	173.50
55.09	5 23 30	4390.49	-25.17	197.59	251.42	52.94	6 36 40	3390.5	-38.03	173.50
55.09	5 23 30	4390.49	-25.17	197.59	251.42	52.94	6 36 40	3390.5	-38.03	173.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .6431 TRA -.6666 TC3-2.3096 BAU 1.1850 SGT 2490.9 SGR 4159.8 SG3 1498.1 ST 46.6 SR 104.2 SS 116.7
RDE 1.5659 RRA -.1611 RC3-4.1600 FAU .35369 RRT .8972 RRF .9963 RTF .8903 CRT .9347 CRS -.9999 CST -.9391
FDE 7.3807 FRA -.9918 FC-16.4371 BSP 8075 SGB 4848.6 R23 .0993 R13 .9914 LSA 162.4 MSA 15.7 SSA .7
BDE 1.6928 BRA .6858 BC3 4.7582 FSP 2585 SG1 4752.0 SG2 962.9 THA 60.42 EL1 113.1 EL2 15.3 ALF 66.88

LAUNCH DATE AUG 6 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 30 1974

HELIOCENTRIC CONIC DISTANCE 531.179 EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 32.871 GAL 1.01 AZL 85.41 HCA 158.95 SMA 198.44 ECC .23599 INC 4.5947 V1 29.363
RP 242.46 LAP 1.65 LOP 112.40 VP 20.638 GAP 4.74 AZP 94.29 TAL 5.32 TAP 164.26 RCA 151.61 APO 245.27 V2 22.638
RC 253.394 GL 36.95 GP -41.12 ZAL 78.97 ZAP 93.18 ETS 185.07 ZAE 117.90 ETE 211.03 ZAC 46.56 ETC 289.18 LVI 19.41

PLANETOCENTRIC CONIC

C3 19.186 VHL 4.380 DLA 45.09 RAL 9.99 RAD 6642.5 VEL 11.798 PTH 6.82 VHP 2.795 DPA -28.15 RAP 41.82 ECC 1.3158

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 35 13	4205.76	-36.58	189.78	260.81	57.15	7 45 19	3205.8	-46.40	160.05
53.28	5 13 20	4415.76	-25.53	200.20	251.58	51.47	6 26 56	3415.8	-38.91	176.31
53.28	5 13 20	4415.76	-25.53	200.20	251.58	51.47	6 26 56	3415.8	-38.91	176.31
53.28	5 13 20	4415.76	-25.53	200.20	251.58	51.47	6 26 56	3415.8	-38.91	176.31
53.28	5 13 20	4415.76	-25.53	200.20	251.58	51.47	6 26 56	3415.8	-38.91	176.31
53.28	5 13 20	4415.76	-25.53	200.20	251.58	51.47	6 26 56	3415.8	-38.91	176.31
53.28	5 13 20	4415.76	-25.53	200.20	251.58	51.47	6 26 56	3415.8	-38.91	176.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .7470 TRA -.6912 TC3-2.4059 BAU 1.2337 SGT 2652.7 SGR 4286.2 SG3 1444.4 ST 52.6 SR 111.2 SS 117.1
RDE 1.6965 RRA -.1984 RC3-4.1649 FAU .34128 RRT .9084 RRF .9966 RTF .9112 CRT .9478 CRS -.9999 CST -.9512
FDE 7.3960 FRA-1.0626 FC-15.3995 BSP 8408 SGB 5040.7 R23 .1000 R13 .9917 LSA 169.1 MSA 15.8 SSA .7
BDE 1.8536 BRA .7191 BC3 4.8098 FSP 2492 SG1 4948.3 SG2 960.6 THA 59.38 EL1 122.1 EL2 15.3 ALF 65.45

LAUNCH DATE AUG 6 1973 FLIGHT TIME 238.00 ARRIVAL DATE APR 1 1974

HELIOCENTRIC CONIC DISTANCE 534.957 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.871	GAL	.99	AZL	85.17	HCA	159.86	SMA	198.44	ECC	.23597	INC	4.8340	VI	29.363
RP	242.73	LAP	1.66	LOP	113.32	VP	20.609	GAP	4.51	AZP	94.54	TAL	5.18	TAP	165.05	RCA	151.62	APO	245.27	V2	22.612
RC	256.191	GL	38.46	GP	-42.29	ZAL	79.34	ZAP	91.98	ETS	184.13	ZAE	116.20	ETE	210.08	ZAC	45.59	ETC	289.55	LVI	20.45

PLANETOCENTRIC CONIC

C3	19.826	VHL	4.453	DLA	46.48	RAL	9.10	RAD	6642.8	VEL	11.825	PTH	6.84	VHP	2.848	DPA	-29.40	RAP	41.92	ECC	1.3263

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 0 38	4295.72	-33.09	195.54	258.28	53.63	7 12 14	3295.7	-44.81	168.13
51.43	5 2 57	4441.02	-25.84	202.85	251.73	49.91	6 16 58	3441.0	-39.79	179.21
51.43	5 2 57	4441.02	-25.84	202.85	251.73	49.91	6 16 58	3441.0	-39.79	179.21
51.43	5 2 57	4441.02	-25.84	202.85	251.73	49.91	6 16 58	3441.0	-39.79	179.21
51.43	5 2 57	4441.02	-25.84	202.85	251.73	49.91	6 16 58	3441.0	-39.79	179.21
51.43	5 2 57	4441.02	-25.84	202.85	251.73	49.91	6 16 58	3441.0	-39.79	179.21
51.43	5 2 57	4441.02	-25.84	202.85	251.73	49.91	6 16 58	3441.0	-39.79	179.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8589	TRA	-.7186	TC3	-2.4870	BAU	1.2819	SGT	2816.0	SGR	4407.5	SG3	1383.7	ST	58.9	SR	118.5	SS	117.2
RDE	1.8362	RRA	-.2384	RC3	-4.1479	FAU	.32718	RRT	.9177	RRF	.9970	RTF	.9201	CRT	.9574	CRS	-.9999	CST	-.9601
FDE	7.3804	FRA	-1.1251	FC	-14.2866	BSP	8762	SGB	5230.3	R23	.1007	R13	.9920	LSA	176.0	NSA	15.9	SSA	.6
BDE	2.0271	BRA	.7571	BC3	4.8364	FSP	2395	SG1	5141.6	SG2	958.8	THA	58.39	EL1	131.4	EL2	15.3	ALF	64.16

LAUNCH DATE AUG 6 1973 FLIGHT TIME 240.00 ARRIVAL DATE APR 3 1974

HELIOCENTRIC CONIC DISTANCE 538.734 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.872	GAL	.96	AZL	84.91	HCA	160.78	SMA	198.45	ECC	.23596	INC	5.0942	VI	29.363
RP	242.99	LAP	1.68	LOP	114.24	VP	20.581	GAP	4.28	AZP	94.81	TAL	5.05	TAP	165.83	RCA	151.62	APO	245.27	V2	22.586
RC	258.972	GL	40.06	GP	-43.48	ZAL	79.73	ZAP	90.85	ETS	183.16	ZAE	114.53	ETE	209.08	ZAC	44.58	ETC	289.95	LVI	21.53

PLANETOCENTRIC CONIC

C3	20,565	VHL	4.535	DLA	47.93	RAL	8.09	RAD	6643.1	VEL	11.856	PTH	6.87	VHP	2.909	DPA	-30.66	RAP	42.08	ECC	1.3385

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.54	4 52 17	4466.42	-26.11	205.54	251.86	48.26	6 6 43	3466.4	-40.65	182.23
49.54	4 52 17	4466.42	-26.11	205.54	251.86	48.26	6 6 43	3466.4	-40.65	182.23
49.54	4 52 17	4466.42	-26.11	205.54	251.86	48.26	6 6 43	3466.4	-40.65	182.23
49.54	4 52 17	4466.42	-26.11	205.54	251.86	48.26	6 6 43	3466.4	-40.65	182.23
49.54	4 52 17	4466.42	-26.11	205.54	251.86	48.26	6 6 43	3466.4	-40.65	182.23
49.54	4 52 17	4466.42	-26.11	205.54	251.86	48.26	6 6 43	3466.4	-40.65	182.23
49.54	4 52 17	4466.42	-26.11	205.54	251.86	48.26	6 6 43	3466.4	-40.65	182.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9771	TRA	-.7514	TC3	-2.5549	BAU	1.3326	SGT	2983.5	SGR	4531.6	SG3	1319.0	ST	65.4	SR	125.7	SS	116.7
RDE	1.9840	RRA	-.2882	RC3	-4.1189	FAU	.31240	RRT	.9261	RRF	.9973	RTF	.9282	CRT	.9647	CRS	-.9999	CST	-.9668
FDE	7.3254	FRA	-1.2015	FC	-13.1509	BSP	9088	SGB	5425.5	R23	.1010	R13	.9922	LSA	182.9	NSA	15.9	SSA	.6
BDE	2.2116	BRA	.8047	BC3	4.8470	FSP	2281	SG1	5340.8	SG2	954.8	THA	57.46	EL1	140.9	EL2	15.4	ALF	63.01

LAUNCH DATE AUG 6 1973 FLIGHT TIME 242.00 ARRIVAL DATE APR 5 1974

HELIOCENTRIC CONIC DISTANCE 542.510 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.872	GAL	.94	AZL	84.62	HCA	161.69	SMA	198.46	ECC	.23597	INC	5.3790	VI	29.363
RP	243.24	LAP	1.69	LOP	115.16	VP	20.554	GAP	4.08	AZP	95.11	TAL	4.91	TAP	166.60	RCA	151.63	APO	245.29	V2	22.560
RC	261.736	GL	41.74	GP	-44.70	ZAL	80.13	ZAP	89.77	ETS	182.18	ZAE	112.90	ETE	208.12	ZAC	43.54	ETC	290.39	LVI	22.65

PLANETOCENTRIC CONIC

C3	21.422	VHL	4.628	DLA	49.44	RAL	6.95	RAD	6643.5	VEL	11.892	PTH	6.90	VHP	2.979	DPA	-31.94	RAP	42.31	ECC	1.3526

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.59	4 41 13	4492.08	-26.31	208.28	251.93	46.50	5 56 5	3492.1	-41.49	185.38
47.59	4 41 13	4492.08	-26.31	208.28	251.93	46.50	5 56 5	3492.1	-41.49	185.38
47.59	4 41 13	4492.08	-26.31	208.28	251.93	46.50	5 56 5	3492.1	-41.49	185.38
47.59	4 41 13	4492.08	-26.31	208.28	251.93	46.50	5 56 5	3492.1	-41.49	185.38
47.59	4 41 13	4492.08	-26.31	208.28	251.93	46.50	5 56 5	3492.1	-41.49	185.38
47.59	4 41 13	4492.08	-26.31	208.28	251.93	46.50	5 56 5	3492.1	-41.49	185.38
47.59	4 41 13	4492.08	-26.31	208.28	251.93	46.50	5 56 5	3492.1	-41.49	185.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1048	TRA	-.7871	TC3	-2.6027	BAU	1.3840	SGT	3149.7	SGR	4655.2	SG3	1249.4	ST	72.1	SR	133.2	SS	115.8
RDE	2.1442	RRA	-.3403	RC3	-4.0715	FAU	.29653	RRT	.9331	RRF	.9975	RTF	.9248	CRT	.9703	CRS	-1.0000	CST	-.9719
FDE	7.2391	FRA	-1.2608	FC	-11.9835	BSP	9431	SGB	5620.6	R23	.1011	R13	.9924	LSA	190.0	NSA	16.0	SSA	.5
BDE	2.4121	BRA	.8575	BC3	4.8323	FSP	2161	SG1	5539.4	SG2	951.8	THA	56.62	EL1	150.7	EL2	15.4	ALF	61.98

LAUNCH DATE AUG 6 1973 FLIGHT TIME 244.00 ARRIVAL DATE APR 7 1974

HELIOCENTRIC CONIC DISTANCE 546.284 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.873	GAL	.91	AZL	84.31	HCA	162.60	SMA	198.48	ECC	.23601	INC	5.6917	VI	29.363
RP	243.50	LAP	1.70	LOP	116.08	VP	20.528	GAP	3.84	AZP	95.43	TAL	4.76	TAP	167.36	RCA	151.63	APO	245.32	V2	22.535
RC	264.483	GL	43.51	GP	-45.96	ZAL	80.55	ZAP	88.77	ETS	181.17	ZAE	111.30	ETE	207.18	ZAC	42.46	ETC	290.86	LVI	23.82

PLANETOCENTRIC CONIC

C3	22.422	VHL	4.735	DLA	51.01	RAL	5.65	RAD	6643.9	VEL	11.934	PTH	6.94	VHP	3.059	DPA	-33.23	RAP	42.60	ECC	1.3690

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.60	4 29 39	4518.17	-26.43	211.08	251.94	44.64	5 44 57	3518.2	-42.27	188.68
45.60	4 29 39	4518.17	-26.43	211.08	251.94	44.64	5 44 57	3518.2	-42.27	188.68
45.60	4 29 39	4518.17	-26.43	211.08	251.94	44.64	5 44 57	3518.2	-42.27	188.68
45.60	4 29 39	4518.17	-26.43	211.08	251.94	44.64	5 44 57	3518.2	-42.27	188.68
45.60	4 29 39	4518.17	-26.43	211.08	251.94	44.64	5 44 57	3518.2	-42.27	188.68
45.60	4 29 39	4518.17	-26.43	211.08	251.94	44.64	5 44 57	3518.2	-42.27	188.68
45.60	4 29 39	4518.17	-26.43	211.08	251.94	44.64	5 44 57	3518.2	-42.27	188.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2377	TRA	-.8297	TC3	-2.6341	BAU	1.4369	SGT	3318.4	SGR	4776.1	SG3	1174.8	ST	78.7	SR	140.5	SS	114.1
RDE	2.3127	RRA	-.4017	RC3	-4.0047	FAU	.27963	RRT	.9391	RRF	.9977	RTF	.9405	CRT	.9744	CRS	-1.0000	CST	-.9757
FDE	7.1033	FRA	-1.3221	FC	-10.7965	BSP	9762	SGB	5815.7	R23	.1013	R13	.9926	LSA	196.7	NSA	16.1	SSA	.5
BDE	2.6231	BRA	.9218	BC3	4.7933	FSP	2034	SG1	5737.8	SG2	948.9	THA	55.81	EL1	160.3	EL2	15.5	ALF	61.08

LAUNCH DATE AUG 6 1973 FLIGHT TIME 246.00 ARRIVAL DATE APR 9 1974

HELIOCENTRIC CONIC DISTANCE 550.057 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.874	GAL	.88	AZL	83.96	HCA	163.51	SMA	198.50	ECC	.23606	INC	6.0374	V1	29.363
RP	243.74	LAP	1.71	LOP	116.99	VP	20.503	GAP	3.62	AZP	95.79	TAL	4.61	TAP	168.12	RCA	151.64	APO	245.35	V2	22.511
RC	267.212	GL	45.37	GP	-47.26	ZAL	80.99	ZAP	87.84	ETS	180.16	ZAE	109.75	ETE	206.26	ZAC	41.34	ETC	291.37	LVI	25.02

PLANETOCENTRIC CONIC

C3	23.597	VHL	4.858	DLA	52.64	RAL	4.16	RAD	6644.4	VEL	11.982	PTH	6.98	VHP	3.152	DPA	-34.53	RAP	42.97	ECC	1.3883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.56	4 17 27	4544.81	-26.45	213.94	251.85	42.67	5 33 12	3544.8	-42.99	192.13
43.56	4 17 27	4544.81	-26.45	213.94	251.85	42.67	5 33 12	3544.8	-42.99	192.13
43.56	4 17 27	4544.81	-26.45	213.94	251.85	42.67	5 33 12	3544.8	-42.99	192.13
43.56	4 17 27	4544.81	-26.45	213.94	251.85	42.67	5 33 12	3544.8	-42.99	192.13
43.56	4 17 27	4544.81	-26.45	213.94	251.85	42.67	5 33 12	3544.8	-42.99	192.13
43.56	4 17 27	4544.81	-26.45	213.94	251.85	42.67	5 33 12	3544.8	-42.99	192.13
43.56	4 17 27	4544.81	-26.45	213.94	251.85	42.67	5 33 12	3544.8	-42.99	192.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.3809	TRA	-.8755	TC3	-2.6401	BAU	1.4889	SGT	3482.4	SGR	4895.2	SG3	1095.9	ST	85.4	SR	148.1	SS	112.0
RDE	2.4984	RRA	-.4692	RC3	-3.9123	FAU	.26142	RRT	.9445	RRF	.9979	RTF	.9455	CRT	.9778	CRS	-1.0000	CST	-.9788
FDE	6.9374	FRA	-1.3708	FC3	-9.5912	BSP	10166	SGB	6007.5	R23	.1012	R13	.9928	LSA	203.7	MSA	16.2	SSA	.4
BDE	2.8546	BRA	.9933	BC3	4.7197	FSP	1914	SG1	5932.9	SG2	944.1	THA	55.09	EL1	170.3	EL2	15.6	ALF	60.30

LAUNCH DATE AUG 6 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 11 1974

HELIOCENTRIC CONIC DISTANCE 553.828 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.875	GAL	.85	AZL	83.58	HCA	164.41	SMA	198.52	ECC	.23613	INC	6.4211	V1	29.363
RP	243.98	LAP	1.72	LOP	117.90	VP	20.479	GAP	3.39	AZP	96.19	TAL	4.46	TAP	168.87	RCA	151.65	APO	245.40	V2	22.487
RC	269.924	GL	47.35	GP	-48.59	ZAL	81.44	ZAP	86.99	ETS	179.14	ZAE	108.24	ETE	205.35	ZAC	40.18	ETC	291.93	LVI	26.27

PLANETOCENTRIC CONIC

C3	24.986	VHL	4.999	DLA	54.33	RAL	2.43	RAD	6645.0	VEL	12.040	PTH	7.03	VHP	3.257	DPA	-35.85	RAP	43.42	ECC	1.4112

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.47	4 4 27	4572.26	-26.36	216.84	251.61	40.60	5 20 39	3572.3	-43.62	195.77
41.47	4 4 27	4572.26	-26.36	216.84	251.61	40.60	5 20 39	3572.3	-43.62	195.77
41.47	4 4 27	4572.26	-26.36	216.84	251.61	40.60	5 20 39	3572.3	-43.62	195.77
41.47	4 4 27	4572.26	-26.36	216.84	251.61	40.60	5 20 39	3572.3	-43.62	195.77
41.47	4 4 27	4572.26	-26.36	216.84	251.61	40.60	5 20 39	3572.3	-43.62	195.77
41.47	4 4 27	4572.26	-26.36	216.84	251.61	40.60	5 20 39	3572.3	-43.62	195.77
41.47	4 4 27	4572.26	-26.36	216.84	251.61	40.60	5 20 39	3572.3	-43.62	195.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.5262	TRA	-.9303	TC3	-2.6278	BAU	1.5451	SGT	3647.6	SGR	5016.4	SG3	1013.9	ST	91.8	SR	155.1	SS	108.9
RDE	2.6903	RRA	-.5510	RC3	-3.8065	FAU	.24293	RRT	.9494	RRF	.9981	RTF	.9500	CRT	.9803	CRS	-1.0000	CST	-.9810
FDE	6.7066	FRA	-1.4226	FC3	-8.4170	BSP	10446	SGB	6202.3	R23	.1008	R13	.9930	LSA	209.9	MSA	16.3	SSA	.4
BDE	3.0931	BRA	1.0812	BC3	4.6254	FSP	1760	SG1	6131.1	SG2	937.2	THA	54.42	EL1	179.6	EL2	15.7	ALF	59.64

LAUNCH DATE AUG 6 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 13 1974

HELIOCENTRIC CONIC DISTANCE 557.596 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.877	GAL	.82	AZL	83.15	HCA	165.32	SMA	198.55	ECC	.23621	INC	6.8501	V1	29.363
RP	244.22	LAP	1.73	LOP	118.81	VP	20.456	GAP	3.17	AZP	96.63	TAL	4.30	TAP	169.62	RCA	151.65	APO	245.46	V2	22.464
RC	272.618	GL	49.43	GP	-49.96	ZAL	81.90	ZAP	86.23	ETS	178.12	ZAE	106.79	ETE	204.47	ZAC	38.98	ETC	292.54	LVI	27.56

PLANETOCENTRIC CONIC

C3	26.645	VHL	5.162	DLA	56.07	RAL	.42	RAD	6645.7	VEL	12.108	PTH	7.08	VHP	3.380	DPA	-37.17	RAP	43.97	ECC	1.4385

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.33	3 50 26	4600.72	-26.12	219.80	251.17	38.44	5 7 6	3600.7	-44.13	199.58
39.33	3 50 26	4600.72	-26.12	219.80	251.17	38.44	5 7 6	3600.7	-44.13	199.58
39.33	3 50 26	4600.72	-26.12	219.80	251.17	38.44	5 7 6	3600.7	-44.13	199.58
39.33	3 50 26	4600.72	-26.12	219.80	251.17	38.44	5 7 6	3600.7	-44.13	199.58
39.33	3 50 26	4600.72	-26.12	219.80	251.17	38.44	5 7 6	3600.7	-44.13	199.58
39.33	3 50 26	4600.72	-26.12	219.80	251.17	38.44	5 7 6	3600.7	-44.13	199.58
39.33	3 50 26	4600.72	-26.12	219.80	251.17	38.44	5 7 6	3600.7	-44.13	199.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6754	TRA	-.9917	TC3	-2.5907	BAU	1.6017	SGT	3808.0	SGR	5134.9	SG3	928.5	ST	97.7	SR	162.1	SS	105.0
RDE	2.8982	RRA	-.6407	RC3	-3.6751	FAU	.22340	RRT	.9534	RRF	.9982	RTF	.9536	CRT	.9821	CRS	-1.0000	CST	-.9825
FDE	6.4316	FRA	-1.4545	FC3	-7.2585	BSP	10779	SGB	6392.8	R23	.1008	R13	.9931	LSA	215.8	MSA	16.4	SSA	.4
BDE	3.3476	BRA	1.1807	BC3	4.4965	FSP	1614	SG1	6324.4	SG2	932.7	THA	53.83	EL1	188.6	EL2	15.8	ALF	59.14

LAUNCH DATE AUG 6 1973 FLIGHT TIME 252.00 ARRIVAL DATE APR 15 1974

HELIOCENTRIC CONIC DISTANCE 561.362 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	32.879	GAL	.79	AZL	82.67	HCA	166.22	SMA	198.59	ECC	.23632	INC	7.3330	V1	29.363
RP	244.48	LAP	1.74	LOP	119.72	VP	20.434	GAP	2.95	AZP	97.12	TAL	4.14	TAP	170.36	RCA	151.66	APO	245.52	V2	22.441
RC	275.293	GL	51.63	GP	-51.37	ZAL	82.38	ZAP	85.56	ETS	177.12	ZAE	105.40	ETE	203.60	ZAC	37.74	ETC	293.23	LVI	28.90

PLANETOCENTRIC CONIC

C3	28.644	VHL	5.352	DLA	57.86	RAL	358.04	RAD	6646.5	VEL	12.190	PTH	7.15	VHP	3.521	DPA	-38.50	RAP	44.61	ECC	1.4714

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.17	3 35 9	4630.41	-25.71	222.78	250.45	36.19	4 52 19	3630.4	-44.47	203.57
37.17	3 35 9	4630.41	-25.71	222.78	250.45	36.19	4 52 19	3630.4	-44.47	203.57
37.17	3 35 9	4630.41	-25.71	222.78	250.45	36.19	4 52 19	3630.4	-44.47	203.57
37.17	3 35 9	4630.41	-25.71	222.78	250.45	36.19	4 52 19	3630.4	-44.47	203.57
37.17	3 35 9	4630.41	-25.71	222.78	250.45	36.19	4 52 19	3630.4	-44.47	203.57
37.17	3 35 9	4630.41	-25.71	222.78	250.45	36.19	4 52 19	3630.4	-44.47	203.57
37.17	3 35 9	4630.41	-25.71	222.78	250.45	36.19	4 52 19	3630.4	-44.47	203.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8231	TRA	-1.0622	TC3	-2.5282	BAU	1.6596	SGT	3962.4	SGR	5253.9	SG3	840.8	ST	102.8	SR	166.5	SS	100.3
RDE	3.1168	RRA	-.7492	RC3	-3.5201	FAU	.20312	RRT	.9574	RRF	.9983	RTF	.9570	CRT	.9834	CRS	-1.0000	CST	-.9836
FDE	6.0968	FRA	-1.4837	FC3	-6.1391	BSP	11112	SGB	6580.6	R23	.1003	R13	.9932	LSA	220.7	MSA	16.5	SSA	.3
BDE	3.6108	BRA	1.2998	BC3	4.3340	FSP	1463	SG1	6515.6	SG2	922.7	THA	53.31	EL1	196.7	EL2	16.0	ALF	58.80

LAUNCH DATE AUG 6 1973 FLIGHT TIME 254.00 ARRIVAL DATE APR 17 1974

DISTANCE 565.125

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 32.881 GAL .76 AZL 82.12 HCA 167.12 SMA 198.63 ECC .23644 INC 7.8809 V1 29.363
RP 244.68 LAP 1.75 LOP 120.63 VP 20.412 GAP 2.73 AZP 97.69 TAL 3.98 TAP 171.09 RCA 151.66 APO 245.59 V2 22.418
RC 277.948 GL 53.96 GP -52.81 ZAL 82.87 ZAP 84.98 ETS 176.13 ZAE 104.08 ETE 202.77 ZAC 36.46 ETC 293.98 LVI 30.28

PLANETOCENTRIC CONIC

C3 31.079 VHL 5.575 DLA 59.68 RAL 355.23 RAD 6647.4 VEL 12.288 PTH 7.23 VHP 3.686 DPA -39.84 RAP 45.35 ECC 1.5115

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.98	3 18 14	4661.68	-25.09	225.78	249.34	33.88	4 35 56	3661.7	-44.60	207.71
34.98	3 18 14	4661.68	-25.09	225.78	249.34	33.88	4 35 56	3661.7	-44.60	207.71
34.98	3 18 14	4661.68	-25.09	225.78	249.34	33.88	4 35 56	3661.7	-44.60	207.71
34.98	3 18 14	4661.68	-25.09	225.78	249.34	33.88	4 35 56	3661.7	-44.60	207.71
34.98	3 18 14	4661.68	-25.09	225.78	249.34	33.88	4 35 56	3661.7	-44.60	207.71
34.98	3 18 14	4661.68	-25.09	225.78	249.34	33.88	4 35 56	3661.7	-44.60	207.71
34.98	3 18 14	4661.68	-25.09	225.78	249.34	33.88	4 35 56	3661.7	-44.60	207.71

DIFFERENTIAL CORRECTIONS

TDE 1.9626 TRA-1.1417 TC3-2.4403 BAU 1.7205
RDE 3.3459 RRA -.8717 RC3-3.3453 FAU .18245
FDE 5.7017 FRA-1.4907 FC3-5.0822 BSP 11463
BDE 3.8790 BRA 1.4365 BC3 4.1407 FSP 1310

MID-COURSE EXECUTION ACCURACY

SGT 4107.6 SGR 5374.5 SG3 751.5
RRT .9607 RRF .9983 RTF .9597
SGB 6764.5 R23 .1001 R13 .9933
SG1 6702.4 SG2 914.7 THA 52.91

ORBIT DETERMINATION ACCURACY

ST 106.8 SR 174.1 SS 94.5
CRT .9840 CRS-1.0000 CST -.9840
LSA 224.4 MSA 16.8 SSA .3
EL1 203.6 EL2 16.3 ALF 58.66

LAUNCH DATE AUG 6 1973 FLIGHT TIME 256.00 ARRIVAL DATE APR 19 1974

DISTANCE 568.888

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 32.883 GAL .73 AZL 81.49 HCA 168.01 SMA 198.67 ECC .23657 INC 8.5080 V1 29.363
RP 244.90 LAP 1.76 LOP 121.53 VP 20.392 GAP 2.52 AZP 98.33 TAL 3.81 TAP 171.82 RCA 151.67 APO 245.67 V2 22.397
RC 280.584 GL 56.43 GP -54.28 ZAL 83.37 ZAP 84.50 ETS 175.17 ZAE 102.82 ETE 201.98 ZAC 35.14 ETC 294.82 LVI 31.70

PLANETOCENTRIC CONIC

C3 34.085 VHL 5.838 DLA 61.50 RAL 351.85 RAD 6648.6 VEL 12.409 PTH 7.32 VHP 3.878 DPA -41.17 RAP 46.21 ECC 1.5610

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.80	2 59 20	4694.76	-24.24	228.76	247.71	31.55	4 17 34	3694.8	-44.46	211.96
32.80	2 59 20	4694.76	-24.24	228.76	247.71	31.55	4 17 34	3694.8	-44.46	211.96
32.80	2 59 20	4694.76	-24.24	228.76	247.71	31.55	4 17 34	3694.8	-44.46	211.96
32.80	2 59 20	4694.76	-24.24	228.76	247.71	31.55	4 17 34	3694.8	-44.46	211.96
32.80	2 59 20	4694.76	-24.24	228.76	247.71	31.55	4 17 34	3694.8	-44.46	211.96
32.80	2 59 20	4694.76	-24.24	228.76	247.71	31.55	4 17 34	3694.8	-44.46	211.96
32.80	2 59 20	4694.76	-24.24	228.76	247.71	31.55	4 17 34	3694.8	-44.46	211.96

DIFFERENTIAL CORRECTIONS

TDE 2.0740 TRA-1.2363 TC3-2.3298 BAU 1.7937
RDE 3.5544 RRA-1.0371 RC3-3.1726 FAU .16277
FDE 5.2031 FRA-1.5122 FC3-4.1341 BSP 11591
BDE 4.1153 BRA 1.6137 BC3 3.9362 FSP 1125

MID-COURSE EXECUTION ACCURACY

SGT 4243.9 SGR 5517.4 SG3 663.9
RRT .9653 RRF .9984 RTF .9639
SGB 6960.8 R23 .0964 R13 .9937
SG1 6904.2 SG2 885.7 THA 52.69

ORBIT DETERMINATION ACCURACY

ST 108.8 SR 177.4 SS 87.0
CRT .9843 CRS-1.0000 CST -.9842
LSA 224.9 MSA 16.9 SSA .3
EL1 207.4 EL2 16.4 ALF 58.67

LAUNCH DATE AUG 6 1973 FLIGHT TIME 258.00 ARRIVAL DATE APR 21 1974

DISTANCE 572.644

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 32.885 GAL .70 AZL 80.77 HCA 168.90 SMA 198.72 ECC .23672 INC 9.2333 V1 29.363
RP 245.11 LAP 1.77 LOP 122.44 VP 20.372 GAP 2.30 AZP 99.06 TAL 3.64 TAP 172.55 RCA 151.68 APO 245.76 V2 22.375
RC 283.198 GL 59.05 GP -55.78 ZAL 83.88 ZAP 84.12 ETS 174.28 ZAE 101.65 ETE 201.24 ZAC 33.78 ETC 295.76 LVI 33.16

PLANETOCENTRIC CONIC

C3 37.850 VHL 6.152 DLA 63.32 RAL 347.76 RAD 6649.9 VEL 12.559 PTH 7.43 VHP 4.106 DPA -42.48 RAP 47.19 ECC 1.6229

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.66	2 37 52	4730.06	-23.10	231.67	245.40	29.22	3 56 42	3730.1	-44.01	216.26
30.66	2 37 52	4730.06	-23.10	231.67	245.40	29.22	3 56 42	3730.1	-44.01	216.26
30.66	2 37 52	4730.06	-23.10	231.67	245.40	29.22	3 56 42	3730.1	-44.01	216.26
30.66	2 37 52	4730.06	-23.10	231.67	245.40	29.22	3 56 42	3730.1	-44.01	216.26
30.66	2 37 52	4730.06	-23.10	231.67	245.40	29.22	3 56 42	3730.1	-44.01	216.26
30.66	2 37 52	4730.06	-23.10	231.67	245.40	29.22	3 56 42	3730.1	-44.01	216.26
30.66	2 37 52	4730.06	-23.10	231.67	245.40	29.22	3 56 42	3730.1	-44.01	216.26

DIFFERENTIAL CORRECTIONS

TDE 2.1444 TRA-1.3447 TC3-2.1952 BAU 1.8640
RDE 3.7706 RRA-1.2139 RC3-2.9580 FAU .14145
FDE 4.6618 FRA-1.4832 FC3-3.2354 BSP 11947
BDE 4.3377 BRA 1.8116 BC3 3.6836 FSP 976

MID-COURSE EXECUTION ACCURACY

SGT 4366.0 SGR 5649.5 SG3 574.1
RRT .9676 RRF .9983 RTF .9652
SGB 7140.0 R23 .0976 R13 .9935
SG1 7085.6 SG2 879.6 THA 52.54

ORBIT DETERMINATION ACCURACY

ST 108.3 SR 179.7 SS 78.8
CRT .9830 CRS-1.0000 CST -.9825
LSA 223.4 MSA 17.5 SSA .2
EL1 209.1 EL2 17.1 ALF 59.12

LAUNCH DATE AUG 6 1973 FLIGHT TIME 308.00 ARRIVAL DATE JUN 10 1974

DISTANCE 667.225

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 32.985 GAL -.53 AZL 99.38 HCA 191.38 SMA 200.68 ECC .24407 INC 9.3758 V1 29.363
RP 248.75 LAP 1.84 LOP 144.63 VP 20.143 GAP -2.77 AZP 80.81 TAL 357.27 TAP 188.65 RCA 151.70 APO 249.66 V2 22.019
RC 340.287 GL -59.37 GP 51.77 ZAL 90.48 ZAP 70.31 ETS 209.61 ZAE 84.16 ETE 189.40 ZAC 137.75 ETC 291.28 LVI -71.53

PLANETOCENTRIC CONIC

C3 38.994 VHL 6.245 DLA -40.38 RAL 61.42 RAD 6650.3 VEL 12.604 PTH 7.46 VHP 4.168 DPA 52.75 RAP 349.11 ECC 1.6418

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 49 1	2398.28	-2.30	62.14	294.53	137.53	18 29 0	1398.3	15.97	46.12
59.89	21 3 35	1873.83	16.20	32.45	311.43	127.51	21 34 49	873.8	30.00	10.93
59.89	21 3 35	1873.83	16.20	32.45	311.43	127.51	21 34 49	873.8	30.00	10.93
59.89	21 3 35	1873.83	16.20	32.45	311.43	127.51	21 34 49	873.8	30.00	10.93
59.89	21 3 35	1873.83	16.20	32.45	311.43	127.51	21 34 49	873.8	30.00	10.93
59.89	21 3 35	1873.83	16.20	32.45	311.43	127.51	21 34 49	873.8	30.00	10.93
59.89	21 3 35	1873.83	16.20	32.45	311.43	127.51	21 34 49	873.8	30.00	10.93

DIFFERENTIAL CORRECTIONS

TDE-5.8775 TRA 3.1150 TC3-4.2970 BAU 2.5314
RDE 2.8176 RRA-2.3562 RC3 2.2615 FAU .13947
FDE-3.1437 FRA 3.1091 FC3-3.0964 BSP 16941
BDE 6.5180 BRA 3.9057 BC3 4.8558 FSP 897

MID-COURSE EXECUTION ACCURACY

SGT 8482.9 SGR 4766.0 SG3 527.7
RRT -.9831 RRF -.9966 RTF .9720
SGB 9730.0 R23 .1809 R13 -.9809
SG1 9700.1 SG2 762.6 THA 150.89

ORBIT DETERMINATION ACCURACY

ST 275.6 SR 136.2 SS 55.8
CRT -.9937 CRS .9986 CST -.9863
LSA 312.0 MSA 15.8 SSA .3
EL1 307.1 EL2 13.7 ALF 153.79

LAUNCH DATE AUG 6 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 12 1974

HELIOCENTRIC CONIC DISTANCE 670.958 EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 32.990 GAL -.59 AZL 98.70 HCA 192.24 SMA 200.78 ECC .24448 INC 8.7037 V1 29.363
RP 248.82 LAP 1.84 LOP 145.50 VP 20.144 GAP -2.97 AZP 81.49 TAL 357.01 TAP 189.26 RCA 151.69 APO 249.87 V2 22.012
RC 342.196 GL -56.95 GP 49.69 ZAL 90.79 ZAP 68.81 ETS 209.89 ZAE 82.97 ETE 190.23 ZAC 136.01 ETC 290.58 LVI -69.97

PLANETOCENTRIC CONIC

C3 35.466 VHL 5.955 DLA -38.03 RAL 60.60 RAD 6649.1 VEL 12.464 PTH 7.36 VHP 3.982 DPA 51.20 RAP 350.86 ECC 1.5837

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 24 18	2444.52	-4.62	64.07	290.47	137.40	18 5 3	1444.5	13.71	48.20
60.00	19 30 10	2108.66	6.08	44.10	300.64	129.92	20 5 19	1108.7	21.45	24.97
63.44	21 17 8	1801.86	16.33	26.52	308.59	124.84	21 47 10	801.9	29.11	4.38
63.44	21 17 8	1801.86	16.33	26.52	308.59	124.84	21 47 10	801.9	29.11	4.38
63.44	21 17 8	1801.86	16.33	26.52	308.59	124.84	21 47 10	801.9	29.11	4.38
63.44	21 17 8	1801.86	16.33	26.52	308.59	124.84	21 47 10	801.9	29.11	4.38
63.44	21 17 8	1801.86	16.33	26.52	308.59	124.84	21 47 10	801.9	29.11	4.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-5.5902 TRA 3.0527 TC3-4.7555 BAU 2.5144 SGT 8655.1 SGR 4575.6 SG3 596.8 ST 274.8 SR 127.8 SS 58.6
RDE 2.5189 RRA-2.2045 RC3 2.3467 FAU .15485 RRT -.9824 RRF -.9965 RTF .9717 CRT -.9932 CRS .9985 CST -.9853
FDE-3.2925 FRA 3.4167 FC3-3.7799 BSP 17078 SGB 9790.2 R23 .1847 R13 -.9800 LSA 308.3 MSA 16.0 SSA .3
BDE 6.1315 BRA 3.7655 BC3 5.3030 FSP 1016 SG1 9760.8 SG2 757.6 THA 152.37 EL1 302.8 EL2 13.5 ALF 155.16

LAUNCH DATE AUG 6 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 14 1974

HELIOCENTRIC CONIC DISTANCE 674.693 EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 32.995 GAL -.64 AZL 98.12 HCA 193.11 SMA 200.88 ECC .24490 INC 8.1194 V1 29.363
RP 248.88 LAP 1.84 LOP 146.38 VP 20.145 GAP -3.16 AZP 82.09 TAL 356.75 TAP 189.86 RCA 151.69 APO 250.08 V2 22.006
RC 344.074 GL -54.68 GP 48.06 ZAL 91.13 ZAP 67.35 ETS 210.07 ZAE 81.78 ETE 190.96 ZAC 134.30 ETC 289.94 LVI -68.38

PLANETOCENTRIC CONIC

C3 32.619 VHL 5.711 DLA -35.80 RAL 59.93 RAD 6648.0 VEL 12.351 PTH 7.27 VHP 3.827 DPA 49.70 RAP 352.51 ECC 1.5368

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 4 6	2484.55	-6.63	65.76	287.26	137.22	17 45 30	1484.5	11.74	49.97
60.00	18 51 35	2198.21	2.15	48.40	295.64	130.25	19 28 13	1198.2	17.88	29.84
67.07	21 33 32	1724.59	16.25	20.21	306.07	122.35	22 2 17	724.6	28.08	357.60
67.07	21 33 32	1724.59	16.25	20.21	306.07	122.35	22 2 17	724.6	28.08	357.60
67.07	21 33 32	1724.59	16.25	20.21	306.07	122.35	22 2 17	724.6	28.08	357.60
67.07	21 33 32	1724.59	16.25	20.21	306.07	122.35	22 2 17	724.6	28.08	357.60
67.07	21 33 32	1724.59	16.25	20.21	306.07	122.35	22 2 17	724.6	28.08	357.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-5.3306 TRA 3.0048 TC3-5.2116 BAU 2.5042 SGT 8823.3 SGR 4394.4 SG3 662.5 ST 273.3 SR 119.9 SS 60.7
RDE 2.2619 RRA-2.0728 RC3 2.4117 FAU .16902 RRT -.9817 RRF -.9964 RTF .9713 CRT -.9927 CRS .9984 CST -.9841
FDE-3.3912 FRA 3.7018 FC3-4.4859 BSP 17206 SGB 9857.0 R23 .1883 R13 -.9791 LSA 304.1 MSA 16.3 SSA .3
BDE 5.7907 BRA 3.6504 BC3 5.7426 FSP 1130 SG1 9828.3 SG2 751.7 THA 153.78 EL1 298.1 EL2 13.3 ALF 156.42

LAUNCH DATE AUG 6 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 16 1974

HELIOCENTRIC CONIC DISTANCE 678.428 EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 33.000 GAL -.69 AZL 97.61 HCA 193.98 SMA 200.98 ECC .24532 INC 7.6067 V1 29.363
RP 248.94 LAP 1.83 LOP 147.25 VP 20.147 GAP -3.36 AZP 82.62 TAL 356.48 TAP 190.46 RCA 151.68 APO 250.29 V2 22.000
RC 345.920 GL -52.53 GP 46.28 ZAL 91.49 ZAP 65.93 ETS 210.17 ZAE 80.59 ETE 191.60 ZAC 132.63 ETC 289.38 LVI -66.80

PLANETOCENTRIC CONIC

C3 30.291 VHL 5.504 DLA -33.68 RAL 59.39 RAD 6647.1 VEL 12.257 PTH 7.20 VHP 3.699 DPA 48.24 RAP 354.06 ECC 1.4985

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 47 5	2520.60	-8.42	67.30	284.68	137.00	17 29 6	1520.6	9.96	51.54
60.00	18 23 35	2263.71	-.73	51.53	292.03	130.30	19 1 19	1263.7	15.17	33.27
70.00	21 5 0	1787.29	11.53	22.07	301.04	122.37	21 34 48	787.3	23.75	.37
70.91	21 53 43	1638.31	16.02	13.28	303.84	120.02	22 21 1	638.3	26.96	350.30
70.91	21 53 43	1638.31	16.02	13.28	303.84	120.02	22 21 1	638.3	26.96	350.30
70.91	21 53 43	1638.31	16.02	13.28	303.84	120.02	22 21 1	638.3	26.96	350.30
110.00	2 8 23	6122.15	11.53	288.90	301.04	122.37	3 50 25	5122.1	23.75	267.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-5.0881 TRA 2.9689 TC3-5.6601 BAU 2.4991 SGT 8981.5 SGR 4216.8 SG3 723.3 ST 270.8 SR 112.1 SS 61.8
RDE 2.0338 RRA-1.9533 RC3 2.4593 FAU .18208 RRT -.9811 RRF -.9962 RTF .9709 CRT -.9921 CRS .9982 CST -.9827
FDE-3.4340 FRA 3.9560 FC3-5.2038 BSP 17381 SGB 9922.1 R23 .1916 R13 -.9782 LSA 299.1 MSA 16.5 SSA .4
BDE 5.4796 BRA 3.5538 BC3 6.1713 FSP 1237 SG1 9894.4 SG2 741.6 THA 155.12 EL1 292.8 EL2 13.0 ALF 157.63

LAUNCH DATE AUG 6 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 18 1974

HELIOCENTRIC CONIC DISTANCE 682.165 EARTH TO MARS

RL 151.73 LAL .00 LOL 313.39 VL 33.005 GAL -.75 AZL 97.15 HCA 194.85 SMA 201.09 ECC .24575 INC 7.1529 V1 29.363
RP 249.00 LAP 1.83 LOP 148.13 VP 20.150 GAP -3.55 AZP 83.08 TAL 356.21 TAP 191.05 RCA 151.67 APO 250.50 V2 21.995
RC 347.734 GL -50.50 GP 44.57 ZAL 91.88 ZAP 64.55 ETS 210.21 ZAE 79.41 ETE 192.16 ZAC 131.01 ETC 288.87 LVI -65.23

PLANETOCENTRIC CONIC

C3 28.366 VHL 5.326 DLA -31.65 RAL 58.95 RAD 6646.4 VEL 12.178 PTH 7.14 VHP 3.591 DPA 46.84 RAP 355.50 ECC 1.4668

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 32 30	2553.86	-10.08	68.73	282.59	136.75	17 15 3	1553.9	8.31	52.96
60.00	18 1 17	2317.57	-3.10	54.10	289.23	130.20	18 39 55	1317.6	12.91	36.02
70.00	20 8 6	1944.24	5.69	30.47	295.83	123.73	20 40 31	944.2	18.86	9.92
75.15	22 19 36	1536.20	15.66	5.25	301.87	117.86	22 45 12	536.2	25.78	341.99
75.15	22 19 36	1536.20	15.66	5.25	301.87	117.86	22 45 12	536.2	25.78	341.99
75.15	22 19 36	1536.20	15.66	5.25	301.87	117.86	22 45 12	536.2	25.78	341.99
110.00	1 11 29	6279.10	5.69	297.29	295.83	123.73	2 56 8	5279.1	18.86	276.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-4.8688 TRA 2.9369 TC3-6.1081 BAU 2.5022 SGT 9140.1 SGR 4048.2 SG3 779.9 ST 267.9 SR 104.8 SS 62.5
RDE 1.8354 RRA-1.8432 RC3 2.4950 FAU .19432 RRT -.9805 RRF -.9960 RTF .9706 CRT -.9915 CRS .9979 CST -.9810
FDE-3.4378 FRA 4.1790 FC3-5.9307 BSP 17459 SGB 9996.5 R23 .1944 R13 -.9773 LSA 293.9 MSA 16.7 SSA .4
BDE 5.2032 BRA 3.4674 BC3 6.5980 FSP 1327 SG1 9969.8 SG2 729.5 THA 156.39 EL1 287.4 EL2 12.7 ALF 158.76

LAUNCH DATE AUG 6 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 20 1974

HELIOCENTRIC CONIC DISTANCE 685.902 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.010	GAL	-.80	AZL	96.75	HCA	195.71	SMA	201.19	ECC	.24619	INC	6.7483	V1	29.363
RP	249.05	LAP	1.82	LOP	149.00	VP	20.153	GAP	-3.75	AZP	83.50	TAL	355.93	TAP	191.65	RCA	151.66	APO	250.72	V2	21.990
RC	349.515	GL	-48.57	GP	42.93	ZAL	92.29	ZAP	63.23	ETS	210.18	ZAE	78.24	ETE	192.64	ZAC	129.43	ETC	288.42	LVI	-63.70

PLANETOCENTRIC CONIC

C3	26.759	VHL	5.173	DLA	-29.73	RAL	58.60	RAD	6645.7	VEL	12.113	PTH	7.09	VHP	3.500	DPA	45.49	RAP	356.87	ECC	1.4404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 19 48	2585.00	-11.62	70.08	280.88	136.47	17 2 53	1585.0	6.75	54.29
60.00	17 42 43	2364.39	-5.15	56.35	287.02	130.03	18 22 7	1364.4	10.91	38.36
70.00	19 34 46	2034.78	2.24	35.22	292.60	124.09	20 8 41	1034.8	15.79	15.14
80.00	22 29 49	1485.66	12.98	.03	299.00	117.12	22 54 34	485.7	23.04	337.15
80.44	22 56 44	1399.58	15.21	354.78	300.14	115.85	23 20 4	399.6	24.56	331.31
100.00	1 16 36	6248.17	12.98	299.30	299.00	117.12	3 0 45	5248.2	23.04	276.43
110.00	0 38 8	1081.60	2.24	324.14	292.60	124.09	0 56 10	81.6	15.79	304.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.6637	TRA	2.9175	TC3	-6.5387	BAU	2.5053	SGT	9289.4	SGR	3882.0	SG3	830.7	ST	264.4	SR	97.9	SS	62.5
RDE	1.6603	RRA	-1.7459	RC3	2.5074	FAU	.20475	RRT	-.9798	RRF	-.9957	RTF	.9701	CRT	-.9908	CRS	.9975	CST	-.9789
FDE	-3.4043	FRA	4.3828	FC3	-6.6244	BSP	17616	SGB	10067.9	R23	.1972	R13	-.9763	LSA	288.3	MSA	16.9	SSA	.4
BDE	4.9504	BRA	3.4000	BC3	7.0030	FSP	1416	SG1	10042.3	SG2	717.4	THA	157.61	EL1	281.7	EL2	12.4	ALF	159.81

LAUNCH DATE AUG 6 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 22 1974

HELIOCENTRIC CONIC DISTANCE 689.640 EARTH TO MARS

RL	151.73	LAL	.00	LOL	313.39	VL	33.015	GAL	-.86	AZL	96.39	HCA	196.58	SMA	201.29	ECC	.24663	INC	6.3853	V1	29.363
RP	249.09	LAP	1.82	LOP	149.88	VP	20.157	GAP	-3.94	AZP	83.88	TAL	355.65	TAP	192.23	RCA	151.65	APO	250.94	V2	21.986
RC	351.261	GL	-46.75	GP	41.36	ZAL	92.72	ZAP	61.95	ETS	210.12	ZAE	77.07	ETE	193.07	ZAC	127.91	ETC	288.02	LVI	-62.21

PLANETOCENTRIC CONIC

C3	25.405	VHL	5.040	DLA	-27.89	RAL	58.33	RAD	6645.2	VEL	12.057	PTH	7.04	VHP	3.424	DPA	44.21	RAP	358.15	ECC	1.4181

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 8 38	2614.45	-13.07	71.37	279.50	136.17	16 52 12	1614.5	5.28	55.53
60.00	17 26 51	2406.39	-6.99	58.38	285.25	129.79	18 6 57	1406.4	9.10	40.44
70.00	19 9 34	2104.31	-.41	38.85	290.20	124.15	19 44 38	1104.3	13.34	19.04
80.00	21 21 26	1691.47	6.34	11.69	294.37	119.24	21 49 37	691.5	17.77	350.16
90.00	23 32 25	1269.05	10.97	343.08	296.84	116.23	23 53 34	269.0	20.85	320.40
100.00	0 8 13	1165.94	6.34	333.06	294.37	119.24	0 27 39	165.9	17.77	311.52
110.00	0 12 56	1151.13	-.41	327.77	290.20	124.15	0 32 7	151.1	13.34	307.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.4729	TRA	2.9078	TC3	-6.9596	BAU	2.5127	SGT	9437.1	SGR	3725.5	SG3	877.4	ST	260.6	SR	91.5	SS	62.0
RDE	1.5060	RRA	-1.6582	RC3	2.5097	FAU	.21432	RRT	-.9793	RRF	-.9953	RTF	.9697	CRT	-.9902	CRS	.9970	CST	-.9765
FDE	-3.3411	FRA	4.5662	FC3	-7.3035	BSP	17800	SGB	10145.9	R23	.1993	R13	-.9754	LSA	282.5	MSA	17.1	SSA	.5
BDE	4.7197	BRA	3.3474	BC3	7.3983	FSP	1500	SG1	10121.4	SG2	703.6	THA	158.76	EL1	275.9	EL2	12.1	ALF	160.80

LAUNCH DATE AUG 7 1973 FLIGHT TIME 102.00 ARRIVAL DATE NOV 17 1973

HELIOCENTRIC CONIC DISTANCE 294.671 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	35.587	GAL	-.29	AZL	90.15	HCA	90.41	SMA	274.70	ECC	.44774	INC	.1470	V1	29.367
RP	218.71	LAP	-.15	LOP	44.76	VP	27.028	GAP	24.03	AZP	90.00	TAL	359.85	TAP	89.46	RCA	151.70	APO	397.69	V2	25.127
RC	77.098	GL	-.85	GP	-5.10	ZAL	89.25	ZAP	174.39	ETS	247.01	ZAE	162.60	ETE	344.19	ZAC	78.33	ETC	282.82	LVI	-12.06

PLANETOCENTRIC CONIC

C3	38.709	VHL	6.222	DLA	15.12	RAL	41.41	RAD	6650.2	VEL	12.593	PTH	7.45	VHP	8.933	DPA	10.54	RAP	41.77	ECC	1.6371

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 4 48	3601.57	-47.34	137.67	289.79	95.41	13 4 50	2601.6	-39.76	105.74
60.00	12 27 18	3541.67	-40.27	132.88	290.38	91.59	13 26 20	2541.7	-35.24	102.98
70.00	13 0 2	3445.33	-34.13	125.09	290.40	88.62	13 57 27	2445.3	-31.12	96.77
80.00	13 49 36	3288.97	-29.68	113.01	290.18	86.60	14 44 45	2289.0	-28.07	85.70
90.00	15 3 7	3052.76	-28.00	95.53	290.05	85.85	15 54 0	2052.8	-26.90	68.57
100.00	16 32 48	2763.44	-29.68	74.38	290.18	86.60	17 18 52	1763.4	-28.07	47.07
110.00	17 59 28	2492.17	-34.13	54.01	290.40	88.62	18 41 0	1492.2	-31.12	25.69

DIFFERENTIAL CORRECTIONS

TDE	-.3261	TRA	-1.0274	TC3	.2433	BAU	.1316												
RDE	-.6226	RRA	.2323	RC3	-.0739	FAU	.05116												
FDE	.2419	FRA	.5610	FC3	-1.1442	BSP	1543												
BDE	.7026	BRA	1.0533	BC3	.2543	FSP	160												

MID-COURSE EXECUTION ACCURACY

SGT	1068.8	SGR	621.5	SG3	132.8						
RRT	-.1096	RRF	.1275	RTF	-.6224						
SGB	1236.4	R23	-.0254	R13	.6247						
SG1	1072.0	SG2	615.9	THA	174.55						

ORBIT DETERMINATION ACCURACY

ST	21.0	SR	28.9	SS	10.7						
CRT	.6289	CRS	.7290	CST	.9801						
LSA	34.0	MSA	15.2	SSA	1.3						
EL1	32.7	EL2	14.4	ALF	58.57						

LAUNCH DATE AUG 7 1973 FLIGHT TIME 104.00 ARRIVAL DATE NOV 19 1973

HELIOCENTRIC CONIC DISTANCE 296.765 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	35.433	GAL	-.22	AZL	90.11	HCA	91.54	SMA	268.61	ECC	.43521	INC	.1108	V1	29.367
RP	219.08	LAP	-.11	LOP	45.89	VP	26.786	GAP	23.65	AZP	90.00	TAL	359.27	TAP	90.81	RCA	151.71	APO	385.51	V2	25.087
RC	78.631	GL	-.65	GP	-5.23	ZAL	88.81	ZAP	173.91	ETS	240.84	ZAE	161.98	ETE	344.03	ZAC	78.14	ETC	282.78	LVI	-11.83

PLANETOCENTRIC CONIC

C3	36.822	VHL	6.068	DLA	15.17	RAL	40.92	RAD	6649.5	VEL	12.518	PTH	7.40	VHP	8.662	DPA	10.53	RAP	42.15	ECC	1.6060

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 2 36	3590.05	-47.26	136.57	288.09	96.25	13 2 27	2590.1	-39.38	104.90
60.00	12 25 2	3530.33	-40.25	131.91	288.81	92.24	13 23 53	2530.3	-34.96	102.15
70.00	12 57 41	3434.26	-34.14	124.22	288.90	89.14	13 54 55	2434.3	-30.93	95.96
80.00	13 47 30	3278.15	-29.72	112.21	288.72	87.02	14 42 8	2278.1	-27.93	84.93
90.00	15 0 39	3042.07	-28.05	94.75	288.61	86.24	15 51 21	2042.1	-26.79	67.81
100.00	16 30 22	2752.62	-29.72	73.58	288.72	87.02	17 16 15	1752.6	-27.93	46.30
110.00	17 57 7	2481.08	-34.14	53.14	288.90	89.14	18 38 28	1481.1	-30.93	24.88

DIFFERENTIAL CORRECTIONS

TDE	-.3268	TRA	-1.0163	TC3	.2686	BAU	.1383												
RDE	-.6090	RRA	.2306	RC3	-.0823	FAU	.05308												
FDE	.2583	FRA	.5705	FC3	-1.2478	BSP	1591												
BDE	.6911	BRA	1.0421	BC3	.2809	FSP	177												

MID-COURSE EXECUTION ACCURACY

SGT	1090.8	SGR	625.7	SG3	141.0						
RRT	-.1163	RRF	.1340	RTF	-.6311						
SGB	1257.5	R23	-.0258	R13	.6335						
SG1	1094.4	SG2	619.4	THA	174.38						

ORBIT DETERMINATION ACCURACY

ST	21.5	SR	28.9	SS	11.2						
CRT	.6326	CRS	.7430	CST	.9779						
LSA	34.5	MSA	15.3	SSA	1.4						
EL1	32.9	EL2	14.6	ALF	57.82						

LAUNCH DATE AUG 7 1973 FLIGHT TIME 106.00 ARRIVAL DATE NOV 21 1973

HELIOCENTRIC CONIC DISTANCE 299.030 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	35.287	GAL	-.15	AZL	90.08	HCA	92.67	SMA	263.12	ECC	.42341	INC	.0737	V1	29.367
RP	219.45	LAP	-.08	LOP	47.02	VP	26.555	GAP	23.27	AZP	90.00	TAL	359.49	TAP	92.16	RCA	151.71	APO	374.52	V2	25.046
RC	80.245	GL	-.45	GP	-5.36	ZAL	88.36	ZAP	173.36	ETS	235.62	ZAE	161.43	ETE	343.82	ZAC	77.94	ETC	282.75	LVI	-11.60

PLANETOCENTRIC CONIC

C3	35.087	VHL	5.923	DLA	15.23	RAL	40.40	RAD	6648.9	VEL	12.449	PTH	7.35	VHP	8.400	DPA	10.52	RAP	42.52	ECC	1.5775

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	12 0 20	3579.01	-47.17	135.51	286.41	97.06	12 59 59	2579.0	-39.01	104.10
60.00	12 22 41	3519.48	-40.22	130.99	287.25	92.86	13 21 21	2519.5	-34.68	101.36
70.00	12 55 15	3423.67	-34.15	123.40	287.42	89.62	13 52 18	2423.7	-30.74	95.20
80.00	13 44 59	3267.83	-29.76	111.45	287.28	87.42	14 39 27	2267.8	-27.80	84.19
90.00	14 58 5	3031.89	-28.09	94.01	287.18	86.61	15 48 37	2031.9	-26.67	67.09
100.00	16 27 51	2742.30	-29.76	72.82	287.28	87.42	17 13 33	1742.3	-27.80	45.56
110.00	17 54 41	2470.49	-34.15	52.31	287.42	89.62	18 35 52	1470.5	-30.74	24.12

DIFFERENTIAL CORRECTIONS

TDE	-.3285	TRA	-1.0089	TC3	.3012	BAU	.1477												
RDE	-.5961	RRA	.2294	RC3	-.0919	FAU	.05542												
FDE	.2695	FRA	.5852	FC3	-1.3674	BSP	1646												
BDE	.6806	BRA	1.0347	BC3	.3149	FSP	188												

MID-COURSE EXECUTION ACCURACY

SGT	1118.6	SGR	630.2	SG3	150.6						
RRT	-.1252	RRF	.1467	RTF	-.6435						
SGB	1283.9	R23	-.0301	R13	.6462						
SG1	1122.6	SG2	623.0	THA	174.16						

ORBIT DETERMINATION ACCURACY

ST	22.0	SR	29.0	SS	11.5						
CRT	.6357	CRS	.7467	CST	.9777						
LSA	34.9	MSA	15.5	SSA	1.4						
EL1	33.3	EL2	14.8	ALF	56.97						

LAUNCH DATE AUG 7 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 23 1973

HELIOCENTRIC CONIC DISTANCE 301.446 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	35.149	GAL	-.08	AZL	90.04	HCA	93.79	SMA	258.15	ECC	.41231	INC	.0363	V1	29.367
RP	219.82	LAP	-.04	LOP	48.14	VP	26.332	GAP	22.89	AZP	90.00	TAL	359.72	TAP	93.51	RCA	151.71	APO	364.58	V2	25.005
RC	81.936	GL	-.24	GP	-5.51	ZAL	87.89	ZAP	172.76	ETS	231.21	ZAE	160.93	ETE	343.57	ZAC	77.74	ETC	282.72	LVI	-11.37

PLANETOCENTRIC CONIC

C3	33.491	VHL	5.787	DLA	15.29	RAL	39.87	RAD	6648.3	VEL	12.386	PTH	7.30	VHP	8.148	DPA	10.49	RAP	42.89	ECC	1.5512

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 57 59	3568.46	-47.08	134.51	284.78	97.83	12 57 27	2568.5	-38.65	103.35
60.00	12 20 16	3509.13	-40.18	130.11	285.72	93.46	13 18 45	2509.1	-34.42	100.61
70.00	12 52 43	3413.58	-34.15	122.61	285.95	90.09	13 49 37	2413.6	-30.55	94.47
80.00	13 42 22	3258.04	-29.78	110.72	285.86	87.80	14 36 40	2258.0	-27.66	83.50
90.00	14 55 25	3022.24	-28.13	93.31	285.77	86.96	15 45 47	2022.2	-26.56	66.41
100.00	16 25 14	2732.51	-29.78	72.09	285.86	87.80	17 10 46	1732.5	-27.66	44.86
110.00	17 52 10	2460.40	-34.15	51.53	285.95	90.09	18 33 10	1460.4	-30.55	23.39

DIFFERENTIAL CORRECTIONS

TDE	-.3271	TRA	-1.0040	TC3	.3384	BAU	.1584												
RDE	-.5829	RRA	.2285	RC3	-.1027	FAU	.05804												
FDE	.2900	FRA	.6015	FC3	-1.5004	BSP	1687												
BDE	.6684	BRA	1.0296	BC3	.3537	FSP	212												

MID-COURSE EXECUTION ACCURACY

SGT	1149.0	SGR	634.2	SG3	161.2						
RRT	-.1390	RRF	.1568	RTF	-.6576						
SGB	1312.4	R23	-.0271	R13	.6604						
SG1	1153.8	SG2	625.4	THA	173.78						

ORBIT DETERMINATION ACCURACY

ST	22.4	SR	29.1	SS	12.2						
CRT	.6341	CRS	.7589	CST	.9745						
LSA	35.3	MSA	15.7	SSA	1.4						
EL1	33.5	EL2	15.0	ALF	56.30						

LAUNCH DATE AUG 7 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 25 1973

HELIOCENTRIC CONIC DISTANCE 303.996 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	35.019	GAL	-.01	AZL	90.00	HCA	94.91	SMA	253.64	ECC	.40185	INC	.0000
RP	220.19	LAP	-.00	LOP	49.26	VP	26.119	GAP	22.52	AZP	90.00	TAL	359.96	TAP	94.87	RCA	151.71	APO	355.56
RC	83.701	GL	-.02	GP	-5.65	ZAL	87.41	ZAP	172.12	ETS	227.49	ZAE	160.50	ETE	343.26	ZAC	77.53	ETC	282.69

V1	29.367	V2	24.964	LVI	-11.14														

PLANETOCENTRIC CONIC

C3	32.020	VHL	5.659	DLA	15.35	RAL	39.33	RAD	6647.8	VEL	12.326	PTH	7.26	VHP	7.905	DPA	10.45	RAP	43.25

ECC	1.5270																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 55 33	3558.41	-46.98	133.56	283.18	98.55	12 54 51	2558.4	-38.30	102.64
60.00	12 17 45	3499.29	-40.13	129.28	284.22	94.02	13 16 5	2499.3	-34.16	99.90
70.00	12 50 7	3404.03	-34.15	121.86	284.52	90.53	13 46 51	2404.0	-30.37	93.79
80.00	13 39 40	3248.78	-29.81	110.03	284.46	88.16	14 33 49	2248.8	-27.53	82.84
90.00	14 52 40	3013.13	-28.16	92.64	284.38	87.29	15 42 54	2013.1	-26.45	65.76
100.00	16 22 32	2723.25	-29.81	71.40	284.46	88.16	17 7 55	1723.3	-27.53	44.21
110.00	17 49 34	2450.85	-34.15	50.78	284.52	90.53	18 30 25	1450.8	-30.37	22.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3525	TRA	-.9903	TC3	.3578	BAU	.1598	SGT	1171.6	SGR	632.5	SG3	162.2	ST	23.7	SR	28.9	SS	14.3
RDE	-.5663	RRA	.2270	RC3	-.1062	FAU	.05642	RRT	-.1240	RRF	.1248	RTF	-.6799	CRT	.6654	CRS	.8165	CST	.9669
FDE	.3647	FRA	.6090	FC3	-1.5256	BSP	2507	SGB	1331.4	R23	-.0069	R13	.6811	LSA	36.9	MSA	15.4	SSA	1.4
BDE	.6671	BRA	1.0160	BC3	.3732	FSP	318	SG1	1175.2	SG2	625.7	THA	174.65	EL1	34.3	EL2	14.9	ALF	53.33

LAUNCH DATE AUG 7 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 27 1973

HELIOCENTRIC CONIC DISTANCE 306.663 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	34.896	GAL	.06	AZL	89.97	HCA	96.03	SMA	249.53	ECC	.39200	INC	.0288
RP	220.57	LAP	.03	LOP	50.38	VP	25.914	GAP	22.15	AZP	90.00	TAL	.21	TAP	96.23	RCA	151.71	APO	347.34
RC	85.536	GL	.21	GP	-5.81	ZAL	86.91	ZAP	171.44	ETS	224.34	ZAE	160.12	ETE	342.91	ZAC	77.32	ETC	282.66

V1	29.367	V2	24.923	LVI	-10.90														

PLANETOCENTRIC CONIC

C3	30.665	VHL	5.538	DLA	15.41	RAL	38.77	RAD	6647.3	VEL	12.272	PTH	7.21	VHP	7.670	DPA	10.41	RAP	43.60

ECC	1.5047																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 53 4	3548.86	-46.88	132.66	281.61	99.24	12 52 12	2548.9	-37.97	101.97
60.00	12 15 11	3489.97	-40.09	128.49	282.74	94.56	13 13 21	2490.0	-33.91	99.24
70.00	12 47 27	3395.01	-34.14	121.16	283.10	90.95	13 44 2	2395.0	-30.19	93.15
80.00	13 36 53	3240.09	-29.82	109.39	283.08	88.50	14 30 53	2240.1	-27.41	82.22
90.00	14 49 51	3004.60	-28.19	92.02	283.01	87.60	15 39 55	2004.6	-26.34	65.16
100.00	16 19 45	2714.56	-29.82	70.76	283.08	88.50	17 5 0	1714.6	-27.41	43.59
110.00	17 46 53	2441.83	-34.14	50.08	283.10	90.95	18 27 35	1441.8	-30.19	22.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3218	TRA	-.9541	TC3	.4242	BAU	.1816	SGT	1174.8	SGR	642.1	SG3	183.0	ST	22.7	SR	29.2	SS	12.5
RDE	-.5592	RRA	.2236	RC3	-.1275	FAU	.06386	RRT	-.1584	RRF	.1823	RTF	-.6788	CRT	.6450	CRS	.7806	CST	.9696
FDE	.3092	FRA	.5863	FC3	-1.8030	BSP	1729	SGB	1338.8	R23	-.0316	R13	.6823	LSA	35.7	MSA	15.5	SSA	1.5
BDE	.6451	BRA	.9799	BC3	.4429	FSP	229	SG1	1180.9	SG2	630.7	THA	173.07	EL1	33.8	EL2	15.0	ALF	55.77

LAUNCH DATE AUG 7 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 29 1973

HELIOCENTRIC CONIC DISTANCE 309.435 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	34.779	GAL	.13	AZL	89.93	HCA	97.14	SMA	245.77	ECC	.38272	INC	.0682
RP	220.95	LAP	.07	LOP	51.49	VP	25.717	GAP	21.78	AZP	90.01	TAL	.46	TAP	97.59	RCA	151.71	APO	339.83
RC	87.440	GL	.45	GP	-5.97	ZAL	86.41	ZAP	170.73	ETS	221.66	ZAE	159.81	ETE	342.50	ZAC	77.11	ETC	282.63

V1	29.367	V2	24.882	LVI	-10.65														

PLANETOCENTRIC CONIC

C3	29.416	VHL	5.424	DLA	15.48	RAL	38.20	RAD	6646.8	VEL	12.221	PTH	7.17	VHP	7.444	DPA	10.35	RAP	43.95

ECC	1.4841																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 50 30	3539.84	-46.78	131.81	280.09	99.89	12 49 30	2539.8	-37.65	101.34
60.00	12 12 32	3481.19	-40.04	127.75	281.30	95.06	13 10 34	2481.2	-33.67	98.62
70.00	12 44 42	3386.54	-34.13	120.50	281.72	91.34	13 41 8	2386.5	-30.02	92.54
80.00	13 34 2	3231.96	-29.84	108.78	281.72	88.82	14 27 54	2232.0	-27.29	81.65
90.00	14 46 56	2996.64	-28.21	91.44	281.67	87.89	15 36 53	1996.6	-26.24	64.60
100.00	16 16 53	2706.43	-29.84	70.15	281.72	88.82	17 2 0	1706.4	-27.29	43.02
110.00	17 44 8	2433.35	-34.13	49.42	281.72	91.34	18 24 42	1433.4	-30.02	21.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3289	TRA	-.9654	TC3	.4464	BAU	.1840	SGT	1214.6	SGR	646.3	SG3	194.0	ST	23.5	SR	29.1	SS	13.0
RDE	-.5473	RRA	.2242	RC3	-.1398	FAU	.06616	RRT	-.1690	RRF	.1987	RTF	-.6829	CRT	.6464	CRS	.7779	CST	.9713
FDE	.3259	FRA	.6207	FC3	-1.9471	BSP	1758	SGB	1375.8	R23	-.0407	R13	.6869	LSA	36.3	MSA	15.9	SSA	1.6
BDE	.6385	BRA	.9911	BC3	.4678	FSP	244	SG1	1221.3	SG2	633.5	THA	172.96	EL1	34.2	EL2	15.3	ALF	54.20

LAUNCH DATE AUG 7 1973 FLIGHT TIME 116.00 ARRIVAL DATE DEC 1 1973

HELIOCENTRIC CONIC DISTANCE 312.300 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	34.669	GAL	.19	AZL	89.89	HCA	98.25	SMA	242.33	ECC	.37397	INC	.1049
RP	221.33	LAP	.10	LOP	52.60	VP	25.527	GAP	21.42	AZP	90.02	TAL	.71	TAP	98.96	RCA	151.71	APO	332.96
RC	89.407	GL	.69	GP	-6.13	ZAL	85.90	ZAP	169.99	ETS	219.37	ZAE	159.55	ETE	342.05	ZAC	76.89	ETC	282.61

V1	29.367	V2	24.840	LVI	-10.41														

PLANETOCENTRIC CONIC

C3	28.263	VHL	5.316	DLA	15.55	RAL	37.62	RAD	6646.3	VEL	12.174	PTH	7.14	VHP	7.226	DPA	10.29	RAP	44.28

ECC	1.4651																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 47 54	3531.34	-46.68	131.02	278.60	100.49	12 46 45	2531.3	-37.34	100.76
60.00	12 9 50	3472.94	-39.98	127.05	279.90	95.53	13 7 43	2472.9	-33.45	98.03
70.00	12 41 53	3378.62	-34.12	119.88	280.36	91.70	13 38 11	2378.6	-29.86	91.98
80.00	13 31 6	3224.41	-29.85	108.22	280.40	89.11	14 24 50	2224.4	-27.18	81.12
90.00	14 43 57	2989.27	-28.22	90.90	280.35	88.16	15 33 46	1989.3	-26.14	64.08
100.00	16 13 57	2698.88	-29.85	69.59	280.40	89.11	16 58 56	1698.9	-27.18	42.49
110.00	17 41 19	2425.44	-34.12	48.80	280.36	91.70	18 21 45	1425.4	-29.86	20.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3334	TRA	-.9561	TC3	.4859	BAU	.1926	SGT	1241.0	SGR	649.7	SG3	206.5	ST	24.1	SR	29.1	SS	13.7
RDE	-.5352	RRA	.2235	RC3	-.1541	FAU	.06911	RRT	-.1796	RRF	.2112	RTF	-.6938	CRT	.6531	CRS	.7902	CST	.9695
FDE	.3512	FRA	.6345	FC3	-2.1170	BSP	1883	SGB	1400.7	R23	-.0429	R13	.6980	LSA	36.9	MSA	15.9	SSA	1.6
BDE	.6306	BRA	.9819	BC3	.5097	FSP	265	SG1	1248.4	SG2	635.3	THA	172.74	EL1	34.5	EL2	15.4	ALF	53.07

LAUNCH DATE AUG 7 1973 FLIGHT TIME 118.00 ARRIVAL DATE DEC 3 1973

HELIOCENTRIC CONIC DISTANCE 315.250 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	34.564	GAL	.26	AZL	89.86	HCA	99.35	SMA	239.17	ECC	.36571	INC	.1416
RP	221.71	LAP	.14	LOP	53.70	VP	25.344	GAP	21.06	AZP	90.02	TAL	.97	TAP	100.32	RCA	151.71	APO	326.64
RC	91.436	GL	.94	GP	-6.31	ZAL	85.39	ZAP	169.23	ETS	217.38	ZAE	159.35	ETE	341.53	ZAC	76.67	ETC	282.58

V1	29.367	V2	24.799	LVI	-10.16														

PLANETOCENTRIC CONIC

C3	27.199	VHL	5.215	DLA	15.63	RAL	37.03	RAD	6645.9	VEL	12.131	PTH	7.10	VHP	7.015	DPA	10.21	RAP	44.61

ECC	1.4478																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 45 14	3523.37	-46.58	130.27	277.16	101.05	12 43 58	2523.4	-37.05	100.21
60.00	12 7 5	3465.23	-39.93	126.41	278.52	95.96	13 4 50	2465.2	-33.23	97.49
70.00	12 39 0	3371.28	-34.10	119.31	279.03	92.04	13 35 11	2371.3	-29.71	91.46
80.00	13 28 5	3217.45	-29.85	107.71	279.10	89.38	14 21 42	2217.5	-27.07	80.63
90.00	14 40 52	2982.51	-28.24	90.41	279.06	88.41	15 30 35	1982.5	-26.05	63.61
100.00	16 10 57	2691.93	-29.85	69.07	279.10	89.38	16 55 49	1691.9	-27.07	42.00
110.00	17 38 26	2418.10	-34.10	48.23	279.03	92.04	18 18 44	1418.1	-29.71	20.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3357	TRA	-.9464	TC3	.5247	BAU	.2005	SGT	1265.4	SGR	653.6	SG3	219.4	ST	24.6	SR	29.0	SS	14.1
RDE	-.5241	RRA	.2224	RC3	-.1696	FAU	.07224	RRT	-.1915	RRF	.2275	RTF	-.7004	CRT	.6577	CRS	.7968	CST	.9683
FDE	.3668	FRA	.6410	FC3	-2.2995	BSP	1919	SGB	1424.2	R23	-.0486	R13	.7051	LSA	37.3	MSA	15.9	SSA	1.7
BDE	.6224	BRA	.9722	BC3	.5514	FSP	288	SG1	1273.6	SG2	637.3	THA	172.45	EL1	34.7	EL2	15.5	ALF	52.19

LAUNCH DATE AUG 7 1973 FLIGHT TIME 120.00 ARRIVAL DATE DEC 5 1973

HELIOCENTRIC CONIC DISTANCE 318.274 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	34.465	GAL	.32	AZL	89.82	HCA	100.45	SMA	236.27	ECC	.35792	INC	.1782
RP	222.09	LAP	.18	LOP	54.80	VP	25.168	GAP	20.70	AZP	90.03	TAL	1.23	TAP	101.68	RCA	151.70	APO	320.83
RC	93.523	GL	1.20	GP	-6.49	ZAL	84.87	ZAP	168.44	ETS	215.66	ZAE	159.20	ETE	340.96	ZAC	76.44	ETC	282.56

V1	29.367	V2	24.757	LVI	-9.90														

PLANETOCENTRIC CONIC

C3	26.216	VHL	5.120	DLA	15.71	RAL	36.43	RAD	6645.5	VEL	12.090	PTH	7.07	VHP	6.812	DPA	10.13	RAP	44.92

ECC	1.4315																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 42 31	3515.91	-46.48	129.58	275.75	101.58	12 41 7	2515.9	-36.78	99.71
60.00	12 4 15	3458.05	-39.88	125.80	277.18	96.37	13 1 53	2458.1	-33.03	96.99
70.00	12 36 3	3364.48	-34.08	118.78	277.74	92.36	13 32 7	2364.5	-29.57	90.99
80.00	13 25 0	3211.07	-29.86	107.23	277.82	89.63	14 18 31	2211.1	-26.97	80.18
90.00	14 37 44	2976.32	-28.25	89.95	277.79	88.63	15 27 20	1976.3	-25.97	63.18
100.00	16 7 52	2685.54	-29.86	68.60	277.82	89.63	16 52 38	1685.5	-26.97	41.55
110.00	17 35 29	2411.30	-34.08	47.69	277.74	92.36	18 15 40	1411.3	-29.57	19.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3298	TRA	-.9261	TC3	.5768	BAU	.2124	SGT	1282.2	SGR	656.6	SG3	232.8	ST	24.5	SR	28.9	SS	14.8
RDE	-.5123	RRA	.2215	RC3	-.1857	FAU	.07534	RRT	-.2114	RRF	.2403	RTF	-.7185	CRT	.6571	CRS	.8103	CST	.9636
FDE	.3960	FRA	.6502	FC3	-2.4878	BSP	1891	SGB	1440.6	R23	-.0395	R13	.7231	LSA	37.5	MSA	15.9	SSA	1.7
BDE	.6093	BRA	.9522	BC3	.6060	FSP	315	SG1	1292.2	SG2	636.9	THA	171.82	EL1	34.6	EL2	15.4	ALF	52.06

LAUNCH DATE AUG 7 1973 FLIGHT TIME 122.00 ARRIVAL DATE DEC 7 1973

HELIOCENTRIC CONIC DISTANCE 321.367 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	34.372	GAL	.39	AZL	89.78	HCA	101.55	SMA	233.59	ECC	.35058	INC	.2149
RP	222.48	LAP	.21	LOP	55.90	VP	24.998	GAP	20.35	AZP	90.04	TAL	1.49	TAP	103.04	RCA	151.70	APO	315.48
RC	95.665	GL	1.47	GP	-6.68	ZAL	84.35	ZAP	167.64	ETS	214.16	ZAE	159.11	ETE	340.33	ZAC	76.21	ETC	282.54

V1	29.367	V2	24.715	LVI	-9.65														

PLANETOCENTRIC CONIC

C3	25.309	VHL	5.031	DLA	15.80	RAL	35.83	RAD	6645.1	VEL	12.053	PTH	7.04	VHP	6.615	DPA	10.03	RAP	45.23

ECC	1.4165																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 39 47	3509.01	-46.38	128.94	274.40	102.06	12 38 16	2509.0	-36.53	99.24
60.00	12 1 24	3451.46	-39.83	125.25	275.88	96.74	12 58 55	2451.5	-32.85	96.53
70.00	12 33 3	3358.29	-34.06	118.30	276.47	92.64	13 29 1	2358.3	-29.44	90.55
80.00	13 21 51	3205.33	-29.86	106.81	276.58	89.86	14 15 17	2205.3	-26.88	79.78
90.00	14 34 31	2970.81	-28.26	89.55	276.56	88.83	15 24 2	1970.8	-25.89	62.79
100.00	16 4 43	2679.80	-29.86	68.17	276.58	89.86	16 49 23	1679.8	-26.88	41.15
110.00	17 32 29	2405.11	-34.06	47.21	276.47	92.64	18 12 34	1405.1	-29.44	19.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3333	TRA	-.9204	TC3	.6117	BAU	.2181	SGT	1307.5	SGR	661.0	SG3	247.3	ST	25.1	SR	28.8	SS	15.2
RDE	-.5018	RRA	.2209	RC3	-.2036	FAU	.07880	RRT	-.2245	RRF	.2600	RTF	-.7219	CRT	.6611	CRS	.8137	CST	.9632
FDE	.4125	FRA	.6621	FC3	-2.6955	BSP	1967	SGB	1465.1	R23	-.0483	R13	.7272	LSA	37.9	MSA	15.9	SSA	1.8
BDE	.6023	BRA	.9465	BC3	.6447	FSP	338	SG1	1318.5	SG2	638.7	THA	171.52	EL1	34.9	EL2	15.5	ALF	51.02

LAUNCH DATE AUG 7 1973 FLIGHT TIME 124.00 ARRIVAL DATE DEC 9 1973

HELIOCENTRIC CONIC DISTANCE 324.521 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	34.283	GAL	.45	AZL	89.75	HCA	102.64	SMA	231.12	ECC	.34366	INC	.2518
RP	222.86	LAP	.25	LOP	56.99	VP	24.835	GAP	20.00	AZP	90.06	TAL	1.75	TAP	104.39	RCA	151.69	APO	310.54
RC	97.860	GL	1.75	GP	-6.87	ZAL	83.84	ZAP	166.82	ETS	212.85	ZAE	159.06	ETE	339.64	ZAC	75.97	ETC	282.52

V1	29.367	V2	24.673	LVI	-9.39														

PLANETOCENTRIC CONIC

C3	24.471	VHL	4.947	DLA	15.89	RAL	35.23	RAD	6644.8	VEL	12.019	PTH	7.01	VHP	6.425	DPA	9.91	RAP	45.53

ECC	1.4027																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 36 59	3502.64	-46.29	128.35	273.09	102.51	12 35 22	2502.6	-36.29	98.82
60.00	11 58 29	3445.41	-39.78	124.74	274.62	97.08	12 55 54	2445.4	-32.67	96.11
70.00	12 29 59	3352.69	-34.05	117.86	275.25	92.90	13 25 52	2352.7	-29.32	90.16
80.00	13 18 39	3200.20	-29.86	106.42	275.38	90.06	14 11 59	2200.2	-26.80	79.42
90.00	14 31 14	2965.92	-28.26	89.19	275.36	89.01	15 20 40	1965.9	-25.82	62.45
100.00	16 1 31	2674.67	-29.86	67.79	275.38	90.06	16 46 5	1674.7	-26.80	40.79
110.00	17 29 25	2399.51	-34.05	46.78	275.25	92.90	18 9 25	1399.5	-29.32	19.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3376	TRA	-.9113	TC3	.6508	BAU	.2250	SGT	1331.1	SGR	664.8	SG3	262.7	ST	25.6	SR	28.7	SS	15.8
RDE	-.4908	RRA	.2201	RC3	-.2228	FAU	.08251	RRT	-.2379	RRF	.2778	RTF	-.7268	CRT	.6673	CRS	.8230	CST	.9613
FDE	.4382	FRA	.6690	FC3	-2.9189	BSP	2037	SGB	1487.9	R23	-.0543	R13	.7328	LSA	38.4	MSA	15.9	SSA	1.8
BDE	.5957	BRA	.9375	BC3	.6879	FSP	359	SG1	1343.3	SG2	639.9	THA	171.21	EL1	35.2	EL2	15.5	ALF	49.92

LAUNCH DATE AUG 7 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 11 1973

HELIOCENTRIC CONIC DISTANCE 327.731 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	34.200	GAL	.51	AZL	89.71	HCA	103.73	SMA	228.83	ECC	.33712	INC	.2888
RP	223.25	LAP	.28	LOP	58.08	VP	24.677	GAP	19.65	AZP	90.07	TAL	2.02	TAP	105.75	RCA	151.69	APO	305.98
RC	100.104	GL	2.03	GP	-7.08	ZAL	83.32	ZAP	165.98	ETS	211.69	ZAE	159.07	ETE	338.87	ZAC	75.73	ETC	282.50

V1	29.367																		
V2	24.631																		
LVI	-9.12																		

PLANETOCENTRIC CONIC

C3	23.696	VHL	4.868	DLA	15.99	RAL	34.62	RAD	6644.4	VEL	11.987	PTH	6.98	VHP	6.242	DPA	9.79	RAP	45.81
ECC	1.3900																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 34 10	3496.80	-46.20	127.82	271.82	102.91	12 32 27	2496.8	-36.07	98.43
60.00	11 55 32	3439.92	-39.73	124.28	273.40	97.39	12 52 52	2439.9	-32.51	95.73
70.00	12 26 52	3347.66	-34.03	117.47	274.06	93.13	13 22 40	2347.7	-29.21	89.81
80.00	13 15 22	3195.69	-29.86	106.09	274.20	90.24	14 8 38	2195.7	-26.72	79.10
90.00	14 27 52	2961.66	-28.27	88.88	274.19	89.17	15 17 14	1961.7	-25.76	62.15
100.00	15 58 14	2670.16	-29.86	67.46	274.20	90.24	16 42 44	1670.2	-26.72	40.47
110.00	17 26 19	2394.48	-34.03	46.39	274.06	93.13	18 6 13	1394.5	-29.21	18.73

DIFFERENTIAL CORRECTIONS

TDE	-.3425	TRA	-.9012	TC3	.6876	BAU	.2310
RDE	-.4799	RRA	.2191	RC3	-.2431	FAU	.08626
FDE	.4668	FRA	.6740	FC3	-3.1515	BSP	2112
BDE	.5896	BRA	.9274	BC3	.7293	FSP	387

MID-COURSE EXECUTION ACCURACY

SGT	1352.1	SGR	668.7	SG3	278.6				
RRT	-.2509	RRF	.2955	RTF	-.7308				
SGB	1508.4	R23	-.0608	R13	.7374				
SG1	1365.5	SG2	640.9	THA	170.91				

ORBIT DETERMINATION ACCURACY

ST	26.1	SR	28.5	SS	16.4
CRT	.6745	CRS	.8330	CST	.9593
LSA	38.9	MSA	15.8	SSA	1.9
EL1	35.4	EL2	15.5	ALF	48.77

LAUNCH DATE AUG 7 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 13 1973

HELIOCENTRIC CONIC DISTANCE 330.991 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	34.120	GAL	.57	AZL	89.67	HCA	104.82	SMA	226.71	ECC	.33096	INC	.3260
RP	223.64	LAP	.32	LOP	59.17	VP	24.525	GAP	19.31	AZP	90.08	TAL	2.28	TAP	107.09	RCA	151.68	APO	301.75
RC	102.397	GL	2.32	GP	-7.29	ZAL	82.81	ZAP	165.12	ETS	210.66	ZAE	159.12	ETE	338.03	ZAC	75.48	ETC	282.48

V1	29.367																		
V2	24.590																		
LVI	-8.86																		

PLANETOCENTRIC CONIC

C3	22.979	VHL	4.794	DLA	16.10	RAL	34.02	RAD	6644.1	VEL	11.957	PTH	6.96	VHP	6.065	DPA	9.65	RAP	46.08
ECC	1.3782																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 31 19	3491.48	-46.12	127.33	270.59	103.28	12 29 31	2491.5	-35.87	98.08
60.00	11 52 32	3434.98	-39.69	123.87	272.22	97.67	12 49 47	2435.0	-32.37	95.39
70.00	12 23 43	3343.23	-34.01	117.12	272.90	93.33	13 19 26	2343.2	-29.12	89.50
80.00	13 12 2	3191.81	-29.86	105.80	273.06	90.39	14 5 14	2191.8	-26.66	78.83
90.00	14 24 27	2958.05	-28.27	88.62	273.05	89.30	15 13 45	1958.1	-25.71	61.90
100.00	15 54 54	2666.28	-29.86	67.17	273.06	90.39	16 39 20	1666.3	-26.66	40.20
110.00	17 23 9	2390.05	-34.01	46.04	272.90	93.33	18 2 59	1390.0	-29.12	18.42

DIFFERENTIAL CORRECTIONS

TDE	-.3450	TRA	-.8899	TC3	.7317	BAU	.2391
RDE	-.4694	RRA	.2183	RC3	-.2654	FAU	.09045
FDE	.4937	FRA	.6793	FC3	-3.4077	BSP	2169
BDE	.5826	BRA	.9163	BC3	.7784	FSP	413

MID-COURSE EXECUTION ACCURACY

SGT	1373.9	SGR	673.3	SG3	296.0				
RRT	-.2678	RRF	.3164	RTF	-.7374				
SGB	1530.0	R23	-.0660	R13	.7447				
SG1	1389.0	SG2	641.6	THA	170.47				

ORBIT DETERMINATION ACCURACY

ST	26.5	SR	28.3	SS	17.0
CRT	.6795	CRS	.8407	CST	.9574
LSA	39.3	MSA	15.7	SSA	1.9
EL1	35.6	EL2	15.5	ALF	47.85

LAUNCH DATE AUG 7 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 15 1973

HELIOCENTRIC CONIC DISTANCE 334.297 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	34.045	GAL	.62	AZL	89.64	HCA	105.90	SMA	224.75	ECC	.32514	INC	.3636
RP	224.03	LAP	.35	LOP	60.25	VP	24.379	GAP	18.97	AZP	90.10	TAL	2.54	TAP	108.44	RCA	151.67	APO	297.82
RC	104.735	GL	2.62	GP	-7.52	ZAL	82.30	ZAP	164.24	ETS	209.74	ZAE	159.21	ETE	337.11	ZAC	75.22	ETC	282.47

V1	29.367								
V2	24.548								
LVI	-8.58								

PLANETOCENTRIC CONIC

C3	22.316	VHL	4.724	DLA	16.21	RAL	33.41	RAD	6643.9	VEL	11.929	PTH	6.93	VHP	5.894	DPA	9.50	RAP	46.34
ECC	1.3673																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 28 26	3486.70	-46.04	126.89	269.42	103.61	12 26 33	2486.7	-35.69	97.77
60.00	11 49 31	3430.59	-39.65	123.50	271.07	97.91	12 46 42	2430.6	-32.24	95.09
70.00	12 20 30	3339.38	-33.99	116.82	271.78	93.51	13 16 10	2339.4	-29.03	89.23
80.00	13 8 38	3188.55	-29.85	105.56	271.95	90.51	14 1 47	2188.6	-26.61	78.61
90.00	14 20 58	2955.09	-28.27	88.40	271.95	89.41	15 10 13	1955.1	-25.67	61.69
100.00	15 51 30	2663.02	-29.85	66.93	271.95	90.51	16 35 53	1663.0	-26.61	39.97
110.00	17 19 57	2386.20	-33.99	45.74	271.78	93.51	17 59 43	1386.2	-29.03	18.15

DIFFERENTIAL CORRECTIONS

TDE	-.3482	TRA	-.8796	TC3	.7719	BAU	.2459
RDE	-.4589	RRA	.2176	RC3	-.2890	FAU	.09474
FDE	.5244	FRA	.6870	FC3	-3.6755	BSP	2218
BDE	.5760	BRA	.9061	BC3	.8242	FSP	442

MID-COURSE EXECUTION ACCURACY

SGT	1394.5	SGR	678.1	SG3	314.1				
RRT	-.2850	RRF	.3378	RTF	-.7427				
SGB	1550.6	R23	-.0719	R13	.7508				
SG1	1411.4	SG2	642.2	THA	170.02				

ORBIT DETERMINATION ACCURACY

ST	26.9	SR	28.1	SS	17.7
CRT	.6844	CRS	.8480	CST	.9556
LSA	39.8	MSA	15.6	SSA	2.0
EL1	35.7	EL2	15.4	ALF	46.84

LAUNCH DATE AUG 7 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 17 1973

HELIOCENTRIC CONIC DISTANCE 337.645 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.974	GAL	.68	AZL	89.60	HCA	106.97	SMA	222.92	ECC	.31964	INC	.4014
RP	224.42	LAP	.38	LOP	61.33	VP	24.237	GAP	18.64	AZP	90.12	TAL	2.80	TAP	109.77	RCA	151.67	APO	294.18
RC	107.119	GL	2.93	GP	-7.75	ZAL	81.79	ZAP	163.35	ETS	208.92	ZAE	159.35	ETE	336.10	ZAC	74.96	ETC	282.46

V1	29.367								
V2	24.506								
LVI	-8.31								

PLANETOCENTRIC CONIC

C3	21.702	VHL	4.659	DLA	16.33	RAL	32.81	RAD	6643.6	VEL	11.904	PTH	6.91	VHP	5.729	DPA	9.34	RAP	46.59
ECC	1.3572																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 25 33	3482.44	-45.98	126.51	268.28	103.90	12 23 35	2482.4	-35.53	97.49
60.00	11 46 27	3426.76	-39.61	123.19	269.97	98.13	12 43 34	2426.8	-32.13	94.83
70.00	12 17 15	3336.12	-33.98	116.57	270.70	93.66	13 12 51	2336.1	-28.96	89.00
80.00	13 5 10	3185.93	-29.85	105.36	270.88	90.62	13 58 16	2185.9	-26.56	78.42
90.00	14 17 24	2952.79	-28.28	88.23	270.88	89.49	15 6 37	1952.8	-25.63	61.53
100.00	15 48 2	2660.40	-29.85	66.73	270.88	90.62	16 32 23	1660.4	-26.56	39.79
110.00	17 16 41	2382.94	-33.98	45.49	270.70	93.66	17 56 24	1382.9	-28.96	17.92

DIFFERENTIAL CORRECTIONS

TDE	-.3508	TRA	-.8690	TC3	.8132	BAU	.2529
RDE	-.4484	RRA	.2170	RC3	-.3141	FAU	.09926
FDE	.5569	FRA	.6932	FC3	-3.9598	BSP	2275
BDE	.5693	BRA	.8957	BC3	.8718	FSP	476

MID-COURSE EXECUTION ACCURACY

SGT	1414.4	SGR	683.4	SG3	333.2				
RRT	-.3036	RRF	.3601	RTF	-.7481				
SGB	1570.9	R23	-.0773	R13	.7571				
SG1	1433.5	SG2	642.5	THA	169.53				

ORBIT DETERMINATION ACCURACY

ST	27.3	SR	27.9	SS	18.4
CRT	.6888	CRS	.8551	CST	.9535
LSA	40.2	MSA	15.5	SSA	2.1
EL1	35.9	EL2	15.4	ALF	45.88

LAUNCH DATE AUG 7 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 19 1973

HELIOCENTRIC CONIC DISTANCE 341.031 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.907	GAL	.73	AZL	89.56	HCA	108.05	SMA	221.22	ECC	.31446	INC	.4394
RP	224.81	LAP	.42	LOP	62.40	VP	24.100	GAP	18.31	AZP	90.14	TAL	3.06	TAP	111.11	RCA	151.66	APO	290.79
RC	109.544	GL	3.24	GP	-7.99	ZAL	81.30	ZAP	162.43	ETS	208.18	ZAE	159.52	ETE	334.99	ZAC	74.70	ETC	282.45

V1	29.367																		
V2	24.464																		
LVI	-8.03																		

PLANETOCENTRIC CONIC

C3	21.135	VHL	4.597	DLA	16.46	RAL	32.21	RAD	6643.3	VEL	11.880	PTH	6.89	VHP	5.569	DPA	9.16	RAP	46.82

ECC	1.3478																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 22 37	3478.70	-45.91	126.17	267.20	104.16	12 20 36	2478.7	-35.39	97.23
60.00	11 43 22	3423.47	-39.58	122.91	268.91	98.31	12 40 25	2423.5	-32.03	94.61
70.00	12 13 57	3333.45	-33.97	118.36	269.65	93.78	13 9 30	2333.5	-28.90	88.82
80.00	13 1 39	3183.94	-29.85	105.22	269.84	90.69	13 54 43	2183.9	-26.53	78.28
90.00	14 13 47	2951.14	-28.28	88.11	269.84	89.55	15 2 58	1951.1	-25.61	61.42
100.00	15 44 31	2658.41	-29.85	66.58	269.84	90.69	16 28 50	1658.4	-26.53	39.65
110.00	17 13 23	2380.27	-33.97	45.28	269.65	93.78	17 53 3	1380.3	-28.90	17.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3537	TRA	-.8568	TC3	.8549	BAU	.2601	SGT	1432.5	SGR	689.1	SG3	353.4	ST	27.7	SR	27.6	SS	19.2
RDE	-.4378	RRA	.2160	RC3	-.3411	FAU	.10408	RRT	-.3227	RRF	.3830	RTF	-.7532	CRT	.6941	CRS	.8632	CST	.9511
FDE	.5932	FRA	.6950	FC3	-4.2633	BSP	2309	SGB	1589.6	R23	-.0829	R13	.7631	LSA	40.7	MSA	15.4	SSA	2.1
BDE	.5629	BRA	.8636	BC3	.9205	FSP	505	SG1	1453.9	SG2	642.7	THA	169.00	EL1	36.0	EL2	15.3	ALF	44.90

LAUNCH DATE AUG 7 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 21 1973

HELIOCENTRIC CONIC DISTANCE 344.451 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.843	GAL	.78	AZL	89.52	HCA	109.12	SMA	219.64	ECC	.30956	INC	.4777
RP	225.20	LAP	.45	LOP	63.47	VP	23.967	GAP	17.98	AZP	90.16	TAL	3.31	TAP	112.43	RCA	151.65	APO	287.64
RC	112.011	GL	3.56	GP	-8.24	ZAL	80.81	ZAP	161.50	ETS	207.51	ZAE	159.73	ETE	333.77	ZAC	74.42	ETC	282.45

V1	29.367																		
V2	24.422																		
LVI	-7.74																		

PLANETOCENTRIC CONIC

C3	20.610	VHL	4.540	DLA	16.59	RAL	31.61	RAD	6643.1	VEL	11.858	PTH	6.87	VHP	5.415	DPA	8.96	RAP	47.04

ECC	1.3392																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 19 41	3475.48	-45.86	125.88	266.16	104.37	12 17 37	2475.5	-35.26	97.04
60.00	11 40 15	3420.74	-39.55	122.68	267.89	98.46	12 37 16	2420.7	-31.95	94.42
70.00	12 10 36	3331.38	-33.96	116.20	268.64	93.87	13 6 8	2331.4	-28.85	88.68
80.00	12 58 5	3182.60	-29.85	105.12	268.84	90.75	13 51 7	2182.6	-26.51	78.19
90.00	14 10 5	2950.17	-28.28	88.04	268.84	89.59	14 59 16	1950.2	-25.60	61.35
100.00	15 40 57	2657.07	-29.85	66.48	268.84	90.75	16 25 14	1657.1	-26.51	39.56
110.00	17 10 3	2378.20	-33.96	45.12	268.64	93.87	17 49 41	1378.2	-28.85	17.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3562	TRA	-.8458	TC3	.8929	BAU	.2663	SGT	1449.1	SGR	695.8	SG3	374.4	ST	28.0	SR	27.3	SS	19.9
RDE	-.4275	RRA	.2153	RC3	-.3696	FAU	.10903	RRT	-.3425	RRF	.4074	RTF	-.7572	CRT	.6983	CRS	.8693	CST	.9492
FDE	.6291	FRA	.6996	FC3	-4.5801	BSP	2358	SGB	1607.5	R23	-.0896	R13	.7683	LSA	41.1	MSA	15.3	SSA	2.2
BDE	.5564	BRA	.8727	BC3	.9663	FSP	543	SG1	1473.3	SG2	643.0	THA	168.43	EL1	36.1	EL2	15.2	ALF	43.94

LAUNCH DATE AUG 7 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 23 1973

HELIOCENTRIC CONIC DISTANCE 347.903 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.783	GAL	.83	AZL	89.48	HCA	110.19	SMA	218.17	ECC	.30494	INC	.5163
RP	225.59	LAP	.48	LOP	64.54	VP	23.839	GAP	17.65	AZP	90.18	TAL	3.56	TAP	113.75	RCA	151.64	APO	284.70
RC	114.516	GL	3.89	GP	-8.50	ZAL	80.33	ZAP	160.55	ETS	206.91	ZAE	159.97	ETE	332.44	ZAC	74.14	ETC	282.44

V1	29.367																		
V2	24.380																		
LVI	-7.46																		

PLANETOCENTRIC CONIC

C3	20.123	VHL	4.486	DLA	16.74	RAL	31.02	RAD	6642.9	VEL	11.838	PTH	6.86	VHP	5.266	DPA	8.76	RAP	47.24

ECC	1.3312																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 16 44	3472.77	-45.81	125.63	265.16	104.56	12 14 37	2472.8	-35.16	96.86
60.00	11 37 6	3418.55	-39.53	122.50	266.91	98.58	12 34 5	2418.6	-31.88	94.27
70.00	12 7 13	3329.90	-33.95	116.09	267.67	93.94	13 2 43	2329.9	-28.82	88.57
80.00	12 54 27	3181.91	-29.85	105.06	267.87	90.77	13 47 29	2181.9	-26.50	78.14
90.00	14 6 20	2949.87	-28.28	88.02	267.88	89.60	14 55 30	1949.9	-25.59	61.33
100.00	15 37 19	2656.38	-29.85	66.43	267.87	90.77	16 21 35	1656.4	-26.50	39.51
110.00	17 6 40	2376.72	-33.95	45.00	267.67	93.94	17 46 16	1376.7	-28.82	17.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3588	TRA	-.8340	TC3	.9301	BAU	.2723	SGT	1464.1	SGR	703.0	SG3	396.3	ST	28.4	SR	27.0	SS	20.6
RDE	-.4171	RRA	.2145	RC3	-.3997	FAU	.11420	RRT	-.3626	RRF	.4324	RTF	-.7611	CRT	.7028	CRS	.8754	CST	.9473
FDE	.6677	FRA	.7022	FC3	-4.9130	BSP	2395	SGB	1624.1	R23	-.0966	R13	.7734	LSA	41.5	MSA	15.1	SSA	2.2
BDE	.5502	BRA	.8611	BC3	1.0123	FSP	577	SG1	1491.3	SG2	643.2	THA	167.82	EL1	36.1	EL2	15.1	ALF	42.96

LAUNCH DATE AUG 7 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 25 1973

HELIOCENTRIC CONIC DISTANCE 351.385 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.726	GAL	.88	AZL	89.44	HCA	111.25	SMA	216.80	ECC	.30058	INC	.5555
RP	225.98	LAP	.52	LOP	65.60	VP	23.716	GAP	17.33	AZP	90.20	TAL	3.81	TAP	115.06	RCA	151.63	APO	281.96
RC	117.057	GL	4.23	GP	-8.77	ZAL	79.86	ZAP	159.58	ETS	206.36	ZAE	160.24	ETE	330.97	ZAC	73.85	ETC	282.45

V1	29.367																		
V2	24.336																		
LVI	-7.16																		

PLANETOCENTRIC CONIC

C3	19.674	VHL	4.435	DLA	16.89	RAL	30.44	RAD	6642.7	VEL	11.819	PTH	6.84	VHP	5.122	DPA	8.53	RAP	47.43

ECC	1.3238																		
INJ 2 LONG																			

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 13 47	3470.58	-45.78	125.43	264.21	104.71	12 11 37	2470.6	-35.07	96.72
60.00	11 33 56	3416.91	-39.51	122.37	265.97	98.68	12 30 53	2416.9	-31.83	94.16
70.00	12 3 48	3329.02	-33.95	116.02	266.74	93.98	12 59 17	2329.0	-28.80	88.51
80.00	12 50 45	3181.86	-29.85	105.06	266.94	90.78	13 43 47	2181.9	-26.49	78.14
90.00	14 2 30	2950.25	-28.28	88.05	266.95	89.59	14 51 40	1950.3	-25.60	61.36
100.00	15 33 37	2656.33	-29.85	66.43	266.94	90.78	16 17 53	1656.3	-26.49	39.51
110.00	17 3 14	2375.83	-33.95	44.93	266.74	93.98	17 42 50	1375.8	-28.80	17.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3617	TRA	-.8226	TC3	.9681	BAU	.2789	SGT	1479.6	SGR	711.2	SG3	419.7	ST	28.7	SR	26.6	SS	21.5
RDE	-.4065	RRA	.2137	RC3	-.4321	FAU	.11974	RRT	-.3842	RRF	.4583	RTF	-.7654	CRT	.7071	CRS	.8815	CST	.9453
FDE	.7123	FRA	.7051	FC3	-5.2693	BSP	2442	SGB	1641.6	R23	-.1032	R13	.7790	LSA	42.1	MSA	15.0	SSA	2.3
BDE	.5441	BRA	.8499	BC3	1.0602	FSP	619	SG1	1510.4	SG2	643.3	THA	167.17	EL1	36.2	EL2	14.9	ALF	41.92

LAUNCH DATE AUG 7 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 27 1973

HELIOCENTRIC CONIC DISTANCE 354.893 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.38	VL	33.672	GAL	.93	AZL	89.40	HCA	112.31	SMA	215.52	ECC	.29646	INC	.5951	V1	29.367
RP	226.37	LAP	.55	LOP	66.66	VP	23.596	GAP	17.01	AZP	90.23	TAL	4.08	TAP	116.35	RCA	151.62	APO	279.41	V2	24.297
RC	119.633	GL	4.57	GP	-9.06	ZAL	79.41	ZAP	158.59	ETS	205.86	ZAE	160.54	ETE	329.36	ZAC	73.56	ETC	282.45	LVI	-6.87

PLANETOCENTRIC CONIC

C3	19.257	VHL	4.388	DLA	17.06	RAL	29.87	RAD	6642.5	VEL	11.801	PTH	6.82	VHP	4.984	DPA	8.29	RAP	47.60	ECC	1.3169

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 10 48	3468.89	-45.75	125.28	263.31	104.82	12 8 37	2468.9	-35.01	96.61
60.00	11 30 45	3415.81	-39.50	122.27	265.08	98.74	12 27 40	2415.8	-31.80	94.09
70.00	12 0 20	3328.73	-33.95	115.99	265.85	94.00	12 55 48	2328.7	-28.80	88.49
80.00	12 47 0	3182.48	-29.85	105.11	266.05	90.75	13 40 2	2182.5	-26.51	78.18
90.00	13 58 36	2951.32	-28.28	88.13	266.05	89.55	14 47 48	1951.3	-25.61	61.43
100.00	15 29 51	2656.95	-29.85	66.48	266.05	90.75	16 14 8	1656.9	-26.51	39.55
110.00	16 59 46	2375.54	-33.95	44.91	265.85	94.00	17 39 21	1375.5	-28.80	17.41

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3641	TRA	-.8098	TC3	1.0044	BAU	.2851	SGT	1492.1	SGR	720.6	SG3	444.3			ST	29.0	SR	26.2	SS	22.4
RDE	-.3959	RRA	.2125	RC3	-.4667	FAU	.12558	RRT	-.4058	RRF	.4850	RTF	-.7887			CRT	.7115	CRS	.8875	CST	.9431
FDE	.7565	FRA	.7021	FC3	-5.6455	BSP	2472	SGB	1657.0	R23	-.1107	R13	.7838			LSA	42.5	MSA	14.8	SSA	2.4
BDE	.5379	BRA	.8373	BC3	1.1075	FSP	659	SG1	1526.9	SG2	643.6	THA	166.46			EL1	36.2	EL2	14.8	ALF	40.94

LAUNCH DATE AUG 7 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 29 1973

HELIOCENTRIC CONIC DISTANCE 358.425 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.621	GAL	.97	AZL	89.36	HCA	113.36	SMA	214.32	ECC	.29258	INC	.6351	V1	29.367
RP	226.76	LAP	.58	LOP	67.72	VP	23.480	GAP	16.69	AZP	90.25	TAL	4.28	TAP	117.65	RCA	151.62	APO	277.03	V2	24.255
RC	122.241	GL	4.92	GP	-9.35	ZAL	78.97	ZAP	157.59	ETS	205.40	ZAE	160.85	ETE	327.60	ZAC	73.26	ETC	282.46	LVI	-6.56

PLANETOCENTRIC CONIC

C3	18.872	VHL	4.344	DLA	17.23	RAL	29.30	RAD	6642.3	VEL	11.785	PTH	6.81	VHP	4.849	DPA	8.03	RAP	47.76	ECC	1.3106

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 7 50	3467.70	-45.73	125.17	262.45	104.90	12 5 37	2467.7	-34.96	96.54
60.00	11 27 32	3415.26	-39.50	122.23	264.22	98.77	12 24 27	2415.3	-31.78	94.05
70.00	11 56 49	3329.03	-33.95	116.02	264.99	93.98	12 52 18	2329.0	-28.80	88.51
80.00	12 43 10	3183.75	-29.85	105.20	265.19	90.70	13 36 14	2183.7	-26.53	78.27
90.00	13 54 38	2953.09	-28.28	88.26	265.19	89.48	14 43 51	1953.1	-25.64	61.56
100.00	15 26 2	2658.22	-29.85	66.57	265.19	90.70	16 10 20	1658.2	-26.53	39.64
110.00	16 56 15	2375.85	-33.95	44.94	264.99	93.98	17 35 51	1375.8	-28.80	17.43

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3677	TRA	-.7983	TC3	1.0357	BAU	.2905	SGT	1503.4	SGR	730.9	SG3	469.8			ST	29.4	SR	25.8	SS	23.4
RDE	-.3850	RRA	.2117	RC3	-.5028	FAU	.13154	RRT	-.4269	RRF	.5117	RTF	-.7713			CRT	.7161	CRS	.8927	CST	.9416
FDE	.8075	FRA	.7031	FC3	-6.0341	BSP	2509	SGB	1671.6	R23	-.1191	R13	.7883			LSA	43.1	MSA	14.6	SSA	2.4
BDE	.5324	BRA	.8259	BC3	1.1513	FSP	703	SG1	1542.5	SG2	644.1	THA	165.74			EL1	36.3	EL2	14.6	ALF	39.81

LAUNCH DATE AUG 7 1973 FLIGHT TIME 146.00 ARRIVAL DATE DEC 31 1973

HELIOCENTRIC CONIC DISTANCE 361.980 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.572	GAL	1.01	AZL	89.32	HCA	114.42	SMA	213.20	ECC	.28891	INC	.6755	V1	29.367
RP	227.15	LAP	.62	LOP	68.77	VP	23.368	GAP	16.38	AZP	90.28	TAL	4.51	TAP	118.93	RCA	151.61	APO	274.80	V2	24.214
RC	124.878	GL	5.28	GP	-9.66	ZAL	78.54	ZAP	156.56	ETS	204.98	ZAE	161.18	ETE	325.67	ZAC	72.94	ETC	282.47	LVI	-6.26

PLANETOCENTRIC CONIC

C3	18.516	VHL	4.303	DLA	17.41	RAL	28.74	RAD	6642.2	VEL	11.770	PTH	6.80	VHP	4.720	DPA	7.75	RAP	47.90	ECC	1.3047

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 4 50	3467.02	-45.71	125.11	261.64	104.95	12 2 38	2467.0	-34.94	96.49
60.00	11 24 17	3415.24	-39.50	122.23	263.41	98.77	12 21 13	2415.2	-31.78	94.05
70.00	11 53 16	3329.93	-33.95	116.09	264.18	93.94	12 48 46	2329.9	-28.82	88.58
80.00	12 39 17	3185.69	-29.85	105.35	264.37	90.63	13 32 23	2185.7	-26.56	78.41
90.00	13 50 35	2955.56	-28.27	88.44	264.37	89.39	14 39 51	1955.6	-25.67	61.73
100.00	15 22 9	2660.16	-29.85	66.71	264.37	90.63	16 6 29	1660.2	-26.56	39.77
110.00	16 52 42	2376.75	-33.95	45.01	264.18	93.94	17 32 19	1376.8	-28.82	17.49

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3691	TRA	-.7868	TC3	1.0680	BAU	.2964	SGT	1513.9	SGR	743.0	SG3	496.9			ST	29.6	SR	25.3	SS	24.3
RDE	-.3743	RRA	.2106	RC3	-.5417	FAU	.13795	RRT	-.4500	RRF	.5397	RTF	-.8138			CRT	.7187	CRS	.8972	CST	.9393
FDE	.8573	FRA	.7006	FC3	-6.4501	BSP	2544	SGB	1686.4	R23	-.1273	R13	.7928			LSA	43.5	MSA	14.4	SSA	2.5
BDE	.5257	BRA	.8145	BC3	1.1975	FSP	748	SG1	1558.3	SG2	644.6	THA	164.90			EL1	36.2	EL2	14.4	ALF	38.82

LAUNCH DATE AUG 7 1973 FLIGHT TIME 148.00 ARRIVAL DATE JAN 2 1974

HELIOCENTRIC CONIC DISTANCE 365.555 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.526	GAL	1.05	AZL	89.28	HCA	115.46	SMA	212.16	ECC	.28545	INC	.7166	V1	29.367
RP	227.54	LAP	.65	LOP	69.82	VP	23.259	GAP	16.07	AZP	90.31	TAL	4.73	TAP	120.20	RCA	151.60	APO	272.72	V2	24.172
RC	127.544	GL	5.64	GP	-9.98	ZAL	78.12	ZAP	155.51	ETS	204.59	ZAE	161.52	ETE	323.55	ZAC	72.63	ETC	282.49	LVI	-5.94

PLANETOCENTRIC CONIC

C3	18.186	VHL	4.265	DLA	17.60	RAL	28.19	RAD	6642.0	VEL	11.756	PTH	6.78	VHP	4.595	DPA	7.45	RAP	48.03	ECC	1.2993

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 1 51	3466.83	-45.71	125.09	260.87	104.96	11 59 38	2466.8	-34.93	96.48
60.00	11 21 2	3415.76	-39.50	122.27	262.64	98.74	12 17 57	2415.8	-31.80	94.09
70.00	11 49 40	3331.44	-33.96	116.21	263.40	93.87	12 45 12	2331.4	-28.86	88.68
80.00	12 35 20	3188.31	-29.85	105.54	263.59	90.52	13 28 29	2188.3	-26.60	78.59
90.00	13 46 27	2958.75	-28.27	88.67	263.58	89.27	14 35 46	1958.8	-25.72	61.95
100.00	15 18 12	2662.78	-29.85	66.91	263.59	90.52	16 2 35	1662.8	-26.60	39.96
110.00	16 49 7	2378.26	-33.96	45.12	263.40	93.87	17 28 45	1378.3	-28.86	17.60

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3724	TRA	-.7740	TC3	1.0961	BAU	.3018	SGT	1521.3	SGR	756.3	SG3	525.3			ST	29.9	SR	24.8	SS	25.3
RDE	-.3630	RRA	.2094	RC3	-.5828	FAU	.14463	RRT	-.4716	RRF	.5673	RTF	-.7758			CRT	.7231	CRS	.9021	CST	.9377
FDE	.9155	FRA	.6958	FC3	-6.8850	BSP	2563	SGB	1699.0	R23	-.1364	R13	.7971			LSA	44.1	MSA	14.2	SSA	2.6
BDE	.5200	BRA	.8018	BC3	1.2414	FSP	794	SG1	1571.5	SG2	645.6	THA	164.04			EL1	36.2	EL2	14.2	ALF	37.67

LAUNCH DATE AUG 7 1973 FLIGHT TIME 150.00 ARRIVAL DATE JAN 4 1974

HELIOCENTRIC CONIC DISTANCE 369.150 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.483 GAL 1.09 AZL 89.24 HCA 116.51 SMA 211.10 ECC .28218 INC .7582 V1 29.367
RP 227.93 LAP .68 LOP 70.86 VP 23.153 GAP 15.76 AZP 90.34 TAL 4.95 TAP 121.46 RCA 151.59 APO 270.77 V2 24.131
RC 130.237 GL 6.01 GP -10.31 ZAL 77.72 ZAP 154.43 ETS 204.23 ZAE 161.86 ETE 321.22 ZAC 72.30 ETC 282.51 LVI -5.63

PLANETOCENTRIC CONIC

C3 17.881 VHL 4.229 DLA 17.81 RAL 27.85 RAD 6641.9 VEL 11.743 PTH 6.77 VHP 4.474 DPA 7.14 RAP 48.14 ECC 1.2943

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 58 50	3467.10	-45.72	125.12	260.14	104.94	11 56 37	2467.1	-34.94	96.50
60.00	11 17 44	3416.79	-39.51	122.35	261.90	98.68	12 14 41	2416.8	-31.83	94.15
70.00	11 46 1	3333.50	-33.97	116.37	262.65	93.78	12 41 35	2333.5	-28.90	88.82
80.00	12 31 19	3191.56	-29.86	105.78	262.83	90.40	13 24 30	2191.6	-26.66	78.82
90.00	13 42 14	2962.62	-28.27	88.95	262.82	89.13	14 31 37	1962.6	-25.78	62.22
100.00	15 14 11	2666.03	-29.86	67.15	262.83	90.40	15 58 37	1666.0	-26.66	40.18
110.00	16 45 28	2380.32	-33.97	45.28	262.65	93.78	17 25 8	1380.3	-28.90	17.74

DIFFERENTIAL CORRECTIONS

TDE -.3618 TRA -.7493 TC3 1.1483 BAU .3127
RDE -.3519 RRA .2078 RC3 -.6265 FAU .15165
FDE .9713 FRA .6860 FC3-7.3420 BSP 2450
BDE .5047 BRA .7776 BC3 1.3081 FSP 844

MID-COURSE EXECUTION ACCURACY

SGT 1523.3 SGR 771.7 SG3 554.9
RRT -.5071 RRF .5955 RTF -.7888
SGB 1707.6 R23 -.1264 R13 .0110
SG1 1583.2 SG2 640.0 THA 162.67

ORBIT DETERMINATION ACCURACY

ST 29.3 SR 24.3 SS 26.3
CRT .7204 CRS .9063 CST .9330
LSA 44.0 MSA 14.0 SSA 2.6
EL1 35.4 EL2 13.9 ALF 37.62

LAUNCH DATE AUG 7 1973 FLIGHT TIME 152.00 ARRIVAL DATE JAN 6 1974

HELIOCENTRIC CONIC DISTANCE 372.761 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.442 GAL 1.12 AZL 89.20 HCA 117.55 SMA 210.26 ECC .27910 INC .8005 V1 29.367
RP 228.32 LAP .71 LOP 71.90 VP 23.051 GAP 15.46 AZP 90.37 TAL 5.16 TAP 122.71 RCA 151.58 APO 268.95 V2 24.090
RC 132.954 GL 6.39 GP -10.66 ZAL 77.34 ZAP 153.34 ETS 203.89 ZAE 162.20 ETE 318.68 ZAC 71.96 ETC 282.53 LVI -5.30

PLANETOCENTRIC CONIC

C3 17.600 VHL 4.195 DLA 18.02 RAL 27.13 RAD 6641.7 VEL 11.732 PTH 6.76 VHP 4.358 DPA 6.80 RAP 48.23 ECC 1.2897

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 55 50	3467.90	-45.73	125.19	259.46	104.89	11 53 38	2467.9	-34.97	96.55
60.00	11 14 26	3418.39	-39.53	122.49	261.21	98.59	12 11 24	2418.4	-31.88	94.26
70.00	11 42 20	3336.23	-33.98	116.58	261.95	93.65	12 37 56	2336.2	-28.96	89.01
80.00	12 27 13	3195.57	-29.86	106.08	262.12	90.24	13 20 28	2195.6	-26.72	79.09
90.00	13 37 56	2967.29	-28.26	89.29	262.11	88.96	14 27 23	1967.3	-25.84	62.54
100.00	15 10 5	2670.04	-29.86	67.45	262.12	90.24	15 54 35	1670.0	-26.72	40.46
110.00	16 41 46	2383.05	-33.98	45.50	261.95	93.65	17 21 30	1383.1	-28.96	17.93

DIFFERENTIAL CORRECTIONS

TDE -.3689 TRA -.7424 TC3 1.1591 BAU .3153
RDE -.3431 RRA .2064 RC3 -.6722 FAU .15881
FDE 1.0362 FRA .6795 FC3-7.8119 BSP 2540
BDE .5018 BRA .7706 BC3 1.3399 FSP 897

MID-COURSE EXECUTION ACCURACY

SGT 1528.6 SGR 788.5 SG3 585.5
RRT -.5232 RRF .6230 RTF -.7847
SGB 1720.0 R23 -.1440 R13 .8107
SG1 1594.9 SG2 644.1 THA 161.83

ORBIT DETERMINATION ACCURACY

ST 29.9 SR 23.7 SS 27.5
CRT .7253 CRS .9099 CST .9322
LSA 44.8 MSA 13.8 SSA 2.7
EL1 35.6 EL2 13.7 ALF 36.02

LAUNCH DATE AUG 7 1973 FLIGHT TIME 154.00 ARRIVAL DATE JAN 8 1974

HELIOCENTRIC CONIC DISTANCE 376.389 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.404 GAL 1.16 AZL 89.16 HCA 118.59 SMA 209.41 ECC .27620 INC .8433 V1 29.367
RP 228.70 LAP .74 LOP 72.94 VP 22.952 GAP 15.16 AZP 90.40 TAL 5.36 TAP 123.95 RCA 151.57 APO 267.24 V2 24.049
RC 135.694 GL 6.78 GP -11.02 ZAL 76.97 ZAP 152.22 ETS 203.57 ZAE 162.52 ETE 315.92 ZAC 71.61 ETC 282.56 LVI -4.97

PLANETOCENTRIC CONIC

C3 17.341 VHL 4.164 DLA 18.25 RAL 26.61 RAD 6641.6 VEL 11.721 PTH 6.75 VHP 4.247 DPA 6.45 RAP 48.30 ECC 1.2854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 52 49	3469.19	-45.75	125.31	258.83	104.80	11 50 38	2469.2	-35.02	96.63
60.00	11 11 6	3420.53	-39.55	122.67	260.56	98.47	12 8 6	2420.5	-31.94	94.41
70.00	11 38 36	3339.56	-34.00	116.84	261.29	93.50	12 34 15	2339.6	-29.04	89.24
80.00	12 23 2	3200.27	-29.86	106.43	261.44	90.06	13 16 22	2200.3	-26.80	79.42
90.00	13 33 32	2972.71	-28.26	89.69	261.42	88.76	14 23 5	1972.7	-25.92	62.92
100.00	15 5 54	2674.75	-29.86	67.80	261.44	90.06	15 50 29	1674.7	-26.80	40.79
110.00	16 38 2	2386.38	-34.00	45.75	261.29	93.50	17 17 49	1386.4	-29.04	18.16

DIFFERENTIAL CORRECTIONS

TDE -.3754 TRA -.7339 TC3 1.1705 BAU .3187
RDE -.3278 RRA .2051 RC3 -.7207 FAU .16636
FDE 1.1083 FRA .6729 FC3-8.3058 BSP 2600
BDE .4984 BRA .7620 BC3 1.3746 FSP 953

MID-COURSE EXECUTION ACCURACY

SGT 1532.3 SGR 807.5 SG3 617.8
RRT -.5400 RRF .6502 RTF -.8020
SGB 1732.0 R23 -.1598 R13 .8120
SG1 1606.1 SG2 648.4 THA 160.88

ORBIT DETERMINATION ACCURACY

ST 30.4 SR 23.0 SS 28.7
CRT .7296 CRS .9129 CST .9317
LSA 45.7 MSA 13.6 SSA 2.8
EL1 35.7 EL2 13.4 ALF 34.43

LAUNCH DATE AUG 7 1973 FLIGHT TIME 156.00 ARRIVAL DATE JAN 10 1974

HELIOCENTRIC CONIC DISTANCE 380.031 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.367 GAL 1.19 AZL 89.11 HCA 119.62 SMA 208.80 ECC .27346 INC .8869 V1 29.367
RP 229.09 LAP .77 LOP 73.98 VP 22.856 GAP 14.86 AZP 90.44 TAL 5.55 TAP 125.17 RCA 151.56 APO 265.65 V2 24.008
RC 138.457 GL 7.17 GP -11.39 ZAL 78.62 ZAP 151.09 ETS 203.28 ZAE 162.83 ETE 312.91 ZAC 71.26 ETC 282.60 LVI -4.63

PLANETOCENTRIC CONIC

C3 17.101 VHL 4.135 DLA 18.49 RAL 26.11 RAD 6641.5 VEL 11.710 PTH 6.74 VHP 4.139 DPA 6.07 RAP 48.38 ECC 1.2814

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 49 48	3470.96	-45.78	125.47	258.24	104.68	11 47 39	2471.0	-35.09	96.75
60.00	11 7 44	3423.21	-39.58	122.89	259.95	98.33	12 4 47	2423.2	-32.02	94.59
70.00	11 34 48	3343.51	-34.01	117.14	260.66	93.32	12 30 32	2343.5	-29.12	89.52
80.00	12 18 46	3205.69	-29.86	106.83	260.80	89.84	13 12 12	2205.7	-26.88	79.80
90.00	13 29 2	2978.90	-28.25	90.14	260.77	88.54	14 18 41	1978.9	-26.00	63.36
100.00	15 1 38	2680.16	-29.86	68.20	260.80	89.84	15 46 18	1680.2	-26.88	41.17
110.00	16 34 14	2390.33	-34.01	46.06	260.66	93.32	17 14 5	1390.3	-29.12	18.44

DIFFERENTIAL CORRECTIONS

TDE -.3792 TRA -.7246 TC3 1.1781 BAU .3219
RDE -.3153 RRA .2037 RC3 -.7713 FAU .17406
FDE 1.1817 FRA .6650 FC3-8.8115 BSP 2639
BDE .4932 BRA .7527 BC3 1.4082 FSP 1011

MID-COURSE EXECUTION ACCURACY

SGT 1531.7 SGR 828.5 SG3 650.8
RRT -.5572 RRF .6767 RTF -.7792
SGB 1741.4 R23 -.1742 R13 .8137
SG1 1614.5 SG2 652.7 THA 159.78

ORBIT DETERMINATION ACCURACY

ST 30.7 SR 22.3 SS 30.0
CRT .7314 CRS .9151 CST .9304
LSA 46.4 MSA 13.4 SSA 2.8
EL1 35.6 EL2 13.1 ALF 33.00

LAUNCH DATE AUG 7 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 12 1974

HELIOCENTRIC CONIC DISTANCE 383.687 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.333	GAL	1.22	AZL	89.07	HCA	120.65	SMA	207.85	ECC	.27088	INC	.9313	V1	29.367
RP	229.48	LAP	.80	LOP	75.01	VP	22.763	GAP	14.56	AZP	90.47	TAL	5.74	TAP	126.39	RCA	151.55	APO	264.16	V2	23.967
RC	141.241	GL	7.58	GP	-11.78	ZAL	76.29	ZAP	149.92	ETS	202.99	ZAE	163.10	ETE	309.66	ZAC	70.89	ETC	282.64	LVI	-4.29

PLANETOCENTRIC CONIC

C3	16.881	VHL	4.109	DLA	18.74	RAL	25.62	RAD	6641.4	VEL	11.701	PTH	6.73	VHP	4.035	DPA	5.68	RAP	48.39	ECC	1.2778

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 46 46	3473.21	-45.82	125.67	257.69	104.53	11 44 39	2473.2	-35.18	96.89
60.00	11 4 20	3426.42	-39.61	123.16	259.38	98.15	12 1 27	2426.4	-32.12	94.81
70.00	11 30 57	3348.07	-34.03	117.50	260.07	93.11	12 26 45	2348.1	-29.22	89.84
80.00	12 14 25	3211.83	-29.86	107.29	260.19	89.60	13 7 57	2211.8	-26.98	80.23
90.00	13 24 25	2985.87	-28.23	90.65	260.15	88.28	14 14 11	1985.9	-26.10	63.85
100.00	14 57 17	2686.30	-29.86	68.66	260.19	89.60	15 42 3	1686.3	-26.98	41.60
110.00	16 30 23	2394.89	-34.03	46.42	260.07	93.11	17 10 18	1394.9	-29.22	18.75

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3830	TRA	-.7147	TC3	1.1860	BAU	.3261	SGT	1530.6	SGR	852.0	SG3	685.7			ST	31.1	SR	21.6	SS	31.4
RDE	-.3020	RRA	.2021	RC3	-.8252	FAU	.18217	RRT	-.5745	RRF	.7026	RTF	-.7771			CRT	.7327	CRS	.9170	CST	.9293
FDE	1.2644	FRA	.6556	FC3	-9.3427	BSP	2687	SGB	1751.7	R23	-.1872	R13	.8166			LSA	47.2	MSA	13.2	SSA	2.9
BDE	.4877	BRA	.7427	BC3	1.4449	FSP	1075	SG1	1623.7	SG2	657.3	THA	158.59			EL1	35.6	EL2	12.8	ALF	31.50

LAUNCH DATE AUG 7 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 14 1974

HELIOCENTRIC CONIC DISTANCE 387.355 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.300	GAL	1.25	AZL	89.02	HCA	121.68	SMA	207.15	ECC	.26845	INC	.9764	V1	29.367
RP	229.86	LAP	.83	LOP	76.04	VP	22.673	GAP	14.27	AZP	90.51	TAL	5.91	TAP	127.59	RCA	151.54	APO	262.76	V2	23.927
RC	144.046	GL	7.99	GP	-12.18	ZAL	75.98	ZAP	148.74	ETS	202.72	ZAE	163.33	ETE	306.15	ZAC	70.52	ETC	282.68	LVI	-3.94

PLANETOCENTRIC CONIC

C3	16.678	VHL	4.084	DLA	19.00	RAL	25.14	RAD	6641.3	VEL	11.693	PTH	6.73	VHP	3.935	DPA	5.26	RAP	48.41	ECC	1.2745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 43 43	3475.95	-45.87	125.92	257.18	104.34	11 41 39	2475.9	-35.28	97.07
60.00	11 0 55	3430.17	-39.64	123.47	258.85	97.94	11 58 5	2430.2	-32.23	95.07
70.00	11 27 2	3353.27	-34.05	117.90	259.51	92.87	12 22 55	2353.3	-29.33	90.20
80.00	12 9 57	3218.72	-29.85	107.80	259.61	89.34	13 3 36	2218.7	-27.09	80.72
90.00	13 19 41	2993.66	-28.21	91.22	259.57	88.00	14 9 34	1993.7	-26.20	64.39
100.00	14 52 49	2693.19	-29.85	69.17	259.61	89.34	15 37 42	1693.2	-27.09	42.09
110.00	16 26 28	2400.08	-34.05	46.82	259.51	92.87	17 6 28	1400.1	-29.33	19.12

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3846	TRA	-.7040	TC3	1.1905	BAU	.3304	SGT	1525.7	SGR	878.4	SG3	721.8			ST	31.2	SR	20.8	SS	32.7
RDE	-.2887	RRA	.2003	RC3	-.8822	FAU	.19062	RRT	-.5914	RRF	.7279	RTF	-.7746			CRT	.7323	CRS	.9182	CST	.9277
FDE	1.3461	FRA	.6427	FC3	-9.8949	BSP	2711	SGB	1760.5	R23	-.1996	R13	.8198			LSA	47.9	MSA	13.1	SSA	3.0
BDE	.4809	BRA	.7320	BC3	1.4817	FSP	1139	SG1	1631.1	SG2	662.6	THA	157.24			EL1	35.4	EL2	12.5	ALF	30.10

LAUNCH DATE AUG 7 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 16 1974

HELIOCENTRIC CONIC DISTANCE 391.035 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.269	GAL	1.28	AZL	88.98	HCA	122.70	SMA	206.49	ECC	.26615	INC	1.0224	V1	29.367
RP	230.25	LAP	.86	LOP	77.06	VP	22.585	GAP	13.98	AZP	90.55	TAL	6.08	TAP	128.78	RCA	151.53	APO	261.45	V2	23.887
RC	146.870	GL	8.40	GP	-12.60	ZAL	75.68	ZAP	147.53	ETS	202.46	ZAE	163.50	ETE	302.41	ZAC	70.13	ETC	282.73	LVI	-3.58

PLANETOCENTRIC CONIC

C3	16.491	VHL	4.061	DLA	19.28	RAL	24.67	RAD	6641.2	VEL	11.685	PTH	6.72	VHP	3.839	DPA	4.82	RAP	48.40	ECC	1.2714

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 40 40	3479.16	-45.92	126.21	256.72	104.12	11 38 39	2479.2	-35.40	97.28
60.00	10 57 27	3434.47	-39.68	123.83	258.36	97.70	11 54 41	2434.5	-32.35	95.36
70.00	11 23 3	3359.10	-34.07	118.36	258.99	92.60	12 19 2	2359.1	-29.46	90.61
80.00	12 5 23	3226.37	-29.84	108.37	259.07	89.04	12 59 10	2226.4	-27.20	81.26
90.00	13 14 48	3002.29	-28.19	91.85	259.01	87.68	14 4 51	2002.3	-26.31	65.00
100.00	14 48 15	2700.84	-29.84	69.74	259.07	89.04	15 33 16	1700.8	-27.20	42.62
110.00	16 22 29	2405.92	-34.07	47.28	258.99	92.60	17 2 35	1405.9	-29.46	19.53

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3870	TRA	-.6923	TC3	1.1899	BAU	.3346	SGT	1517.5	SGR	907.1	SG3	759.2			ST	31.4	SR	19.9	SS	34.3
RDE	-.2744	RRA	.1981	RC3	-.9420	FAU	.19931	RRT	-.6061	RRF	.7517	RTF	-.7716			CRT	.7321	CRS	.9191	CST	.9263
FDE	1.4393	FRA	.6251	FC3	-10.4627	BSP	2720	SGB	1767.9	R23	-.2117	R13	.8234			LSA	48.8	MSA	12.9	SSA	3.0
BDE	.4744	BRA	.7201	BC3	1.5176	FSP	1201	SG1	1636.5	SG2	669.0	THA	155.78			EL1	35.2	EL2	12.1	ALF	28.55

LAUNCH DATE AUG 7 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 18 1974

HELIOCENTRIC CONIC DISTANCE 394.725 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.241	GAL	1.30	AZL	88.93	HCA	123.72	SMA	205.87	ECC	.26399	INC	1.0693	V1	29.367
RP	230.63	LAP	.89	LOP	78.08	VP	22.500	GAP	13.69	AZP	90.59	TAL	6.24	TAP	129.96	RCA	151.52	APO	260.22	V2	23.847
RC	149.713	GL	8.83	GP	-13.04	ZAL	75.41	ZAP	146.29	ETS	202.21	ZAE	163.61	ETE	298.43	ZAC	69.73	ETC	282.78	LVI	-3.21

PLANETOCENTRIC CONIC

C3	16.321	VHL	4.040	DLA	19.57	RAL	24.21	RAD	6641.2	VEL	11.677	PTH	6.71	VHP	3.747	DPA	4.35	RAP	48.38	ECC	1.2688

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 37 36	3482.87	-45.98	126.55	256.30	103.87	11 35 38	2482.9	-35.55	97.52
60.00	10 53 57	3439.32	-39.73	124.23	257.91	97.43	11 51 16	2439.3	-32.50	95.69
70.00	11 18 59	3365.58	-34.09	118.86	258.51	92.30	12 15 5	2365.6	-29.59	91.06
80.00	12 0 42	3234.81	-29.83	109.00	258.55	88.71	12 54 37	2234.8	-27.33	81.85
90.00	13 9 47	3011.78	-28.16	92.54	258.49	87.34	13 59 59	2011.8	-26.43	65.67
100.00	14 43 34	2709.28	-29.83	70.36	258.55	88.71	15 28 43	1709.3	-27.33	43.22
110.00	16 18 26	2412.40	-34.09	47.78	258.51	92.30	16 58 38	1412.4	-29.59	19.98

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3882	TRA	-.6814	TC3	1.1842	BAU	.3388	SGT	1506.7	SGR	938.7	SG3	797.5			ST	31.6	SR	19.0	SS	35.8
RDE	-.2596	RRA	.1959	RC3	-1.0044	FAU	.20819	RRT	-.6195	RRF	.7743	RTF	-.7675			CRT	.7296	CRS	.9189	CST	.9248
FDE	1.5357	FRA	.6078	FC3	-11.0432	BSP	2736	SGB	1775.2	R23	-.2234	R13	.8271			LSA	49.7	MSA	12.7	SSA	3.0
BDE	.4670	BRA	.7090	BC3	1.5528	FSP	1270	SG1	1641.3	SG2	676.5	THA	154.20			EL1	34.9	EL2	11.7	ALF	26.97

LAUNCH DATE AUG 7 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 20 1974

HELIOCENTRIC CONIC DISTANCE 398.425 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.213 GAL 1.32 AZL 88.88 HCA 124.74 SMA 205.29 ECC .26196 INC 1.1172 V1 29.367
RP 231.01 LAP .92 LOP 79.10 VP 22.417 GAP 13.41 AZP 90.64 TAL 6.39 TAP 131.13 RCA 151.52 APO 259.07 V2 23.807
RC 152.372 GL 9.27 GP -13.49 ZAL 75.15 ZAP 143.03 ETS 201.96 ZAE 163.65 ETE 294.26 ZAC 69.32 ETC 282.84 LVI -2.84

PLANETOCENTRIC CONIC

C3 16.165 VHL 4.021 DLA 19.87 RAL 23.77 RAD 6641.1 VEL 11.671 PTH 6.71 VHP 3.659 DPA 3.87 RAP 48.34 ECC 1.2660

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 34 30	3487.06	-46.05	126.93	255.93	103.58	11 32 37	2487.1	-35.70	97.79
60.00	10 50 24	3444.72	-39.77	124.68	257.49	97.12	11 47 49	2444.7	-32.65	96.07
70.00	11 14 51	3372.73	-34.10	119.42	258.06	91.98	12 11 4	2372.7	-29.74	91.57
80.00	11 55 53	3244.07	-29.82	109.68	258.07	88.35	12 49 57	2244.1	-27.47	82.51
90.00	13 4 37	3022.19	-28.13	93.30	257.99	86.96	13 54 59	2022.2	-26.56	66.40
100.00	14 38 45	2718.54	-29.82	71.05	258.07	88.35	15 24 4	1718.5	-27.47	43.87
110.00	16 14 17	2419.55	-34.10	48.34	258.06	91.98	16 54 37	1419.5	-29.74	20.48

DIFFERENTIAL CORRECTIONS

TDE -.3888 TRA -.6706 TC3 1.1752 BAU .3436
RDE -.2442 RRA .1935 RC3-1.0708 FAU .21751
FDE 1.6376 FRA .5885 FC-11.6490 BSP 2760
BDE .4591 BRA .6980 BC3 1.5899 FSP 1343

MID-COURSE EXECUTION ACCURACY

SGT 1494.3 SGR 973.9 SG3 837.6
RRT -.6314 RRF .7960 RTF -.7629
SGB 1783.6 R23 -.2343 R13 .8315
SG1 1646.7 SG2 685.3 THA 152.47

ORBIT DETERMINATION ACCURACY

ST 31.7 SR 18.0 SS 37.4
CRT .7254 CRS .9177 CST .9232
LSA 50.6 MSA 12.6 SSA 3.1
EL1 34.6 EL2 11.3 ALF 25.31

LAUNCH DATE AUG 7 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 22 1974

HELIOCENTRIC CONIC DISTANCE 402.133 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.187 GAL 1.35 AZL 88.83 HCA 125.75 SMA 204.75 ECC .26004 INC 1.1662 V1 29.367
RP 231.39 LAP .95 LOP 80.11 VP 22.337 GAP 13.13 AZP 90.68 TAL 6.53 TAP 132.28 RCA 151.51 APO 258.00 V2 23.767
RC 155.447 GL 9.71 GP -13.96 ZAL 74.91 ZAP 143.75 ETS 201.72 ZAE 163.60 ETE 289.93 ZAC 68.90 ETC 282.91 LVI -2.46

PLANETOCENTRIC CONIC

C3 16.023 VHL 4.003 DLA 20.19 RAL 23.33 RAD 6641.0 VEL 11.665 PTH 6.70 VHP 3.574 DPA 3.36 RAP 48.28 ECC 1.2637

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 31 23	3491.74	-46.12	127.36	255.59	103.26	11 29 35	2491.7	-35.88	98.10
60.00	10 46 48	3450.69	-39.82	125.18	257.12	96.79	11 44 19	2450.7	-32.82	96.48
70.00	11 10 37	3380.56	-34.12	120.03	257.64	91.61	12 6 58	2380.6	-29.90	92.12
80.00	11 50 56	3254.17	-29.79	110.43	257.62	87.95	12 45 10	2254.2	-27.61	83.22
90.00	12 59 16	3033.55	-28.09	94.13	257.53	86.55	13 49 50	2033.6	-26.69	67.21
100.00	14 33 48	2728.64	-29.79	71.80	257.62	87.95	15 19 16	1728.6	-27.61	44.59
110.00	16 10 3	2427.38	-34.12	48.95	257.64	91.61	16 50 31	1427.4	-29.90	21.04

DIFFERENTIAL CORRECTIONS

TDE -.3900 TRA -.6607 TC3 1.1586 BAU .3481
RDE -.2275 RRA .1913 RC3-1.1397 FAU .22693
FDE 1.7509 FRA .5709 FC-12.2610 BSP 2774
BDE .4515 BRA .6879 BC3 1.6252 FSP 1418

MID-COURSE EXECUTION ACCURACY

SGT 1479.0 SGR 1011.8 SG3 878.5
RRT -.6405 RRF .8159 RTF -.7568
SGB 1791.9 R23 -.2450 R13 .8359
SG1 1651.3 SG2 695.9 THA 150.63

ORBIT DETERMINATION ACCURACY

ST 31.8 SR 16.9 SS 39.2
CRT .7190 CRS .9149 CST .9219
LSA 51.6 MSA 12.5 SSA 3.1
EL1 34.3 EL2 10.9 ALF 23.45

LAUNCH DATE AUG 7 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 24 1974

HELIOCENTRIC CONIC DISTANCE 405.850 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.163 GAL 1.37 AZL 88.78 HCA 126.76 SMA 204.25 ECC .25824 INC 1.2162 V1 29.367
RP 231.77 LAP .97 LOP 81.12 VP 22.259 GAP 12.85 AZP 90.73 TAL 6.66 TAP 133.42 RCA 151.50 APO 256.99 V2 23.728
RC 158.336 GL 10.17 GP -14.44 ZAL 74.68 ZAP 142.44 ETS 201.48 ZAE 163.46 ETE 285.49 ZAC 68.47 ETC 282.98 LVI -2.07

PLANETOCENTRIC CONIC

C3 15.894 VHL 3.987 DLA 20.52 RAL 22.91 RAD 6641.0 VEL 11.659 PTH 6.70 VHP 3.493 DPA 2.82 RAP 48.21 ECC 1.2616

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 28 15	3498.92	-46.20	127.83	255.30	102.90	11 26 32	2496.9	-36.08	98.44
60.00	10 43 9	3457.23	-39.87	125.73	256.78	96.42	11 40 46	2457.2	-33.01	96.93
70.00	11 6 17	3389.09	-34.13	120.70	257.26	91.22	12 2 46	2389.1	-30.07	92.72
80.00	11 45 49	3265.15	-29.76	111.25	257.20	87.52	12 40 14	2265.2	-27.76	84.00
90.00	12 53 44	3045.91	-28.03	95.03	257.09	86.10	13 44 30	2045.9	-26.83	68.09
100.00	14 28 41	2739.62	-29.76	72.62	257.20	87.52	15 14 20	1739.6	-27.76	45.37
110.00	16 5 44	2435.90	-34.13	49.61	257.26	91.22	16 46 19	1435.9	-30.07	21.64

DIFFERENTIAL CORRECTIONS

TDE -.3890 TRA -.6505 TC3 1.1394 BAU .3536
RDE -.2106 RRA .1885 RC3-1.2131 FAU .23682
FDE 1.6641 FRA .5478 FC-12.8991 BSP 2782
BDE .4424 BRA .6772 BC3 1.6642 FSP 1492

MID-COURSE EXECUTION ACCURACY

SGT 1460.9 SGR 1053.9 SG3 921.1
RRT -.6483 RRF .8348 RTF -.[illegible]99
SGB 1801.4 R23 -.2536 R13 .8413
SG1 1656.6 SG2 707.7 THA 148.57

ORBIT DETERMINATION ACCURACY

ST 31.7 SR 15.8 SS 40.9
CRT .7096 CRS .9108 CST .9199
LSA 52.6 MSA 12.4 SSA 3.1
EL1 33.9 EL2 10.4 ALF 21.61

LAUNCH DATE AUG 7 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 26 1974

HELIOCENTRIC CONIC DISTANCE 409.575 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.140 GAL 1.38 AZL 88.73 HCA 127.77 SMA 203.77 ECC .25655 INC 1.2673 V1 29.367
RP 232.14 LAP 1.00 LOP 82.13 VP 22.184 GAP 12.57 AZP 90.78 TAL 6.78 TAP 134.55 RCA 151.49 APO 256.05 V2 23.689
RC 161.238 GL 10.63 GP -14.95 ZAL 74.48 ZAP 141.10 ETS 201.23 ZAE 163.21 ETE 280.98 ZAC 68.03 ETC 283.05 LVI -1.66

PLANETOCENTRIC CONIC

C3 15.778 VHL 3.972 DLA 20.86 RAL 22.50 RAD 6640.9 VEL 11.654 PTH 6.69 VHP 3.415 DPA 2.26 RAP 48.11 ECC 1.2597

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 25 4	3502.59	-46.29	128.35	255.05	102.51	11 23 27	2502.6	-36.29	98.82
60.00	10 39 26	3464.33	-39.93	126.33	256.47	96.01	11 37 10	2464.3	-33.21	97.43
70.00	11 1 51	3398.31	-34.15	121.42	256.90	90.80	11 58 29	2398.3	-30.26	93.38
80.00	11 40 32	3277.03	-29.73	112.13	256.80	87.06	12 35 9	2277.0	-27.92	84.85
90.00	12 47 58	3059.30	-27.97	96.00	256.68	85.62	13 38 58	2059.3	-26.97	69.04
100.00	14 23 24	2751.51	-29.73	73.50	256.80	87.06	15 9 15	1751.5	-27.92	46.22
110.00	16 1 17	2445.13	-34.15	50.33	256.90	90.80	16 42 2	1445.1	-30.26	22.30

DIFFERENTIAL CORRECTIONS

TDE -.3813 TRA -.6326 TC3 1.1304 BAU .3620
RDE -.1932 RRA .1845 RC3-1.2911 FAU .24719
FDE 1.9786 FRA .5103 FC-13.5633 BSP 2711
BDE .4274 BRA .6590 BC3 1.7161 FSP 1557

MID-COURSE EXECUTION ACCURACY

SGT 1436.2 SGR 1100.3 SG3 965.5
RRT -.6619 RRF .8524 RTF -.7487
SGB 1809.2 R23 -.2502 R13 .8512
SG1 1663.1 SG2 712.3 THA 146.08

ORBIT DETERMINATION ACCURACY

ST 31.2 SR 14.7 SS 42.5
CRT .6969 CRS .9059 CST .9166
LSA 53.2 MSA 12.3 SSA 3.1
EL1 33.0 EL2 9.9 ALF 20.02

LAUNCH DATE AUG 7 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 28 1974

HELIOCENTRIC CONIC DISTANCE 413.305 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.119 GAL 1.40 AZL 88.68 HCA 128.77 SMA 203.33 ECC .25495 INC 1.3197 V1 29.367
RP 232.51 LAP 1.03 LOP 83.13 VP 22.110 GAP 12.29 AZP 90.83 TAL 6.89 TAP 135.67 RCA 151.49 APO 255.17 V2 23.650
RC 164.150 GL 11.11 GP -15.47 ZAL 74.30 ZAP 139.74 ETS 200.99 ZAE 162.85 ETE 276.50 ZAC 67.57 ETC 283.14 LVI -1.25

PLANETOCENTRIC CONIC

C3 15.673 VHL 3.959 DLA 21.23 RAL 22.10 RAD 6640.8 VEL 11.650 PTH 6.69 VHP 3.341 DPA 1.68 RAP 47.99 ECC 1.2579

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 21 52	3508.79	-46.38	126.92	254.84	102.08	11 20 20	2508.8	-36.52	99.23
60.00	10 35 39	3472.07	-39.98	126.98	256.21	95.58	11 33 31	2472.1	-33.42	97.97
70.00	10 57 16	3408.32	-34.15	122.20	256.58	90.33	11 54 6	2408.3	-30.45	94.10
80.00	11 35 3	3289.94	-29.68	113.09	256.44	86.56	12 29 53	2289.9	-28.08	85.77
90.00	12 41 58	3073.88	-27.89	97.06	256.29	85.09	13 33 12	2073.9	-27.12	70.08
100.00	14 17 55	2764.41	-29.68	74.45	256.44	86.56	15 3 59	1764.4	-28.08	47.14
110.00	15 56 44	2455.14	-34.15	51.12	256.58	90.33	16 37 39	1455.1	-30.45	23.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3861 TRA -.6299 TC3 1.0806 BAU .3654 SGT 1414.5 SGR 1147.7 SG3 1008.4 ST 31.6 SR 13.3 SS 44.6
RDE -.1732 RRA .1823 RC3-1.3685 FAU .25690 RRT -.6553 RRF .8678 RTF -.7316 CRT .6789 CRS .8949 CST .9160
FDE 2.1175 FRA .4947 FC-14.1903 BSP 2789 SGB 1821.5 R23 -.2652 R13 .8539 LSA 54.8 MSA 12.3 SSA 3.1
BDE .4232 BRA .6557 BC3 1.7438 FSP 1643 SG1 1666.3 SG2 735.9 THA 143.91 EL1 33.0 EL2 9.4 ALF 17.45

LAUNCH DATE AUG 7 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 30 1974

HELIOCENTRIC CONIC DISTANCE 417.042 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.099 GAL 1.41 AZL 88.63 HCA 129.77 SMA 202.91 ECC .25346 INC 1.3735 V1 29.367
RP 232.89 LAP 1.06 LOP 84.14 VP 22.039 GAP 12.02 AZP 90.88 TAL 7.00 TAP 136.77 RCA 151.48 APO 254.34 V2 23.612
RC 167.073 GL 11.59 GP -16.01 ZAL 74.13 ZAP 138.35 ETS 200.74 ZAE 162.38 ETE 272.08 ZAC 67.11 ETC 283.23 LVI -.83

PLANETOCENTRIC CONIC

C3 15.581 VHL 3.947 DLA 21.60 RAL 21.72 RAD 6640.8 VEL 11.646 PTH 6.68 VHP 3.271 DPA 1.07 RAP 47.86 ECC 1.2564

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 18 37	3515.50	-46.47	129.54	254.68	101.61	11 17 12	2515.5	-36.77	99.68
60.00	10 31 47	3480.40	-40.03	127.68	255.98	95.10	11 29 48	2480.4	-33.65	98.56
70.00	10 52 36	3419.09	-34.15	123.04	256.29	89.84	11 49 35	2419.1	-30.65	94.87
80.00	11 29 21	3303.86	-29.62	114.12	256.10	86.02	12 24 25	2303.9	-28.25	86.77
90.00	12 35 42	3089.64	-27.79	98.21	255.93	84.53	13 27 12	2089.6	-27.27	71.21
100.00	14 12 13	2778.33	-29.62	75.48	256.10	86.02	14 58 31	1778.3	-28.25	48.14
110.00	15 52 3	2465.91	-34.15	51.96	256.29	89.84	16 33 9	1465.9	-30.65	23.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3850 TRA -.6214 TC3 1.0397 BAU .3720 SGT 1388.2 SGR 1200.4 SG3 1053.6 ST 31.5 SR 12.0 SS 46.6
RDE -.1529 RRA .1787 RC3-1.4519 FAU .26728 RRT -.6526 RRF .8822 RTF -.7181 CRT .6538 CRS .8804 CST .9138
FDE 2.2554 FRA .4642 FC-14.8515 BSP 2817 SGB 1835.2 R23 -.2693 R13 .8609 LSA 56.1 MSA 12.3 SSA 3.1
BDE .4142 BRA .6466 BC3 1.7857 FSP 1726 SG1 1672.8 SG2 754.8 THA 141.30 EL1 32.6 EL2 8.8 ALF 15.08

LAUNCH DATE AUG 7 1973 FLIGHT TIME 178.00 ARRIVAL DATE FEB 1 1974

HELIOCENTRIC CONIC DISTANCE 420.785 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.080 GAL 1.43 AZL 88.57 HCA 130.77 SMA 202.52 ECC .25205 INC 1.4287 V1 29.367
RP 233.25 LAP 1.08 LOP 85.13 VP 21.969 GAP 11.75 AZP 90.93 TAL 7.09 TAP 137.86 RCA 151.48 APO 253.57 V2 23.573
RC 170.003 GL 12.09 GP -16.57 ZAL 73.99 ZAP 136.94 ETS 200.49 ZAE 161.80 ETE 267.77 ZAC 66.63 ETC 283.32 LVI -.40

PLANETOCENTRIC CONIC

C3 15.499 VHL 3.937 DLA 22.00 RAL 21.34 RAD 6640.8 VEL 11.642 PTH 6.68 VHP 3.204 DPA .43 RAP 47.71 ECC 1.2551

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 15 19	3522.73	-46.57	130.21	254.55	101.10	11 14 2	2522.7	-37.03	100.17
60.00	10 27 51	3489.35	-40.08	128.44	255.78	94.59	11 26 0	2489.4	-33.90	99.19
70.00	10 47 46	3430.66	-34.15	123.94	256.03	89.30	11 44 57	2430.7	-30.86	95.70
80.00	11 23 25	3318.88	-29.54	115.22	255.79	85.45	12 18 44	2318.9	-28.43	87.86
90.00	12 29 8	3106.72	-27.67	99.44	255.59	83.92	13 20 55	2106.7	-27.42	72.44
100.00	14 6 17	2793.35	-29.54	76.59	255.79	85.45	14 52 50	1793.3	-28.43	49.22
110.00	15 47 13	2477.48	-34.15	52.86	256.03	89.30	16 28 30	1477.5	-30.86	24.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3821 TRA -.6123 TC3 .9929 BAU .3793 SGT 1358.0 SGR 1256.3 SG3 1098.9 ST 31.3 SR 10.6 SS 48.7
RDE -.1312 RRA .1750 RC3-1.5379 FAU .27762 RRT -.6474 RRF .8952 RTF -.7130 CRT .6164 CRS .8575 CST .9113
FDE 2.4024 FRA .4326 FC-15.5074 BSP 2841 SGB 1850.0 R23 -.2688 R13 .8691 LSA 57.5 MSA 12.3 SSA 3.0
BDE .4040 BRA .6369 BC3 1.8305 FSP 1812 SG1 1680.4 SG2 773.8 THA 138.43 EL1 32.1 EL2 8.1 ALF 12.55

LAUNCH DATE AUG 7 1973 FLIGHT TIME 180.00 ARRIVAL DATE FEB 3 1974

HELIOCENTRIC CONIC DISTANCE 424.533 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.062 GAL 1.44 AZL 88.51 HCA 131.77 SMA 202.16 ECC .25074 INC 1.4853 V1 29.367
RP 233.62 LAP 1.11 LOP 86.13 VP 21.902 GAP 11.48 AZP 90.99 TAL 7.18 TAP 138.94 RCA 151.47 APO 252.85 V2 23.536
RC 172.941 GL 12.60 GP -17.14 ZAL 73.86 ZAP 135.51 ETS 200.23 ZAE 161.10 ETE 263.63 ZAC 66.14 ETC 283.42 LVI .04

PLANETOCENTRIC CONIC

C3 15.428 VHL 3.928 DLA 22.41 RAL 20.97 RAD 6640.7 VEL 11.639 PTH 6.68 VHP 3.140 DPA -.23 RAP 47.54 ECC 1.2539

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 11 58	3530.50	-46.67	130.94	254.47	100.55	11 10 48	2530.5	-37.31	100.70
60.00	10 23 48	3498.96	-40.13	129.25	255.62	94.04	11 22 7	2499.0	-34.15	99.88
70.00	10 42 47	3443.08	-34.13	124.91	255.80	88.73	11 40 10	2443.1	-31.08	96.60
80.00	11 17 13	3335.07	-29.45	116.42	255.49	84.82	12 12 48	2335.1	-28.60	89.03
90.00	12 22 12	3125.23	-27.53	100.78	255.27	83.26	13 14 18	2125.2	-27.57	73.77
100.00	14 0 5	2809.55	-29.45	77.79	255.49	84.82	14 46 54	1809.5	-28.60	50.39
110.00	15 42 13	2489.90	-34.13	53.83	255.80	88.73	16 23 43	1489.9	-31.08	25.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3784 TRA -.6037 TC3 .9384 BAU .3875 SGT 1325.0 SGR 1316.1 SG3 1144.7 ST 31.1 SR 9.1 SS 50.9
RDE -.1084 RRA .1707 RC3-1.6275 FAU .28807 RRT -.6375 RRF .9069 RTF -.6843 CRT .5607 CRS .8212 CST .9083
FDE 2.5542 FRA .3955 FC-16.1651 BSP 2870 SGB 1867.5 R23 -.2651 R13 .8782 LSA 59.0 MSA 12.3 SSA 3.0
BDE .3937 BRA .6274 BC3 1.8786 FSP 1895 SG1 1689.8 SG2 795.0 THA 135.30 EL1 31.5 EL2 7.4 ALF 9.85

LAUNCH DATE AUG 7 1973 FLIGHT TIME 182.00 ARRIVAL DATE FEB 5 1974

HELIOCENTRIC CONIC DISTANCE 428.286 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.045	GAL	1.45	AZL	88.46	HCA	132.76	SMA	201.82	ECC	.24950	INC	1.5435	VI	29.367
RP	233.99	LAP	1.13	LOP	87.12	VP	21.836	GAP	11.21	AZP	91.05	TAL	7.25	TAP	140.01	RCA	151.47	APO	252.18	V2	23.498
RC	175.886	GL	13.12	GP	-17.74	ZAL	73.75	ZAP	134.05	ETS	199.96	ZAE	160.30	ETE	259.69	ZAC	65.63	ETC	283.53	LVI	.50

PLANETOCENTRIC CONIC

C3	15.367	VHL	3.920	DLA	22.84	RAL	20.61	RAD	6640.7	VEL	11.637	PTH	6.68	VHP	3.080	DPA	-.92	RAP	47.35	ECC	1.2529

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 8 33	3538.82	-46.77	131.72	254.43	99.96	11 7 32	2538.8	-37.61	101.27
60.00	10 19 40	3509.22	-40.18	130.12	255.49	93.45	11 18 9	2509.2	-34.42	100.62
70.00	10 37 36	3456.37	-34.11	125.95	255.60	88.12	11 35 12	2456.4	-31.31	97.57
80.00	11 10 42	3352.54	-29.33	117.70	255.22	84.16	12 6 35	2352.5	-28.78	90.29
90.00	12 14 53	3145.31	-27.36	102.22	254.96	82.56	13 7 19	2145.3	-27.72	75.22
100.00	13 53 34	2827.01	-29.33	79.07	255.22	84.16	14 40 41	1827.0	-28.78	51.66
110.00	15 37 2	2503.19	-34.11	54.87	255.60	88.12	16 18 46	1503.2	-31.31	26.49

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3722	TRA	-.5941	TC3	.8826	BAU	.3974	SGT	1289.5	SGR	1380.6	SG3	1191.4			ST	30.7	SR	7.6	SS	53.1
RDE	-.0844	RRA	.1661	RC3	-1.7214	FAU	.29873	RRT	-.6263	RRF	.9176	RTF	-.6647			CRT	.4710	CRS	.7582	CST	.9046
FDE	2.7122	FRA	.3558	FC	-16.8295	BSP	2874	SGB	1889.1	R23	-.2551	R13	.8889			LSA	60.4	MSA	12.4	SSA	2.9
BDE	.3817	BRA	.6169	BC3	1.9345	FSP	1972	SG1	1704.7	SG2	814.1	THA	131.89			EL1	30.9	EL2	6.7	ALF	6.98

LAUNCH DATE AUG 7 1973 FLIGHT TIME 184.00 ARRIVAL DATE FEB 7 1974

HELIOCENTRIC CONIC DISTANCE 432.044 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.030	GAL	1.45	AZL	88.40	HCA	133.74	SMA	201.51	ECC	.24834	INC	1.6035	VI	29.367
RP	234.35	LAP	1.16	LOP	88.11	VP	21.772	GAP	10.95	AZP	91.11	TAL	7.32	TAP	141.06	RCA	151.47	APO	251.55	V2	23.461
RC	178.836	GL	13.66	GP	-18.35	ZAL	73.66	ZAP	132.57	ETS	199.68	ZAE	159.38	ETE	255.96	ZAC	65.12	ETC	283.64	LVI	.96

PLANETOCENTRIC CONIC

C3	15.316	VHL	3.914	DLA	23.28	RAL	20.26	RAD	6640.7	VEL	11.635	PTH	6.67	VHP	3.023	DPA	-1.64	RAP	47.14	ECC	1.2521

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 5 4	3547.69	-46.87	132.55	254.42	99.32	11 4 11	2547.7	-37.92	101.89
60.00	10 15 24	3520.17	-40.22	131.05	255.40	92.82	11 14 4	2520.2	-34.70	101.41
70.00	10 32 13	3470.58	-34.07	127.06	255.42	87.46	11 30 4	2470.6	-31.55	98.61
80.00	11 3 51	3371.37	-29.19	119.09	254.96	83.44	12 0 3	2371.4	-28.96	91.66
90.00	12 7 6	3167.13	-27.16	103.79	254.66	81.80	12 59 53	2167.1	-27.86	76.80
100.00	13 46 43	2845.84	-29.19	80.46	254.96	83.44	14 34 9	1845.8	-28.96	53.03
110.00	15 31 40	2517.40	-34.07	55.98	255.42	87.46	16 13 37	1517.4	-31.55	27.53

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3570	TRA	-.5775	TC3	.8368	BAU	.4109	SGT	1245.6	SGR	1452.1	SG3	1240.2			ST	29.6	SR	6.2	SS	54.9
RDE	-.0609	RRA	.1591	RC3	-1.8231	FAU	.31019	RRT	-.6213	RRF	.9274	RTF	-.6502			CRT	.3353	CRS	.6568	CST	.8977
FDE	2.8556	FRA	.2930	FC	-17.5329	BSP	2825	SGB	1913.1	R23	-.2341	R13	.9023			LSA	61.4	MSA	12.4	SSA	2.9
BDE	.3621	BRA	.5991	BC3	2.0068	FSP	2035	SG1	1728.5	SG2	819.9	THA	128.04			EL1	29.6	EL2	5.9	ALF	4.21

LAUNCH DATE AUG 7 1973 FLIGHT TIME 186.00 ARRIVAL DATE FEB 9 1974

HELIOCENTRIC CONIC DISTANCE 435.804 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.015	GAL	1.46	AZL	88.33	HCA	134.73	SMA	201.21	ECC	.24726	INC	1.6653	VI	29.367
RP	234.71	LAP	1.18	LOP	89.09	VP	21.710	GAP	10.69	AZP	91.17	TAL	7.37	TAP	142.10	RCA	151.46	APO	250.97	V2	23.424
RC	181.791	GL	14.21	GP	-18.98	ZAL	73.59	ZAP	131.07	ETS	199.39	ZAE	158.37	ETE	252.47	ZAC	64.59	ETC	283.76	LVI	1.44

PLANETOCENTRIC CONIC

C3	15.276	VHL	3.908	DLA	23.75	RAL	19.92	RAD	6640.7	VEL	11.633	PTH	6.67	VHP	2.969	DPA	-2.38	RAP	46.93	ECC	1.2514

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 1 31	3557.19	-46.97	133.44	254.47	98.64	11 0 48	2557.2	-38.26	102.55
60.00	10 11 0	3531.68	-40.25	132.04	255.34	92.15	11 9 52	2531.9	-35.00	102.27
70.00	10 26 38	3485.86	-34.02	128.25	255.27	86.76	11 24 43	2485.9	-31.79	99.74
80.00	10 56 36	3391.83	-29.03	120.58	254.73	82.67	11 53 8	2391.8	-29.13	93.16
90.00	11 58 46	3191.08	-26.92	105.50	254.38	80.98	12 51 57	2191.1	-27.99	78.54
100.00	13 39 28	2866.30	-29.03	81.95	254.73	82.67	14 27 14	1866.3	-29.13	54.53
110.00	15 26 4	2532.68	-34.02	57.16	255.27	86.76	16 8 17	1532.7	-31.79	28.65

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3610	TRA	-.5822	TC3	.7354	BAU	.4192	SGT	1216.5	SGR	1319.6	SG3	1283.2			ST	29.9	SR	4.9	SS	57.8
RDE	-.0307	RRA	.1570	RC3	-1.9164	FAU	.31943	RRT	-.5797	RRF	.9354	RTF	-.6550			CRT	.0333	CRS	.3884	CST	.8962
FDE	3.0588	FRA	.2826	FC	-18.1034	BSP	2985	SGB	1946.6	R23	-.2276	R13	.9105			LSA	64.0	MSA	12.6	SSA	2.8
BDE	.3623	BRA	.6030	BC3	2.0527	FSP	2150	SG1	1744.7	SG2	863.4	THA	124.42			EL1	29.9	EL2	4.9	ALF	.32

LAUNCH DATE AUG 7 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 11 1974

HELIOCENTRIC CONIC DISTANCE 439.569 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.002	GAL	1.46	AZL	88.27	HCA	135.71	SMA	200.94	ECC	.24625	INC	1.7290	VI	29.367
RP	235.06	LAP	1.21	LOP	90.08	VP	21.650	GAP	10.43	AZP	91.24	TAL	7.42	TAP	143.13	RCA	151.46	APO	250.42	V2	23.367
RC	184.750	GL	14.77	GP	-19.63	ZAL	73.54	ZAP	129.54	ETS	199.08	ZAE	157.27	ETE	249.21	ZAC	64.05	ETC	283.89	LVI	1.93

PLANETOCENTRIC CONIC

C3	15.245	VHL	3.904	DLA	24.23	RAL	19.58	RAD	6640.6	VEL	11.632	PTH	6.67	VHP	2.919	DPA	-3.14	RAP	46.69	ECC	1.2509

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 57 52	3567.27	-47.07	134.40	254.55	97.91	10 57 19	2567.3	-38.61	103.26
60.00	10 6 28	3544.33	-40.28	133.10	255.32	91.43	11 5 32	2544.3	-35.30	103.18
70.00	10 20 47	3502.17	-33.95	129.52	255.14	86.01	11 19 9	2502.2	-32.04	100.94
80.00	10 48 54	3413.96	-28.82	122.20	254.50	81.85	11 45 47	2414.0	-29.30	94.78
90.00	11 49 47	3217.31	-26.62	107.36	254.11	80.09	12 43 25	2217.3	-28.11	80.45
100.00	13 31 45	2888.44	-28.82	83.57	254.50	81.85	14 19 54	1888.4	-29.30	56.15
110.00	15 20 13	2548.99	-33.95	58.43	255.14	86.01	16 2 42	1549.0	-32.04	29.86

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3524	TRA	-.5757	TC3	.6530	BAU	.4324	SGT	1177.1	SGR	1594.8	SG3	1328.3			ST	29.4	SR	4.4	SS	60.2
RDE	-.0016	RRA	.1513	RC3	-2.0184	FAU	.32959	RRT	-.5476	RRF	.9426	RTF	-.5672			CRT	-.3878	CRS	-.0431	CST	.8903
FDE	3.2403	FRA	.2365	FC	-18.7164	BSP	3041	SGB	1982.2	R23	-.2059	R13	.9221			LSA	65.9	MSA	12.7	SSA	2.7
BDE	.3524	BRA	.5952	BC3	2.1214	FSP	2235	SG1	1773.3	SG2	885.8	THA	120.31			EL1	29.4	EL2	4.0	ALF	176.69

LAUNCH DATE AUG 7 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 13 1974

HELIOCENTRIC CONIC DISTANCE 443.336 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.989	GAL	1.47	AZL	88.21	HCA	136.69	SMA	200.69	ECC	.24530	INC	1.7947	V1	29.367
RP	235.42	LAP	1.23	LOP	91.06	VP	21,591	GAP	10.17	AZP	91.31	TAL	7.46	TAP	144.15	RCA	151.46	APO	249.92	V2	23.351
RC	187.714	GL	15.35	GP	-20.30	ZAL	73.51	ZAP	126.00	ETS	198.76	ZAE	156.08	ETE	246.18	ZAC	63.49	ETC	284.02	LVI	2.44

PLANETOCENTRIC CONIC

C3	15.224	VHL	3.902	DLA	24.73	RAL	19.25	RAD	6640.6	VEL	11.631	PTH	6.67	VHP	2.872	DPA	-3.93	RAP	46.45	ECC	1.2506

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 54 7	3577.97	-47.17	135.42	254.67	97.13	10 53 45	2578.0	-38.97	104.03
60.00	10 1 46	3557.57	-40.30	134.23	255.32	90.67	11 1 4	2557.6	-35.62	104.16
70.00	10 14 39	3519.63	-33.86	130.67	255.03	85.22	11 13 18	2519.6	-32.29	102.24
80.00	10 40 39	3438.05	-28.58	123.95	254.28	80.96	11 37 57	2438.0	-29.46	98.56
90.00	11 40 1	3246.32	-26.27	109.41	253.82	79.12	12 34 7	2246.3	-28.20	82.57
100.00	13 23 31	2912.52	-28.58	85.31	254.28	80.96	14 12 3	1912.5	-29.46	57.92
110.00	15 14 5	2566.44	-33.86	59.79	255.03	85.22	15 56 52	1566.4	-32.29	31.16

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3423	TRA	-.5700	TC3	.5654	BAU	.4475	SGT	1138.6	SGR	1675.0	SG3	1373.6			ST	28.7	SR	4.8	SS	62.7
RDE	.0293	RRA	.1454	RC3	-2.1245	FAU	.33976	RRT	-.5085	RRF	.9495	RTF	-.5229			CRT	-.7554	CRS	-.5042	CST	.8832
FDE	3.4280	FRA	.1904	FC	-19.3207	BSP	3099	SGB	2025.4	R23	-.1806	R13	.9333			LSA	67.9	MSA	12.8	SSA	2.6
BDE	.3435	BRA	.5882	BC3	2.1984	FSP	2311	SG1	1811.0	SG2	906.8	THA	116.06			EL1	28.9	EL2	3.1	ALF	172.66

LAUNCH DATE AUG 7 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 15 1974

HELIOCENTRIC CONIC DISTANCE 447.107 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.977	GAL	1.47	AZL	88.14	HCA	137.67	SMA	200.45	ECC	.24442	INC	1.8627	V1	29.367
RP	235.77	LAP	1.25	LOP	92.03	VP	21.534	GAP	9.91	AZP	91.38	TAL	7.49	TAP	145.15	RCA	151.46	APO	249.44	V2	23.315
RC	190.680	GL	15.95	GP	-20.99	ZAL	73.49	ZAP	126.43	ETS	198.42	ZAE	154.81	ETE	243.37	ZAC	62.93	ETC	284.16	LVI	2.95

PLANETOCENTRIC CONIC

C3	15.213	VHL	3.900	DLA	25.26	RAL	18.93	RAD	6640.6	VEL	11.630	PTH	6.67	VHP	2.828	DPA	-4.75	RAP	46.19	ECC	1.2504

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 50 15	3589.33	-47.26	136.50	254.83	96.30	10 50 5	2589.3	-39.35	104.85
60.00	9 56 53	3571.65	-40.30	135.43	255.35	89.86	10 56 25	2571.6	-35.94	105.21
70.00	10 8 12	3538.33	-33.74	132.32	254.94	84.37	11 7 10	2538.3	-32.54	103.64
80.00	10 31 46	3464.38	-28.28	125.85	254.06	80.00	11 29 30	2464.4	-29.60	98.50
90.00	11 29 14	3278.72	-25.83	111.68	253.53	78.07	12 23 53	2278.7	-28.26	84.93
100.00	13 14 37	2938.85	-28.28	87.21	254.06	80.00	14 3 36	1938.9	-29.60	59.87
110.00	15 7 38	2585.15	-33.74	61.24	254.94	84.37	15 50 43	1585.1	-32.54	32.56

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3302	TRA	-.5648	TC3	.4894	BAU	.4639	SGT	1100.5	SGR	1758.0	SG3	1417.0			ST	27.9	SR	6.3	SS	65.3
RDE	.0622	RRA	.1392	RC3	-2.2319	FAU	.34943	RRT	-.4596	RRF	.9554	RTF	-.4695			CRT	-.9101	CRS	-.7703	CST	.8743
FDE	3.6213	FRA	.1427	FC	-19.8849	BSP	3181	SGB	2074.1	R23	-.1526	R13	.9437			LSA	70.0	MSA	12.9	SSA	2.5
BDE	.3360	BRA	.5817	BC3	2.2807	FSP	2395	SG1	1856.0	SG2	925.8	THA	111.71			EL1	28.5	EL2	2.5	ALF	168.36

LAUNCH DATE AUG 7 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 17 1974

HELIOCENTRIC CONIC DISTANCE 450.880 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.966	GAL	1.47	AZL	88.07	HCA	138.64	SMA	200.23	ECC	.24360	INC	1.9331	V1	29.367
RP	236.12	LAP	1.28	LOP	93.01	VP	21.479	GAP	9.65	AZP	91.45	TAL	7.51	TAP	146.15	RCA	151.46	APO	249.01	V2	23.279
RC	193.649	GL	16.56	GP	-21.69	ZAL	73.49	ZAP	124.86	ETS	198.06	ZAE	153.46	ETE	240.75	ZAC	62.35	ETC	284.31	LVI	3.48

PLANETOCENTRIC CONIC

C3	15.212	VHL	3.900	DLA	25.80	RAL	18.61	RAD	6640.6	VEL	11.630	PTH	6.67	VHP	2.788	DPA	-5.59	RAP	45.92	ECC	1.2504

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 46 16	3601.37	-47.34	137.65	255.04	95.42	10 46 18	2601.4	-39.75	105.73
60.00	9 51 49	3586.61	-40.29	136.70	255.41	88.99	10 51 35	2586.6	-36.28	106.34
70.00	10 1 23	3558.39	-33.60	133.87	254.86	83.46	11 0 41	2558.4	-32.79	105.16
80.00	10 22 6	3493.36	-27.92	127.92	253.84	78.97	11 20 19	2493.4	-29.73	100.64
90.00	11 17 11	3315.46	-25.29	114.23	253.21	76.90	12 12 26	2315.5	-28.28	87.62
100.00	13 4 58	2967.84	-27.92	89.29	253.84	78.97	13 54 26	1967.8	-29.73	62.01
110.00	15 0 49	2605.21	-33.60	62.78	254.86	83.46	15 44 15	1605.2	-32.79	34.07

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3163	TRA	-.5595	TC3	.3688	BAU	.4824	SGT	1064.0	SGR	1845.9	SG3	1460.0			ST	27.0	SR	8.3	SS	67.9
RDE	.0973	RRA	.1322	RC3	-2.3430	FAU	.35900	RRT	-.4018	RRF	.9606	RTF	-.4076			CRT	-.9437	CRS	-.8880	CST	.8636
FDE	3.8223	FRA	.0897	FC	-20.4307	BSP	3263	SGB	2130.6	R23	-.1229	R13	.9530			LSA	72.3	MSA	13.1	SSA	2.4
BDE	.3310	BRA	.5749	BC3	2.3719	FSP	2468	SG1	1911.6	SG2	940.9	THA	107.37			EL1	28.1	EL2	2.6	ALF	163.63

LAUNCH DATE AUG 7 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 19 1974

HELIOCENTRIC CONIC DISTANCE 454.655 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.956	GAL	1.47	AZL	87.99	HCA	139.61	SMA	200.03	ECC	.24283	INC	2.0060	V1	29.367
RP	236.46	LAP	1.30	LOP	93.98	VP	21.425	GAP	9.40	AZP	91.53	TAL	7.52	TAP	147.13	RCA	151.46	APO	248.60	V2	23.244
RC	196.619	GL	17.19	GP	-22.42	ZAL	73.51	ZAP	123.26	ETS	197.68	ZAE	152.05	ETE	238.33	ZAC	61.76	ETC	284.46	LVI	4.03

PLANETOCENTRIC CONIC

C3	15.222	VHL	3.902	DLA	26.37	RAL	18.30	RAD	6640.6	VEL	11.631	PTH	6.67	VHP	2.751	DPA	-6.46	RAP	45.64	ECC	1.2505

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 42 9	3614.12	-47.42	138.87	255.28	94.48	10 42 23	2614.1	-40.16	106.67
60.00	9 46 30	3602.51	-40.26	138.05	255.50	88.08	10 46 33	2602.5	-36.62	107.55
70.00	9 54 9	3579.96	-33.42	135.52	254.80	82.50	10 53 49	2580.0	-33.04	106.79
80.00	10 11 29	3525.55	-27.48	130.21	253.61	77.84	11 10 15	2525.6	-29.81	103.03
90.00	11 3 19	3358.07	-24.60	117.16	252.85	75.59	11 59 17	2358.1	-28.22	90.73
100.00	12 54 21	3000.03	-27.48	91.58	253.61	77.84	13 44 21	2000.0	-29.81	64.40
110.00	14 53 36	2626.78	-33.42	64.44	254.80	82.50	15 37 22	1626.8	-33.04	35.71

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.2982	TRA	-.5535	TC3	.2660	BAU	.5032	SGT	1028.6	SGR	1938.7	SG3	1501.9			ST	25.8	SR	10.7	SS	70.3
RDE	.1335	RRA	.1238	RC3	-2.4581	FAU	.36845	RRT	-.3351	RRF	.9652	RTF	-.3366			CRT	-.9350	CRS	-.9394	CST	.8486
FDE	4.0167	FRA	.0274	FC	-20.9553	BSP	3352	SGB	2194.7	R23	-.0937	R13	.9608			LSA	74.5	MSA	13.2	SSA	2.3
BDE	.3267	BRA	.5672	BC3	2.4725	FSP	2534	SG1	1978.6	SG2	949.6	THA	103.16			EL1	27.7	EL2	3.5	ALF	158.51

LAUNCH DATE AUG 7 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 21 1974

HELIOCENTRIC CONIC DISTANCE 458.433 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.947 GAL 1.47 AZL 87.92 HCA 140.57 SMA 199.84 ECC .24212 INC 2.0817 V1 29.367
RP 236.81 LAP 1.32 LOP 94.95 VP 21.372 GAP 9.15 AZP 91.61 TAL 7.53 TAP 148.10 RCA 151.46 APO 248.23 V2 23.209
RC 199.589 GL 17.85 GP -23.16 ZAL 73.55 ZAP 121.65 ETS 197.28 ZAE 150.57 ETE 236.07 ZAC 61.16 ETC 284.62 LVI 4.59

PLANETOCENTRIC CONIC

C3 15.242 VHL 3.904 DLA 26.96 RAL 17.98 RAD 6640.6 VEL 11.631 PTH 6.67 VHP 2.717 DPA -7.35 RAP 45.35 ECC 1.2508

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 37 52	3627.61	-47.48	140.17	255.56	93.48	10 38 20	2627.6	-40.59	107.68
60.00	9 40 57	3619.42	-40.21	139.49	255.62	87.10	10 41 16	2619.4	-36.98	108.85
70.00	9 46 27	3603.19	-33.20	137.30	254.74	81.47	10 46 30	2603.2	-33.28	108.56
80.00	9 59 38	3561.77	-26.93	132.77	253.34	76.60	10 59 0	2561.8	-29.86	105.72
90.00	10 46 45	3409.49	-23.68	120.65	252.40	74.07	11 43 35	2409.5	-28.05	94.48
100.00	12 42 30	3036.24	-26.93	94.13	253.34	76.60	13 33 6	2036.2	-29.86	67.09
110.00	14 45 53	2650.01	-33.20	66.22	254.74	81.47	15 30 3	1650.0	-33.28	37.48

DIFFERENTIAL CORRECTIONS

TDE -.2751 TRA -.5446 TC3 .1645 BAU .5262
RDE .1705 RRA .1132 RC3-2.5771 FAU .37774
FDE 4.2033 FRA -.0517 FC-21.4556 BSP 3424
BDE .3236 BRA .5563 BC3 2.5824 FSP 2577

MID-COURSE EXECUTION ACCURACY

SGT 991.7 SGR 2036.3 SG3 1542.5
RRT -.2608 RRF .9693 RTF -.2579
SGB 2265.0 R23 -.0669 R13 .9670
SG1 2057.2 SG2 947.7 THA 99.21

ORBIT DETERMINATION ACCURACY

ST 24.3 SR 13.2 SS 72.6
CRT -.9101 CRS -.9645 CST .8277
LSA 76.5 MSA 13.3 SSA 2.2
EL1 27.2 EL2 4.9 ALF 152.76

LAUNCH DATE AUG 7 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 23 1974

HELIOCENTRIC CONIC DISTANCE 462.210 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.938 GAL 1.46 AZL 87.84 HCA 141.54 SMA 199.67 ECC .24147 INC 2.1603 V1 29.367
RP 237.14 LAP 1.34 LOP 95.91 VP 21.322 GAP 8.90 AZP 91.69 TAL 7.52 TAP 149.06 RCA 151.46 APO 247.89 V2 23.174
RC 202.557 GL 18.52 GP -23.92 ZAL 73.61 ZAP 120.04 ETS 196.86 ZAE 149.04 ETE 233.98 ZAC 60.55 ETC 284.78 LVI 5.16

PLANETOCENTRIC CONIC

C3 15.272 VHL 3.908 DLA 27.57 RAL 17.68 RAD 6640.7 VEL 11.633 PTH 6.67 VHP 2.687 DPA -8.26 RAP 45.06 ECC 1.2513

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 33 25	3641.94	-47.53	141.55	255.89	92.42	10 34 7	2641.9	-41.03	108.77
60.00	9 35 6	3637.46	-40.14	141.02	255.76	86.07	10 35 44	2637.5	-37.33	110.25
70.00	9 38 11	3628.39	-32.93	139.22	254.69	80.37	10 38 39	2628.4	-33.50	110.49
80.00	9 46 6	3603.51	-26.24	135.67	253.03	75.22	10 46 9	2603.5	-29.83	108.82
90.00	10 25 9	3477.23	-22.34	125.16	251.78	72.20	11 23 7	2477.2	-27.65	99.40
100.00	12 28 58	3077.98	-26.24	97.04	253.03	75.22	13 20 16	2078.0	-29.83	70.19
110.00	14 37 37	2675.21	-32.93	68.13	254.69	80.37	15 22 12	1675.2	-33.50	39.41

DIFFERENTIAL CORRECTIONS

TDE -.2646 TRA -.5522 TC3 .0176 BAU .5476
RDE .2170 RRA .1094 RC3-2.6819 FAU .38400
FDE 4.4548 FRA -.0671 FC-21.7679 BSP 3641
BDE .3422 BRA .5629 BC3 2.6819 FSP 2685

MID-COURSE EXECUTION ACCURACY

SGT 992.4 SGR 2127.8 SG3 1574.6
RRT -.1504 RRF .9727 RTF -.1474
SGB 2347.9 R23 -.0384 R13 .9719
SG1 2134.5 SG2 978.0 THA 95.08

ORBIT DETERMINATION ACCURACY

ST 23.7 SR 16.4 SS 76.0
CRT -.8858 CRS -.9787 CST .8115
LSA 80.2 MSA 13.6 SSA 2.1
EL1 28.2 EL2 6.4 ALF 146.50

LAUNCH DATE AUG 7 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 25 1974

HELIOCENTRIC CONIC DISTANCE 465.991 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.930 GAL 1.46 AZL 87.76 HCA 142.50 SMA 199.51 ECC .24086 INC 2.2421 V1 29.367
RP 237.48 LAP 1.38 LOP 96.87 VP 21.272 GAP 8.65 AZP 91.78 TAL 7.51 TAP 150.01 RCA 151.46 APO 247.57 V2 23.140
RC 205.523 GL 19.21 GP -24.69 ZAL 73.68 ZAP 118.42 ETS 196.41 ZAE 147.46 ETE 232.02 ZAC 59.93 ETC 284.95 LVI 5.75

PLANETOCENTRIC CONIC

C3 15.314 VHL 3.913 DLA 28.21 RAL 17.36 RAD 6640.7 VEL 11.635 PTH 6.67 VHP 2.660 DPA -9.19 RAP 44.76 ECC 1.2520

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 28 47	3657.08	-47.56	143.02	256.25	91.29	10 29 44	2657.1	-41.49	109.94
60.00	9 28 56	3656.64	-40.04	142.64	255.91	84.97	10 29 53	2656.6	-37.69	111.75
70.00	9 29 15	3655.74	-32.60	141.28	254.63	79.19	10 30 11	2655.7	-33.71	112.60
80.00	9 30 7	3652.99	-25.34	139.07	252.63	73.66	10 31 0	2653.0	-29.69	112.50
90.00	9 45 33	3603.01	-19.50	133.28	250.50	69.10	10 45 36	2603.0	-26.40	108.38
100.00	12 12 59	3127.46	-25.34	100.44	252.63	73.66	13 5 7	2127.5	-29.69	73.86
110.00	14 28 41	2702.56	-32.60	70.20	254.63	79.19	15 13 44	1702.6	-33.71	41.52

DIFFERENTIAL CORRECTIONS

TDE -.2423 TRA -.5506 TC3 -.1111 BAU .5730
RDE .2621 RRA .1003 RC3-2.7966 FAU .39109
FDE 4.6734 FRA -.1266 FC-22.1088 BSP 3791
BDE .3570 BRA .5597 BC3 2.7988 FSP 2743

MID-COURSE EXECUTION ACCURACY

SGT 985.1 SGR 2228.5 SG3 1607.8
RRT -.0448 RRF .9758 RTF -.0499
SGB 2436.5 R23 -.0144 R13 .9757
SG1 2229.0 SG2 983.9 THA 91.41

ORBIT DETERMINATION ACCURACY

ST 22.4 SR 19.6 SS 78.8
CRT -.8502 CRS -.9863 CST .7826
LSA 83.1 MSA 13.7 SSA 2.0
EL1 28.7 EL2 8.1 ALF 139.47

LAUNCH DATE AUG 7 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 27 1974

HELIOCENTRIC CONIC DISTANCE 469.772 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.923 GAL 1.45 AZL 87.67 HCA 143.46 SMA 199.37 ECC .24030 INC 2.3272 V1 29.367
RP 237.81 LAP 1.39 LOP 97.83 VP 21.224 GAP 8.40 AZP 91.87 TAL 7.49 TAP 150.95 RCA 151.46 APO 247.28 V2 23.106
RC 208.485 GL 19.93 GP -25.49 ZAL 73.78 ZAP 116.79 ETS 195.94 ZAE 145.83 ETE 230.19 ZAC 59.29 ETC 285.13 LVI 6.36

PLANETOCENTRIC CONIC

C3 15.368 VHL 3.920 DLA 28.88 RAL 17.05 RAD 6640.7 VEL 11.637 PTH 6.68 VHP 2.636 DPA -10.15 RAP 44.46 ECC 1.2529

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 23 55	3673.12	-47.38	144.57	256.65	90.10	10 25 8	2673.1	-41.95	111.19
60.00	9 22 25	3677.12	-39.90	144.36	256.09	83.81	10 23 42	2677.1	-38.05	113.37
70.00	9 19 31	3685.65	-32.19	143.52	254.55	77.92	10 20 57	2685.6	-33.90	114.91
80.00	9 9 59	3715.68	-24.07	143.30	252.06	71.78	10 11 55	2715.7	-29.36	117.12
83.90	8 36 31	3823.36	-18.46	148.99	249.82	67.39	9 40 14	2823.4	-26.17	124.48
100.00	11 52 51	3190.15	-24.07	104.66	252.06	71.78	12 46 1	2190.2	-29.36	78.49
110.00	14 18 58	2732.47	-32.19	72.44	254.55	77.92	15 4 30	1732.5	-33.90	43.63

DIFFERENTIAL CORRECTIONS

TDE -.2174 TRA -.5501 TC3 -.2433 BAU .6008
RDE .3094 RRA .0903 RC3-2.9140 FAU .39779
FDE 4.8880 FRA -.1894 FC-22.4088 BSP 3962
BDE .3782 BRA .5574 BC3 2.9241 FSP 2800

MID-COURSE EXECUTION ACCURACY

SGT 990.1 SGR 2333.9 SG3 1638.9
RRT .0666 RRF .9786 RTF .0730
SGB 2535.2 R23 .0063 R13 .9786
SG1 2335.0 SG2 987.4 THA 88.03

ORBIT DETERMINATION ACCURACY

ST 21.0 SR 23.0 SS 81.6
CRT -.8058 CRS -.9908 CST .7436
LSA 86.2 MSA 13.9 SSA 1.9
EL1 29.6 EL2 9.7 ALF 131.85

LAUNCH DATE AUG 7 1973 FLIGHT TIME 206.00 ARRIVAL DATE MAR 1 1974

HELIOCENTRIC CONIC DISTANCE 473.555 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.916 GAL 1.44 AZL 87.58 HCA 144.42 SMA 199.24 ECC .23978 INC 2.4161 V1 29.367
RP 238.14 LAP 1.41 LOP 98.79 VP 21.177 GAP 8.16 AZP 91.97 TAL 7.46 TAP 151.87 RCA 151.46 APO 247.01 V2 23.073
RC 211.443 GL 20.66 GP -26.30 ZAL 73.89 ZAP 115.16 ETS 195.45 ZAE 144.17 ETE 228.47 ZAC 58.65 ETC 285.31 LVI 6.88

PLANETOCENTRIC CONIC

C3 15.435 VHL 3.929 DLA 29.57 RAL 16.74 RAD 6640.7 VEL 11.640 PTH 6.68 VHP 2.615 DPA -11.12 RAP 44.16 ECC 1.2540

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 18 48	3690.11	-47.57	146.21	257.09	88.83	10 20 18	2690.1	-42.43	112.54
60.00	9 15 28	3698.99	-39.73	146.20	256.27	82.58	10 17 7	2699.0	-38.41	115.12
70.00	9 8 49	3718.63	-31.70	145.96	254.45	76.55	10 10 48	2718.6	-34.04	117.48
80.00	8 39 22	3811.53	-21.89	149.58	251.07	69.17	9 42 53	2811.5	-28.51	124.12
80.98	8 12 7	3898.71	-18.85	154.73	249.76	66.79	9 17 6	2898.7	-26.77	130.20
100.00	11 22 14	3286.00	-21.89	110.94	251.07	69.17	12 17 0	2286.0	-28.51	85.49
110.00	14 8 16	2765.45	-31.70	74.88	254.45	76.55	14 54 21	1765.5	-34.04	46.40

DIFFERENTIAL CORRECTIONS

TDE -.1893 TRA -.5507 TC3 -.3831 BAU .6296
RDE .3599 RRA .0804 RC3-3.0270 FAU .40310
FDE 5.1047 FRA -.2468 FC-22.6101 BSP 4156
BDE .4067 BRA .5565 BC3 3.0512 FSP 2654

MID-COURSE EXECUTION ACCURACY

SGT 1009.7 SGR 2439.4 SG3 1664.7
RRT .1813 RRF .9810 RTF .1889
SGB 2640.1 R23 .0244 R13 .9808
SG1 2447.6 SG2 989.6 THA 84.87

ORBIT DETERMINATION ACCURACY

ST 19.6 SR 26.6 SS 84.3
CRT -.7481 CRS -.9937 CST .6905
LSA 89.4 MSA 14.0 SSA 1.8
EL1 31.1 EL2 11.1 ALF 123.72

LAUNCH DATE AUG 7 1973 FLIGHT TIME 208.00 ARRIVAL DATE MAR 3 1974

HELIOCENTRIC CONIC DISTANCE 477.338 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.910 GAL 1.43 AZL 87.49 HCA 145.37 SMA 199.12 ECC .23931 INC 2.5089 V1 29.367
RP 238.47 LAP 1.43 LOP 99.75 VP 21.132 GAP 7.91 AZP 92.06 TAL 7.42 TAP 152.79 RCA 151.47 APO 246.77 V2 23.040
RC 214.394 GL 21.45 GP -27.12 ZAL 74.01 ZAP 113.53 ETS 194.92 ZAE 142.47 ETE 226.86 ZAC 57.99 ETC 285.50 LVI 7.62

PLANETOCENTRIC CONIC

C3 15.515 VHL 3.939 DLA 30.29 RAL 16.42 RAD 6640.8 VEL 11.643 PTH 6.68 VHP 2.598 DPA -12.12 RAP 43.86 ECC 1.2553

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 13 25	3708.12	-47.53	147.95	257.55	87.49	10 15 13	2708.1	-42.92	114.00
60.00	9 8 3	3722.43	-39.50	148.15	256.46	81.27	10 10 6	2722.4	-38.76	117.01
70.00	8 56 53	3755.43	-31.08	148.65	254.30	75.07	9 59 28	2755.4	-34.13	120.35
78.67	7 53 18	3955.86	-19.25	159.17	249.72	66.16	8 59 14	2955.9	-27.40	134.61
78.67	7 53 18	3955.86	-19.25	159.17	249.72	66.16	8 59 14	2955.9	-27.40	134.61
78.67	7 53 18	3955.86	-19.25	159.17	249.72	66.16	8 59 14	2955.9	-27.40	134.61
110.00	13 56 19	2802.25	-31.08	77.57	254.30	75.07	14 43 1	1802.3	-34.13	49.27

DIFFERENTIAL CORRECTIONS

TDE -.1572 TRA -.5509 TC3 -.5225 BAU .6611
RDE .4121 RRA .0680 RC3-3.1440 FAU .40822
FDE 5.3101 FRA -.3193 FC-22.7792 BSP 4344
BDE .4411 BRA .5551 BC3 3.1871 FSP 2886

MID-COURSE EXECUTION ACCURACY

SGT 1040.6 SGR 2550.8 SG3 1688.6
RRT .2924 RRF .9831 RTF .3009
SGB 2754.9 R23 .0388 R13 .9825
SG1 2572.1 SG2 986.9 THA 82.01

ORBIT DETERMINATION ACCURACY

ST 18.0 SR 30.3 SS 86.9
CRT -.6682 CRS -.9955 CST .6143
LSA 92.7 MSA 14.2 SSA 1.7
EL1 33.0 EL2 12.3 ALF 115.50

LAUNCH DATE AUG 7 1973 FLIGHT TIME 210.00 ARRIVAL DATE MAR 5 1974

HELIOCENTRIC CONIC DISTANCE 481.123 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.904 GAL 1.42 AZL 87.39 HCA 146.32 SMA 199.01 ECC .23888 INC 2.6060 V1 29.367
RP 238.79 LAP 1.44 LOP 100.70 VP 21.088 GAP 7.67 AZP 92.17 TAL 7.38 TAP 153.70 RCA 151.47 APO 246.55 V2 23.008
RC 217.340 GL 22.25 GP -27.97 ZAL 74.15 ZAP 111.90 ETS 194.37 ZAE 140.74 ETE 225.32 ZAC 57.32 ETC 285.70 LVI 8.28

PLANETOCENTRIC CONIC

C3 15.609 VHL 3.951 DLA 31.04 RAL 16.09 RAD 6640.8 VEL 11.647 PTH 6.69 VHP 2.584 DPA -13.13 RAP 43.56 ECC 1.2569

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 7 43	3727.23	-47.45	149.79	258.04	86.08	10 9 51	2727.2	-43.41	115.57
60.00	9 0 5	3747.59	-39.22	150.23	256.65	79.88	10 2 33	2747.6	-39.09	119.07
70.00	8 43 19	3797.18	-30.31	151.66	254.08	73.45	9 46 36	2797.2	-34.15	123.61
76.64	7 37 14	4004.02	-19.66	162.97	249.69	65.49	8 43 58	3004.0	-28.04	138.40
76.64	7 37 14	4004.02	-19.66	162.97	249.69	65.49	8 43 58	3004.0	-28.04	138.40
76.64	7 37 14	4004.02	-19.66	162.97	249.69	65.49	8 43 58	3004.0	-28.04	138.40
110.00	13 42 45	2844.00	-30.31	80.58	254.08	73.45	14 30 9	1844.0	-34.15	52.52

DIFFERENTIAL CORRECTIONS

TDE -.1190 TRA -.5494 TC3 -.6582 BAU .6946
RDE .4699 RRA .0535 RC3-3.2630 FAU .41287
FDE 5.3010 FRA -.4023 FC-22.8990 BSP 4528
BDE .4808 BRA .5520 BC3 3.3287 FSP 2895

MID-COURSE EXECUTION ACCURACY

SGT 1079.3 SGR 2666.9 SG3 1709.5
RRT .3961 RRF .9851 RTF .4058
SGB 2877.0 R23 .0487 R13 .9840
SG1 2706.2 SG2 976.6 THA 79.51

ORBIT DETERMINATION ACCURACY

ST 16.4 SR 34.0 SS 89.3
CRT -.5502 CRS -.9968 CST .4993
LSA 95.9 MSA 14.2 SSA 1.6
EL1 35.4 EL2 13.2 ALF 107.34

LAUNCH DATE AUG 7 1973 FLIGHT TIME 212.00 ARRIVAL DATE MAR 7 1974

HELIOCENTRIC CONIC DISTANCE 484.907 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.899 GAL 1.41 AZL 87.29 HCA 147.27 SMA 198.91 ECC .23849 INC 2.7079 V1 29.367
RP 239.10 LAP 1.46 LOP 101.65 VP 21.045 GAP 7.43 AZP 92.28 TAL 7.32 TAP 154.59 RCA 151.47 APO 246.35 V2 22.975
RC 220.278 GL 23.07 GP -28.63 ZAL 74.32 ZAP 110.29 ETS 193.79 ZAE 139.00 ETE 223.88 ZAC 56.63 ETC 285.90 LVI 8.96

PLANETOCENTRIC CONIC

C3 15.719 VHL 3.965 DLA 31.82 RAL 15.76 RAD 6640.9 VEL 11.652 PTH 6.69 VHP 2.574 DPA -14.16 RAP 43.27 ECC 1.2587

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 1 41	3747.56	-47.34	151.75	258.57	84.58	10 4 8	2747.6	-43.91	117.27
60.00	8 51 29	3774.78	-38.87	152.46	256.83	78.41	9 54 24	2774.8	-39.41	121.31
70.00	8 27 25	3845.97	-29.31	155.11	253.75	71.63	9 31 31	2846.0	-34.04	127.41
74.77	7 22 51	4046.62	-20.08	166.39	249.69	64.78	8 30 18	3046.6	-28.70	141.81
74.77	7 22 51	4046.62	-20.08	166.39	249.69	64.78	8 30 18	3046.6	-28.70	141.81
74.77	7 22 51	4046.62	-20.08	166.39	249.69	64.78	8 30 18	3046.6	-28.70	141.81
110.00	13 26 51	2892.79	-29.31	84.03	253.75	71.63	14 15 4	1892.8	-34.04	56.33

DIFFERENTIAL CORRECTIONS

TDE -.0870 TRA -.5589 TC3 -.8242 BAU .7272
RDE .5303 RRA .0450 RC3-3.3608 FAU .41393
FDE 5.7415 FRA -.4341 FC-22.7976 BSP 4807
BDE .5374 BRA .5607 BC3 3.4603 FSP 2957

MID-COURSE EXECUTION ACCURACY

SGT 1160.3 SGR 2773.9 SG3 1719.7
RRT .4885 RRF .9866 RTF .4967
SGB 3006.8 R23 .0634 R13 .9848
SG1 2839.5 SG2 989.1 THA 76.82

ORBIT DETERMINATION ACCURACY

ST 15.6 SR 38.5 SS 92.5
CRT -.4210 CRS -.9977 CST .3732
LSA 100.4 MSA 14.5 SSA 1.6
EL1 39.2 EL2 13.9 ALF 101.10

LAUNCH DATE AUG 7 1973 FLIGHT TIME 214.00 ARRIVAL DATE MAR 9 1974

HELIOCENTRIC CONIC DISTANCE 488.692 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.895 GAL 1.40 AZL 87.19 HCA 148.21 SMA 198.82 ECC .23813 INC 2.8148 V1 29.367
RP 239.42 LAP 1.48 LOP 102.60 VP 21.003 GAP 7.19 AZP 92.39 TAL 7.27 TAP 155.48 RCA 151.48 APO 246.17 V2 22.944
RC 223.209 GL 23.93 GP -29.70 ZAL 74.50 ZAP 108.68 ETS 193.19 ZAE 137.23 ETE 222.50 ZAC 55.93 ETC 286.11 LVI 9.65

PLANETOCENTRIC CONIC

C3 15.846 VHL 3.981 DLA 32.63 RAL 15.41 RAD 6640.9 VEL 11.657 PTH 6.69 VHP 2.568 DPA -15.21 RAP 43.00 ECC 1.2608

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 55 14	3769.18	-47.18	153.81	259.11	82.99	9 58 3	2769.2	-44.41	119.11
60.00	8 42 7	3804.22	-38.44	154.84	256.99	76.84	9 45 31	2804.2	-39.71	123.76
70.00	8 7 51	3905.66	-27.96	159.23	253.21	69.54	9 12 57	2905.7	-33.74	132.08
73.00	7 9 41	4085.19	-20.50	169.55	249.71	64.04	8 17 46	3085.2	-29.39	144.95
73.00	7 9 41	4085.19	-20.50	169.55	249.71	64.04	8 17 46	3085.2	-29.39	144.95
73.00	7 9 41	4085.19	-20.50	169.55	249.71	64.04	8 17 46	3085.2	-29.39	144.95
110.00	13 7 18	2952.48	-27.96	88.14	253.21	69.54	13 56 30	1952.5	-33.74	60.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0455 TRA -.5633 TC3 -.9763 BAU .7630 SGT 1239.1 SGR 2889.6 SG3 1728.9 ST 14.9 SR 42.9 SS 95.1
RDE .5935 RRA .0302 RC3-3.4666 FAU .41545 RRT .5697 RRF .9881 RTF .5775 CRT -.2292 CRS -.9983 CST .1854
FDE 5.9412 FRA -.5064 FC-22.6978 BSP 5053 SGB 3144.0 R23 .0721 R13 .9856 LSA 104.3 MSA 14.7 SSA 1.5
BDE .5953 BRA .5641 BC3 3.6015 FSP 2976 SG1 2985.5 SG2 985.6 THA 74.55 EL1 43.1 EL2 14.4 ALF 95.11

LAUNCH DATE AUG 7 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 11 1974

HELIOCENTRIC CONIC DISTANCE 492.477 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.891 GAL 1.38 AZL 87.07 HCA 149.16 SMA 198.74 ECC .23781 INC 2.9273 V1 29.367
RP 239.73 LAP 1.50 LOP 103.54 VP 20.963 GAP 6.95 AZP 92.51 TAL 7.20 TAP 156.35 RCA 151.48 APO 246.01 V2 22.912
RC 226.132 GL 24.83 GP -30.59 ZAL 74.69 ZAP 107.09 ETS 192.55 ZAE 135.44 ETE 221.18 ZAC 55.22 ETC 286.32 LVI 10.37

PLANETOCENTRIC CONIC

C3 15.991 VHL 3.999 DLA 33.48 RAL 15.06 RAD 6641.0 VEL 11.663 PTH 6.70 VHP 2.565 DPA -16.28 RAP 42.73 ECC 1.2632

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 48 20	3792.23	-46.97	156.00	259.66	81.32	9 51 32	2792.2	-44.91	121.10
60.00	8 31 50	3836.31	-37.91	157.40	257.11	75.17	9 35 46	2836.3	-39.96	126.45
70.00	7 40 48	3987.76	-25.89	164.71	252.26	66.90	8 47 16	2987.8	-33.01	138.34
71.28	6 57 24	4120.78	-20.93	172.52	249.75	63.25	8 6 4	3120.8	-30.09	147.92
71.28	6 57 24	4120.78	-20.93	172.52	249.75	63.25	8 6 4	3120.8	-30.09	147.92
71.28	6 57 24	4120.78	-20.93	172.52	249.75	63.25	8 6 4	3120.8	-30.09	147.92
110.00	12 40 15	3034.58	-25.89	93.62	252.26	66.90	13 30 49	2034.6	-33.01	67.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0001 TRA -.5692 TC3-1.1283 BAU .8003 SGT 1330.6 SGR 3008.1 SG3 1733.8 ST 14.7 SR 47.6 SS 97.7
RDE .6619 RRA .0158 RC3-3.5692 FAU .41591 RRT .6369 RRF .9894 RTF .6444 CRT -.0008 CRS -.9987 CST -.0382
FDE 6.1426 FRA -.5693 FC-22.5164 BSP 5312 SGB 3289.2 R23 .0790 R13 .9864 LSA 108.7 MSA 14.8 SSA 1.4
BDE .6619 BRA .5695 BC3 3.7433 FSP 2984 SG1 3138.9 SG2 983.1 THA 72.49 EL1 47.6 EL2 14.7 ALF 90.02

LAUNCH DATE AUG 7 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 13 1974

HELIOCENTRIC CONIC DISTANCE 496.262 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.887 GAL 1.37 AZL 86.95 HCA 150.10 SMA 198.68 ECC .23752 INC 3.0458 V1 29.367
RP 240.03 LAP 1.52 LOP 104.48 VP 20.924 GAP 6.72 AZP 92.64 TAL 7.12 TAP 157.22 RCA 151.49 APO 245.87 V2 22.882
RC 229.048 GL 25.76 GP -31.50 ZAL 74.90 ZAP 105.51 ETS 191.88 ZAE 133.65 ETE 219.91 ZAC 54.50 ETC 286.54 LVI 11.10

PLANETOCENTRIC CONIC

C3 16.157 VHL 4.020 DLA 34.36 RAL 14.68 RAD 6641.1 VEL 11.670 PTH 6.71 VHP 2.565 DPA -17.36 RAP 42.48 ECC 1.2659

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 40 55	3816.85	-46.69	158.31	260.22	79.56	9 44 32	2816.8	-45.40	123.27
60.00	8 20 26	3871.58	-37.26	160.17	257.17	73.39	9 24 58	2871.6	-40.16	129.43
69.61	6 45 46	4154.11	-21.36	175.36	249.80	62.42	7 55 0	3154.1	-30.82	150.75
69.61	6 45 46	4154.11	-21.36	175.36	249.80	62.42	7 55 0	3154.1	-30.82	150.75
69.61	6 45 46	4154.11	-21.36	175.36	249.80	62.42	7 55 0	3154.1	-30.82	150.75
69.61	6 45 46	4154.11	-21.36	175.36	249.80	62.42	7 55 0	3154.1	-30.82	150.75
69.61	6 45 46	4154.11	-21.36	175.36	249.80	62.42	7 55 0	3154.1	-30.82	150.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0492 TRA -.5771 TC3-1.2824 BAU .8392 SGT 1435.5 SGR 3127.7 SG3 1733.2 ST 15.4 SR 52.4 SS 100.2
RDE .7329 RRA -.0000 RC3-3.6672 FAU .41521 RRT .6933 RRF .9905 RTF .[illegible]02 CRT .2351 CRS -.9990 CST -.2680
FDE 6.3259 FRA -.6342 FC-22.2478 BSP 5573 SGB 3441.4 R23 .0848 R13 .9871 LSA 113.1 MSA 15.0 SSA 1.3
BDE .7345 BRA .5771 BC3 3.8849 FSP 2979 SG1 3298.7 SG2 980.9 THA 70.56 EL1 52.6 EL2 15.0 ALF 85.69

LAUNCH DATE AUG 7 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 15 1974

HELIOCENTRIC CONIC DISTANCE 500.047 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.884 GAL 1.35 AZL 86.83 HCA 151.03 SMA 198.62 ECC .23727 INC 3.1710 V1 29.367
RP 240.34 LAP 1.54 LOP 105.42 VP 20.886 GAP 6.48 AZP 92.78 TAL 7.04 TAP 158.08 RCA 151.49 APO 245.74 V2 22.851
RC 231.955 GL 26.73 GP -32.43 ZAL 75.13 ZAP 103.96 ETS 191.19 ZAE 131.85 ETE 218.70 ZAC 53.76 ETC 286.77 LVI 11.86

PLANETOCENTRIC CONIC

C3 16.346 VHL 4.043 DLA 35.28 RAL 14.29 RAD 6641.2 VEL 11.678 PTH 6.71 VHP 2.570 DPA -18.45 RAP 42.24 ECC 1.2690

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 32 53	3843.22	-46.33	160.76	260.76	77.70	9 36 57	2843.2	-45.87	125.64
60.00	8 7 37	3910.79	-36.46	163.19	257.14	71.49	9 12 48	2910.8	-40.28	132.76
67.96	6 34 37	4185.71	-21.80	178.10	249.88	61.55	7 44 23	3185.7	-31.57	153.49
67.96	6 34 37	4185.71	-21.80	178.10	249.88	61.55	7 44 23	3185.7	-31.57	153.49
67.96	6 34 37	4185.71	-21.80	178.10	249.88	61.55	7 44 23	3185.7	-31.57	153.49
67.96	6 34 37	4185.71	-21.80	178.10	249.88	61.55	7 44 23	3185.7	-31.57	153.49
67.96	6 34 37	4185.71	-21.80	178.10	249.88	61.55	7 44 23	3185.7	-31.57	153.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1033 TRA -.5858 TC3-1.4366 BAU .8785 SGT 1550.8 SGR 3245.4 SG3 1725.5 ST 17.0 SR 57.5 SS 102.5
RDE .8087 RRA -.0180 RC3-3.7548 FAU .41274 RRT .7404 RRF .9915 RTF .7467 CRT .4445 CRS -.9993 CST -.4709
FDE 6.5022 FRA -.7048 FC-21.8598 BSP 5862 SGB 3596.9 R23 .0897 R13 .9876 LSA 117.8 MSA 15.1 SSA 1.2
BDE .8152 BRA .5860 BC3 4.0202 FSP 2974 SG1 3461.6 SG2 977.3 THA 68.74 EL1 58.0 EL2 15.1 ALF 81.96

LAUNCH DATE AUG 7 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 17 1974

HELIOCENTRIC CONIC DISTANCE 503.832 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.882	GAL	1.33	AZL	86.70	HCA	151.97	SMA	198.57	ECC	.23704	INC	3.3035	V1	29.367
RP	240.63	LAP	1.55	LOP	106.36	VP	20.849	GAP	6.25	AZP	92.92	TAL	6.96	TAP	158.93	RCA	151.50	APO	245.63	V2	22.821
RC	234.852	GL	27.74	GP	-33.38	ZAL	75.38	ZAP	102.43	ETS	190.47	ZAE	130.04	ETE	217.52	ZAC	53.00	ETC	287.01	LVI	12.64

PLANETOCENTRIC CONIC

C3	16.360	VHL	4.089	DLA	36.24	RAL	13.87	RAD	6641.3	VEL	11.688	PTH	6.72	VHP	2.578	DPA	-19.56	RAP	42.03	ECC	1.2725

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 24 10	3871.56	-45.89	163.35	261.29	75.75	9 28 42	2871.6	-46.31	128.23
60.00	7 52 57	3955.09	-35.45	166.52	256.98	69.42	8 58 52	2955.1	-40.29	136.53
66.32	6 23 53	4215.80	-22.24	180.76	249.98	60.62	7 34 8	3215.8	-32.34	156.17
66.32	6 23 53	4215.80	-22.24	180.76	249.98	60.62	7 34 8	3215.8	-32.34	156.17
66.32	6 23 53	4215.80	-22.24	180.76	249.98	60.62	7 34 8	3215.8	-32.34	156.17
66.32	6 23 53	4215.80	-22.24	180.76	249.98	60.62	7 34 8	3215.8	-32.34	156.17
66.32	6 23 53	4215.80	-22.24	180.76	249.98	60.62	7 34 8	3215.8	-32.34	156.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1622	TRA	-.5962	TC3	-1.5874	BAU	.9197	SGT	1674.6	SGR	3366.2	SG3	1713.4	ST	19.4	SR	62.8	SS	104.8
RDE	.8869	RRA	-.0358	RC3	-3.8387	FAU	.40937	RRT	.7783	RRF	.9924	RTF	.7840	CRT	.6052	CRS	-.9994	CST	-.6258
FDE	6.6657	FRA	-.7654	FC	-21.4011	BSP	6155	SGB	3759.7	R23	.0934	R13	.9882	LSA	122.7	MSA	15.2	SSA	1.1
BDE	.9036	BRA	.5972	BC3	4.1539	FSP	2956	SG1	3631.2	SG2	974.8	THA	67.09	EL1	63.9	EL2	15.2	ALF	78.74

LAUNCH DATE AUG 7 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 19 1974

HELIOCENTRIC CONIC DISTANCE 507.616 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.880	GAL	1.31	AZL	86.56	HCA	152.90	SMA	198.52	ECC	.23685	INC	3.4439	V1	29.367
RP	240.93	LAP	1.57	LOP	107.30	VP	20.813	GAP	6.01	AZP	93.07	TAL	6.86	TAP	159.76	RCA	151.50	APO	245.54	V2	22.792
RC	237.739	GL	28.80	GP	-34.34	ZAL	75.65	ZAP	100.93	ETS	189.71	ZAE	128.24	ETE	216.38	ZAC	52.23	ETC	287.26	LVI	13.44

PLANETOCENTRIC CONIC

C3	16.803	VHL	4.099	DLA	37.24	RAL	13.42	RAD	6641.4	VEL	11.698	PTH	6.73	VHP	2.591	DPA	-20.69	RAP	41.84	ECC	1.2765

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 14 37	3902.15	-45.34	166.09	261.76	73.70	9 19 39	2902.1	-46.72	131.07
60.00	7 35 41	4006.44	-34.16	170.26	256.60	67.16	8 42 28	3006.4	-40.13	140.68
64.68	6 13 26	4244.71	-22.68	183.37	250.09	59.63	7 24 11	3244.7	-33.14	158.81
64.68	6 13 26	4244.71	-22.68	183.37	250.09	59.63	7 24 11	3244.7	-33.14	158.81
64.68	6 13 26	4244.71	-22.68	183.37	250.09	59.63	7 24 11	3244.7	-33.14	158.81
64.68	6 13 26	4244.71	-22.68	183.37	250.09	59.63	7 24 11	3244.7	-33.14	158.81
64.68	6 13 26	4244.71	-22.68	183.37	250.09	59.63	7 24 11	3244.7	-33.14	158.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2257	TRA	-.6084	TC3	-1.7365	BAU	.9615	SGT	1807.6	SGR	3485.7	SG3	1694.6	ST	22.6	SR	68.2	SS	106.9
RDE	.9739	RRA	-.0566	RC3	-3.9123	FAU	.40443	RRT	.8097	RRF	.9932	RTF	.8149	CRT	.7186	CRS	-.9996	CST	-.7343
FDE	6.8143	FRA	-.8343	FC	-20.8377	BSP	6452	SGB	3926.5	R23	.0967	R13	.9887	LSA	127.9	MSA	15.4	SSA	1.1
BDE	.9997	BRA	.6110	BC3	4.2803	FSP	2924	SG1	3804.3	SG2	971.9	THA	65.52	EL1	70.3	EL2	15.3	ALF	75.95

LAUNCH DATE AUG 7 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 21 1974

HELIOCENTRIC CONIC DISTANCE 511.400 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.878	GAL	1.29	AZL	86.41	HCA	153.83	SMA	198.49	ECC	.23668	INC	3.5932	V1	29.367
RP	241.22	LAP	1.58	LOP	108.23	VP	20.779	GAP	5.78	AZP	93.23	TAL	6.76	TAP	160.59	RCA	151.51	APO	245.46	V2	22.763
RC	240.615	GL	29.90	GP	-35.32	ZAL	75.93	ZAP	99.46	ETS	188.93	ZAE	126.45	ETE	215.28	ZAC	51.44	ETC	287.52	LVI	14.27

PLANETOCENTRIC CONIC

C3	17.077	VHL	4.132	DLA	38.29	RAL	12.95	RAD	6641.5	VEL	11.709	PTH	6.74	VHP	2.608	DPA	-21.82	RAP	41.68	ECC	1.2811

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 4 5	3935.31	-44.67	169.00	262.17	71.54	9 9 40	2935.3	-47.08	134.19
60.00	7 14 22	4068.75	-32.42	174.63	255.89	64.62	8 22 10	3068.8	-39.70	146.13
63.04	6 3 14	4272.60	-23.12	185.94	250.22	58.59	7 14 27	3272.6	-33.95	161.42
63.04	6 3 14	4272.60	-23.12	185.94	250.22	58.59	7 14 27	3272.6	-33.95	161.42
63.04	6 3 14	4272.60	-23.12	185.94	250.22	58.59	7 14 27	3272.6	-33.95	161.42
63.04	6 3 14	4272.60	-23.12	185.94	250.22	58.59	7 14 27	3272.6	-33.95	161.42
63.04	6 3 14	4272.60	-23.12	185.94	250.22	58.59	7 14 27	3272.6	-33.95	161.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2943	TRA	-.6226	TC3	-1.8809	BAU	1.0053	SGT	1947.5	SGR	3608.5	SG3	1671.5	ST	26.3	SR	73.9	SS	108.8
RDE	1.0638	RRA	-.0791	RC3	-3.9811	FAU	.39864	RRT	.8353	RRF	.9939	RTF	.8400	CRT	.7961	CRS	-.9997	CST	-.8081
FDE	6.9458	FRA	-.9017	FC	-20.2090	BSP	6758	SGB	4100.5	R23	.0992	R13	.9891	LSA	133.2	MSA	15.5	SSA	1.0
BDE	1.1038	BRA	.6276	BC3	4.4031	FSP	2885	SG1	3984.2	SG2	969.6	THA	64.08	EL1	77.0	EL2	15.3	ALF	73.50

LAUNCH DATE AUG 7 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 23 1974

HELIOCENTRIC CONIC DISTANCE 515.183 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.876	GAL	1.27	AZL	86.25	HCA	154.76	SMA	198.46	ECC	.23654	INC	3.7524	V1	29.367
RP	241.50	LAP	1.60	LOP	109.16	VP	20.745	GAP	5.55	AZP	93.40	TAL	6.66	TAP	161.42	RCA	151.52	APO	245.40	V2	22.734
RC	243.479	GL	31.05	GP	-36.32	ZAL	76.23	ZAP	98.03	ETS	188.12	ZAE	124.66	ETE	214.20	ZAC	50.62	ETC	287.78	LVI	15.12

PLANETOCENTRIC CONIC

C3	17.389	VHL	4.170	DLA	39.38	RAL	12.43	RAD	6641.7	VEL	11.723	PTH	6.75	VHP	2.629	DPA	-22.97	RAP	41.55	ECC	1.2862

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 52 22	3971.50	-43.84	172.09	262.47	69.28	8 58 33	2971.5	-47.36	137.65
60.00	6 44 59	4152.90	-29.83	180.25	254.49	61.53	7 54 12	3152.9	-38.72	153.06
61.37	5 53 10	4299.75	-23.56	188.49	250.36	57.49	7 4 50	3299.8	-34.78	164.03
61.37	5 53 10	4299.75	-23.56	188.49	250.36	57.49	7 4 50	3299.8	-34.78	164.03
61.37	5 53 10	4299.75	-23.56	188.49	250.36	57.49	7 4 50	3299.8	-34.78	164.03
61.37	5 53 10	4299.75	-23.56	188.49	250.36	57.49	7 4 50	3299.8	-34.78	164.03
61.37	5 53 10	4299.75	-23.56	188.49	250.36	57.49	7 4 50	3299.8	-34.78	164.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.3691	TRA	-.6383	TC3	-2.0185	BAU	1.0495	SGT	2092.4	SGR	3730.0	SG3	1641.7	ST	30.6	SR	79.8	SS	110.4
RDE	1.1590	RRA	-.1032	RC3	-4.0384	FAU	.39135	RRT	.8566	RRF	.9945	RTF	.8608	CRT	.8497	CRS	-.9997	CST	-.8589
FDE	7.0581	FRA	-.9666	FC	-19.4845	BSP	7074	SGB	4276.8	R23	.1010	R13	.9895	LSA	138.8	MSA	15.6	SSA	.9
BDE	1.2164	BRA	.6465	BC3	4.5147	FSP	2836	SG1	4166.2	SG2	966.7	THA	62.75	EL1	84.1	EL2	15.3	ALF	71.29

LAUNCH DATE AUG 7 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 25 1974

HELIOCENTRIC CONIC DISTANCE 518.966 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.875	GAL	1.25	AZL	86.08	HCA	155.69	SMA	198.44	ECC	.23642	INC	3.9224	VI	29.367
RP	241.78	LAP	1.61	LOP	110.09	VP	20.713	GAP	5.32	AZP	93.58	TAL	6.54	TAP	182.23	RCA	151.52	APO	245.36	V2	22.706
RC	246.330	GL	32.26	GP	-37.35	ZAL	76.54	ZAP	96.63	ETS	187.28	ZAE	122.89	ETE	213.14	ZAC	49.79	ETC	288.07	LVI	16.01

PLANETOCENTRIC CONIC

C3	17.742	VHL	4.212	DLA	40.51	RAL	11.87	RAD	6641.8	VEL	11.738	PTH	6.77	VHP	2.655	DPA	-24.13	RAP	41.46	ECC	1.2920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 39 9	4011.34	-42.83	175.39	262.62	66.91	8 46 1	3011.3	-47.54	141.48
59.69	5 43 12	4326.27	-23.98	191.04	250.52	56.31	6 55 18	3326.3	-35.63	166.66
59.69	5 43 12	4326.27	-23.98	191.04	250.52	56.31	6 55 18	3326.3	-35.63	166.66
59.69	5 43 12	4326.27	-23.98	191.04	250.52	56.31	6 55 18	3326.3	-35.63	166.66
59.69	5 43 12	4326.27	-23.98	191.04	250.52	56.31	6 55 18	3326.3	-35.63	166.66
59.69	5 43 12	4326.27	-23.98	191.04	250.52	56.31	6 55 18	3326.3	-35.63	166.66
59.69	5 43 12	4326.27	-23.98	191.04	250.52	56.31	6 55 18	3326.3	-35.63	166.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4497	TRA	-.6563	TC3	-2.1494	BAU	1.0944	SGT	2243.2	SGR	3851.4	SG3	1606.3	ST	35.4	SR	86.1	SS	112.0
RDE	1.2623	RRA	-.1293	RC3	-4.0831	FAU	.38260	RRT	.8739	RRF	.9951	RTF	.8776	CRT	.8864	CRS	-.9998	CST	-.8935
FDE	7.1606	FRA	-1.0291	FC	-16.6695	BSP	7391	SGB	4457.0	R23	.1027	R13	.9899	LSA	144.8	MSA	15.7	SSA	.9
BDE	1.3400	BRA	.6689	BC3	4.6143	FSP	2774	SG1	4351.3	SG2	965.0	THA	61.49	EL1	91.8	EL2	15.4	ALF	69.37

LAUNCH DATE AUG 7 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 27 1974

HELIOCENTRIC CONIC DISTANCE 522.748 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.874	GAL	1.23	AZL	85.90	HCA	156.61	SMA	198.42	ECC	.23633	INC	4.1048	VI	29.367
RP	242.06	LAP	1.63	LOP	111.02	VP	20.681	GAP	5.09	AZP	93.77	TAL	6.43	TAP	183.04	RCA	151.53	APO	245.32	V2	22.679
RC	249.167	GL	33.53	GP	-38.40	ZAL	76.88	ZAP	95.29	ETS	186.42	ZAE	121.13	ETE	212.11	ZAC	48.93	ETC	288.36	LVI	16.92

PLANETOCENTRIC CONIC

C3	18.142	VHL	4.259	DLA	41.70	RAL	11.26	RAD	6642.0	VEL	11.754	PTH	6.78	VHP	2.687	DPA	-25.31	RAP	41.40	ECC	1.2986

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 24 4	4055.73	-41.58	178.92	262.56	64.41	8 31 40	3055.7	-47.57	145.78
57.98	5 33 16	4352.23	-24.39	193.58	250.68	55.06	6 45 49	3352.2	-36.49	169.31
57.98	5 33 16	4352.23	-24.39	193.58	250.68	55.06	6 45 49	3352.2	-36.49	169.31
57.98	5 33 16	4352.23	-24.39	193.58	250.68	55.06	6 45 49	3352.2	-36.49	169.31
57.98	5 33 16	4352.23	-24.39	193.58	250.68	55.06	6 45 49	3352.2	-36.49	169.31
57.98	5 33 16	4352.23	-24.39	193.58	250.68	55.06	6 45 49	3352.2	-36.49	169.31
57.98	5 33 16	4352.23	-24.39	193.58	250.68	55.06	6 45 49	3352.2	-36.49	169.31

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5369	TRA	-.6762	TC3	-2.2705	BAU	1.1406	SGT	2397.3	SGR	3972.5	SG3	1564.8	ST	40.6	SR	92.4	SS	113.2
RDE	1.3696	RRA	-.1571	RC3	-4.1180	FAU	.37278	RRT	.8884	RRF	.9956	RTF	.8917	CRT	.9124	CRS	-.9998	CST	-.9178
FDE	7.2292	FRA	-1.0864	FC	-17.7886	BSP	7732	SGB	4639.8	R23	.1038	R13	.9903	LSA	150.8	MSA	15.8	SSA	.8
BDE	1.4710	BRA	.6942	BC3	4.7025	FSP	2710	SG1	4538.7	SG2	983.0	THA	60.33	EL1	99.7	EL2	15.4	ALF	67.60

LAUNCH DATE AUG 7 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 29 1974

HELIOCENTRIC CONIC DISTANCE 526.529 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.874	GAL	1.20	AZL	85.70	HCA	157.53	SMA	198.42	ECC	.23627	INC	4.3006	VI	29.367
RP	242.33	LAP	1.64	LOP	111.94	VP	20.651	GAP	4.86	AZP	93.98	TAL	6.30	TAP	183.83	RCA	151.54	APO	245.29	V2	22.652
RC	251.989	GL	34.86	GP	-39.47	ZAL	77.23	ZAP	93.99	ETS	185.53	ZAE	119.40	ETE	211.10	ZAC	48.04	ETC	288.67	LVI	17.86

PLANETOCENTRIC CONIC

C3	18.599	VHL	4.313	DLA	42.94	RAL	10.58	RAD	6642.2	VEL	11.774	PTH	6.80	VHP	2.724	DPA	-26.50	RAP	41.39	ECC	1.3061

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 6 27	4106.08	-40.03	182.75	262.18	61.77	8 14 53	3106.1	-47.39	150.63
56.23	5 23 19	4377.86	-24.78	196.14	250.85	53.74	6 36 17	3377.9	-37.36	172.01
56.23	5 23 19	4377.86	-24.78	196.14	250.85	53.74	6 36 17	3377.9	-37.36	172.01
56.23	5 23 19	4377.86	-24.78	196.14	250.85	53.74	6 36 17	3377.9	-37.36	172.01
56.23	5 23 19	4377.86	-24.78	196.14	250.85	53.74	6 36 17	3377.9	-37.36	172.01
56.23	5 23 19	4377.86	-24.78	196.14	250.85	53.74	6 36 17	3377.9	-37.36	172.01
56.23	5 23 19	4377.86	-24.78	196.14	250.85	53.74	6 36 17	3377.9	-37.36	172.01

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6303	TRA	-.6991	TC3	-2.3825	BAU	1.1875	SGT	2556.1	SGR	4092.8	SG3	1517.7	ST	46.1	SR	98.9	SS	114.1
RDE	1.4840	RRA	-.1901	RC3	-4.1391	FAU	.36163	RRT	.9009	RRF	.9960	RTF	.8938	CRT	.9310	CRS	-.9999	CST	-.9352
FDE	7.2745	FRA	-1.1522	FC	-16.8328	BSP	8030	SGB	4825.4	R23	.1047	R13	.9906	LSA	157.0	MSA	15.9	SSA	.7
BDE	1.6123	BRA	.7245	BC3	4.7758	FSP	2625	SG1	4728.9	SG2	960.2	THA	59.23	EL1	108.0	EL2	15.4	ALF	66.02

LAUNCH DATE AUG 7 1973 FLIGHT TIME 236.00 ARRIVAL DATE MAR 31 1974

HELIOCENTRIC CONIC DISTANCE 530.309 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.36	VL	32.874	GAL	1.18	AZL	85.49	HCA	158.45	SMA	198.41	ECC	.23622	INC	4.5119	VI	29.367
RP	242.60	LAP	1.66	LOP	112.86	VP	20.621	GAP	4.64	AZP	94.20	TAL	6.17	TAP	184.62	RCA	151.54	APO	245.28	V2	22.625
RC	254.795	GL	36.25	GP	-40.57	ZAL	77.60	ZAP	92.74	ETS	184.61	ZAE	117.68	ETE	210.11	ZAC	47.13	ETC	289.01	LVI	18.84

PLANETOCENTRIC CONIC

C3	19.120	VHL	4.373	DLA	44.23	RAL	9.84	RAD	6642.4	VEL	11.796	PTH	6.82	VHP	2.767	DPA	-27.70	RAP	41.42	ECC	1.3147

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ R ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 45 11	4164.91	-38.05	186.98	261.33	58.94	7 54 36	3164.9	-46.91	156.23
54.45	5 13 14	4403.29	-25.15	198.73	251.02	52.33	6 26 38	3403.3	-38.24	174.77
54.45	5 13 14	4403.29	-25.15	198.73	251.02	52.33	6 26 38	3403.3	-38.24	174.77
54.45	5 13 14	4403.29	-25.15	198.73	251.02	52.33	6 26 38	3403.3	-38.24	174.77
54.45	5 13 14	4403.29	-25.15	198.73	251.02	52.33	6 26 38	3403.3	-38.24	174.77
54.45	5 13 14	4403.29	-25.15	198.73	251.02	52.33	6 26 38	3403.3	-38.24	174.77
54.45	5 13 14	4403.29	-25.15	198.73	251.02	52.33	6 26 38	3403.3	-38.24	174.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7312	TRA	-.7245	TC3	-2.4815	BAU	1.2349	SGT	2717.2	SGR	4213.1	SG3	1465.3	ST	52.0	SR	105.7	SS	114.8
RDE	1.6084	RRA	-.2253	RC3	-4.1449	FAU	.34915	RRT	.9112	RRF	.9964	RTF	.9137	CRT	.9446	CRS	-.9999	CST	-.9479
FDE	7.3035	FRA	-1.2108	FC	-15.8089	BSP	8383	SGB	5013.3	R23	.1054	R13	.9909	LSA	163.7	MSA	16.0	SSA	.7
BDE	1.7668	BRA	.7587	BC3	4.8309	FSP	2535	SG1	4920.9	SG2	958.3	THA	58.21	EL1	116.8	EL2	15.4	ALF	64.61

LAUNCH DATE AUG 7 1973 FLIGHT TIME 238.00 ARRIVAL DATE APR 2 1974

HELIOCENTRIC CONIC — DISTANCE 534.087 — EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.674	GAL	1.15	AZL	85.26	HCA	159.37	SMA	198.42	ECC	.23620	INC	4.7405
RP	242.86	LAP	1.67	LOP	113.78	VP	20.593	GAP	4.41	AZP	94.44	TAL	6.04	TAP	165.41	RCA	151.55	APO	245.28
RC	257.584	GL	37.71	GP	-41.69	ZAL	77.98	ZAP	91.55	ETS	183.68	ZAE	116.00	ETE	209.14	ZAC	46.19	ETC	289.36

V1	29.367	V2	22.599	LVI	19.85														

PLANETOCENTRIC CONIC

C3	19.717	VHL	4.440	DLA	45.58	RAL	9.01	RAD	6642.7	VEL	11.821	PTH	6.84	VHP	2.817	DPA	-28.92	RAP	41.51

ECC	1.3245																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 17 53	4237.80	-35.37	191.89	259.70	55.83	7 28 30	3237.8	-45.91	162.98
52.63	5 3 1	4428.58	-25.48	201.35	251.18	50.83	6 16 50	3428.6	-39.11	177.62
52.63	5 3 1	4428.58	-25.48	201.35	251.18	50.83	6 16 50	3428.6	-39.11	177.62
52.63	5 3 1	4428.58	-25.48	201.35	251.18	50.83	6 16 50	3428.6	-39.11	177.62
52.63	5 3 1	4428.58	-25.48	201.35	251.18	50.83	6 16 50	3428.6	-39.11	177.62
52.63	5 3 1	4428.58	-25.48	201.35	251.18	50.83	6 16 50	3428.6	-39.11	177.62
52.63	5 3 1	4428.58	-25.48	201.35	251.18	50.83	6 16 50	3428.6	-39.11	177.62

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	.8388	TRA	-.7533	TC3	-2.5669	BAU	1.2835	SGT	2880.4	SGR	4332.7	SG3	1407.5	ST	58.1	SR	112.5	SS	115.0
RDE	1.7387	RRA	-.2652	RC3	-4.1373	FAU	.33566	RRT	.9201	RRF	.9967	RTF	.9223	CRT	.9548	CRS	-.9999	CST	-.9574
FDE	7.2937	FRA	-1.2702	FC	-14.7379	BSP	8730	SGB	5202.8	R23	.1058	R13	.9912	LSA	170.3	MSA	16.1	SSA	.6
BDE	1.9304	BRA	.7986	BC3	4.8689	FSP	2440	SG1	5114.3	SG2	955.7	THA	57.26	EL1	125.7	EL2	15.5	ALF	63.33

LAUNCH DATE AUG 7 1973 FLIGHT TIME 240.00 ARRIVAL DATE APR 4 1974

HELIOCENTRIC CONIC — DISTANCE 537.865 — EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.875	GAL	1.13	AZL	85.01	HCA	160.28	SMA	198.43	ECC	.23620	INC	4.9888
RP	243.12	LAP	1.68	LOP	114.70	VP	20.565	GAP	4.19	AZP	94.70	TAL	5.90	TAP	166.18	RCA	151.56	APO	245.29
RC	260.356	GL	39.25	GP	-42.85	ZAL	78.39	ZAP	90.41	ETS	182.72	ZAE	114.35	ETE	208.18	ZAC	45.21	ETC	289.74

V1	29.367	V2	22.573	LVI	20.90														

PLANETOCENTRIC CONIC

C3	20.405	VHL	4.517	DLA	46.99	RAL	8.07	RAD	6643.0	VEL	11.850	PTH	6.87	VHP	2.874	DPA	-30.15	RAP	41.65

ECC	1.3358																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	5 35 57	4345.30	-31.05	198.51	256.25	51.95	6 48 22	3345.3	-43.68	172.36
50.77	4 52 34	4453.89	-25.77	204.00	251.32	49.24	6 6 47	3453.9	-39.98	180.56
50.77	4 52 34	4453.89	-25.77	204.00	251.32	49.24	6 6 47	3453.9	-39.98	180.56
50.77	4 52 34	4453.89	-25.77	204.00	251.32	49.24	6 6 47	3453.9	-39.98	180.56
50.77	4 52 34	4453.89	-25.77	204.00	251.32	49.24	6 6 47	3453.9	-39.98	180.56
50.77	4 52 34	4453.89	-25.77	204.00	251.32	49.24	6 6 47	3453.9	-39.98	180.56
50.77	4 52 34	4453.89	-25.77	204.00	251.32	49.24	6 6 47	3453.9	-39.98	180.56

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	.9536	TRA	-.7857	TC3	-2.6378	BAU	1.3329	SGT	3045.8	SGR	4450.8	SG3	1344.3	ST	64.4	SR	119.5	SS	114.7
RDE	1.8773	RRA	-.3100	RC3	-4.1131	FAU	.32101	RRT	.9278	RRF	.9970	RTF	.9296	CRT	.9624	CRS	-.9999	CST	-.9644
FDE	7.2505	FRA	-1.3273	FC	-13.6200	BSP	9058	SGB	5393.2	R23	.1061	R13	.9914	LSA	177.0	MSA	16.2	SSA	.6
BDE	2.1056	BRA	.8447	BC3	4.8862	FSP	2330	SG1	5308.4	SG2	952.7	THA	56.36	EL1	134.9	EL2	15.5	ALF	62.18

LAUNCH DATE AUG 7 1973 FLIGHT TIME 242.00 ARRIVAL DATE APR 6 1974

HELIOCENTRIC CONIC — DISTANCE 541.641 — EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.875	GAL	1.10	AZL	84.74	HCA	161.19	SMA	198.44	ECC	.23622	INC	5.2597
RP	243.37	LAP	1.69	LOP	115.62	VP	20.539	GAP	3.96	AZP	94.98	TAL	5.76	TAP	166.95	RCA	151.57	APO	245.32
RC	263.112	GL	40.88	GP	-44.04	ZAL	78.81	ZAP	89.35	ETS	181.74	ZAE	112.73	ETE	207.23	ZAC	44.20	ETC	290.15

V1	29.367	V2	22.548	LVI	21.98														

PLANETOCENTRIC CONIC

C3	21.199	VHL	4.604	DLA	48.46	RAL	7.02	RAD	6643.4	VEL	11.883	PTH	6.89	VHP	2.940	DPA	-31.39	RAP	41.85

ECC	1.3489																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.86	4 41 46	4479.38	-26.00	206.71	251.43	47.55	5 56 26	3479.4	-40.82	183.62
48.86	4 41 46	4479.38	-26.00	206.71	251.43	47.55	5 56 26	3479.4	-40.82	183.62
48.86	4 41 46	4479.38	-26.00	206.71	251.43	47.55	5 56 26	3479.4	-40.82	183.62
48.86	4 41 46	4479.38	-26.00	206.71	251.43	47.55	5 56 26	3479.4	-40.82	183.62
48.86	4 41 46	4479.38	-26.00	206.71	251.43	47.55	5 56 26	3479.4	-40.82	183.62
48.86	4 41 46	4479.38	-26.00	206.71	251.43	47.55	5 56 26	3479.4	-40.82	183.62
48.86	4 41 46	4479.38	-26.00	206.71	251.43	47.55	5 56 26	3479.4	-40.82	183.62

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	1.0758	TRA	-.8228	TC3	-2.6914	BAU	1.3836	SGT	3212.0	SGR	4570.1	SG3	1276.8	ST	70.9	SR	126.6	SS	114.0
RDE	2.0268	RRA	-.3605	RC3	-4.0729	FAU	.30541	RRT	.9344	RRF	.9973	RTF	.9258	CRT	.9683	CRS	-1.0000	CST	-.9698
FDE	7.1773	FRA	-1.3813	FC	-12.4723	BSP	9401	SGB	5586.0	R23	.1063	R13	.9917	LSA	183.8	MSA	16.3	SSA	.5
BDE	2.2946	BRA	.8981	BC3	4.8819	FSP	2216	SG1	5504.6	SG2	950.2	THA	55.54	EL1	144.3	EL2	15.6	ALF	61.16

LAUNCH DATE AUG 7 1973 FLIGHT TIME 244.00 ARRIVAL DATE APR 8 1974

HELIOCENTRIC CONIC — DISTANCE 545.416 — EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	32.876	GAL	1.07	AZL	84.44	HCA	162.10	SMA	198.46	ECC	.23625	INC	5.5565
RP	243.62	LAP	1.71	LOP	116.53	VP	20.514	GAP	3.74	AZP	95.29	TAL	5.61	TAP	167.71	RCA	151.57	APO	245.35
RC	265.850	GL	42.59	GP	-45.26	ZAL	79.25	ZAP	88.35	ETS	180.74	ZAE	111.15	ETE	206.30	ZAC	43.15	ETC	290.59

V1	29.367	V2	22.523	LVI	23.11														

PLANETOCENTRIC CONIC

C3	22.122	VHL	4.703	DLA	49.98	RAL	5.82	RAD	6643.8	VEL	11.921	PTH	6.93	VHP	3.016	DPA	-32.65	RAP	42.12

ECC	1.3641																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.90	4 30 32	4505.22	-26.17	209.46	251.48	45.76	5 45 37	3505.2	-41.63	186.82
46.90	4 30 32	4505.22	-26.17	209.46	251.48	45.76	5 45 37	3505.2	-41.63	186.82
46.90	4 30 32	4505.22	-26.17	209.46	251.48	45.76	5 45 37	3505.2	-41.63	186.82
46.90	4 30 32	4505.22	-26.17	209.46	251.48	45.76	5 45 37	3505.2	-41.63	186.82
46.90	4 30 32	4505.22	-26.17	209.46	251.48	45.76	5 45 37	3505.2	-41.63	186.82
46.90	4 30 32	4505.22	-26.17	209.46	251.48	45.76	5 45 37	3505.2	-41.63	186.82
46.90	4 30 32	4505.22	-26.17	209.46	251.48	45.76	5 45 37	3505.2	-41.63	186.82

DIFFERENTIAL CORRECTIONS — MID-COURSE EXECUTION ACCURACY — ORBIT DETERMINATION ACCURACY

TDE	1.2053	TRA	-.8641	TC3	-2.7264	BAU	1.4348	SGT	3378.4	SGR	4687.6	SG3	1204.6	ST	77.5	SR	133.8	SS	112.7
RDE	2.1866	RRA	-.4187	RC3	-4.0128	FAU	.28866	RRT	.9403	RRF	.9975	RTF	.9414	CRT	.9728	CRS	-1.0000	CST	-.9740
FDE	7.0657	FRA	-1.4347	FC	-11.2963	BSP	9723	SGB	5778.2	R23	.1062	R13	.9919	LSA	190.7	MSA	16.3	SSA	.5
BDE	2.4968	BRA	.9602	BC3	4.8514	FSP	2088	SG1	5700.3	SG2	945.7	THA	54.76	EL1	153.9	EL2	15.6	ALF	60.27

LAUNCH DATE AUG 7 1973 FLIGHT TIME 246.00 ARRIVAL DATE APR 10 1974

HELIOCENTRIC CONIC DISTANCE 549.189 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.38 VL 32.878 GAL 1.04 AZL 84.12 HCA 163.01 SMA 198.48 ECC .23631 INC 5.8833 V1 29.367
RP 243.86 LAP 1.72 LOP 117.45 VP 20.489 GAP 3.52 AZP 95.63 TAL 5.45 TAP 168.46 RCA 151.58 APO 245.39 V2 22.499
RC 268.570 GL 44.39 GP -46.52 ZAL 79.71 ZAP 87.42 ETS 179.74 ZAE 109.61 ETE 205.39 ZAC 42.06 ETC 291.07 LVI 24.28

PLANETOCENTRIC CONIC

C3 23.202 VHL 4.817 DLA 51.57 RAL 4.45 RAD 6644.2 VEL 11.966 PTH 6.97 VHP 3.102 DPA -33.92 RAP 42.47 ECC 1.3818

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.89	4 18 45	4531.51	-26.25	212.27	251.44	43.87	5 34 17	3531.5	-42.38	190.17
44.89	4 18 45	4531.51	-26.25	212.27	251.44	43.87	5 34 17	3531.5	-42.38	190.17
44.89	4 18 45	4531.51	-26.25	212.27	251.44	43.87	5 34 17	3531.5	-42.38	190.17
44.89	4 18 45	4531.51	-26.25	212.27	251.44	43.87	5 34 17	3531.5	-42.38	190.17
44.89	4 18 45	4531.51	-26.25	212.27	251.44	43.87	5 34 17	3531.5	-42.38	190.17
44.89	4 18 45	4531.51	-26.25	212.27	251.44	43.87	5 34 17	3531.5	-42.38	190.17
44.89	4 18 45	4531.51	-26.25	212.27	251.44	43.87	5 34 17	3531.5	-42.38	190.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.3425 TRA -.9098 TC3-2.7394 BAU 1.4869 SGT 3542.1 SGR 4803.7 SG3 1128.1 ST 84.1 SR 141.0 SS 110.8
RDE 2.3581 RRA -.4810 RC3-3.9336 FAU .27100 RRT .9452 RRF .9977 RTF .9459 CRT .9764 CRS-1.0000 CST -.9772
FDE 6.9142 FRA-1.4718 FC-10.1116 BSP 10081 SGB 5968.4 R23 .1062 R13 .9921 LSA 197.4 MSA 16.4 SSA .5
BDE 2.7135 BRA 1.0291 BC3 4.7935 FSP 1962 SG1 5893.5 SG2 942.6 THA 54.06 EL1 163.5 EL2 15.7 ALF 59.48

LAUNCH DATE AUG 7 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 12 1974

HELIOCENTRIC CONIC DISTANCE 552.960 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.879 GAL 1.01 AZL 83.75 HCA 163.91 SMA 198.51 ECC .23638 INC 6.2450 V1 29.367
RP 244.10 LAP 1.73 LOP 118.36 VP 20.465 GAP 3.30 AZP 96.00 TAL 5.30 TAP 169.21 RCA 151.59 APO 245.44 V2 22.475
RC 271.273 GL 46.29 GP -47.82 ZAL 80.18 ZAP 86.57 ETS 178.72 ZAE 108.12 ETE 204.49 ZAC 40.93 ETC 291.59 LVI 25.50

PLANETOCENTRIC CONIC

C3 24.474 VHL 4.947 DLA 53.22 RAL 2.88 RAD 6644.8 VEL 12.019 PTH 7.01 VHP 3.200 DPA -35.21 RAP 42.89 ECC 1.4028

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.84	4 6 16	4558.48	-26.22	215.13	251.29	41.87	5 22 15	3558.5	-43.06	193.68
42.84	4 6 16	4558.48	-26.22	215.13	251.29	41.87	5 22 15	3558.5	-43.06	193.68
42.84	4 6 16	4558.48	-26.22	215.13	251.29	41.87	5 22 15	3558.5	-43.06	193.68
42.84	4 6 16	4558.48	-26.22	215.13	251.29	41.87	5 22 15	3558.5	-43.06	193.68
42.84	4 6 16	4558.48	-26.22	215.13	251.29	41.87	5 22 15	3558.5	-43.06	193.68
42.84	4 6 16	4558.48	-26.22	215.13	251.29	41.87	5 22 15	3558.5	-43.06	193.68
42.84	4 6 16	4558.48	-26.22	215.13	251.29	41.87	5 22 15	3558.5	-43.06	193.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.4842 TRA -.9628 TC3-2.7328 BAU 1.5414 SGT 3705.9 SGR 4921.9 SG3 1048.4 ST 90.5 SR 146.1 SS 108.3
RDE 2.5409 RRA -.5546 RC3-3.8372 FAU .25269 RRT .9497 RRF .9979 RTF .9500 CRT .9790 CRS-1.0000 CST -.9796
FDE 6.7166 FRA-1.5090 FC3-8.9385 BSP 10405 SGB 6161.1 R23 .1061 R13 .9923 LSA 203.9 MSA 16.5 SSA .4
BDE 2.9426 BRA 1.1111 BC3 4.7109 FSP 1823 SG1 6089.1 SG2 938.5 THA 53.42 EL1 172.8 EL2 15.8 ALF 58.84

LAUNCH DATE AUG 7 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 14 1974

HELIOCENTRIC CONIC DISTANCE 556.729 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.881 GAL .98 AZL 83.35 HCA 164.82 SMA 198.55 ECC .23647 INC 6.6479 V1 29.367
RP 244.34 LAP 1.74 LOP 119.27 VP 20.443 GAP 3.08 AZP 96.42 TAL 5.13 TAP 169.95 RCA 151.59 APO 245.50 V2 22.452
RC 273.957 GL 48.30 GP -49.15 ZAL 80.67 ZAP 85.81 ETS 177.71 ZAE 106.69 ETE 203.61 ZAC 39.76 ETC 292.16 LVI 26.76

PLANETOCENTRIC CONIC

C3 25.984 VHL 5.097 DLA 54.92 RAL 1.04 RAD 6645.4 VEL 12.081 PTH 7.06 VHP 3.314 DPA -36.50 RAP 43.40 ECC 1.4276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.74	3 52 54	4586.33	-26.06	218.05	250.97	39.78	5 9 20	3586.3	-43.63	197.37
40.74	3 52 54	4586.33	-26.06	218.05	250.97	39.78	5 9 20	3586.3	-43.63	197.37
40.74	3 52 54	4586.33	-26.06	218.05	250.97	39.78	5 9 20	3586.3	-43.63	197.37
40.74	3 52 54	4586.33	-26.06	218.05	250.97	39.78	5 9 20	3586.3	-43.63	197.37
40.74	3 52 54	4586.33	-26.06	218.05	250.97	39.78	5 9 20	3586.3	-43.63	197.37
40.74	3 52 54	4586.33	-26.06	218.05	250.97	39.78	5 9 20	3586.3	-43.63	197.37
40.74	3 52 54	4586.33	-26.06	218.05	250.97	39.78	5 9 20	3586.3	-43.63	197.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.6307 TRA-1.0219 TC3-2.7015 BAU 1.5959 SGT 3865.1 SGR 5037.3 SG3 965.1 ST 96.5 SR 155.1 SS 105.0
RDE 2.7369 RRA -.6385 RC3-3.7180 FAU .23332 RRT .9537 RRF .9980 RTF .9535 CRT .9811 CRS-1.0000 CST -.9814
FDE 6.4725 FRA-1.5365 FC3-7.7740 BSP 10782 SGB 6349.3 R23 .1059 R13 .9924 LSA 210.0 MSA 16.6 SSA .4
BDE 3.1859 BRA 1.2049 BC3 4.5942 FSP 1688 SG1 6280.5 SG2 932.7 THA 52.85 EL1 181.9 EL2 15.9 ALF 58.32

LAUNCH DATE AUG 7 1973 FLIGHT TIME 252.00 ARRIVAL DATE APR 16 1974

HELIOCENTRIC CONIC DISTANCE 560.498 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.883 GAL .95 AZL 82.90 HCA 165.72 SMA 198.58 ECC .23658 INC 7.0993 V1 29.367
RP 244.58 LAP 1.75 LOP 120.17 VP 20.421 GAP 2.86 AZP 96.88 TAL 4.97 TAP 170.69 RCA 151.60 APO 245.56 V2 22.430
RC 276.623 GL 50.43 GP -50.53 ZAL 81.18 ZAP 85.13 ETS 176.70 ZAE 105.31 ETE 202.75 ZAC 38.55 ETC 292.80 LVI 28.06

PLANETOCENTRIC CONIC

C3 27.792 VHL 5.272 DLA 56.67 RAL 358.89 RAD 6646.1 VEL 12.155 PTH 7.12 VHP 3.444 DPA -37.81 RAP 44.01 ECC 1.4574

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.60	3 38 25	4615.26	-25.75	221.00	250.41	37.59	4 55 20	3615.3	-44.06	201.23
38.60	3 38 25	4615.26	-25.75	221.00	250.41	37.59	4 55 20	3615.3	-44.06	201.23
38.60	3 38 25	4615.26	-25.75	221.00	250.41	37.59	4 55 20	3615.3	-44.06	201.23
38.60	3 38 25	4615.26	-25.75	221.00	250.41	37.59	4 55 20	3615.3	-44.06	201.23
38.60	3 38 25	4615.26	-25.75	221.00	250.41	37.59	4 55 20	3615.3	-44.06	201.23
38.60	3 38 25	4615.26	-25.75	221.00	250.41	37.59	4 55 20	3615.3	-44.06	201.23
38.60	3 38 25	4615.26	-25.75	221.00	250.41	37.59	4 55 20	3615.3	-44.06	201.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.7747 TRA-1.0906 TC3-2.6484 BAU 1.6545 SGT 4021.3 SGR 5155.9 SG3 879.7 ST 101.8 SR 161.4 SS 100.7
RDE 2.9403 RRA -.7373 RC3-3.5796 FAU .21369 RRT .9573 RRF .9982 RTF .9567 CRT .9825 CRS-1.0000 CST -.9826
FDE 6.1660 FRA-1.5578 FC3-6.6566 BSP 11051 SGB 6538.7 R23 .1055 R13 .9926 LSA 215.1 MSA 16.8 SSA .3
BDE 3.4344 BRA 1.3164 BC3 4.4528 FSP 1529 SG1 6472.8 SG2 925.8 THA 52.35 EL1 190.1 EL2 16.1 ALF 57.95

LAUNCH DATE AUG 7 1973 FLIGHT TIME 254.00 ARRIVAL DATE APR 18 1974

HELIOCENTRIC CONIC DISTANCE 564.260 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.885 GAL .92 AZL 82.39 HCA 166.61 SMA 198.62 ECC .23670 INC 7.6093 V1 29.367
RP 244.79 LAP 1.76 LOP 121.08 VP 20.400 GAP 2.64 AZP 97.40 TAL 4.80 TAP 171.42 RCA 151.61 APO 245.64 V2 22.407
RC 279.268 GL 52.67 GP -51.94 ZAL 81.70 ZAP 84.54 ETS 175.72 ZAE 103.99 ETE 201.92 ZAC 37.29 ETC 293.50 LVI 29.42

PLANETOCENTRIC CONIC

C3 29.981 VHL 5.475 DLA 58.46 RAL 356.35 RAD 6647.0 VEL 12.244 PTH 7.19 VHP 3.595 DPA -39.12 RAP 44.71 ECC 1.4934

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.44	3 22 32	4645.57	-25.26	223.98	249.53	35.34	4 39 58	3645.6	-44.31	205.26
36.44	3 22 32	4645.57	-25.26	223.98	249.53	35.34	4 39 58	3645.6	-44.31	205.26
36.44	3 22 32	4645.57	-25.26	223.98	249.53	35.34	4 39 58	3645.6	-44.31	205.26
36.44	3 22 32	4645.57	-25.26	223.98	249.53	35.34	4 39 58	3645.6	-44.31	205.26
36.44	3 22 32	4645.57	-25.26	223.98	249.53	35.34	4 39 58	3645.6	-44.31	205.26
36.44	3 22 32	4645.57	-25.26	223.98	249.53	35.34	4 39 58	3645.6	-44.31	205.26
36.44	3 22 32	4645.57	-25.26	223.98	249.53	35.34	4 39 58	3645.6	-44.31	205.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.9140 TRA-1.1677 TC3-2.5692 BAU 1.7149 SGT 4169.4 SGR 5276.2 SG3 792.4 ST 106.2 SR 167.1 SS 95.5
RDE 3.1549 RRA -.8515 RC3-3.4213 FAU .19345 RRT .9606 RRF .9982 RTF .9595 CRT .9833 CRS-1.0000 CST -.9832
FDE 5.8043 FRA-1.5650 FC3-5.5860 BSP .11397 SGB 6724.7 R23 .1051 R13 .9927 LSA 219.2 MSA 17.0 SSA .3
BDE 3.6901 BRA 1.4452 BC3 4.2785 FSP 1380 SG1 6661.9 SG2 917.5 THA 51.95 EL1 197.3 EL2 16.4 ALF 57.76

LAUNCH DATE AUG 7 1973 FLIGHT TIME 256.00 ARRIVAL DATE APR 20 1974

HELIOCENTRIC CONIC DISTANCE 568.024 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.887 GAL .89 AZL 81.81 HCA 167.51 SMA 198.67 ECC .23684 INC 8.1899 V1 29.367
RP 245.01 LAP 1.77 LOP 121.98 VP 20.380 GAP 2.42 AZP 98.00 TAL 4.63 TAP 172.14 RCA 151.62 APO 245.72 V2 22.386
RC 281.893 GL 55.05 GP -53.38 ZAL 82.24 ZAP 84.05 ETS 174.75 ZAE 102.74 ETE 201.13 ZAC 35.99 ETC 294.29 LVI 30.81

PLANETOCENTRIC CONIC

C3 32.662 VHL 5.715 DLA 60.27 RAL 353.32 RAD 6648.0 VEL 12.352 PTH 7.28 VHP 3.772 DPA -40.43 RAP 45.53 ECC 1.5375

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.27	3 4 55	4677.51	-24.54	226.95	248.22	33.03	4 22 52	3677.5	-44.33	209.42
34.27	3 4 55	4677.51	-24.54	226.95	248.22	33.03	4 22 52	3677.5	-44.33	209.42
34.27	3 4 55	4677.51	-24.54	226.95	248.22	33.03	4 22 52	3677.5	-44.33	209.42
34.27	3 4 55	4677.51	-24.54	226.95	248.22	33.03	4 22 52	3677.5	-44.33	209.42
34.27	3 4 55	4677.51	-24.54	226.95	248.22	33.03	4 22 52	3677.5	-44.33	209.42
34.27	3 4 55	4677.51	-24.54	226.95	248.22	33.03	4 22 52	3677.5	-44.33	209.42
34.27	3 4 55	4677.51	-24.54	226.95	248.22	33.03	4 22 52	3677.5	-44.33	209.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 2.0341 TRA-1.2573 TC3-2.4652 BAU 1.7851 SGT 4308.2 SGR 5416.3 SG3 706.3 ST 108.9 SR 171.1 SS 88.9
RDE 3.3576 RRA-1.0028 RC3-3.2611 FAU .17392 RRT .9652 RRF .9983 RTF .9636 CRT .9840 CRS-1.0000 CST -.9837
FDE 5.3513 FRA-1.5852 FC3-4.6100 BSP .11542 SGB 6920.7 R23 .1012 R13 .9931 LSA 220.8 MSA 17.0 SSA .3
BDE 3.9257 BRA 1.6082 BC3 4.0880 FSP 1196 SG1 6863.3 SG2 889.4 THA 51.73 EL1 202.2 EL2 16.4 ALF 57.70

LAUNCH DATE AUG 7 1973 FLIGHT TIME 258.00 ARRIVAL DATE APR 22 1974

HELIOCENTRIC CONIC DISTANCE 571.781 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.889 GAL .85 AZL 81.14 HCA 168.40 SMA 198.72 ECC .23699 INC 8.8571 V1 29.367
RP 245.22 LAP 1.77 LOP 122.89 VP 20.361 GAP 2.21 AZP 98.68 TAL 4.46 TAP 172.86 RCA 151.62 APO 245.81 V2 22.365
RC 284.497 GL 57.57 GP -54.86 ZAL 82.79 ZAP 83.67 ETS 173.84 ZAE 101.57 ETE 200.38 ZAC 34.65 ETC 295.16 LVI 32.25

PLANETOCENTRIC CONIC

C3 35.988 VHL 5.999 DLA 62.09 RAL 349.69 RAD 6649.2 VEL 12.485 PTH 7.38 VHP 3.979 DPA -41.73 RAP 46.46 ECC 1.5923

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.11	2 45 6	4711.44	-23.57	229.89	246.33	30.71	4 3 37	3711.4	-44.07	213.66
32.11	2 45 6	4711.44	-23.57	229.89	246.33	30.71	4 3 37	3711.4	-44.07	213.66
32.11	2 45 6	4711.44	-23.57	229.89	246.33	30.71	4 3 37	3711.4	-44.07	213.66
32.11	2 45 6	4711.44	-23.57	229.89	246.33	30.71	4 3 37	3711.4	-44.07	213.66
32.11	2 45 6	4711.44	-23.57	229.89	246.33	30.71	4 3 37	3711.4	-44.07	213.66
32.11	2 45 6	4711.44	-23.57	229.89	246.33	30.71	4 3 37	3711.4	-44.07	213.66
32.11	2 45 6	4711.44	-23.57	229.89	246.33	30.71	4 3 37	3711.4	-44.07	213.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 2.1219 TRA-1.3597 TC3-2.3377 BAU 1.8515 SGT 4435.1 SGR 5538.4 SG3 616.5 ST 109.6 SR 174.3 SS 81.4
RDE 3.5721 RRA-1.1581 RC3-3.0588 FAU .15253 RRT .9671 RRF .9983 RTF .9646 CRT .9830 CRS-1.0000 CST -.9823
FDE 4.8582 FRA-1.5498 FC3-3.6692 BSP .11887 SGB 7095.3 R23 .1029 R13 .9929 LSA 220.7 MSA 17.6 SSA .3
BDE 4.1548 BRA 1.7860 BC3 3.8482 FSP 1049 SG1 7039.6 SG2 887.3 THA 51.52 EL1 205.2 EL2 17.1 ALF 58.03

LAUNCH DATE AUG 7 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 13 1974

HELIOCENTRIC CONIC DISTANCE 670.101 EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 32.996 GAL -.44 AZL 99.07 HCA 191.73 SMA 200.82 ECC .24467 INC 9.0747 V1 29.367
RP 248.85 LAP 1.84 LOP 145.94 VP 20.143 GAP -3.05 AZP 81.11 TAL 357.77 TAP 189.50 RCA 151.69 APO 249.96 V2 22.009
RC 343.139 GL -58.29 GP 50.88 ZAL 89.91 ZAP 69.30 ETS 210.24 ZAE 83.02 ETE 190.50 ZAC 136.85 ETC 290.90 LVI -70.69

PLANETOCENTRIC CONIC

C3 37.423 VHL 6.117 DLA -39.40 RAL 60.80 RAD 6649.8 VEL 12.542 PTH 7.42 VHP 4.101 DPA 52.17 RAP 350.24 ECC 1.6159

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 33 13	2418.00	-3.29	62.96	292.46	137.49	18 13 31	1418.0	15.01	47.02
60.00	20 0 18	2024.55	9.73	40.00	304.73	129.30	20 34 3	1024.6	24.65	20.16
61.34	21 3 49	1844.63	16.29	30.04	309.94	126.39	21 34 34	844.6	29.66	8.25
61.34	21 3 49	1844.63	16.29	30.04	309.94	126.39	21 34 34	844.6	29.66	8.25
61.34	21 3 49	1844.63	16.29	30.04	309.94	126.39	21 34 34	844.6	29.66	8.25
61.34	21 3 49	1844.63	16.29	30.04	309.94	126.39	21 34 34	844.6	29.66	8.25
61.34	21 3 49	1844.63	16.29	30.04	309.94	126.39	21 34 34	844.6	29.66	8.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-5.8927 TRA 3.0052 TC3-4.5533 BAU 2.5490 SGT 6646.6 SGR 4640.1 SG3 546.6 ST 281.4 SR 133.3 SS 56.9
RDE 2.7112 RRA-2.2232 RC3 2.2858 FAU .14374 RRT -.9823 RRF -.9963 RTF .9705 CRT -.9937 CRS .9985 CST -.9860
FDE-3.2062 FRA 3.1363 FC3-3.3251 BSP 17203 SGB 9813.0 R23 .1891 R13 -.9792 LSA 316.2 MSA 15.9 SSA .3
BDE 6.4865 BRA 3.7382 BC3 5.0949 FSP 933 SG1 9782.8 SG2 768.7 THA 152.02 EL1 311.1 EL2 13.6 ALF 154.74

LAUNCH DATE AUG 7 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 15 1974

DISTANCE 673.835

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.001 GAL -.49 AZL 98.44 HCA 192.60 SMA 200.92 ECC .24508 INC 0.4398 V1 29.367
RP 248.92 LAP 1.83 LOP 146.82 VP 20.145 GAP -3.24 AZP 81.76 TAL 357.50 TAP 190.10 RCA 151.68 APO 250.17 V2 22.003
RC 345.001 GL -55.92 GP 49.01 ZAL 90.20 ZAP 67.80 ETS 210.46 ZAE 81.82 ETE 191.27 ZAC 135.12 ETC 290.23 LVI -69.11

PLANETOCENTRIC CONIC

C3 34.193 VHL 5.847 DLA -37.09 RAL 60.05 RAD 6648.6 VEL 12.414 PTH 7.32 VHP 3.929 DPA 50.63 RAP 351.96 ECC 1.5627

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 10 33	2461.49	-5.47	64.79	288.79	137.34	17 51 34	1461.5	12.88	48.96
60.00	19 7 21	2150.06	4.27	46.09	298.07	130.11	19 43 11	1150.1	19.82	27.25
64.92	21 18 35	1770.56	16.32	23.96	307.25	123.78	21 48 5	770.6	28.70	1.61
64.92	21 18 35	1770.56	16.32	23.96	307.25	123.78	21 48 5	770.6	28.70	1.61
64.92	21 18 35	1770.56	16.32	23.96	307.25	123.78	21 48 5	770.6	28.70	1.61
64.92	21 18 35	1770.56	16.32	23.96	307.25	123.78	21 48 5	770.6	28.70	1.61
64.92	21 18 35	1770.56	16.32	23.96	307.25	123.78	21 48 5	770.6	28.70	1.61

DIFFERENTIAL CORRECTIONS

TDE-5.6107 TRA 2.9423 TC3-5.0233 BAU 2.5386
RDE 2.4296 RRA-2.0792 RC3 2.3678 FAU .15887
FDE-3.3391 FRA 3.4162 FC3-4.0226 BSP 17276
BDE 6.1141 BRA 3.6028 BC3 5.5534 FSP 1042

MID-COURSE EXECUTION ACCURACY

SGT 8820.4 SGR 4456.4 SG3 613.7
RRT -.9817 RRF -.9963 RTF .9704
SGB 9882.2 R23 .1918 R13 -.9785
SG1 9853.0 SG2 759.9 THA 153.45

ORBIT DETERMINATION ACCURACY

ST 280.3 SR 125.1 SS 59.6
CRT -.9932 CRS .9984 CST -.9851
LSA 312.3 MSA 16.0 SSA .3
EL1 306.7 EL2 13.3 ALF 156.04

LAUNCH DATE AUG 7 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 17 1974

DISTANCE 677.570

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.006 GAL -.55 AZL 97.89 HCA 193.46 SMA 201.03 ECC .24549 INC 7.8857 V1 29.367
RP 248.97 LAP 1.83 LOP 147.69 VP 20.148 GAP -3.44 AZP 82.33 TAL 357.23 TAP 190.69 RCA 151.68 APO 250.38 V2 21.997
RC 346.831 GL -53.70 GP 47.20 ZAL 90.52 ZAP 66.35 ETS 210.59 ZAE 80.61 ETE 191.93 ZAC 133.42 ETC 289.63 LVI -67.51

PLANETOCENTRIC CONIC

C3 31.571 VHL 5.619 DLA -34.90 RAL 59.45 RAD 6647.6 VEL 12.308 PTH 7.24 VHP 3.786 DPA 49.15 RAP 353.57 ECC 1.5196

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 51 46	2499.84	-7.39	66.41	285.86	137.14	17 33 25	1499.8	10.99	50.64
60.00	18 34 6	2227.29	.87	49.79	293.76	130.29	19 11 13	1227.3	16.68	31.38
68.64	21 36 31	1689.79	16.18	17.41	304.86	121.35	22 4 41	689.8	27.63	354.62
68.64	21 36 31	1689.79	16.18	17.41	304.86	121.35	22 4 41	689.8	27.63	354.62
68.64	21 36 31	1689.79	16.18	17.41	304.86	121.35	22 4 41	689.8	27.63	354.62
68.64	21 36 31	1689.79	16.18	17.41	304.86	121.35	22 4 41	689.8	27.63	354.62
68.64	21 36 31	1689.79	16.18	17.41	304.86	121.35	22 4 41	689.8	27.63	354.62

DIFFERENTIAL CORRECTIONS

TDE-5.3484 TRA 2.8975 TC3-5.4622 BAU 2.5298
RDE 2.1791 RRA-1.9561 RC3 2.4229 FAU .17228
FDE-3.4089 FRA 3.6778 FC3-4.7243 BSP 17408
BDE 5.7753 BRA 3.4959 BC3 5.9937 FSP 1148

MID-COURSE EXECUTION ACCURACY

SGT 8982.0 SGR 4273.9 SG3 675.8
RRT -.9809 RRF -.9962 RTF .9699
SGB 9947.0 R23 .1956 R13 -.9775
SG1 9918.4 SG2 753.0 THA 154.82

ORBIT DETERMINATION ACCURACY

ST 278.1 SR 117.0 SS 61.2
CRT -.9926 CRS .9983 CST -.9838
LSA 307.5 MSA 16.3 SSA .3
EL1 301.5 EL2 13.1 ALF 157.29

LAUNCH DATE AUG 7 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 19 1974

DISTANCE 681.306

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.011 GAL -.60 AZL 97.40 HCA 194.33 SMA 201.13 ECC .24592 INC 7.3975 V1 29.367
RP 249.02 LAP 1.83 LOP 148.57 VP 20.151 GAP -3.63 AZP 82.83 TAL 356.96 TAP 191.29 RCA 151.67 APO 250.59 V2 21.992
RC 348.628 GL -51.59 GP 45.45 ZAL 90.87 ZAP 64.95 ETS 210.64 ZAE 79.42 ETE 192.51 ZAC 131.77 ETC 289.09 LVI -65.93

PLANETOCENTRIC CONIC

C3 29.417 VHL 5.424 DLA -32.81 RAL 58.96 RAD 6646.8 VEL 12.221 PTH 7.17 VHP 3.667 DPA 47.72 RAP 355.09 ECC 1.4841

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 35 49	2534.74	-9.13	67.90	283.50	136.90	17 18 4	1534.7	9.26	52.14
60.00	18 8 47	2287.31	-1.77	52.66	290.53	130.27	18 46 54	1287.3	14.19	34.48
70.00	20 30 18	1870.30	8.46	26.55	298.15	123.21	21 1 29	870.3	21.24	5.51
72.63	21 58 53	1597.69	15.89	10.07	302.74	119.09	22 25 30	597.7	26.47	346.96
72.63	21 58 53	1597.69	15.89	10.07	302.74	119.09	22 25 30	597.7	26.47	346.96
72.63	21 58 53	1597.69	15.89	10.07	302.74	119.09	22 25 30	597.7	26.47	346.96
110.00	1 33 41	6205.16	8.46	293.37	298.15	123.21	3 17 6	5205.2	21.24	272.33

DIFFERENTIAL CORRECTIONS

TDE-5.1072 TRA 2.8625 TC3-5.9396 BAU 2.5294
RDE 1.9594 RRA-1.8456 RC3 2.4671 FAU .18501
FDE-3.4300 FRA 3.9136 FC3-5.4448 BSP 17544
BDE 5.4702 BRA 3.4059 BC3 6.4316 FSP 1247

MID-COURSE EXECUTION ACCURACY

SGT 9141.4 SGR 4102.1 SG3 734.2
RRT -.9802 RRF -.9959 RTF .9694
SGB10019.6 R23 .1991 R13 -.9765
SG1 9992.0 SG2 743.4 THA 156.12

ORBIT DETERMINATION ACCURACY

ST 275.3 SR 109.3 SS 62.0
CRT -.9920 CRS .9980 CST -.9821
LSA 302.1 MSA 16.5 SSA .4
EL1 295.9 EL2 12.9 ALF 158.47

LAUNCH DATE AUG 7 1973 FLIGHT TIME 318.00 ARRIVAL DATE JUN 21 1974

DISTANCE 685.043

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.71 LAL .00 LOL 314.35 VL 33.016 GAL -.66 AZL 96.96 HCA 195.20 SMA 201.24 ECC .24635 INC 6.9642 V1 29.367
RP 249.07 LAP 1.82 LOP 149.44 VP 20.154 GAP -3.82 AZP 83.28 TAL 356.60 TAP 191.88 RCA 151.66 APO 250.81 V2 21.988
RC 350.392 GL -49.60 GP 43.77 ZAL 91.25 ZAP 63.59 ETS 210.63 ZAE 78.23 ETE 193.01 ZAC 130.16 ETC 288.61 LVI -64.38

PLANETOCENTRIC CONIC

C3 27.628 VHL 5.256 DLA -30.82 RAL 58.57 RAD 6646.1 VEL 12.148 PTH 7.12 VHP 3.566 DPA 46.34 RAP 356.51 ECC 1.4547

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 22 3	2567.15	-10.74	69.30	281.59	136.64	17 4 51	1567.2	7.65	53.53
60.00	17 48 10	2338.01	-4.00	55.08	288.00	130.14	18 27 9	1338.0	12.04	37.05
70.00	19 47 41	1986.32	4.09	32.68	294.09	123.94	20 20 48	986.3	17.46	12.37
77.20	22 28 32	1484.28	15.49	1.24	300.87	116.99	22 53 17	484.3	25.26	337.88
77.20	22 28 32	1484.28	15.49	1.24	300.87	116.99	22 53 17	484.3	25.26	337.88
77.20	22 28 32	1484.28	15.49	1.24	300.87	116.99	22 53 17	484.3	25.26	337.88
110.00	0 51 4	1033.14	4.09	321.60	294.09	123.94	1 8 17	33.1	17.46	301.29

DIFFERENTIAL CORRECTIONS

TDE-4.8876 TRA 2.8358 TC3-6.3820 BAU 2.5299
RDE 1.7707 RRA-1.7447 RC3 2.4869 FAU .19589
FDE-3.4217 FRA 4.1217 FC3-6.1385 BSP 17716
BDE 5.1984 BRA 3.3295 BC3 6.8494 FSP 1343

MID-COURSE EXECUTION ACCURACY

SGT 9292.6 SGR 3932.6 SG3 786.8
RRT -.9795 RRF -.9957 RTF .9690
SGB10090.5 R23 .2016 R13 -.9755
SG110063.9 SG2 731.3 THA 157.36

ORBIT DETERMINATION ACCURACY

ST 272.0 SR 102.1 SS 62.4
CRT -.9914 CRS .9977 CST -.9804
LSA 296.7 MSA 16.7 SSA .4
EL1 290.3 EL2 12.5 ALF 159.54

LAUNCH DATE AUG 7 1973 FLIGHT TIME 320.00 ARRIVAL DATE JUN 23 1974

HELIOCENTRIC CONIC DISTANCE 688.781 EARTH TO MARS

RL	151.71	LAL	.00	LOL	314.35	VL	33.022	GAL	-.71	AZL	96.58	HCA	196.06	SMA	201.34	ECC	.24679	INC	6.5767	VI	29.367
RP	249.11	LAP	1.82	LOP	150.32	VP	20.159	GAP	-4.01	AZP	83.68	TAL	356.40	TAP	192.46	RCA	151.65	APO	251.03	V2	21.984
RC	352.122	GL	-47.72	GP	42.16	ZAL	91.65	ZAP	62.29	ETS	210.58	ZAE	77.05	ETE	193.44	ZAC	128.60	ETC	288.19	LVI	-62.87

PLANETOCENTRIC CONIC

C3	26.127	VHL	5.111	DLA	-28.93	RAL	58.26	RAD	6645.5	VEL	12.087	PTH	7.07	VHP	3.482	DPA	45.03	RAP	357.85	ECC	1.4300

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 10 2	2597.64	-12.24	70.63	280.03	136.35	16 53 20	1597.6	6.12	54.82
60.00	17 30 49	2382.73	-5.96	57.24	285.99	129.93	18 10 32	1382.7	10.12	39.27
70.00	19 18 25	2066.24	1.04	36.86	291.27	124.14	19 52 52	1066.2	14.69	16.92
80.00	21 45 29	1605.58	9.17	6.88	296.22	118.54	22 12 15	605.6	20.10	344.85
83.66	23 16 50	1312.17	15.00	348.22	299.23	115.02	23 38 42	312.2	24.03	324.68
100.00	0 32 17	1080.05	9.17	328.25	296.22	118.54	0 50 17	80.1	20.10	306.21
110.00	0 21 48	1113.06	1.04	325.78	291.27	124.14	0 40 21	113.1	14.69	305.83

DIFFERENTIAL CORRECTIONS

TDE	-4.6825	TRA	2.8187	TC3	-6.8203	BAU	2.5376												
RDE	1.6031	RRA	-1.6537	RC3	2.5020	FAU	.20643												
FDE	-3.3754	FRA	4.3077	FC3	-6.8399	BSP	17873												
BDE	4.9493	BRA	3.2680	BC3	7.2647	FSP	1426												

MID-COURSE EXECUTION ACCURACY

SGT	9444.3	SGR	3775.8	SG3	836.1														
RRT	-.9790	RRF	-.9953	RTF	.9687														
SGB	10171.1	R23	.2036	R13	-.9747														
SG11	0145.8	SG2	716.6	THA	158.51														

ORBIT DETERMINATION ACCURACY

ST	268.2	SR	95.4	SS	62.2														
CRT	-.9907	CRS	.9973	CST	-.9782														
LSA	290.8	MSA	16.9	SSA	.4														
EL1	284.4	EL2	12.2	ALF	160.55														

LAUNCH DATE AUG 8 1973 FLIGHT TIME 102.00 ARRIVAL DATE NOV 18 1973

HELIOCENTRIC CONIC DISTANCE 293.146 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	35.544	GAL	-.03	AZL	90.13	HCA	90.02	SMA	272.81	ECC	.44398	INC	.1290	V1	29.372
RP	218.89	LAP	-.13	LOP	45.33	VP	26.947	GAP	23.93	AZP	90.00	TAL	359.90	TAP	89.92	RCA	151.69	APO	393.93	V2	25.107
RC	77.855	GL	-.75	GP	-5.14	ZAL	87.67	ZAP	174.24	ETS	245.03	ZAE	162.15	ETE	344.34	ZAC	78.23	ETC	282.78	LVI	-11.92

PLANETOCENTRIC CONIC

C3	38.177	VHL	6.179	DLA	15.03	RAL	40.77	RAD	6650.0	VEL	12.572	PTH	7.44	VHP	8.850	DPA	10.61	RAP	42.10	ECC	1.6283

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 58 40	3596.20	-47.31	137.15	288.69	95.80	12 58 36	2596.2	-39.58	105.35
60.00	12 21 17	3535.98	-40.26	132.39	289.35	91.91	13 20 13	2536.0	-35.10	102.57
70.00	12 54 9	3439.24	-34.14	124.61	289.41	88.91	13 51 28	2439.2	-31.02	98.33
80.00	13 44 12	3282.41	-29.71	112.53	289.21	86.85	14 38 54	2282.4	-27.99	85.24
90.00	14 57 27	3045.99	-28.03	95.04	289.10	86.10	15 48 13	2046.0	-26.83	68.09
100.00	16 27 4	2756.89	-29.71	73.90	289.21	86.85	17 13 1	1756.9	-27.99	46.60
110.00	17 53 35	2486.06	-34.14	53.53	289.41	88.91	18 35 1	1486.1	-31.02	25.24

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3222	TRA	-1.0079	TC3	.2427	BAU	.1298	SGT	1056.2	SGR	622.7	SG3	132.9			ST	20.8	SR	28.9	SS	10.3
RDE	-.6193	RRA	.2311	RC3	-.0758	FAU	.05122	RRT	-.1083	RRF	.1263	RTF	-.6075			CRT	.6319	CRS	.7405	CST	.9771
FDE	.2368	FRA	.5283	FC3	-1.1616	BSP	1752	SGB	1226.1	R23	-.0265	R13	.6099			LSA	33.9	MSA	15.0	SSA	1.3
BDE	.6981	BRA	1.0340	BC3	.2543	FSP	164	SG1	1059.5	SG2	617.2	THA	174.46			EL1	32.6	EL2	14.3	ALF	58.91

LAUNCH DATE AUG 8 1973 FLIGHT TIME 104.00 ARRIVAL DATE NOV 20 1973

HELIOCENTRIC CONIC DISTANCE 295.301 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	35.392	GAL	.04	AZL	90.09	HCA	91.15	SMA	266.88	ECC	.43163	INC	.0923	V1	29.372
RP	219.26	LAP	-.09	LOP	46.46	VP	26.707	GAP	23.54	AZP	90.00	TAL	.13	TAP	91.27	RCA	151.69	APO	382.08	V2	25.067
RC	79.428	GL	-.55	GP	-5.27	ZAL	87.21	ZAP	173.74	ETS	239.13	ZAE	161.57	ETE	344.15	ZAC	78.04	ETC	282.75	LVI	-11.70

PLANETOCENTRIC CONIC

C3	36.341	VHL	6.028	DLA	15.08	RAL	40.25	RAD	6649.4	VEL	12.499	PTH	7.39	VHP	8.581	DPA	10.59	RAP	42.47	ECC	1.5981

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 56 24	3584.75	-47.22	136.06	286.99	96.64	12 56 9	2584.8	-39.20	104.52
60.00	12 18 57	3524.70	-40.23	131.43	287.76	92.56	13 17 42	2524.7	-34.82	101.74
70.00	12 51 45	3428.19	-34.15	123.75	287.90	89.42	13 48 53	2428.2	-30.82	95.53
80.00	13 41 43	3271.60	-29.74	111.73	287.75	87.27	14 36 15	2271.6	-27.85	84.46
90.00	14 54 56	3035.29	-28.08	94.26	287.64	86.48	15 45 31	2035.3	-26.71	67.33
100.00	16 24 35	2746.07	-29.74	73.10	287.75	87.27	17 10 21	1746.1	-27.85	45.83
110.00	17 51 11	2475.01	-34.15	52.67	287.90	89.42	18 32 26	1475.0	-30.82	24.44

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3273	TRA	-.9409	TC3	.2996	BAU	.1515	SGT	1041.6	SGR	626.2	SG3	141.8			ST	20.9	SR	29.0	SS	10.0
RDE	-.6068	RRA	.2242	RC3	-.0863	FAU	.05432	RRT	-.0959	RRF	.1269	RTF	-.6179			CRT	.6646	CRS	.7823	CST	.9710
FDE	.2412	FRA	.4623	FC3	-1.2941	BSP	1531	SGB	1215.3	R23	-.0350	R13	.6206			LSA	34.3	MSA	14.2	SSA	1.4
BDE	.6895	BRA	.9672	BC3	.3117	FSP	168	SG1	1044.3	SG2	621.7	THA	174.88			EL1	33.0	EL2	13.7	ALF	58.42

LAUNCH DATE AUG 8 1973 FLIGHT TIME 106.00 ARRIVAL DATE NOV 22 1973

HELIOCENTRIC CONIC DISTANCE 297.620 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	35.248	GAL	.11	AZL	90.06	HCA	92.27	SMA	261.54	ECC	.42002	INC	.0551	V1	29.372
RP	219.63	LAP	-.06	LOP	47.58	VP	26.478	GAP	23.16	AZP	90.00	TAL	.36	TAP	92.63	RCA	151.69	APO	371.39	V2	25.026
RC	81.081	GL	-.34	GP	-5.41	ZAL	86.73	ZAP	173.17	ETS	234.15	ZAE	161.05	ETE	343.92	ZAC	77.84	ETC	282.72	LVI	-11.47

PLANETOCENTRIC CONIC

C3	34.653	VHL	5.887	DLA	15.13	RAL	39.71	RAD	6648.8	VEL	12.432	PTH	7.34	VHP	8.321	DPA	10.57	RAP	42.64	ECC	1.5703

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 54 3	3573.79	-47.13	135.02	285.31	97.44	12 53 37	2573.8	-38.83	103.73
60.00	12 16 33	3513.92	-40.20	130.52	286.20	93.18	13 15 7	2513.9	-34.54	100.96
70.00	12 49 15	3417.64	-34.15	122.93	286.40	89.90	13 46 13	2417.6	-30.62	94.77
80.00	13 39 9	3261.31	-29.78	110.96	286.29	87.67	14 33 30	2261.3	-27.71	83.73
90.00	14 52 19	3025.12	-28.12	93.52	286.20	86.85	15 42 45	2025.1	-26.59	66.61
100.00	16 22 1	2735.78	-29.78	72.33	286.29	87.67	17 7 37	1735.8	-27.71	45.10
110.00	17 48 42	2464.46	-34.15	51.84	286.40	89.90	18 29 46	1464.5	-30.62	23.68

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3225	TRA	-.9863	TC3	.3267	BAU	.1577	SGT	1111.5	SGR	631.9	SG3	152.8			ST	21.7	SR	29.1	SS	11.1
RDE	-.5935	RRA	.2281	RC3	-.0957	FAU	.05643	RRT	-.1291	RRF	.1485	RTF	-.6453			CRT	.6377	CRS	.7587	CST	.9738
FDE	.2634	FRA	.5478	FC3	-1.4099	BSP	1596	SGB	1278.5	R23	-.0270	R13	.6480			LSA	34.7	MSA	15.2	SSA	1.4
BDE	.6755	BRA	1.0123	BC3	.3405	FSP	181	SG1	1115.8	SG2	624.1	THA	173.88			EL1	33.2	EL2	14.6	ALF	57.56

LAUNCH DATE AUG 8 1973 FLIGHT TIME 108.00 ARRIVAL DATE NOV 24 1973

HELIOCENTRIC CONIC DISTANCE 300.083 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	35.112	GAL	.17	AZL	90.02	HCA	93.39	SMA	256.70	ECC	.40909	INC	.0121	V1	29.372
RP	220.00	LAP	-.02	LOP	48.70	VP	26.258	GAP	22.79	AZP	90.00	TAL	.60	TAP	93.99	RCA	151.68	APO	361.71	V2	24.985
RC	82.809	GL	-.13	GP	-5.55	ZAL	86.25	ZAP	172.56	ETS	229.95	ZAE	160.58	ETE	343.64	ZAC	77.64	ETC	282.69	LVI	-11.24

PLANETOCENTRIC CONIC

C3	33.100	VHL	5.753	DLA	15.18	RAL	39.16	RAD	6648.2	VEL	12.370	PTH	7.29	VHP	8.071	DPA	10.54	RAP	43.20	ECC	1.5447

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 51 39	3563.33	-47.03	134.02	283.67	98.20	12 51 2	2563.3	-38.47	102.98
60.00	12 14 4	3503.64	-40.15	129.65	284.66	93.77	13 12 27	2503.6	-34.28	100.22
70.00	12 46 41	3407.61	-34.15	122.14	284.94	90.37	13 43 29	2407.6	-30.43	94.05
80.00	13 36 30	3251.54	-29.80	110.24	284.86	88.05	14 30 41	2251.5	-27.57	83.04
90.00	14 49 38	3015.48	-28.15	92.61	284.79	87.20	15 39 53	2015.5	-26.47	65.93
100.00	16 19 22	2726.01	-29.80	71.61	284.86	88.05	17 4 48	1726.0	-27.57	44.40
110.00	17 46 8	2454.43	-34.15	51.06	284.94	90.37	18 27 2	1454.4	-30.43	22.96

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY					
TDE	-.3248	TRA	-.9784	TC3	.3554	BAU	.1642	SGT	1136.3	SGR	636.3	SG3	162.7			ST	22.2	SR	29.2	SS	11.4
RDE	-.5813	RRA	.2268	RC3	-.1063	FAU	.05887	RRT	-.1370	RRF	.1615	RTF	-.6514			CRT	.6419	CRS	.7633	CST	.9734
FDE	.2739	FRA	.5574	FC3	-1.5397	BSP	1643	SGB	1302.4	R23	-.0333	R13	.6547			LSA	35.1	MSA	15.4	SSA	1.5
BDE	.6659	BRA	1.0044	BC3	.3710	FSP	198	SG1	1141.1	SG2	627.7	THA	173.70			EL1	33.5	EL2	14.8	ALF	56.70

LAUNCH DATE AUG 8 1973 FLIGHT TIME 110.00 ARRIVAL DATE NOV 26 1973

HELIOCENTRIC CONIC DISTANCE 302.675 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	34.983	GAL	.24	AZL	89.98	HCA	94.51	SMA	252.30	ECC	.39879	INC	.0000
RP	220.38	LAP	.02	LOP	49.82	VP	26.046	GAP	22.41	AZP	90.00	TAL	.85	TAP	95.36	RCA	151.68	APO	352.91
RC	84.610	GL	.10	GP	-5.70	ZAL	85.74	ZAP	171.90	ETS	226.40	ZAE	160.18	ETE	343.31	ZAC	77.43	ETC	282.66

V1	29.372																		
V2	24.944																		
LVI	-11.00																		

PLANETOCENTRIC CONIC

C3	31.671	VHL	5.628	DLA	15.24	RAL	38.60	RAD	6647.6	VEL	12.312	PTH	7.24	VHP	7.830	DPA	10.51	RAP	43.55
ECC	1.5212																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 49 10	3553.38	-46.93	133.08	282.06	98.92	12 48 23	2553.4	-38.12	102.28
60.00	12 11 31	3493.88	-40.11	128.82	283.16	94.33	13 9 44	2493.9	-34.02	99.52
70.00	12 44 3	3398.11	-34.15	121.40	283.49	90.80	13 40 41	2398.1	-30.25	93.37
80.00	13 33 46	3242.32	-29.82	109.55	283.46	88.41	14 27 48	2242.3	-27.44	82.38
90.00	14 46 51	3006.40	-28.18	92.15	283.39	87.53	15 36 58	2006.4	-26.36	65.29
100.00	16 16 38	2716.79	-29.82	70.92	283.46	88.41	17 1 55	1716.8	-27.44	43.75
110.00	17 43 29	2444.93	-34.15	50.32	283.49	90.80	18 24 14	1444.9	-30.25	22.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3291	TRA	-.9662	TC3	.3896	BAU	.1724	SGT	1159.3	SGR	640.1	SG3	173.3	ST	22.7	SR	29.2	SS	12.0
RDE	-.5689	RRA	.2255	RC3	-.1179	FAU	.06146	RRT	-.1439	RRF	.1712	RTF	-.6617	CRT	.6500	CRS	.7772	CST	.9716
FDE	.2938	FRA	.5662	FC3	-1.6800	BSP	1704	SGB	1324.2	R23	-.0364	R13	.6652	LSA	35.6	MSA	15.4	SSA	1.5
BDE	.6572	BRA	.9921	BC3	.4071	FSP	217	SG1	1164.5	SG2	630.6	THA	173.56	EL1	33.8	EL2	14.9	ALF	55.68

LAUNCH DATE AUG 8 1973 FLIGHT TIME 112.00 ARRIVAL DATE NOV 28 1973

HELIOCENTRIC CONIC DISTANCE 305.380 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	34.862	GAL	.31	AZL	89.95	HCA	95.62	SMA	248.29	ECC	.38910	INC	.0495
RP	220.76	LAP	.05	LOP	50.94	VP	25.843	GAP	22.04	AZP	90.01	TAL	1.10	TAP	96.73	RCA	151.68	APO	344.89
RC	86.480	GL	.33	GP	-5.85	ZAL	85.24	ZAP	171.21	ETS	223.39	ZAE	159.84	ETE	342.93	ZAC	77.22	ETC	282.63

V1	29.372																		
V2	24.902																		
LVI	-10.76																		

PLANETOCENTRIC CONIC

C3	30.354	VHL	5.509	DLA	15.30	RAL	38.02	RAD	6647.1	VEL	12.259	PTH	7.20	VHP	7.598	DPA	10.46	RAP	43.90
ECC	1.4995																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 46 37	3543.94	-46.83	132.20	280.50	99.59	12 45 41	2543.9	-37.79	101.62
60.00	12 8 53	3484.65	-40.06	128.04	281.68	94.86	13 6 58	2484.7	-33.77	98.86
70.00	12 41 20	3389.15	-34.13	120.70	282.07	91.22	13 37 49	2389.2	-30.07	92.73
80.00	13 30 57	3233.66	-29.83	108.91	282.07	88.75	14 24 51	2233.7	-27.31	81.77
90.00	14 44 0	2997.89	-28.20	91.53	282.02	87.84	15 33 58	1997.9	-26.25	64.69
100.00	16 13 49	2708.13	-29.83	70.28	282.07	88.75	16 58 57	1708.1	-27.31	43.14
110.00	17 40 46	2435.97	-34.13	49.62	282.07	91.22	18 21 22	1436.0	-30.07	21.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3283	TRA	-.9549	TC3	.4256	BAU	.1806	SGT	1181.7	SGR	644.2	SG3	184.4	ST	23.0	SR	29.2	SS	12.3
RDE	-.5572	RRA	.2245	RC3	-.1304	FAU	.06417	RRT	-.1559	RRF	.1854	RTF	-.6721	CRT	.6519	CRS	.7827	CST	.9703
FDE	.3076	FRA	.5771	FC3	-1.8303	BSP	1763	SGB	1345.9	R23	-.0388	R13	.6760	LSA	35.9	MSA	15.5	SSA	1.6
BDE	.6467	BRA	.9810	BC3	.4451	FSP	235	SG1	1187.7	SG2	633.1	THA	173.20	EL1	34.0	EL2	15.0	ALF	55.09

LAUNCH DATE AUG 8 1973 FLIGHT TIME 114.00 ARRIVAL DATE NOV 30 1973

HELIOCENTRIC CONIC DISTANCE 308.186 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	34.747	GAL	.37	AZL	89.91	HCA	96.73	SMA	244.62	ECC	.37996	INC	.0868
RP	221.14	LAP	.09	LOP	52.05	VP	25.647	GAP	21.67	AZP	90.01	TAL	1.36	TAP	98.09	RCA	151.68	APO	337.57
RC	88.416	GL	.56	GP	-6.02	ZAL	84.72	ZAP	170.49	ETS	220.82	ZAE	159.56	ETE	342.50	ZAC	77.01	ETC	282.60

V1	29.372																		
V2	24.861																		
LVI	-10.52																		

PLANETOCENTRIC CONIC

C3	29.141	VHL	5.398	DLA	15.36	RAL	37.43	RAD	6646.7	VEL	12.210	PTH	7.16	VHP	7.373	DPA	10.40	RAP	44.23
ECC	1.4796																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 44 1	3535.02	-46.72	131.36	278.97	100.23	12 42 56	2535.0	-37.47	101.01
60.00	12 6 12	3475.96	-40.00	127.31	280.24	95.35	13 4 8	2476.0	-33.53	98.25
70.00	12 38 33	3380.75	-34.12	120.05	280.69	91.61	13 34 54	2380.8	-29.91	92.13
80.00	13 28 5	3225.57	-29.84	108.31	280.72	89.07	14 21 50	2225.6	-27.19	81.20
90.00	14 41 4	2989.96	-28.22	90.95	280.67	88.13	15 30 54	1990.0	-26.15	64.13
100.00	16 10 56	2700.05	-29.84	69.68	280.72	89.07	16 55 56	1700.0	-27.19	42.57
110.00	17 38 0	2427.57	-34.12	48.96	280.69	91.61	18 18 27	1427.6	-29.91	21.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3290	TRA	-.9471	TC3	.4626	BAU	.1887	SGT	1207.5	SGR	648.0	SG3	196.0	ST	23.4	SR	29.2	SS	12.8
RDE	-.5456	RRA	.2233	RC3	-.1438	FAU	.06697	RRT	-.1681	RRF	.1983	RTF	-.6802	CRT	.6540	CRS	.7925	CST	.9677
FDE	.3250	FRA	.5839	FC3	-1.9898	BSP	1820	SGB	1370.4	R23	-.0408	R13	.6843	LSA	36.3	MSA	15.6	SSA	1.6
BDE	.6371	BRA	.9731	BC3	.4844	FSP	254	SG1	1214.3	SG2	635.2	THA	172.89	EL1	34.3	EL2	15.1	ALF	54.33

LAUNCH DATE AUG 8 1973 FLIGHT TIME 116.00 ARRIVAL DATE DEC 2 1973

HELIOCENTRIC CONIC DISTANCE 311.082 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	34.638	GAL	.44	AZL	89.88	HCA	97.84	SMA	241.26	ECC	.37135	INC	.1231
RP	221.52	LAP	.12	LOP	53.15	VP	25.459	GAP	21.31	AZP	90.02	TAL	1.62	TAP	99.46	RCA	151.67	APO	330.86
RC	90.414	GL	.81	GP	-6.18	ZAL	84.19	ZAP	169.74	ETS	218.62	ZAE	159.33	ETE	342.02	ZAC	76.79	ETC	282.58

V1	29.372																		
V2	24.819																		
LVI	-10.28																		

PLANETOCENTRIC CONIC

C3	28.022	VHL	5.294	DLA	15.43	RAL	36.84	RAD	6646.2	VEL	12.164	PTH	7.13	VHP	7.157	DPA	10.33	RAP	44.56
ECC	1.4612																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 41 22	3526.64	-46.62	130.58	277.49	100.82	12 40 9	2526.6	-37.17	100.44
60.00	12 3 28	3467.80	-39.95	126.62	278.83	95.82	13 1 16	2467.8	-33.31	97.67
70.00	12 35 43	3372.91	-34.10	119.43	279.33	91.97	13 31 55	2372.9	-29.75	91.58
80.00	13 25 7	3218.07	-29.85	107.75	279.39	89.36	14 18 45	2218.1	-27.08	80.67
90.00	14 38 4	2982.62	-28.24	90.41	279.35	88.40	15 27 47	1982.6	-26.05	63.62
100.00	16 7 59	2692.54	-29.85	69.12	279.39	89.36	16 52 52	1692.5	-27.08	42.04
110.00	17 35 9	2419.73	-34.10	48.35	279.33	91.97	18 15 29	1419.7	-29.75	20.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3322	TRA	-.9373	TC3	.5004	BAU	.1966	SGT	1231.9	SGR	651.9	SG3	208.7	ST	23.9	SR	29.2	SS	13.2
RDE	-.5344	RRA	.2224	RC3	-.1584	FAU	.07006	RRT	-.1789	RRF	.2135	RTF	-.6886	CRT	.6598	CRS	.8002	CST	.9666
FDE	.3429	FRA	.5935	FC3	-2.1644	BSP	1858	SGB	1393.8	R23	-.0458	R13	.6932	LSA	36.7	MSA	15.7	SSA	1.7
BDE	.6292	BRA	.9633	BC3	.5249	FSP	270	SG1	1239.4	SG2	637.5	THA	172.63	EL1	34.5	EL2	15.2	ALF	53.38

LAUNCH DATE AUG 8 1973 FLIGHT TIME 118.00 ARRIVAL DATE DEC 4 1973

HELIOCENTRIC CONIC DISTANCE 314.059 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	34.535	GAL	.50	AZL	89.64	HCA	98.94	SMA	238.18	ECC	.36322	INC	.1593	V1	29.372
RP	221.90	LAP	.16	LOP	54.25	VP	25.278	GAP	20.95	AZP	90.02	TAL	1.89	TAP	100.83	RCA	151.67	APO	324.69	V2	24.778
RC	92.473	GL	1.06	GP	-6.36	ZAL	83.66	ZAP	168.97	ETS	216.72	ZAE	159.16	ETE	341.49	ZAC	76.57	ETC	282.55	LVI	-10.03

PLANETOCENTRIC CONIC

C3	26.968	VHL	5.195	DLA	15.50	RAL	36.23	RAD	6645.8	VEL	12.122	PTH	7.09	VHP	6.948	DPA	10.25	RAP	44.88	ECC	1.4442

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 38 40	3518.75	-46.52	129.84	276.05	101.38	12 37 19	2518.8	-36.88	99.90
60.00	12 0 40	3460.16	-39.90	125.98	277.46	96.25	12 58 20	2460.2	-35.09	97.14
70.00	12 32 48	3365.60	-34.09	118.86	278.00	92.30	13 28 53	2365.6	-29.59	91.06
80.00	13 22 6	3211.12	-29.86	107.24	278.08	89.63	14 15 37	2211.1	-26.97	80.18
90.00	14 34 59	2975.85	-28.25	89.92	278.06	88.65	15 24 35	1975.8	-25.96	63.14
100.00	16 4 58	2685.59	-29.86	68.60	278.08	89.63	16 49 43	1685.6	-26.97	41.55
110.00	17 32 14	2412.42	-34.09	47.78	278.00	92.30	18 12 27	1412.4	-29.59	19.98

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3225	TRA	-.9140	TC3	.5571	BAU	.2105	SGT	1247.4	SGR	655.2	SG3	221.4	ST	23.7	SR	29.1	SS	13.9
RDE	-.5228	RRA	.2216	RC3	-.1736	FAU	.07300	RRT	-.2015	RRF	.2259	RTF	-.7123	CRT	.6560	CRS	.8124	CST	.9614
FDE	.3695	FRA	.6040	FC3	-2.3418	BSP	1766	SGB	1409.0	R23	-.0324	R13	.7165	LSA	36.8	MSA	15.6	SSA	1.7
BDE	.6143	BRA	.9405	BC3	.5835	FSP	298	SG1	1256.8	SG2	637.0	THA	171.85	EL1	34.3	EL2	15.2	ALF	53.66

LAUNCH DATE AUG 8 1973 FLIGHT TIME 120.00 ARRIVAL DATE DEC 6 1973

HELIOCENTRIC CONIC DISTANCE 317.110 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	34.437	GAL	.57	AZL	89.80	HCA	100.04	SMA	235.34	ECC	.35557	INC	.1961	V1	29.372
RP	222.28	LAP	.19	LOP	55.35	VP	25.103	GAP	20.59	AZP	90.03	TAL	2.16	TAP	102.20	RCA	151.66	APO	319.02	V2	24.736
RC	94.587	GL	1.33	GP	-6.54	ZAL	83.14	ZAP	168.18	ETS	215.06	ZAE	159.04	ETE	340.89	ZAC	76.34	ETC	282.53	LVI	-9.78

PLANETOCENTRIC CONIC

C3	26.036	VHL	5.103	DLA	15.58	RAL	35.63	RAD	6645.4	VEL	12.083	PTH	7.06	VHP	6.746	DPA	10.16	RAP	45.19	ECC	1.4285

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 35 56	3511.44	-46.42	129.17	274.65	101.89	12 34 27	2511.4	-36.62	99.41
60.00	11 57 50	3453.12	-39.84	125.39	276.12	96.65	12 55 23	2453.1	-32.89	96.65
70.00	12 29 50	3358.92	-34.07	118.34	276.71	92.61	13 25 49	2358.9	-29.45	90.59
80.00	13 19 1	3204.83	-29.86	106.77	276.82	89.88	14 12 26	2204.8	-26.87	79.74
90.00	14 31 51	2969.74	-28.26	89.47	276.80	88.87	15 21 20	1969.7	-25.88	62.72
100.00	16 1 53	2679.30	-29.86	68.14	276.82	89.88	16 46 32	1679.3	-26.87	41.11
110.00	17 29 17	2405.74	-34.07	47.26	276.71	92.61	18 9 22	1405.7	-29.45	19.51

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3286	TRA	-.9067	TC3	.5918	BAU	.2164	SGT	1272.0	SGR	659.0	SG3	235.5	ST	24.3	SR	29.0	SS	14.4
RDE	-.5119	RRA	.2204	RC3	-.1906	FAU	.07647	RRT	-.2112	RRF	.2423	RTF	-.7148	CRT	.6641	CRS	.8216	CST	.9599
FDE	.3902	FRA	.6080	FC3	-2.5426	BSP	1861	SGB	1432.6	R23	-.0412	R13	.7197	LSA	37.3	MSA	15.6	SSA	1.7
BDE	.6083	BRA	.9332	BC3	.6217	FSP	319	SG1	1282.2	SG2	639.1	THA	171.67	EL1	34.7	EL2	15.2	ALF	52.42

LAUNCH DATE AUG 8 1973 FLIGHT TIME 122.00 ARRIVAL DATE DEC 8 1973

HELIOCENTRIC CONIC DISTANCE 320.226 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	34.345	GAL	.63	AZL	89.77	HCA	101.14	SMA	232.72	ECC	.34836	INC	.2328	V1	29.372
RP	222.67	LAP	.23	LOP	56.45	VP	24.935	GAP	20.24	AZP	90.05	TAL	2.42	TAP	103.56	RCA	151.65	APO	313.79	V2	24.694
RC	96.756	GL	1.60	GP	-6.73	ZAL	82.61	ZAP	167.36	ETS	213.62	ZAE	158.98	ETE	340.24	ZAC	76.11	ETC	282.51	LVI	-9.52

PLANETOCENTRIC CONIC

C3	25.156	VHL	5.016	DLA	15.66	RAL	35.01	RAD	6645.1	VEL	12.047	PTH	7.03	VHP	6.552	DPA	10.05	RAP	45.49	ECC	1.4140

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 33 9	3504.65	-46.32	128.54	273.30	102.37	12 31 34	2504.7	-36.37	98.95
60.00	11 54 57	3446.62	-39.79	124.84	274.83	97.01	12 52 24	2446.6	-32.71	96.20
70.00	12 26 49	3352.81	-34.05	117.87	275.45	92.89	13 22 42	2352.8	-29.32	90.17
80.00	13 15 52	3199.13	-29.86	106.35	275.58	90.10	14 9 11	2199.1	-26.78	79.34
90.00	14 28 38	2964.26	-28.27	89.07	275.57	89.07	15 18 2	1964.3	-25.80	62.33
100.00	15 58 44	2673.80	-29.86	67.71	275.58	90.10	16 43 17	1673.6	-26.78	40.71
110.00	17 26 16	2399.62	-34.05	46.79	275.45	92.89	18 6 15	1399.6	-29.32	19.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3326	TRA	-.8995	TC3	.6296	BAU	.2231	SGT	1296.9	SGR	663.2	SG3	250.4	ST	24.9	SR	28.9	SS	14.8
RDE	-.5014	RRA	.2194	RC3	-.2090	FAU	.08012	RRT	-.2239	RRF	.2606	RTF	-.7184	CRT	.6697	CRS	.8287	CST	.9584
FDE	.4098	FRA	.6125	FC3	-2.7573	BSP	1958	SGB	1456.6	R23	-.0490	R13	.7240	LSA	37.8	MSA	15.6	SSA	1.8
BDE	.6017	BRA	.9259	BC3	.6633	FSP	341	SG1	1308.1	SG2	640.8	THA	171.39	EL1	34.9	EL2	15.3	ALF	51.37

LAUNCH DATE AUG 8 1973 FLIGHT TIME 124.00 ARRIVAL DATE DEC 10 1973

HELIOCENTRIC CONIC DISTANCE 323.402 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	34.258	GAL	.69	AZL	89.73	HCA	102.23	SMA	230.31	ECC	.34155	INC	.2693	V1	29.372
RP	223.06	LAP	.26	LOP	57.54	VP	24.773	GAP	19.89	AZP	90.06	TAL	2.69	TAP	104.92	RCA	151.64	APO	308.97	V2	24.652
RC	98.976	GL	1.87	GP	-6.93	ZAL	82.08	ZAP	166.53	ETS	212.35	ZAE	158.96	ETE	339.52	ZAC	75.87	ETC	282.49	LVI	-9.26

PLANETOCENTRIC CONIC

C3	24.344	VHL	4.934	DLA	15.75	RAL	34.40	RAD	6644.7	VEL	12.013	PTH	7.00	VHP	6.364	DPA	9.94	RAP	45.77	ECC	1.4006

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 30 21	3498.40	-46.23	127.97	272.00	102.80	12 28 39	2498.4	-36.13	98.54
60.00	11 52 2	3440.67	-39.74	124.35	273.57	97.35	12 49 22	2440.7	-32.53	95.79
70.00	12 23 46	3347.27	-34.03	117.44	274.23	93.15	13 19 33	2347.3	-29.20	89.78
80.00	13 12 39	3194.05	-29.86	105.97	274.38	90.30	14 5 53	2194.0	-26.70	78.99
90.00	14 25 21	2959.40	-28.27	88.72	274.37	89.25	15 14 41	1959.4	-25.73	61.99
100.00	15 55 31	2668.52	-29.86	67.34	274.38	90.30	16 40 0	1668.5	-26.70	40.36
110.00	17 23 12	2394.09	-34.03	46.35	274.23	93.15	18 3 6	1394.1	-29.20	18.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3356	TRA	-.8909	TC3	.6667	BAU	.2294	SGT	1319.2	SGR	667.4	SG3	265.8	ST	25.3	SR	28.8	SS	15.3
RDE	-.4910	RRA	.2186	RC3	-.2283	FAU	.08384	RRT	-.2380	RRF	.2795	RTF	-.7231	CRT	.6745	CRS	.8355	CST	.9568
FDE	.4320	FRA	.6197	FC3	-2.9815	BSP	2033	SGB	1478.4	R23	-.0555	R13	.7294	LSA	38.2	MSA	15.6	SSA	1.9
BDE	.5948	BRA	.9174	BC3	.7047	FSP	366	SG1	1331.7	SG2	642.2	THA	171.03	EL1	35.1	EL2	15.3	ALF	50.41

LAUNCH DATE AUG 8 1973 FLIGHT TIME 126.00 ARRIVAL DATE DEC 12 1973

HELIOCENTRIC CONIC DISTANCE 326.631 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	34.175	GAL	.74	AZL	89.69	HCA	103.31	SMA	228.07	ECC	.33513	INC	.3062	V1	29.372
RP	223.44	LAP	.30	LOP	58.63	VP	24.617	GAP	19.55	AZP	90.07	TAL	2.96	TAP	106.28	RCA	151.64	APO	304.50	V2	24.611
RC	101.244	GL	2.16	GP	-7.13	ZAL	81.55	ZAP	165.68	ETS	211.22	ZAE	159.00	ETE	338.73	ZAC	75.63	ETC	282.47	LVI	-9.00

PLANETOCENTRIC CONIC

C3	23.593	VHL	4.857	DLA	15.84	RAL	33.79	RAD	6644.4	VEL	11.982	PTH	6.98	VHP	6.182	DPA	9.81	RAP	46.05	ECC	1.3883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 27 30	3492.67	-46.14	127.44	270.74	103.20	12 25 43	2492.7	-35.92	98.16
60.00	11 49 4	3435.28	-39.69	123.89	272.36	97.65	12 46 19	2435.3	-32.38	95.42
70.00	12 20 39	3342.32	-34.01	117.05	273.04	93.37	13 16 21	2342.3	-29.10	89.44
80.00	13 9 23	3189.58	-29.85	105.64	273.21	90.47	14 2 33	2189.6	-26.62	78.68
90.00	14 22 1	2955.17	-28.27	88.41	273.20	89.41	15 11 16	1955.2	-25.67	61.70
100.00	15 52 16	2664.05	-29.85	67.00	273.21	90.47	16 36 39	1664.1	-26.62	40.05
110.00	17 20 5	2389.14	-34.01	45.97	273.04	93.37	17 59 54	1389.1	-29.10	18.35

DIFFERENTIAL CORRECTIONS

TDE	-.3401	TRA	-.8802	TC3	.7071	BAU	.2365												
RDE	-.4805	RRA	.2176	RC3	-.2492	FAU	.08784												
FDE	.4589	FRA	.6230	FC3	-3.2231	BSP	2092												
BDE	.5887	BRA	.9067	BC3	.7497	FSP	393												

MID-COURSE EXECUTION ACCURACY

SGT	1340.7	SGR	671.7	SG3	282.4						
RRT	-.2519	RRF	.2984	RTF	-.7286						
SGB	1499.5	R23	-.0618	R13	.7356						
SG1	1354.5	SG2	643.4	THA	170.69						

ORBIT DETERMINATION ACCURACY

ST	25.8	SR	28.6	SS	15.9						
CRT	.6816	CRS	.8445	CST	.9549						
LSA	38.6	MSA	15.5	SSA	1.9						
EL1	35.4	EL2	15.3	ALF	49.35						

LAUNCH DATE AUG 8 1973 FLIGHT TIME 128.00 ARRIVAL DATE DEC 14 1973

HELIOCENTRIC CONIC DISTANCE 329.909 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	34.097	GAL	.80	AZL	89.66	HCA	104.40	SMA	226.00	ECC	.32907	INC	.3434	V1	29.372
RP	223.83	LAP	.33	LOP	59.71	VP	24.466	GAP	19.20	AZP	90.09	TAL	3.23	TAP	107.63	RCA	151.63	APO	300.37	V2	24.569
RC	103.560	GL	2.45	GP	-7.35	ZAL	81.03	ZAP	164.81	ETS	210.23	ZAE	159.07	ETE	337.86	ZAC	75.38	ETC	282.46	LVI	-8.74

PLANETOCENTRIC CONIC

C3	22.899	VHL	4.785	DLA	15.94	RAL	33.17	RAD	6644.1	VEL	11.953	PTH	6.95	VHP	6.007	DPA	9.67	RAP	46.31	ECC	1.3769

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 24 39	3487.47	-46.06	126.97	269.52	103.56	12 22 46	2487.5	-35.72	97.82
60.00	11 46 4	3430.43	-39.65	123.49	271.18	97.92	12 43 15	2430.4	-32.24	95.08
70.00	12 17 29	3337.95	-33.99	116.71	271.89	93.57	13 13 7	2338.0	-29.00	89.13
80.00	13 6 4	3185.73	-29.85	105.35	272.07	90.62	13 59 10	2185.7	-26.56	78.41
90.00	14 18 36	2951.58	-28.28	88.15	272.07	89.54	15 7 48	1951.6	-25.62	61.45
100.00	15 48 56	2660.21	-29.85	66.72	272.07	90.62	16 33 16	1660.2	-26.56	39.78
110.00	17 16 56	2384.77	-33.99	45.63	271.89	93.57	17 56 40	1384.8	-29.00	18.05

DIFFERENTIAL CORRECTIONS

TDE	-.3431	TRA	-.8694	TC3	.7479	BAU	.2436												
RDE	-.4702	RRA	.2165	RC3	-.2715	FAU	.09201												
FDE	.4877	FRA	.6248	FC3	-3.4785	BSP	2135												
BDE	.5820	BRA	.8960	BC3	.7957	FSP	419												

MID-COURSE EXECUTION ACCURACY

SGT	1361.3	SGR	676.1	SG3	299.7						
RRT	-.2680	RRF	.3182	RTF	-.7339						
SGB	1520.0	R23	-.0670	R13	.7417						
SG1	1376.8	SG2	644.1	THA	170.27						

ORBIT DETERMINATION ACCURACY

ST	26.2	SR	28.4	SS	16.5						
CRT	.6870	CRS	.8534	CST	.9524						
LSA	39.1	MSA	15.4	SSA	2.0						
EL1	35.5	EL2	15.2	ALF	48.40						

LAUNCH DATE AUG 8 1973 FLIGHT TIME 130.00 ARRIVAL DATE DEC 16 1973

HELIOCENTRIC CONIC DISTANCE 333.232 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	34.023	GAL	.85	AZL	89.62	HCA	105.48	SMA	224.07	ECC	.32336	INC	.3806	V1	29.372
RP	224.22	LAP	.37	LOP	60.79	VP	24.321	GAP	18.87	AZP	90.10	TAL	3.50	TAP	108.98	RCA	151.62	APO	296.53	V2	24.527
RC	105.921	GL	2.75	GP	-7.57	ZAL	80.52	ZAP	163.93	ETS	209.34	ZAE	159.20	ETE	336.90	ZAC	75.13	ETC	282.45	LVI	-8.47

PLANETOCENTRIC CONIC

C3	22.257	VHL	4.718	DLA	16.05	RAL	32.56	RAD	6643.8	VEL	11.927	PTH	6.93	VHP	5.837	DPA	9.52	RAP	46.56	ECC	1.3663

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 21 46	3482.80	-45.98	126.54	268.36	103.88	12 19 48	2482.8	-35.54	97.51
60.00	11 43 3	3426.14	-39.60	123.13	270.05	98.16	12 40 9	2426.1	-32.11	94.79
70.00	12 14 17	3334.17	-33.97	116.42	270.78	93.75	13 9 51	2334.2	-28.92	88.87
80.00	13 2 41	3182.51	-29.85	105.11	270.97	90.75	13 55 44	2182.5	-26.51	78.18
90.00	14 15 8	2948.64	-28.28	87.93	270.98	89.65	15 4 17	1948.6	-25.57	61.25
100.00	15 45 33	2656.98	-29.85	66.48	270.97	90.75	16 29 50	1657.0	-26.51	39.55
110.00	17 13 44	2380.99	-33.97	45.34	270.78	93.75	17 53 25	1381.0	-28.92	17.79

DIFFERENTIAL CORRECTIONS

TDE	-.3453	TRA	-.8586	TC3	.7882	BAU	.2505												
RDE	-.4601	RRA	.2156	RC3	-.2953	FAU	.09641												
FDE	.5159	FRA	.6273	FC3	-3.7498	BSP	2198												
BDE	.5752	BRA	.8852	BC3	.8417	FSP	450												

MID-COURSE EXECUTION ACCURACY

SGT	1380.7	SGR	681.2	SG3	317.9						
RRT	-.2655	RRF	.3397	RTF	-.7490						
SGB	1539.6	R23	-.0728	R13	.7476						
SG1	1398.1	SG2	644.7	THA	169.79						

ORBIT DETERMINATION ACCURACY

ST	26.6	SR	28.2	SS	17.1						
CRT	.6916	CRS	.8605	CST	.9501						
LSA	39.4	MSA	15.4	SSA	2.1						
EL1	35.7	EL2	15.2	ALF	47.52						

LAUNCH DATE AUG 8 1973 FLIGHT TIME 132.00 ARRIVAL DATE DEC 18 1973

HELIOCENTRIC CONIC DISTANCE 336.595 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.953	GAL	.91	AZL	89.58	HCA	106.55	SMA	222.29	ECC	.31796	INC	.4181	V1	29.372
RP	224.61	LAP	.40	LOP	61.87	VP	24.180	GAP	18.53	AZP	90.12	TAL	3.76	TAP	110.32	RCA	151.61	APO	292.97	V2	24.485
RC	108.326	GL	3.05	GP	-7.80	ZAL	80.01	ZAP	163.02	ETS	208.54	ZAE	159.36	ETE	335.88	ZAC	74.87	ETC	282.44	LVI	-8.19

PLANETOCENTRIC CONIC

C3	21.664	VHL	4.654	DLA	16.17	RAL	31.95	RAD	6643.6	VEL	11.902	PTH	6.91	VHP	5.674	DPA	9.35	RAP	46.80	ECC	1.3565

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 18 52	3478.64	-45.91	126.16	267.23	104.16	12 16 50	2478.6	-35.38	97.24
60.00	11 39 59	3422.39	-39.57	122.82	268.95	98.37	12 37 2	2422.4	-32.00	94.53
70.00	12 11 3	3330.97	-33.96	116.17	269.71	93.89	13 6 34	2331.0	-28.85	88.65
80.00	12 59 15	3179.92	-29.85	104.92	269.91	90.85	13 52 15	2179.9	-26.46	78.00
90.00	14 11 37	2946.35	-28.28	87.76	269.92	89.73	15 0 43	1946.3	-25.54	61.09
100.00	15 42 7	2654.39	-29.85	66.29	269.91	90.85	16 26 21	1654.4	-26.46	39.37
110.00	17 10 29	2377.79	-33.96	45.09	269.71	93.89	17 50 7	1377.8	-28.85	17.57

DIFFERENTIAL CORRECTIONS

TDE	-.3482	TRA	-.8479	TC3	.8299	BAU	.2577												
RDE	-.4500	RRA	.2147	RC3	-.3210	FAU	.10116												
FDE	.5473	FRA	.6305	FC3	-4.0426	BSP	2235												
BDE	.5690	BRA	.8746	BC3	.8898	FSP	480												

MID-COURSE EXECUTION ACCURACY

SGT	1400.5	SGR	686.9	SG3	337.6						
RRT	-.3040	RRF	.3627	RTF	-.7445						
SGB	1559.9	R23	-.0789	R13	.7540						
SG1	1420.1	SG2	645.3	THA	169.28						

ORBIT DETERMINATION ACCURACY

ST	27.0	SR	28.0	SS	17.8						
CRT	.6966	CRS	.8674	CST	.9481						
LSA	39.9	MSA	15.2	SSA	2.1						
EL1	35.8	EL2	15.1	ALF	46.57						

LAUNCH DATE AUG 8 1973 FLIGHT TIME 134.00 ARRIVAL DATE DEC 20 1973

HELIOCENTRIC CONIC DISTANCE 339.994 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.887	GAL	.96	AZL	89.54	HCA	107.63	SMA	220.63	ECC	.31287	INC	.4559
RP	228.00	LAP	.43	LOP	62.94	VP	24.045	GAP	18.20	AZP	90.14	TAL	4.02	TAP	111.65	RCA	151.60	APO	289.65
RC	110.773	GL	3.37	GP	-8.04	ZAL	79.51	ZAP	162.10	ETS	207.82	ZAE	159.55	ETE	334.71	ZAC	74.61	ETC	282.43

V1	29.372	V2	24.443	LVI	-7.92														

PLANETOCENTRIC CONIC

C3	21.115	VHL	4.595	DLA	16.29	RAL	31.35	RAD	6643.3	VEL	11.879	PTH	6.89	VHP	5.515	DPA	9.16	RAP	47.02

ECC	1.3475																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 15 57	3478.01	-45.85	125.83	266.16	104.41	12 13 52	2475.0	-35.25	97.01
60.00	11 36 55	3419.19	-39.54	122.55	267.90	98.55	12 33 54	2419.2	-31.90	94.32
70.00	12 7 46	3328.36	-33.95	115.97	268.67	94.01	13 3 14	2328.4	-28.79	88.47
80.00	12 55 46	3177.95	-29.84	104.77	268.88	90.93	13 48 44	2178.0	-26.43	77.87
90.00	14 8 2	2944.71	-28.28	87.64	268.89	89.79	14 57 6	1944.7	-25.52	60.97
100.00	15 38 38	2652.43	-29.84	66.14	268.88	90.93	16 22 50	1652.4	-26.43	39.24
110.00	17 7 12	2375.18	-33.95	44.88	268.67	94.01	17 46 48	1375.2	-28.79	17.38

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3501	TRA	-.8358	TCS	.8688	BAU	.2642	SGT	1416.7	SGR	692.8	SG3	357.8	ST	27.3	SR	27.7	SS	18.5
RDE	-.4398	RRA	.2135	RC3	-.3479	FAU	.10599	RRT	-.3230	RRF	.3856	RTF	-.7489	CRT	.7012	CRS	.8750	CST	.9453
FDE	.5815	FRA	.6293	FC3	-4.3458	BSP	2282	SGB	1577.0	R23	-.0845	R13	.7594	LSA	40.2	NSA	15.1	SSA	2.2
BDE	.5622	BRA	.8627	BC3	.9359	FSP	514	SG1	1438.8	SG2	645.5	THA	168.73	EL1	35.9	EL2	15.0	ALF	45.71

LAUNCH DATE AUG 8 1973 FLIGHT TIME 136.00 ARRIVAL DATE DEC 22 1973

HELIOCENTRIC CONIC DISTANCE 343.428 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.824	GAL	1.01	AZL	89.51	HCA	108.69	SMA	219.08	ECC	.30807	INC	.4941
RP	225.39	LAP	.47	LOP	64.01	VP	23.914	GAP	17.87	AZP	90.16	TAL	4.28	TAP	112.98	RCA	151.59	APO	286.57
RC	113.259	GL	3.69	GP	-8.30	ZAL	79.02	ZAP	161.16	ETS	207.17	ZAE	159.79	ETE	333.45	ZAC	74.33	ETC	282.43

V1	29.372	V2	24.401	LVI	-7.64														

PLANETOCENTRIC CONIC

C3	20.607	VHL	4.540	DLA	16.42	RAL	30.75	RAD	6643.1	VEL	11.858	PTH	6.87	VHP	5.363	DPA	8.96	RAP	47.23

ECC	1.3391																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 13 1	3471.88	-45.80	125.55	265.13	104.62	12 10 53	2471.9	-35.13	96.81
60.00	11 33 49	3416.53	-39.51	122.33	266.89	98.70	12 30 45	2416.5	-31.82	94.14
70.00	12 4 27	3326.33	-33.94	115.81	267.67	94.11	12 59 53	2326.3	-28.74	88.33
80.00	12 52 13	3176.63	-29.84	104.67	267.89	90.98	13 45 10	2176.6	-26.41	77.78
90.00	14 4 23	2943.73	-28.28	87.57	267.90	89.82	14 53 26	1943.7	-25.50	60.90
100.00	15 35 5	2651.10	-29.84	66.04	267.89	90.98	16 19 16	1651.1	-26.41	39.14
110.00	17 3 53	2373.15	-33.94	44.73	267.67	94.11	17 43 27	1373.2	-28.74	17.24

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3537	TRA	-.8243	TCS	.9070	BAU	.2705	SGT	1433.1	SGR	699.3	SG3	379.0	ST	27.6	SR	27.4	SS	19.3
RDE	-.4296	RRA	.2126	RC3	-.3765	FAU	.11106	RRT	-.3421	RRF	.4093	RTF	-.7535	CRT	.7069	CRS	.8819	CST	.9433
FDE	.6200	FRA	.6302	FC3	-4.6659	BSP	2332	SGB	1594.6	R23	-.0910	R13	.7652	LSA	40.7	NSA	15.0	SSA	2.3
BDE	.5564	BRA	.8512	BC3	.9820	FSP	551	SG1	1457.9	SG2	645.9	THA	168.17	EL1	36.0	EL2	14.9	ALF	44.69

LAUNCH DATE AUG 8 1973 FLIGHT TIME 138.00 ARRIVAL DATE DEC 24 1973

HELIOCENTRIC CONIC DISTANCE 346.892 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.765	GAL	1.06	AZL	89.47	HCA	109.76	SMA	217.64	ECC	.30354	INC	.5327
RP	225.78	LAP	.50	LOP	65.07	VP	23.787	GAP	17.54	AZP	90.18	TAL	4.53	TAP	114.29	RCA	151.58	APO	283.70
RC	115.782	GL	4.01	GP	-8.56	ZAL	78.54	ZAP	160.20	ETS	206.58	ZAE	160.05	ETE	332.07	ZAC	74.05	ETC	282.43

V1	29.372	V2	24.359	LVI	-7.35														

PLANETOCENTRIC CONIC

C3	20.138	VHL	4.488	DLA	16.56	RAL	30.16	RAD	6642.9	VEL	11.838	PTH	6.86	VHP	5.215	DPA	8.75	RAP	47.42

ECC	1.3314																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 10 5	3469.27	-45.75	125.31	264.15	104.80	12 7 54	2469.3	-35.02	96.64
60.00	11 30 41	3414.41	-39.49	122.16	265.93	98.81	12 27 36	2414.4	-31.76	93.99
70.00	12 1 6	3324.89	-33.93	115.70	266.71	94.17	12 56 31	2324.9	-28.71	88.23
80.00	12 48 38	3175.94	-29.84	104.62	266.93	91.01	13 41 34	2175.9	-26.39	77.73
90.00	14 0 40	2943.42	-28.28	87.55	266.94	89.84	14 49 43	1943.4	-25.50	60.88
100.00	15 31 30	2650.41	-29.84	65.99	266.93	91.01	16 15 40	1650.4	-26.39	39.10
110.00	17 0 32	2371.71	-33.93	44.61	266.71	94.17	17 40 4	1371.7	-28.71	17.15

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3558	TRA	-.8125	TCS	.9448	BAU	.2770	SGT	1447.9	SGR	706.9	SG3	401.5	ST	27.9	SR	27.1	SS	20.0
RDE	-.4195	RRA	.2114	RC3	-.4071	FAU	.11646	RRT	-.3628	RRF	.4345	RTF	-.7675	CRT	.7112	CRS	.8882	CST	.9409
FDE	.6582	FRA	.6280	FC3	-5.0065	BSP	2367	SGB	1611.3	R23	-.0976	R13	.7705	LSA	41.1	NSA	14.8	SSA	2.3
BDE	.5500	BRA	.8395	BC3	1.0288	FSP	588	SG1	1476.0	SG2	646.2	THA	167.53	EL1	36.0	EL2	14.8	ALF	43.79

LAUNCH DATE AUG 8 1973 FLIGHT TIME 140.00 ARRIVAL DATE DEC 26 1973

HELIOCENTRIC CONIC DISTANCE 350.384 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.709	GAL	1.10	AZL	89.43	HCA	110.82	SMA	216.29	ECC	.29926	INC	.5714
RP	226.17	LAP	.53	LOP	66.13	VP	23.664	GAP	17.22	AZP	90.20	TAL	4.78	TAP	115.60	RCA	151.57	APO	281.02
RC	116.341	GL	4.34	GP	-8.83	ZAL	78.07	ZAP	159.22	ETS	206.04	ZAE	160.34	ETE	330.56	ZAC	73.77	ETC	282.43

V1	29.372	V2	24.318	LVI	-7.06														

PLANETOCENTRIC CONIC

C3	19.703	VHL	4.439	DLA	16.71	RAL	29.57	RAD	6642.7	VEL	11.820	PTH	6.84	VHP	5.073	DPA	8.52	RAP	47.60

ECC	1.3243																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 7 8	3467.16	-45.72	125.12	263.21	104.94	12 4 56	2467.2	-34.94	96.50
60.00	11 27 33	3412.84	-39.47	122.03	265.00	98.90	12 24 25	2412.8	-31.71	93.89
70.00	11 57 42	3324.04	-33.92	115.63	265.79	94.21	12 53 6	2324.0	-28.69	88.17
80.00	12 44 59	3175.89	-29.84	104.62	266.01	91.01	13 37 55	2175.9	-26.39	77.72
90.00	13 56 53	2943.78	-28.28	87.57	266.03	89.82	14 45 57	1943.8	-25.50	60.91
100.00	15 27 51	2650.36	-29.84	65.99	266.01	91.01	16 12 1	1650.4	-26.39	39.09
110.00	16 57 9	2370.86	-33.92	44.55	265.79	94.21	17 36 40	1370.9	-28.69	17.09

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY								ORBIT DETERMINATION ACCURACY			
TDE	-.3589	TRA	-.8008	TCS	.9798	BAU	.2829	SGT	1461.5	SGR	715.1	SG3	425.0	ST	28.3	SR	26.8	SS	20.8
RDE	-.4092	RRA	.2102	RC3	-.4394	FAU	.12204	RRT	-.3831	RRF	.4600	RTF	-.7608	CRT	.7163	CRS	.8944	CST	.9388
FDE	.7011	FRA	.6251	FC3	-5.3623	BSP	2407	SGB	1627.1	R23	-.1050	R13	.7753	LSA	41.6	NSA	14.6	SSA	2.4
BDE	.5443	BRA	.8279	BC3	1.0738	FSP	627	SG1	1493.0	SG2	646.6	THA	166.88	EL1	36.1	EL2	14.6	ALF	42.78

LAUNCH DATE AUG 8 1973 FLIGHT TIME 142.00 ARRIVAL DATE DEC 28 1973

HELIOCENTRIC CONIC DISTANCE 353.902 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.655	GAL	1.15	AZL	89.39	HCA	111.88	SMA	215.04	ECC	.29522	INC	.6108
RP	226.56	LAP	.57	LOP	67.19	VP	23.545	GAP	16.90	AZP	90.23	TAL	5.03	TAP	116.90	RCA	151.55	APO	278.52
RC	120.933	GL	4.68	GP	-9.11	ZAL	77.61	ZAP	158.23	ETS	205.55	ZAE	160.65	ETE	328.89	ZAC	73.47	ETC	282.44

VI	29.372																		
V2	24.276																		
LVI	-6.77																		

PLANETOCENTRIC CONIC

C3	19.301	VHL	4.393	DLA	16.87	RAL	29.00	RAD	6642.5	VEL	11.803	PTH	6.83	VHP	4.935	DPA	8.27	RAP	47.76

ECC	1.3177																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 4 11	3465.55	-45.69	124.98	262.32	105.05	12 1 57	2465.5	-34.88	96.40
60.00	11 24 23	3411.79	-39.46	121.94	264.12	98.96	12 21 15	2411.8	-31.68	93.82
70.00	11 54 17	3323.78	-33.92	115.61	264.91	94.22	12 49 41	2323.8	-28.68	88.15
80.00	12 41 17	3176.49	-29.84	104.66	265.13	90.99	13 34 13	2176.5	-26.40	77.77
90.00	13 53 3	2944.81	-28.28	87.65	265.14	89.79	14 42 8	1944.8	-25.52	60.98
100.00	15 24 9	2650.96	-29.84	66.03	265.13	90.99	16 8 19	1651.0	-26.40	39.13
110.00	16 53 43	2370.59	-33.92	44.53	264.91	94.22	17 33 14	1370.6	-28.68	17.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3611	TRA	-.7891	TC3	1.0129	BAU	.2885	SGT	1473.2	SGR	724.6	SG3	449.6	ST	28.6	SR	26.4	SS	21.7
RDE	-.3989	RRA	.2090	RC3	-.4737	FAU	.12791	RRT	-.4045	RRF	.4863	RTF	-.7638	CRT	.7204	CRS	.8999	CST	.9365
FDE	.7457	FRA	.6213	FC3	-5.7373	BSP	2446	SGB	1641.8	R23	-.1127	R13	.7799	LSA	42.0	MSA	14.5	SSA	2.5
BDE	.5381	BRA	.8163	BC3	1.1182	FSP	670	SG1	1508.9	SG2	647.0	THA	166.16	EL1	36.1	EL2	14.5	ALF	41.81

LAUNCH DATE AUG 8 1973 FLIGHT TIME 144.00 ARRIVAL DATE DEC 30 1973

HELIOCENTRIC CONIC DISTANCE 357.443 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.605	GAL	1.19	AZL	89.35	HCA	112.93	SMA	213.87	ECC	.29142	INC	.6506
RP	226.95	LAP	.60	LOP	68.24	VP	23.430	GAP	16.59	AZP	90.25	TAL	5.26	TAP	118.20	RCA	151.54	APO	276.19
RC	123.556	GL	5.03	GP	-9.41	ZAL	77.17	ZAP	157.21	ETS	205.10	ZAE	160.98	ETE	327.07	ZAC	73.17	ETC	282.45

V1	29.372																		
V2	24.234																		
LVI	-6.47																		

PLANETOCENTRIC CONIC

C3	18.930	VHL	4.351	DLA	17.04	RAL	28.43	RAD	6642.4	VEL	11.788	PTH	6.81	VHP	4.803	DPA	8.01	RAP	47.91

ECC	1.3115																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	11 1 14	3464.43	-45.67	124.88	261.47	105.12	11 58 59	2464.4	-34.84	96.33
60.00	11 21 12	3411.28	-39.45	121.90	263.27	98.99	12 18 3	2411.3	-31.66	93.78
70.00	11 50 49	3324.10	-33.92	115.63	264.07	94.21	12 46 13	2324.1	-28.69	88.17
80.00	12 37 31	3177.74	-29.84	104.76	264.29	90.94	13 30 29	2177.7	-26.43	77.85
90.00	13 49 9	2946.53	-28.28	87.78	264.30	89.72	14 38 15	1946.5	-25.54	61.10
100.00	15 20 23	2652.21	-29.84	66.12	264.29	90.94	16 4 35	1652.2	-26.43	39.22
110.00	16 50 15	2370.92	-33.92	44.55	264.07	94.21	17 29 46	1370.9	-28.69	17.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3631	TRA	-.7769	TC3	1.0449	BAU	.2943	SGT	1483.4	SGR	735.4	SG3	475.7	ST	28.8	SR	25.9	SS	22.5
RDE	-.3885	RRA	.2076	RC3	-.5104	FAU	.13416	RRT	-.4264	RRF	.5136	RTF	-.7665	CRT	.7244	CRS	.9051	CST	.9342
FDE	.7930	FRA	.6149	FC3	-6.1358	BSP	2477	SGB	1655.6	R23	-.1206	R13	.7846	LSA	42.4	MSA	14.3	SSA	2.5
BDE	.5318	BRA	.8041	BC3	1.1629	FSP	713	SG1	1523.7	SG2	647.6	THA	165.36	EL1	36.1	EL2	14.3	ALF	40.85

LAUNCH DATE AUG 8 1973 FLIGHT TIME 146.00 ARRIVAL DATE JAN 1 1974

HELIOCENTRIC CONIC DISTANCE 361.007 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.558	GAL	1.23	AZL	89.31	HCA	113.98	SMA	212.77	ECC	.28782	INC	.6908
RP	227.34	LAP	.63	LOP	69.29	VP	23.319	GAP	16.27	AZP	90.28	TAL	5.49	TAP	119.48	RCA	151.53	APO	274.01
RC	126.208	GL	5.38	GP	-9.72	ZAL	76.74	ZAP	156.17	ETS	204.68	ZAE	161.33	ETE	325.07	ZAC	72.86	ETC	282.46

V1	29.372																		
V2	24.193																		
LVI	-6.16																		

PLANETOCENTRIC CONIC

C3	18.586	VHL	4.311	DLA	17.21	RAL	27.88	RAD	6642.2	VEL	11.773	PTH	6.80	VHP	4.675	DPA	7.73	RAP	48.04

ECC	1.3059																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 58 17	3463.81	-45.66	124.82	260.67	105.16	11 56 1	2463.8	-34.81	96.29
60.00	11 18 0	3411.31	-39.45	121.90	262.47	98.99	12 14 51	2411.3	-31.66	93.78
70.00	11 47 19	3325.01	-33.93	115.71	263.27	94.17	12 42 44	2325.0	-28.71	88.23
80.00	12 33 42	3179.64	-29.85	104.90	263.48	90.86	13 26 42	2179.6	-26.46	77.99
90.00	13 45 10	2948.94	-28.28	87.95	263.49	89.63	14 34 19	1948.9	-25.58	61.27
100.00	15 16 34	2654.11	-29.85	66.26	263.48	90.86	16 0 48	1654.1	-26.46	39.35
110.00	16 46 45	2371.82	-33.93	44.62	263.27	94.17	17 26 17	1371.8	-28.71	17.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3663	TRA	-.7653	TC3	1.0736	BAU	.2998	SGT	1492.6	SGR	747.3	SG3	503.0	ST	29.1	SR	25.5	SS	23.5
RDE	-.3777	RRA	.2062	RC3	-.5492	FAU	.14066	RRT	-.4477	RRF	.5408	RTF	-.7685	CRT	.7289	CRS	.9100	CST	.9322
FDE	.8483	FRA	.6080	FC3	-6.5520	BSP	2502	SGB	1669.2	R23	-.1296	R13	.7888	LSA	43.0	MSA	14.1	SSA	2.6
BDE	.5262	BRA	.7926	BC3	1.2059	FSP	758	SG1	1538.1	SG2	648.5	THA	164.55	EL1	36.1	EL2	14.1	ALF	39.75

LAUNCH DATE AUG 8 1973 FLIGHT TIME 148.00 ARRIVAL DATE JAN 3 1974

HELIOCENTRIC CONIC DISTANCE 364.590 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.513	GAL	1.27	AZL	89.27	HCA	115.03	SMA	211.75	ECC	.28444	INC	.7315
RP	227.73	LAP	.66	LOP	70.34	VP	23.212	GAP	15.96	AZP	90.31	TAL	5.72	TAP	120.75	RCA	151.52	APO	271.98
RC	128.887	GL	5.74	GP	-10.04	ZAL	76.33	ZAP	155.11	ETS	204.30	ZAE	161.68	ETE	322.87	ZAC	72.55	ETC	282.48

V1	29.372																		
V2	24.152																		
LVI	-5.85																		

PLANETOCENTRIC CONIC

C3	18.268	VHL	4.274	DLA	17.40	RAL	27.33	RAD	6642.1	VEL	11.760	PTH	6.79	VHP	4.551	DPA	7.43	RAP	48.15

ECC	1.3006																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 55 19	3463.67	-45.65	124.81	259.92	105.17	11 53 3	2463.7	-34.81	96.28
60.00	11 14 47	3411.86	-39.46	121.95	261.72	98.96	12 11 39	2411.9	-31.68	93.82
70.00	11 43 47	3326.50	-33.94	115.82	262.50	94.10	12 39 13	2326.5	-28.75	88.34
80.00	12 29 49	3182.20	-29.85	105.09	262.71	90.76	13 22 51	2182.2	-26.50	78.16
90.00	13 41 7	2952.05	-28.28	88.18	262.71	89.52	14 30 19	1952.0	-25.62	61.48
100.00	15 12 41	2656.68	-29.85	66.46	262.71	90.76	15 56 58	1656.7	-26.50	39.53
110.00	16 43 13	2373.32	-33.94	44.74	262.50	94.10	17 22 46	1373.3	-28.75	17.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3683	TRA	-.7530	TC3	1.0996	BAU	.3048	SGT	1498.8	SGR	760.8	SG3	531.2	ST	29.4	SR	25.0	SS	24.5
RDE	-.3670	RRA	.2045	RC3	-.5899	FAU	.14737	RRT	-.4692	RRF	.5682	RTF	-.7701	CRT	.7326	CRS	.9145	CST	.9301
FDE	.9006	FRA	.5982	FC3	-6.9841	BSP	2532	SGB	1680.8	R23	-.1386	R13	.7929	LSA	43.4	MSA	13.9	SSA	2.7
BDE	.5199	BRA	.7803	BC3	1.2478	FSP	807	SG1	1550.3	SG2	649.5	THA	163.66	EL1	36.0	EL2	13.9	ALF	38.73

LAUNCH DATE AUG 8 1973 FLIGHT TIME 150.00 ARRIVAL DATE JAN 5 1974

HELIOCENTRIC CONIC DISTANCE 368.192 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.470	GAL	1.30	AZL	89.23	HCA	116.07	SMA	210.79	ECC	.28123	INC	.7727	V1	29.372
RP	228.12	LAP	.69	LOP	71.38	VP	23.107	GAP	15.66	AZP	90.34	TAL	5.94	TAP	122.01	RCA	151.91	APO	270.07	V2	24.110
RC	131.592	GL	6.11	GP	-10.37	ZAL	75.93	ZAP	154.03	ETS	203.94	ZAE	162.03	ETE	320.46	ZAC	72.22	ETC	282.50	LVI	-5.94

PLANETOCENTRIC CONIC

C3	17.974	VHL	4.240	DLA	17.60	RAL	26.79	RAD	6641.9	VEL	11.747	PTH	6.78	VHP	4.432	DPA	7.11	RAP	48.25	ECC	1.2958

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 52 21	3463.99	-45.66	124.64	259.20	105.15	11 50 3	2464.0	-34.82	96.30
60.00	11 11 32	3412.90	-39.47	122.03	260.99	98.90	12 8 25	2412.9	-31.71	93.89
70.00	11 40 11	3328.55	-33.95	115.98	261.77	94.00	12 35 40	2328.6	-28.79	88.48
80.00	12 25 52	3185.39	-29.85	105.32	261.97	90.64	13 18 58	2185.4	-26.65	78.39
90.00	13 36 59	2955.82	-28.27	88.45	261.97	89.38	14 26 15	1955.8	-25.68	61.75
100.00	15 8 44	2659.86	-29.85	66.69	261.97	90.64	15 53 4	1659.9	-26.55	39.75
110.00	16 39 38	2375.37	-33.95	44.90	261.77	94.00	17 19 13	1375.4	-28.79	17.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3591	TRA	-.7295	TC3	1.1497	BAU	.3155	SGT	1501.9	SGR	776.5	SG3	561.6	ST	28.8	SR	24.5	SS	25.5
RDE	-.3560	RRA	.2026	RC3	-.6340	FAU	.15464	RRT	-.5039	RRF	.5965	RTF	-.7828	CRT	.7313	CRS	.9187	CST	.9256
FDE	.9571	FRA	.5842	FC3	-7.4484	BSP	2417	SGB	1690.7	R23	-.1298	R13	.8066	LSA	43.4	MSA	13.7	SSA	2.7
BDE	.5057	BRA	.7571	BC3	1.3130	FSP	854	SG1	1563.1	SG2	644.5	THA	162.29	EL1	35.3	EL2	13.6	ALF	38.62

LAUNCH DATE AUG 8 1973 FLIGHT TIME 152.00 ARRIVAL DATE JAN 7 1974

HELIOCENTRIC CONIC DISTANCE 371.810 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.430	GAL	1.34	AZL	89.19	HCA	117.11	SMA	209.89	ECC	.27822	INC	.8147	V1	29.372
RP	228.51	LAP	.73	LOP	72.42	VP	23.006	GAP	15.35	AZP	90.37	TAL	6.14	TAP	123.26	RCA	151.50	APO	268.29	V2	24.069
RC	134.321	GL	6.49	GP	-10.71	ZAL	75.55	ZAP	152.92	ETS	203.61	ZAE	162.38	ETE	317.84	ZAC	71.89	ETC	282.53	LVI	-5.22

PLANETOCENTRIC CONIC

C3	17.703	VHL	4.208	DLA	17.81	RAL	26.27	RAD	6641.8	VEL	11.736	PTH	6.77	VHP	4.317	DPA	6.77	RAP	48.32	ECC	1.2914

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 49 24	3464.82	-45.68	124.91	258.54	105.10	11 47 8	2464.8	-34.85	96.35
60.00	11 8 17	3414.52	-39.49	122.17	260.32	98.81	12 5 12	2414.5	-31.76	94.00
70.00	11 36 34	3331.25	-33.96	116.19	261.09	93.88	12 32 5	2331.2	-28.85	88.67
80.00	12 21 51	3189.32	-29.85	105.62	261.27	90.48	13 15 1	2189.3	-26.62	78.66
90.00	13 32 47	2960.38	-28.27	88.79	261.26	89.22	14 22 7	1960.4	-25.74	62.06
100.00	15 4 43	2663.79	-29.85	66.98	261.27	90.48	15 49 7	1663.8	-26.62	40.03
110.00	16 36 1	2378.07	-33.96	45.11	261.09	93.88	17 15 39	1378.1	-28.85	17.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3664	TRA	-.7233	TC3	1.1584	BAU	.3179	SGT	1506.5	SGR	793.5	SG3	592.6	ST	29.4	SR	23.9	SS	26.7
RDE	-.3444	RRA	.2010	RC3	-.6796	FAU	.16197	RRT	-.5194	RRF	.6238	RTF	-.7785	CRT	.7364	CRS	.9220	CST	.9250
FDE	1.0233	FRA	.5759	FC3	-7.9206	BSP	2495	SGB	1702.7	R23	-.1475	R13	.8064	LSA	44.2	MSA	13.5	SSA	2.8
BDE	.5028	BRA	.7508	BC3	1.3430	FSP	908	SG1	1574.2	SG2	648.9	THA	161.43	EL1	35.4	EL2	13.4	ALF	37.01

LAUNCH DATE AUG 8 1973 FLIGHT TIME 154.00 ARRIVAL DATE JAN 9 1974

HELIOCENTRIC CONIC DISTANCE 375.444 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.392	GAL	1.37	AZL	89.14	HCA	118.15	SMA	209.08	ECC	.27538	INC	.8572	V1	29.372
RP	228.90	LAP	.76	LOP	73.46	VP	22.908	GAP	15.05	AZP	90.40	TAL	6.34	TAP	124.49	RCA	151.49	APO	266.63	V2	24.028
RC	137.073	GL	6.87	GP	-11.07	ZAL	75.19	ZAP	151.80	ETS	203.29	ZAE	162.70	ETE	314.97	ZAC	71.54	ETC	282.56	LVI	-4.89

PLANETOCENTRIC CONIC

C3	17.453	VHL	4.178	DLA	18.03	RAL	25.76	RAD	6641.7	VEL	11.725	PTH	6.76	VHP	4.206	DPA	6.41	RAP	48.39	ECC	1.2872

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 46 26	3466.13	-45.70	125.03	257.92	105.01	11 44 12	2466.1	-34.90	96.44
60.00	11 5 0	3416.65	-39.51	122.34	259.68	98.69	12 1 57	2416.7	-31.83	94.15
70.00	11 32 54	3334.53	-33.97	116.45	260.44	93.73	12 28 29	2334.5	-28.92	88.69
80.00	12 17 46	3193.92	-29.86	105.98	260.61	90.30	13 11 0	2193.9	-26.69	78.98
90.00	13 28 29	2965.67	-28.26	89.17	260.60	89.02	14 17 54	1965.7	-25.82	62.43
100.00	15 0 38	2668.39	-29.86	67.33	260.61	90.30	15 45 6	1668.4	-26.69	40.35
110.00	16 32 20	2381.35	-33.97	45.36	260.44	93.73	17 12 2	1381.4	-28.92	17.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3712	TRA	-.7147	TC3	1.1671	BAU	.3209	SGT	1507.6	SGR	812.8	SG3	624.9	ST	29.8	SR	23.2	SS	27.8
RDE	-.3327	RRA	.1991	RC3	-.7277	FAU	.16960	RRT	-.5360	RRF	.6508	RTF	-.7752	CRT	.7401	CRS	.9250	CST	.9237
FDE	1.0907	FRA	.5620	FC3	-8.4189	BSP	2552	SGB	1712.6	R23	-.1631	R13	.8074	LSA	44.9	MSA	13.4	SSA	2.9
BDE	.4984	BRA	.7420	BC3	1.3754	FSP	965	SG1	1583.2	SG2	653.2	THA	160.42	EL1	35.4	EL2	13.1	ALF	35.59

LAUNCH DATE AUG 8 1973 FLIGHT TIME 156.00 ARRIVAL DATE JAN 11 1974

HELIOCENTRIC CONIC DISTANCE 379.092 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.356	GAL	1.40	AZL	89.10	HCA	119.18	SMA	208.27	ECC	.27270	INC	.9004	V1	29.372
RP	229.28	LAP	.79	LOP	74.49	VP	22.813	GAP	14.75	AZP	90.44	TAL	6.54	TAP	125.72	RCA	151.48	APO	265.07	V2	23.988
RC	139.847	GL	7.25	GP	-11.45	ZAL	74.85	ZAP	150.65	ETS	202.99	ZAE	163.01	ETE	311.86	ZAC	71.19	ETC	282.59	LVI	-4.56

PLANETOCENTRIC CONIC

C3	17.223	VHL	4.150	DLA	18.26	RAL	25.27	RAD	6641.6	VEL	11.716	PTH	6.75	VHP	4.100	DPA	6.04	RAP	48.43	ECC	1.2834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 43 27	3467.91	-45.73	125.19	257.34	104.89	11 41 15	2467.9	-34.97	96.55
60.00	11 1 42	3419.31	-39.54	122.56	259.09	98.54	11 58 42	2419.3	-31.91	94.33
70.00	11 29 11	3338.42	-33.99	116.75	259.82	93.55	12 24 49	2338.4	-29.01	89.16
80.00	12 13 36	3199.21	-29.86	106.35	259.98	90.10	13 6 55	2199.2	-26.78	79.35
90.00	13 24 5	2971.70	-28.26	89.62	259.98	88.80	14 13 36	1971.7	-25.90	62.85
100.00	14 56 28	2673.69	-29.86	67.72	259.98	90.10	15 41 1	1673.7	-26.78	40.72
110.00	16 28 37	2385.24	-33.99	45.67	259.82	93.55	17 8 23	1385.2	-29.01	18.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3759	TRA	-.7055	TC3	1.1745	BAU	.3244	SGT	1507.2	SGR	833.7	SG3	658.5	ST	30.2	SR	22.5	SS	29.1
RDE	-.3202	RRA	.1972	RC3	-.7785	FAU	.17753	RRT	-.5527	RRF	.6771	RTF	-.7726	CRT	.7433	CRS	.9275	CST	.9228
FDE	1.1666	FRA	.5492	FC3	-8.9238	BSP	2608	SGB	1722.5	R23	-.1774	R13	.8096	LSA	45.7	MSA	13.2	SSA	3.0
BDE	.4938	BRA	.7326	BC3	1.4090	FSP	1028	SG1	1591.9	SG2	657.9	THA	159.31	EL1	35.4	EL2	12.9	ALF	34.11

LAUNCH DATE AUG 8 1973 FLIGHT TIME 158.00 ARRIVAL DATE JAN 13 1974

HELIOCENTRIC CONIC DISTANCE 382.753 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.322 GAL 1.43 AZL 89.06 HCA 120.21 SMA 207.54 ECC .27018 INC .9443 V1 29.372
RP 229.67 LAP .82 LOP 75.52 VP 22.721 GAP 14.46 AZP 90.48 TAL 6.72 TAP 126.93 RCA 151.47 APO 263.61 V2 23.947
RC 142.641 GL 7.65 GP -11.83 ZAL 74.52 ZAP 149.48 ETS 202.71 ZAE 163.28 ETE 308.50 ZAC 70.83 ETC 282.63 LVI -4.22

PLANETOCENTRIC CONIC

C3 17.010 VHL 4.124 DLA 18.51 RAL 24.78 RAD 6641.5 VEL 11.707 PTH 6.74 VHP 3.997 DPA 5.64 RAP 48.45 ECC 1.2799

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 40 29	3470.17	-45.77	125.40	256.81	104.74	11 38 19	2470.2	-35.06	96.69
60.00	10 58 23	3422.49	-39.57	122.83	258.53	98.37	11 55 25	2422.5	-32.00	94.54
70.00	11 25 25	3342.91	-34.01	117.10	259.24	93.35	12 21 8	2342.9	-29.11	89.48
80.00	12 9 20	3205.21	-29.86	106.80	259.38	89.86	13 2 46	2205.2	-26.88	79.77
90.00	13 19 35	2978.49	-28.25	90.11	259.35	88.55	14 9 13	1978.5	-26.00	63.33
100.00	14 52 12	2679.69	-29.86	68.17	259.38	89.86	15 36 52	1679.7	-26.88	41.14
110.00	16 24 51	2389.72	-34.01	46.01	259.24	93.35	17 4 41	1389.7	-29.11	18.39

DIFFERENTIAL CORRECTIONS
TDE -.3789 TRA -.6953 TC3 1.1809 BAU .3286
RDE -.3074 RRA .1949 RC3 -.8324 FAU .18586
FDE 1.2459 FRA .5315 FC3-9.4590 BSP 2631
BDE .4879 BRA .7221 BC3 1.4448 FSP 1087

MID-COURSE EXECUTION ACCURACY
SGT 1504.5 SGR 857.5 SG3 693.8
RRT -.5696 RRF .7029 RTF -.7702
SGB 1731.7 R23 -.1903 R13 .8126
SG1 1599.8 SG2 662.8 THA 158.06

ORBIT DETERMINATION ACCURACY
ST 30.5 SR 21.8 SS 30.4
CRT .7452 CRS .9297 CST .9213
LSA 46.4 MSA 13.0 SSA 3.0
EL1 35.3 EL2 12.5 ALF 32.71

LAUNCH DATE AUG 8 1973 FLIGHT TIME 160.00 ARRIVAL DATE JAN 15 1974

HELIOCENTRIC CONIC DISTANCE 386.426 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.290 GAL 1.46 AZL 89.01 HCA 121.23 SMA 206.85 ECC .26780 INC .9890 V1 29.372
RP 230.05 LAP .85 LOP 76.55 VP 22.631 GAP 14.16 AZP 90.51 TAL 6.90 TAP 128.13 RCA 151.46 APO 262.24 V2 23.907
RC 145.456 GL 8.05 GP -12.24 ZAL 74.22 ZAP 148.28 ETS 202.44 ZAE 163.50 ETE 304.88 ZAC 70.45 ETC 282.68 LVI -3.88

PLANETOCENTRIC CONIC

C3 16.815 VHL 4.101 DLA 18.77 RAL 24.31 RAD 6641.4 VEL 11.698 PTH 6.73 VHP 3.899 DPA 5.22 RAP 48.45 ECC 1.2767

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 37 29	3472.89	-45.82	125.64	256.32	104.55	11 35 22	2472.9	-35.16	96.87
60.00	10 55 1	3426.20	-39.61	123.14	258.01	98.16	11 52 7	2426.2	-32.11	94.79
70.00	11 21 35	3348.01	-34.03	117.49	258.70	93.11	12 17 23	2348.0	-29.22	89.83
80.00	12 4 59	3211.94	-29.86	107.30	258.82	89.60	12 58 31	2211.9	-26.98	80.24
90.00	13 14 58	2986.07	-28.23	90.67	258.78	88.28	14 4 44	1986.1	-26.10	63.86
100.00	14 47 51	2686.41	-29.86	68.66	258.82	89.60	15 32 38	1686.4	-26.98	41.61
110.00	16 21 1	2394.82	-34.03	46.41	258.70	93.11	17 0 56	1394.8	-29.22	18.75

DIFFERENTIAL CORRECTIONS
TDE -.3806 TRA -.6854 TC3 1.1824 BAU .3325
RDE -.2942 RRA .1926 RC3 -.8887 FAU .19437
FDE 1.3289 FRA .5138 FC-10.0074 BSP 2650
BDE .4811 BRA .7119 BC3 1.4791 FSP 1150

MID-COURSE EXECUTION ACCURACY
SGT 1498.7 SGR 883.7 SG3 730.0
RRT -.5856 RRF .7277 RTF -.7671
SGB 1739.9 R23 -.2028 R13 .8157
SG1 1606.4 SG2 668.3 THA 156.68

ORBIT DETERMINATION ACCURACY
ST 30.6 SR 21.0 SS 31.8
CRT .7455 CRS .9310 CST .9196
LSA 47.1 MSA 12.9 SSA 3.1
EL1 35.1 EL2 12.2 ALF 31.31

LAUNCH DATE AUG 8 1973 FLIGHT TIME 162.00 ARRIVAL DATE JAN 17 1974

HELIOCENTRIC CONIC DISTANCE 390.111 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.260 GAL 1.48 AZL 88.97 HCA 122.26 SMA 206.20 ECC .26556 INC 1.0346 V1 29.372
RP 230.44 LAP .87 LOP 77.57 VP 22.544 GAP 13.87 AZP 90.55 TAL 7.06 TAP 129.32 RCA 151.45 APO 260.96 V2 23.867
RC 148.289 GL 8.47 GP -12.66 ZAL 73.93 ZAP 147.06 ETS 202.17 ZAE 163.66 ETE 301.02 ZAC 70.07 ETC 282.73 LVI -3.52

PLANETOCENTRIC CONIC

C3 16.636 VHL 4.079 DLA 19.04 RAL 23.85 RAD 6641.3 VEL 11.691 PTH 6.73 VHP 3.804 DPA 4.77 RAP 48.44 ECC 1.2738

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 34 30	3476.09	-45.87	125.93	255.87	104.33	11 32 26	2476.1	-35.29	97.08
60.00	10 51 38	3430.45	-39.65	123.49	257.54	97.92	11 48 48	2430.4	-32.24	95.08
70.00	11 17 41	3353.73	-34.05	117.94	258.20	92.85	12 13 35	2353.7	-29.34	90.23
80.00	12 0 32	3219.40	-29.85	107.85	258.29	89.31	12 54 12	2219.4	-27.10	80.77
90.00	13 10 13	2994.46	-28.21	91.28	258.24	87.97	14 0 8	1994.5	-26.21	64.45
100.00	14 43 24	2693.87	-29.85	69.22	258.29	89.31	15 28 18	1693.9	-27.10	42.13
110.00	16 17 8	2400.55	-34.05	46.86	258.20	92.85	16 57 8	1400.5	-29.34	19.15

DIFFERENTIAL CORRECTIONS
TDE -.3823 TRA -.6748 TC3 1.1788 BAU .3364
RDE -.2804 RRA .1901 RC3 -.9479 FAU .20318
FDE 1.4180 FRA .4932 FC-10.5738 BSP 2681
BDE .4741 BRA .7010 BC3 1.5126 FSP 1221

MID-COURSE EXECUTION ACCURACY
SGT 1489.4 SGR 912.6 SG3 767.5
RRT -.5997 RRF .7515 RTF -.[illegible]33
SGB 1746.8 R23 -.2151 R13 .8192
SG1 1611.0 SG2 675.2 THA 155.16

ORBIT DETERMINATION ACCURACY
ST 30.8 SR 20.2 SS 33.2
CRT .7454 CRS .9319 CST .9182
LSA 47.8 MSA 12.7 SSA 3.1
EL1 34.9 EL2 11.9 ALF 29.64

LAUNCH DATE AUG 8 1973 FLIGHT TIME 164.00 ARRIVAL DATE JAN 19 1974

HELIOCENTRIC CONIC DISTANCE 393.805 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.232 GAL 1.50 AZL 88.92 HCA 123.27 SMA 205.60 ECC .26345 INC 1.0810 V1 29.372
RP 230.82 LAP .90 LOP 78.59 VP 22.460 GAP 13.59 AZP 90.59 TAL 7.22 TAP 130.49 RCA 151.44 APO 259.77 V2 23.827
RC 151.140 GL 8.88 GP -13.09 ZAL 73.66 ZAP 145.81 ETS 201.92 ZAE 163.76 ETE 296.93 ZAC 69.68 ETC 282.79 LVI -3.16

PLANETOCENTRIC CONIC

C3 16.472 VHL 4.059 DLA 19.32 RAL 23.40 RAD 6641.2 VEL 11.684 PTH 6.72 VHP 3.713 DPA 4.31 RAP 48.41 ECC 1.2711

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 31 29	3479.75	-45.93	126.26	255.46	104.08	11 29 29	2479.8	-35.43	97.31
60.00	10 48 12	3435.22	-39.69	123.89	257.10	97.65	11 45 28	2435.2	-32.38	95.41
70.00	11 13 44	3360.08	-34.07	118.43	257.72	92.56	12 9 44	2360.1	-29.48	90.68
80.00	11 55 59	3227.63	-29.84	108.46	257.79	88.99	12 49 46	2227.6	-27.22	81.34
90.00	13 5 21	3003.69	-28.19	91.95	257.73	87.63	13 55 25	2003.7	-26.33	65.10
100.00	14 38 51	2702.10	-29.84	69.83	257.79	88.99	15 23 53	1702.1	-27.22	42.71
110.00	16 13 10	2406.90	-34.07	47.35	257.72	92.56	16 53 17	1406.9	-29.48	19.59

DIFFERENTIAL CORRECTIONS
TDE -.3836 TRA -.6641 TC3 1.1722 BAU .3408
RDE -.2659 RRA .1872 RC3-1.0106 FAU .21238
FDE 1.5141 FRA .4686 FC-11.1627 BSP 2688
BDE .4667 BRA .6900 BC3 1.5477 FSP 1287

MID-COURSE EXECUTION ACCURACY
SGT 1478.3 SGR 944.6 SG3 806.6
RRT -.6126 RRF .7741 RTF -.7590
SGB 1754.3 R23 -.2266 R13 .8232
SG1 1615.9 SG2 683.0 THA 153.54

ORBIT DETERMINATION ACCURACY
ST 30.9 SR 19.3 SS 34.7
CRT .7444 CRS .9323 CST .9166
LSA 48.6 MSA 12.6 SSA 3.2
EL1 34.6 EL2 11.5 ALF 28.29

LAUNCH DATE AUG 8 1973 FLIGHT TIME 166.00 ARRIVAL DATE JAN 21 1974

HELIOCENTRIC CONIC DISTANCE 397.509 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.205 GAL 1.53 AZL 88.87 HCA 124.29 SMA 205.04 ECC .26146 INC 1.1284 V1 29.372
RP 231.20 LAP .93 LOP 79.60 VP 22.378 GAP 13.30 AZP 90.64 TAL 7.37 TAP 131.66 RCA 151.43 APO 258.64 V2 23.787
RC 154.008 GL 9.31 GP -13.54 ZAL 73.41 ZAP 144.54 ETS 201.67 ZAE 163.78 ETE 292.66 ZAC 69.27 ETC 282.85 LVI -2.79

PLANETOCENTRIC CONIC

C3 16.322 VHL 4.040 DLA 19.62 RAL 22.96 RAD 6641.2 VEL 11.677 PTH 6.71 VHP 3.626 DPA 3.02 RAP 48.35 ECC 1.2686

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 28 28	3483.90	-46.00	126.64	255.10	103.80	11 26 31	2483.9	-35.58	97.58
60.00	10 44 44	3440.54	-39.74	124.33	256.69	97.36	11 42 5	2440.5	-32.53	95.78
70.00	11 9 41	3367.08	-34.09	118.98	257.29	92.24	12 5 48	2367.1	-29.62	91.17
80.00	11 51 18	3236.64	-29.83	109.13	257.32	88.64	12 45 15	2236.6	-27.36	81.98
90.00	13 0 20	3013.80	-28.16	92.69	257.26	87.26	13 50 33	2013.8	-26.45	65.81
100.00	14 34 10	2711.11	-29.83	70.50	257.32	88.64	15 19 21	1711.1	-27.36	43.35
110.00	16 9 8	2413.90	-34.09	47.90	257.29	92.24	16 49 21	1413.9	-29.62	20.09

DIFFERENTIAL CORRECTIONS

TDE -.3844 TRA -.6549 TC3 1.1584 BAU .3450
RDE -.2507 RRA .1845 RC3-1.0758 FAU .22169
FDE 1.6161 FRA .4473 FC-11.7590 BSP 2704
BDE .4589 BRA .6804 BC3 1.5809 FSP 1360

MID-COURSE EXECUTION ACCURACY

SGT 1464.8 SGR 979.3 SG3 846.5
RRT -.6230 RRF .7954 RTF -.7531
SGB 1762.0 R23 -.2381 R13 .8272
SG1 1620.1 SG2 692.6 THA 151.79

ORBIT DETERMINATION ACCURACY

ST 31.0 SR 18.3 SS 36.3
CRT .7411 CRS .9315 CST .9151
LSA 49.5 MSA 12.5 SSA 3.2
EL1 34.3 EL2 11.1 ALF 26.63

LAUNCH DATE AUG 8 1973 FLIGHT TIME 168.00 ARRIVAL DATE JAN 23 1974

HELIOCENTRIC CONIC DISTANCE 401.221 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.180 GAL 1.55 AZL 88.82 HCA 125.30 SMA 204.51 ECC .25959 INC 1.1768 V1 29.372
RP 231.58 LAP .96 LOP 80.62 VP 22.299 GAP 13.02 AZP 90.68 TAL 7.51 TAP 132.81 RCA 151.42 APO 257.60 V2 23.748
RC 156.890 GL 9.75 GP -14.01 ZAL 73.17 ZAP 143.25 ETS 201.42 ZAE 163.70 ETE 288.24 ZAC 68.86 ETC 282.91 LVI -2.42

PLANETOCENTRIC CONIC

C3 16.185 VHL 4.023 DLA 19.93 RAL 22.54 RAD 6641.1 VEL 11.672 PTH 6.71 VHP 3.542 DPA 3.31 RAP 48.28 ECC 1.2664

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 25 25	3488.52	-46.07	127.06	254.78	103.48	11 23 33	2488.5	-35.76	97.89
60.00	10 41 14	3446.40	-39.79	124.83	256.33	97.03	11 38 40	2446.4	-32.70	96.18
70.00	11 5 34	3374.74	-34.11	119.58	256.88	91.88	12 1 49	2374.7	-29.78	91.71
80.00	11 46 29	3246.47	-29.81	109.86	256.89	88.25	12 40 35	2246.5	-27.50	82.68
90.00	12 55 9	3024.81	-28.12	93.49	256.81	86.86	13 45 33	2024.8	-26.59	66.59
100.00	14 29 21	2720.94	-29.81	71.23	256.89	88.25	15 14 42	1720.9	-27.50	44.04
110.00	16 5 0	2421.56	-34.11	48.49	256.88	91.88	16 45 22	1421.6	-29.78	20.63

DIFFERENTIAL CORRECTIONS

TDE -.3846 TRA -.6444 TC3 1.1420 BAU .3499
RDE -.2347 RRA .1810 RC3-1.1449 FAU .23145
FDE 1.7237 FRA .4172 FC-12.3803 BSP 2709
BDE .4505 BRA .6693 BC3 1.6171 FSP 1431

MID-COURSE EXECUTION ACCURACY

SGT 1448.1 SGR 1017.7 SG3 888.1
RRT -.6318 RRF .8154 RTF -.7467
SGB 1770.0 R23 -.2477 R13 .8323
SG1 1624.2 SG2 703.3 THA 149.84

ORBIT DETERMINATION ACCURACY

ST 31.1 SR 17.3 SS 38.0
CRT .7370 CRS .9302 CST .9133
LSA 50.4 MSA 12.4 SSA 3.2
EL1 33.9 EL2 10.7 ALF 24.91

LAUNCH DATE AUG 8 1973 FLIGHT TIME 170.00 ARRIVAL DATE JAN 25 1974

HELIOCENTRIC CONIC DISTANCE 404.941 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.156 GAL 1.56 AZL 88.77 HCA 126.31 SMA 204.01 ECC .25783 INC 1.2261 V1 29.372
RP 231.95 LAP .99 LOP 81.63 VP 22.222 GAP 12.74 AZP 90.73 TAL 7.64 TAP 133.95 RCA 151.41 APO 256.61 V2 23.708
RC 159.785 GL 10.19 GP -14.49 ZAL 72.96 ZAP 141.93 ETS 201.17 ZAE 163.53 ETE 283.72 ZAC 68.43 ETC 282.99 LVI -2.03

PLANETOCENTRIC CONIC

C3 16.061 VHL 4.008 DLA 20.25 RAL 22.12 RAD 6641.0 VEL 11.666 PTH 6.70 VHP 3.462 DPA 2.77 RAP 48.19 ECC 1.2643

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 22 21	3493.62	-46.15	127.53	254.49	103.13	11 20 35	2493.6	-35.95	98.22
60.00	10 37 40	3452.83	-39.84	125.36	256.00	96.67	11 35 13	2452.8	-32.88	96.63
70.00	11 1 21	3383.07	-34.12	120.23	256.51	91.50	11 57 44	2383.1	-29.95	92.30
80.00	11 41 31	3257.14	-29.79	110.65	256.48	87.84	12 35 48	2257.1	-27.65	83.43
90.00	12 49 47	3036.79	-28.07	94.37	256.38	86.43	13 40 24	2036.8	-26.73	67.44
100.00	14 24 23	2731.62	-29.79	72.02	256.48	87.84	15 9 55	1731.6	-27.65	44.80
110.00	16 0 48	2429.69	-34.12	49.15	256.51	91.50	16 41 17	1429.9	-29.95	21.22

DIFFERENTIAL CORRECTIONS

TDE -.3837 TRA -.6349 TC3 1.1175 BAU .3548
RDE -.2182 RRA .1775 RC3-1.2169 FAU .24133
FDE 1.8352 FRA .3874 FC-13.0084 BSP 2724
BDE .4414 BRA .6593 BC3 1.6522 FSP 1508

MID-COURSE EXECUTION ACCURACY

SGT 1428.1 SGR 1059.1 SG3 930.3
RRT -.6375 RRF .8339 RTF -.[illegible]
SGB 1778.0 R23 -.2568 R13 .8374
SG1 1627.4 SG2 716.0 THA 147.72

ORBIT DETERMINATION ACCURACY

ST 31.1 SR 16.2 SS 39.6
CRT .7300 CRS .9274 CST .9113
LSA 51.3 MSA 12.4 SSA 3.2
EL1 33.5 EL2 10.3 ALF 23.12

LAUNCH DATE AUG 8 1973 FLIGHT TIME 172.00 ARRIVAL DATE JAN 27 1974

HELIOCENTRIC CONIC DISTANCE 408.669 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.134 GAL 1.58 AZL 88.72 HCA 127.31 SMA 203.55 ECC .25618 INC 1.2767 V1 29.372
RP 232.33 LAP 1.02 LOP 82.63 VP 22.147 GAP 12.46 AZP 90.77 TAL 7.76 TAP 135.07 RCA 151.40 APO 255.69 V2 23.670
RC 162.693 GL 10.65 GP -14.99 ZAL 72.76 ZAP 140.58 ETS 200.92 ZAE 163.25 ETE 279.16 ZAC 68.00 ETC 283.06 LVI -1.64

PLANETOCENTRIC CONIC

C3 15.949 VHL 3.994 DLA 20.59 RAL 21.72 RAD 6641.0 VEL 11.662 PTH 6.70 VHP 3.386 DPA 2.21 RAP 48.08 ECC 1.2625

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 19 15	3499.20	-46.24	128.04	254.25	102.75	11 17 34	2499.2	-36.16	98.59
60.00	10 34 3	3459.79	-39.89	125.95	255.71	96.27	11 31 43	2459.8	-33.08	97.11
70.00	10 57 2	3392.08	-34.14	120.93	256.17	91.08	11 53 34	2392.1	-30.13	92.94
80.00	11 36 24	3268.68	-29.75	111.51	256.10	87.39	12 30 53	2268.7	-27.81	84.25
90.00	12 44 13	3049.74	-28.01	95.31	255.99	85.96	13 35 3	2049.7	-26.87	68.36
100.00	14 19 16	2743.15	-29.75	72.88	256.10	87.39	15 4 59	1743.2	-27.81	45.62
110.00	15 56 29	2438.90	-34.14	49.85	256.17	91.08	16 37 8	1438.9	-30.13	21.86

DIFFERENTIAL CORRECTIONS

TDE -.3765 TRA -.6195 TC3 1.1030 BAU .3629
RDE -.2012 RRA .1731 RC3-1.2945 FAU .25193
FDE 1.9474 FRA .3473 FC-13.6748 BSP 2666
BDE .4269 BRA .6432 BC3 1.7020 FSP 1576

MID-COURSE EXECUTION ACCURACY

SGT 1404.3 SGR 1105.8 SG3 975.2
RRT -.6494 RRF .8515 RTF -.7353
SGB 1787.4 R23 -.2543 R13 .8473
SG1 1635.0 SG2 722.2 THA 145.19

ORBIT DETERMINATION ACCURACY

ST 30.6 SR 15.1 SS 41.2
CRT .7198 CRS .9239 CST .9078
LSA 51.9 MSA 12.3 SSA 3.2
EL1 32.6 EL2 9.8 ALF 21.56

LAUNCH DATE AUG 8 1973 FLIGHT TIME 174.00 ARRIVAL DATE JAN 29 1974

HELIOCENTRIC CONIC DISTANCE 412.402 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.113	GAL	1.59	AZL	88.67	HCA	128.32	SMA	203.12	ECC	.25462	INC	1.3285	V1	29.372
RP	232.70	LAP	1.04	LOP	83.64	VP	22.074	GAP	12.19	AZP	90.82	TAL	7.87	TAP	136.18	RCA	151.40	APO	254.83	V2	23.631
RC	165.610	GL	11.11	GP	-15.51	ZAL	72.59	ZAP	139.21	ETS	200.67	ZAE	162.86	ETE	274.64	ZAC	67.55	ETC	283.15	LVI	-1.24

PLANETOCENTRIC CONIC

C3	15.849	VHL	3.981	DLA	20.94	RAL	21.34	RAD	6640.8	VEL	11.657	PTH	6.69	VHP	3.313	DPA	1.62	RAP	47.95	ECC	1.2608

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 16 8	3505.29	-46.33	128.60	254.06	102.32	11 14 33	2505.3	-36.39	99.00
60.00	10 30 22	3467.37	-39.95	126.59	255.45	95.84	11 28 9	2467.4	-33.29	97.64
70.00	10 52 37	3401.84	-34.15	121.69	255.86	90.63	11 49 19	2401.8	-30.32	93.63
80.00	11 31 6	3281.19	-29.71	112.44	255.75	86.90	12 25 47	2281.2	-27.97	85.15
90.00	12 38 26	3063.81	-27.94	96.33	255.62	85.45	13 29 30	2063.8	-27.02	69.36
100.00	14 13 58	2755.66	-29.71	73.81	255.75	86.90	14 59 53	1755.7	-27.97	46.52
110.00	15 52 3	2448.66	-34.15	50.61	255.86	90.63	16 32 52	1448.7	-30.32	22.55

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3811	TRA	-.6163	TC3	1.0553	BAU	.3687	SGT	1381.7	SGR	1153.0	SG3	1018.7	ST	30.9	SR	13.7	SS	43.3
RDE	-.1815	RRA	.1698	RC3	-1.3716	FAU	.26189	RRT	-.6421	RRF	.8669	RTF	-.7176	CRT	.7066	CRS	.9161	CST	.9072
FDE	2.0869	FRA	.3215	FC	-14.3059	BSP	2735	SGB	1799.5	R23	-.2674	R13	.8509	LSA	53.5	MSA	12.3	SSA	3.2
BDE	.4221	BRA	.6393	BC3	1.7306	FSP	1662	SG1	1637.8	SG2	745.7	THA	142.91	EL1	32.6	EL2	9.2	ALF	19.01

LAUNCH DATE AUG 8 1973 FLIGHT TIME 176.00 ARRIVAL DATE JAN 31 1974

HELIOCENTRIC CONIC DISTANCE 416.142 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.093	GAL	1.61	AZL	88.62	HCA	129.32	SMA	202.71	ECC	.25317	INC	1.3815	V1	29.372
RP	233.07	LAP	1.07	LOP	84.63	VP	22.003	GAP	11.91	AZP	90.88	TAL	7.97	TAP	137.28	RCA	151.39	APO	254.03	V2	23.593
RC	168.537	GL	11.59	GP	-16.04	ZAL	72.43	ZAP	137.82	ETS	200.42	ZAE	162.35	ETE	270.20	ZAC	67.09	ETC	283.24	LVI	-.82

PLANETOCENTRIC CONIC

C3	15.759	VHL	3.970	DLA	21.31	RAL	20.96	RAD	6640.9	VEL	11.654	PTH	6.69	VHP	3.243	DPA	1.01	RAP	47.80	ECC	1.2594

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 12 58	3511.88	-46.42	129.21	253.90	101.86	11 11 30	2511.9	-36.63	99.44
60.00	10 26 37	3475.53	-40.00	127.27	255.23	95.38	11 24 32	2475.5	-33.52	98.22
70.00	10 48 4	3412.34	-34.15	122.51	255.59	90.15	11 44 56	2412.3	-30.52	94.38
80.00	11 25 36	3294.67	-29.66	113.44	255.43	86.38	12 20 30	2294.7	-28.14	86.11
90.00	12 32 23	3079.02	-27.85	97.43	255.27	84.91	13 23 43	2079.0	-27.17	70.45
100.00	14 8 28	2769.14	-29.66	74.80	255.43	86.38	14 54 37	1769.1	-28.14	47.48
110.00	15 47 30	2459.15	-34.15	51.43	255.59	90.15	16 28 30	1459.2	-30.52	23.30

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3801	TRA	-.6093	TC3	1.0094	BAU	.3727	SGT	1354.4	SGR	1204.5	SG3	1063.3	ST	30.9	SR	12.4	SS	45.3
RDE	-.1614	RRA	.1658	RC3	-1.4529	FAU	.27219	RRT	-.6370	RRF	.8811	RTF	-.7018	CRT	.6867	CRS	.9053	CST	.9050
FDE	2.2255	FRA	.2886	FC	-14.9524	BSP	2771	SGB	1812.5	R23	-.2712	R13	.8579	LSA	54.8	MSA	12.4	SSA	3.1
BDE	.4129	BRA	.6315	BC3	1.7691	FSP	1749	SG1	1642.9	SG2	765.4	THA	140.23	EL1	32.1	EL2	8.7	ALF	16.64

LAUNCH DATE AUG 8 1973 FLIGHT TIME 178.00 ARRIVAL DATE FEB 2 1974

HELIOCENTRIC CONIC DISTANCE 419.888 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.075	GAL	1.62	AZL	88.56	HCA	130.31	SMA	202.33	ECC	.25179	INC	1.4359	V1	29.372
RP	233.44	LAP	1.09	LOP	85.63	VP	21.934	GAP	11.64	AZP	90.93	TAL	8.06	TAP	138.37	RCA	151.39	APO	253.28	V2	23.554
RC	171.472	GL	12.08	GP	-16.59	ZAL	72.30	ZAP	136.40	ETS	200.16	ZAE	161.73	ETE	265.90	ZAC	66.62	ETC	283.33	LVI	-.40

PLANETOCENTRIC CONIC

C3	15.681	VHL	3.960	DLA	21.70	RAL	20.59	RAD	6640.9	VEL	11.650	PTH	6.69	VHP	3.177	DPA	.38	RAP	47.63	ECC	1.2581

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 9 45	3518.96	-46.52	129.86	253.78	101.37	11 8 24	2519.0	-36.89	99.91
60.00	10 22 47	3484.27	-40.05	128.01	255.05	94.88	11 20 51	2484.3	-33.76	98.83
70.00	10 43 23	3423.58	-34.15	123.39	255.34	89.63	11 40 27	2423.6	-30.73	95.19
80.00	11 19 52	3309.16	-29.59	114.51	255.12	85.82	12 15 1	2309.2	-28.32	87.16
90.00	12 26 4	3095.42	-27.75	98.62	254.94	84.32	13 17 40	2095.4	-27.32	71.62
100.00	14 2 44	2783.63	-29.59	75.88	255.12	85.82	14 49 8	1783.6	-28.32	48.52
110.00	15 42 49	2470.40	-34.15	52.31	255.34	89.63	16 24 0	1470.4	-30.73	24.11

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3713	TRA	-.5961	TC3	.9750	BAU	.3822	SGT	1321.6	SGR	1262.1	SG3	1110.2	ST	30.3	SR	11.1	SS	47.1
RDE	-.1415	RRA	.1603	RC3	-1.3407	FAU	.28323	RRT	-.6378	RRF	.8944	RTF	-.6913	CRT	.6596	CRS	.8913	CST	.9006
FDE	2.3353	FRA	.2394	FC	-15.6370	BSP	2728	SGB	1827.4	R23	-.2628	R13	.8692	LSA	55.6	MSA	12.3	SSA	3.1
BDE	.3973	BRA	.6173	BC3	1.8233	FSP	1818	SG1	1654.2	SG2	776.6	THA	137.06	EL1	31.2	EL2	8.1	ALF	14.53

LAUNCH DATE AUG 8 1973 FLIGHT TIME 180.00 ARRIVAL DATE FEB 4 1974

HELIOCENTRIC CONIC DISTANCE 423.637 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	33.057	GAL	1.63	AZL	88.51	HCA	131.30	SMA	201.98	ECC	.25051	INC	1.4917	V1	29.372
RP	233.80	LAP	1.12	LOP	86.62	VP	21.868	GAP	11.37	AZP	90.98	TAL	8.14	TAP	139.44	RCA	151.38	APO	252.58	V2	23.517
RC	174.413	GL	12.58	GP	-17.16	ZAL	72.18	ZAP	134.96	ETS	199.89	ZAE	161.00	ETE	281.79	ZAC	66.13	ETC	283.44	LVI	.03

PLANETOCENTRIC CONIC

C3	15.612	VHL	3.951	DLA	22.10	RAL	20.23	RAD	6640.8	VEL	11.647	PTH	6.69	VHP	3.115	DPA	-.28	RAP	47.45	ECC	1.2569

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 6 30	3526.59	-46.62	130.57	253.70	100.83	11 5 17	2526.6	-37.17	100.43
60.00	10 18 52	3493.66	-40.11	128.80	254.90	94.34	11 17 5	2493.7	-34.01	99.50
70.00	10 38 33	3435.67	-34.14	124.33	255.12	89.07	11 35 49	2435.7	-30.95	96.07
80.00	11 13 54	3324.81	-29.51	115.66	254.85	85.22	12 9 19	2324.8	-28.49	88.28
90.00	12 19 26	3113.22	-27.62	99.91	254.64	83.69	13 11 19	2113.2	-27.48	72.90
100.00	13 56 46	2799.29	-29.51	77.03	254.85	85.22	14 43 25	1799.3	-28.49	49.65
110.00	15 37 59	2482.49	-34.14	53.25	255.12	89.07	16 19 22	1482.5	-30.95	24.98

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3727	TRA	-.5939	TC3	.9049	BAU	.3886	SGT	1291.3	SGR	1319.9	SG3	1154.9	ST	30.4	SR	9.5	SS	49.4
RDE	-.1183	RRA	.1562	RC3	-1.6269	FAU	.29336	RRT	-.6183	RRF	.9058	RTF	-.6643	CRT	.6162	CRS	.8636	CST	.8988
FDE	2.5152	FRA	.2083	FC	-16.2674	BSP	2812	SGB	1846.5	R23	-.2643	R13	.8765	LSA	57.3	MSA	12.4	SSA	3.1
BDE	.3910	BRA	.6141	BC3	1.8616	FSP	1915	SG1	1661.1	SG2	806.4	THA	133.99	EL1	31.0	EL2	7.4	ALF	11.58

LAUNCH DATE AUG 8 1973 FLIGHT TIME 182.00 ARRIVAL DATE FEB 6 1974

HELIOCENTRIC CONIC DISTANCE 427.393 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.041 GAL 1.64 AZL 88.45 HCA 132.29 SMA 201.65 ECC .24931 INC 1.5491 V1 29.372
RP 234.17 LAP 1.15 LOP 87.61 VP 21.803 GAP 11.11 AZP 91.04 TAL 8.21 TAP 140.51 RCA 151.38 APO 251.92 V2 23.479
RC 177.360 GL 13.09 GP -17.75 ZAL 72.08 ZAP 133.49 ETS 199.61 ZAE 160.16 ETE 257.89 ZAC 65.64 ETC 283.54 LVI .48

PLANETOCENTRIC CONIC

C3 15.554 VHL 3.944 DLA 22.52 RAL 19.88 RAD 6640.8 VEL 11.645 PTH 6.68 VHP 3.055 DPA -.97 RAP 47.25 ECC 1.2560

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	10 3 11	3534.73	-46.72	131.33	253.67	100.25	11 2 6	2534.7	-37.46	100.99
60.00	10 14 50	3503.68	-40.15	129.65	254.78	93.77	11 13 14	2503.7	-34.28	100.22
70.00	10 33 33	3448.58	-34.12	125.34	254.93	88.47	11 31 1	2448.6	-31.18	97.00
80.00	11 7 39	3341.64	-29.41	116.90	254.59	84.57	12 3 20	2341.6	-28.67	89.50
90.00	12 12 26	3132.45	-27.47	101.30	254.35	83.01	13 4 39	2132.4	-27.63	74.29
100.00	13 50 31	2816.11	-29.41	78.27	254.59	84.57	14 37 27	1816.1	-28.67	50.87
110.00	15 32 59	2495.40	-34.12	54.26	254.93	88.47	16 14 34	1495.4	-31.18	25.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3652 TRA -.5849 TC3 .8494 BAU .3990 SGT 1255.6 SGR 1384.5 SG3 1202.2 ST 29.9 SR 8.0 SS 51.4
RDE -.0951 RRA .1506 RC3-1.7205 FAU .30432 RRT -.6062 RRF .9166 RTF -.6435 CRT .5501 CRS .8207 CST .8943
FDE 2.6682 FRA .1618 FC-16.9389 BSP 2819 SGB 1869.1 R23 -.2518 R13 .8882 LSA 58.7 MSA 12.5 SSA 3.0
BDE .3774 BRA .6040 BC3 1.9188 FSP 1993 SG1 1677.6 SG2 824.2 THA 130.42 EL1 30.3 EL2 6.6 ALF 8.82

LAUNCH DATE AUG 8 1973 FLIGHT TIME 184.00 ARRIVAL DATE FEB 8 1974

HELIOCENTRIC CONIC DISTANCE 431.153 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.026 GAL 1.64 AZL 88.39 HCA 133.28 SMA 201.34 ECC .24818 INC 1.6081 V1 29.372
RP 234.53 LAP 1.17 LOP 88.60 VP 21.740 GAP 10.84 AZP 91.10 TAL 8.28 TAP 141.56 RCA 151.37 APO 251.31 V2 23.442
RC 180.313 GL 13.61 GP -18.36 ZAL 72.00 ZAP 132.00 ETS 199.32 ZAE 159.21 ETE 254.21 ZAC 65.13 ETC 283.66 LVI .93

PLANETOCENTRIC CONIC

C3 15.505 VHL 3.938 DLA 22.96 RAL 19.54 RAD 6640.8 VEL 11.643 PTH 6.68 VHP 2.999 DPA -1.66 RAP 47.03 ECC 1.2552

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 59 48	3543.40	-46.82	132.14	253.67	99.63	10 58 52	2543.4	-37.77	101.59
60.00	10 10 42	3514.35	-40.20	130.56	254.69	93.16	11 9 17	2514.3	-34.55	100.99
70.00	10 28 21	3462.36	-34.09	126.42	254.76	87.84	11 26 4	2462.4	-31.41	98.01
80.00	11 1 5	3359.73	-29.28	118.23	254.35	83.88	11 57 4	2359.7	-28.85	90.82
90.00	12 5 1	3153.27	-27.29	102.79	254.08	82.28	12 57 34	2153.3	-27.77	75.80
100.00	13 43 56	2834.20	-29.28	79.60	254.35	83.88	14 31 11	1834.2	-28.85	52.18
110.00	15 27 48	2509.18	-34.09	55.33	254.76	87.84	16 9 37	1509.2	-31.41	26.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3489 TRA -.5686 TC3 .8054 BAU .4128 SGT 1211.3 SGR 1455.7 SG3 1251.3 ST 28.8 SR 6.6 SS 53.2
RDE -.0726 RRA .1425 RC3-1.8212 FAU .31599 RRT -.6003 RRF .9264 RTF -.6278 CRT .4536 CRS .7542 CST .8864
FDE 2.8051 FRA .0905 FC-17.6439 BSP 2754 SGB 1893.8 R23 -.2286 R13 .9022 LSA 59.4 MSA 12.5 SSA 2.9
BDE .3563 BRA .5862 BC3 1.9914 FSP 2048 SG1 1703.1 SG2 828.0 THA 126.44 EL1 28.9 EL2 5.9 ALF 6.23

LAUNCH DATE AUG 8 1973 FLIGHT TIME 186.00 ARRIVAL DATE FEB 10 1974

HELIOCENTRIC CONIC DISTANCE 434.914 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.012 GAL 1.65 AZL 88.33 HCA 134.26 SMA 201.06 ECC .24713 INC 1.6689 V1 29.372
RP 234.89 LAP 1.20 LOP 89.59 VP 21.678 GAP 10.58 AZP 91.17 TAL 8.33 TAP 142.59 RCA 151.37 APO 250.74 V2 23.405
RC 183.270 GL 14.15 GP -18.98 ZAL 71.94 ZAP 130.49 ETS 199.02 ZAE 158.17 ETE 258.78 ZAC 64.62 ETC 283.78 LVI 1.40

PLANETOCENTRIC CONIC

C3 15.466 VHL 3.933 DLA 23.41 RAL 19.21 RAD 6640.7 VEL 11.641 PTH 6.68 VHP 2.947 DPA -2.42 RAP 46.80 ECC 1.2545

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 56 22	3552.68	-46.92	133.02	253.72	98.97	10 55 34	2552.7	-38.10	102.23
60.00	10 6 28	3525.77	-40.24	131.53	254.64	92.50	11 5 13	2525.8	-34.84	101.82
70.00	10 22 57	3477.16	-34.05	127.57	254.62	87.16	11 20 55	2477.2	-31.66	99.10
80.00	10 54 8	3379.36	-29.13	119.67	254.13	83.14	11 50 28	2379.4	-29.03	92.25
90.00	11 57 6	3176.05	-27.07	104.42	253.82	81.49	12 50 2	2176.1	-27.91	77.45
100.00	13 37 0	2853.83	-29.13	81.04	254.13	83.14	14 24 34	1853.8	-29.03	53.62
110.00	15 22 24	2523.98	-34.05	56.49	254.62	87.16	16 4 28	1524.0	-31.66	28.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3541 TRA -.5756 TC3 .8956 BAU .4207 SGT 1183.4 SGR 1521.4 SG3 1293.4 ST 29.2 SR 5.1 SS 56.0
RDE -.0429 RRA .1395 RC3-1.9120 FAU .32511 RRT -.5515 RRF .9343 RTF -.5758 CRT .2234 CRS .3626 CST .8850
FDE 3.0077 FRA .0753 FC-18.1992 BSP 2928 SGB 1927.5 R23 -.2206 R13 .9108 LSA 62.1 MSA 12.7 SSA 2.8
BDE .3567 BRA .5923 BC3 2.0346 FSP 2168 SG1 1717.7 SG2 874.3 THA 122.64 EL1 29.2 EL2 5.0 ALF 2.29

LAUNCH DATE AUG 8 1973 FLIGHT TIME 188.00 ARRIVAL DATE FEB 12 1974

HELIOCENTRIC CONIC DISTANCE 438.680 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.998 GAL 1.65 AZL 88.27 HCA 135.24 SMA 200.79 ECC .24614 INC 1.7316 V1 29.372
RP 235.24 LAP 1.22 LOP 90.57 VP 21.619 GAP 10.32 AZP 91.23 TAL 8.37 TAP 143.62 RCA 151.37 APO 250.21 V2 23.369
RC 186.232 GL 14.70 GP -19.62 ZAL 71.90 ZAP 128.96 ETS 198.71 ZAE 157.04 ETE 247.58 ZAC 64.09 ETC 283.91 LVI 1.88

PLANETOCENTRIC CONIC

C3 15.436 VHL 3.929 DLA 23.88 RAL 18.89 RAD 6640.7 VEL 11.640 PTH 6.68 VHP 2.897 DPA -3.18 RAP 46.55 ECC 1.2540

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO C3T TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 52 50	3562.52	-47.03	133.95	253.80	98.26	10 52 12	2562.5	-38.44	102.93
60.00	10 2 4	3537.88	-40.27	132.55	254.62	91.80	11 1 2	2537.9	-35.14	102.70
70.00	10 17 20	3492.94	-33.99	128.80	254.50	86.43	11 15 33	2492.9	-31.90	100.26
80.00	10 46 47	3400.51	-28.95	121.22	253.92	82.35	11 43 28	2400.5	-29.20	93.80
90.00	11 48 37	3200.88	-26.81	106.19	253.56	80.64	12 41 58	2200.9	-28.04	79.25
100.00	13 29 39	2874.99	-28.95	82.59	253.92	82.35	14 17 34	1875.0	-29.20	55.16
110.00	15 16 46	2539.76	-33.99	57.72	254.50	86.43	15 59 6	1539.8	-31.90	29.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3461 TRA -.5708 TC3 .8110 BAU .4340 SGT 1146.4 SGR 1595.7 SG3 1338.7 ST 28.7 SR 4.1 SS 58.5
RDE -.0142 RRA .1332 RC3-2.0124 FAU .33537 RRT -.5151 RRF .9418 RTF -.5338 CRT -.1623 CRS .1930 CST .8789
FDE 3.1895 FRA .0267 FC-18.8094 BSP 2984 SGB 1964.8 R23 -.1971 R13 .9227 LSA 63.9 MSA 12.9 SSA 2.8
BDE .3464 BRA .5862 BC3 2.1032 FSP 2250 SG1 1748.1 SG2 896.9 THA 118.41 EL1 28.7 EL2 4.0 ALF 178.64

LAUNCH DATE AUG 8 1973 FLIGHT TIME 190.00 ARRIVAL DATE FEB 14 1974

DISTANCE 442.449

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.986 GAL 1.65 AZL 88.20 HCA 136.22 SMA 200.54 ECC .24522 INC 1.7963 V1 29.372
RP 235.59 LAP 1.24 LOP 91.54 VP 21.561 GAP 10.06 AZP 91.30 TAL 8.41 TAP 144.63 RCA 151.37 APO 249.72 V2 23.332
RC 189.197 GL 15.26 GP -20.28 ZAL 71.87 ZAP 127.42 ETS 198.38 ZAE 155.82 ETE 244.61 ZAC 63.55 ETC 284.04 LVI 2.37

PLANETOCENTRIC CONIC

C3 15.416 VHL 3.926 DLA 24.38 RAL 18.57 RAD 6640.7 VEL 11.639 PTH 6.68 VHP 2.851 DPA -3.96 RAP 46.29 ECC 1.2537

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 49 12	3572.96	-47.12	134.94	253.93	97.50	10 48 45	2573.0	-38.80	103.67
60.00	9 57 32	3550.75	-40.29	133.65	254.63	91.06	10 56 43	2550.8	-35.46	103.65
70.00	10 11 26	3509.80	-33.91	130.11	254.41	85.66	11 9 56	2509.8	-32.15	101.51
80.00	10 38 57	3423.45	-28.73	122.89	253.72	81.50	11 36 1	2423.5	-29.37	95.48
90.00	11 39 26	3228.16	-26.49	108.13	253.31	79.73	12 33 14	2228.2	-28.15	81.24
100.00	13 21 49	2897.92	-28.73	84.26	253.72	81.50	14 10 7	1897.9	-29.37	56.85
110.00	15 10 52	2556.61	-33.91	59.03	254.41	85.66	15 53 29	1556.6	-32.15	30.43

DIFFERENTIAL CORRECTIONS

TDE -.3356 TRA -.5660 TC3 .5212 BAU .4492
RDE .0159 RRA .1261 RC3-2.1163 FAU .34553
FDE 3.3732 FRA -.0273 FC-19.4049 BSP .3049
BDE .3360 BRA .5799 BC3 2.1795 FSP .2331

MID-COURSE EXECUTION ACCURACY

SGT 1108.9 SGR 1674.2 SG3 1383.5
RRT -.4711 RRF .9485 RTF -.4847
SGB 2008.2 R23 -.1695 R13 .9342
SG1 1786.8 SG2 916.5 THA 114.02

ORBIT DETERMINATION ACCURACY

ST 28.0 SR 4.1 SS 60.9
CRT -.6202 CRS -.3360 CST .8709
LSA 65.8 MSA 13.0 SSA 2.7
EL1 28.1 EL2 3.2 ALF 174.76

LAUNCH DATE AUG 8 1973 FLIGHT TIME 192.00 ARRIVAL DATE FEB 16 1974

DISTANCE 446.221

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.975 GAL 1.65 AZL 88.14 HCA 137.19 SMA 200.32 ECC .24437 INC 1.8630 V1 29.372
RP 235.94 LAP 1.27 LOP 92.52 VP 21.504 GAP 9.80 AZP 91.37 TAL 8.44 TAP 145.63 RCA 151.37 APO 249.27 V2 23.297
RC 192.165 GL 15.84 GP -20.95 ZAL 71.87 ZAP 125.85 ETS 198.03 ZAE 154.52 ETE 241.85 ZAC 63.00 ETC 284.18 LVI 2.88

PLANETOCENTRIC CONIC

C3 15.405 VHL 3.925 DLA 24.69 RAL 18.26 RAD 6640.7 VEL 11.638 PTH 6.68 VHP 2.808 DPA -4.77 RAP 46.02 ECC 1.2535

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 45 28	3584.03	-47.22	135.99	254.09	96.69	10 45 12	2584.0	-39.18	104.46
60.00	9 52 50	3564.43	-40.30	134.81	254.68	90.27	10 52 14	2564.4	-35.78	104.67
70.00	10 5 15	3527.83	-33.81	131.51	254.33	84.84	11 4 3	2527.8	-32.40	102.86
80.00	10 30 33	3448.43	-28.46	124.70	253.53	80.58	11 28 1	2448.4	-29.52	97.32
90.00	11 29 24	3258.38	-26.11	110.25	253.05	78.73	12 23 42	2258.4	-28.23	83.45
100.00	13 13 25	2922.90	-28.46	86.06	253.53	80.58	14 2 8	1922.9	-29.52	58.69
110.00	15 4 41	2574.65	-33.81	60.42	254.33	84.84	15 47 36	1574.6	-32.40	31.77

DIFFERENTIAL CORRECTIONS

TDE -.3239 TRA -.5627 TC3 .4237 BAU .4660
RDE .0479 RRA .1190 RC3-2.2226 FAU .35540
FDE 3.5643 FRA -.0786 FC-19.9732 BSP .3129
BDE .3274 BRA .5751 BC3 2.2626 FSP .2410

MID-COURSE EXECUTION ACCURACY

SGT 1074.3 SGR 1756.5 SG3 1427.3
RRT -.4170 RRF .9544 RTF -.4260
SGB 2059.0 R23 -.1399 R13 .9446
SG1 1834.5 SG2 934.9 THA 109.59

ORBIT DETERMINATION ACCURACY

ST 27.3 SR 5.2 SS 63.4
CRT -.8629 CRS -.7075 CST .8614
LSA 67.9 MSA 13.2 SSA 2.6
EL1 27.6 EL2 2.6 ALF 170.52

LAUNCH DATE AUG 8 1973 FLIGHT TIME 194.00 ARRIVAL DATE FEB 18 1974

DISTANCE 449.995

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.964 GAL 1.65 AZL 88.07 HCA 138.17 SMA 200.10 ECC .24357 INC 1.9321 V1 29.372
RP 236.29 LAP 1.29 LOP 93.49 VP 21.450 GAP 9.55 AZP 91.44 TAL 8.45 TAP 146.62 RCA 151.36 APO 248.84 V2 23.261
RC 195.134 GL 16.44 GP -21.65 ZAL 71.88 ZAP 124.27 ETS 197.66 ZAE 153.16 ETE 239.29 ZAC 62.43 ETC 284.32 LVI 3.39

PLANETOCENTRIC CONIC

C3 15.403 VHL 3.925 DLA 25.42 RAL 17.96 RAD 6640.7 VEL 11.638 PTH 6.68 VHP 2.769 DPA -5.61 RAP 45.74 ECC 1.2535

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 41 37	3595.76	-47.30	137.11	254.30	95.83	10 41 33	2595.8	-39.57	105.32
60.00	9 47 56	3578.94	-40.30	136.05	254.74	89.44	10 47 35	2578.9	-36.11	105.76
70.00	9 58 44	3547.13	-33.68	133.00	254.27	83.97	10 57 51	2547.1	-32.65	104.31
80.00	10 21 28	3475.76	-28.14	126.66	253.34	79.59	11 19 24	2475.8	-29.66	99.34
90.00	11 18 17	3292.26	-25.64	112.62	252.77	77.63	12 13 9	2292.3	-28.28	85.92
100.00	13 4 20	2950.23	-28.14	88.03	253.34	79.59	13 53 30	1950.2	-29.66	60.71
110.00	14 58 10	2593.95	-33.68	61.92	254.27	83.97	15 41 24	1594.0	-32.65	33.22

DIFFERENTIAL CORRECTIONS

TDE -.3094 TRA -.5568 TC3 .3213 BAU .4847
RDE .0817 RRA .1109 RC3-2.3315 FAU .36499
FDE 3.7576 FRA -.1367 FC-20.5138 BSP .3216
BDE .3200 BRA .5697 BC3 2.3536 FSP .2484

MID-COURSE EXECUTION ACCURACY

SGT 1040.9 SGR 1842.8 SG3 1469.9
RRT -.3531 RRF .9596 RTF -.3580
SGB 2116.4 R23 -.1091 R13 .9536
SG1 1892.0 SG2 948.5 THA 105.18

ORBIT DETERMINATION ACCURACY

ST 26.3 SR 7.1 SS 65.9
CRT -.9213 CRS -.8666 CST .8491
LSA 70.0 MSA 13.3 SSA 2.5
EL1 27.1 EL2 2.7 ALF 165.93

LAUNCH DATE AUG 8 1973 FLIGHT TIME 196.00 ARRIVAL DATE FEB 20 1974

DISTANCE 453.772

HELIOCENTRIC CONIC — EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.954 GAL 1.65 AZL 88.00 HCA 139.13 SMA 199.91 ECC .24283 INC 2.0037 V1 29.372
RP 236.63 LAP 1.31 LOP 94.46 VP 21.398 GAP 9.30 AZP 91.52 TAL 8.48 TAP 147.60 RCA 151.36 APO 248.45 V2 23.226
RC 198.104 GL 17.06 GP -22.36 ZAL 71.91 ZAP 122.67 ETS 197.27 ZAE 151.72 ETE 236.92 ZAC 61.86 ETC 284.47 LVI 3.92

PLANETOCENTRIC CONIC

C3 15.412 VHL 3.926 DLA 25.98 RAL 17.66 RAD 6640.7 VEL 11.639 PTH 6.68 VHP 2.732 DPA -6.46 RAP 45.45 ECC 1.2536

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 37 39	3608.16	-47.38	138.30	254.54	94.92	10 37 47	2608.2	-39.97	106.23
60.00	9 42 50	3594.35	-40.28	137.36	254.84	88.55	10 42 44	2594.4	-36.45	106.93
70.00	9 51 49	3567.83	-33.52	134.59	254.22	83.04	10 51 17	2567.8	-32.90	105.87
80.00	10 11 33	3505.90	-27.75	128.82	253.13	78.53	11 9 59	2505.9	-29.77	101.57
90.00	11 5 44	3330.88	-25.05	115.29	252.46	76.42	12 1 15	2330.9	-28.27	88.75
100.00	12 54 25	2980.37	-27.75	90.19	253.13	78.53	13 44 5	1980.4	-29.77	62.94
110.00	14 51 16	2614.65	-33.52	63.51	254.22	83.04	15 34 50	1614.6	-32.90	34.79

DIFFERENTIAL CORRECTIONS

TDE -.2914 TRA -.5541 TC3 .2171 BAU .5056
RDE .1167 RRA .1015 RC3-2.4443 FAU .37446
FDE 3.9479 FRA -.2041 FC-21.0343 BSP .3309
BDE .3138 BRA .5633 BC3 2.4540 FSP .2550

MID-COURSE EXECUTION ACCURACY

SGT 1009.5 SGR 1933.8 SG3 1511.5
RRT -.2806 RRF .9643 RTF -.2813
SGB 2181.4 R23 -.0796 R13 .9611
SG1 1961.0 SG2 955.5 THA 100.97

ORBIT DETERMINATION ACCURACY

ST 25.2 SR 9.3 SS 68.3
CRT -.9164 CRS -.9318 CST .8327
LSA 72.1 MSA 13.4 SSA 2.4
EL1 26.6 EL2 3.5 ALF 160.92

LAUNCH DATE AUG 8 1973 FLIGHT TIME 198.00 ARRIVAL DATE FEB 22 1974

HELIOCENTRIC CONIC DISTANCE 457.551 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.845 GAL 1.65 AZL 87.92 HCA 140.10 SMA 199.73 ECC .24214 INC 2.0779 V1 29.372
RP 236.98 LAP 1.33 LOP 95.43 VP 21.345 GAP 9.04 AZP 91.59 TAL 8.46 TAP 148.56 RCA 151.37 APO 248.09 V2 23.181
RC 201.073 GL 17.70 GP -23.09 ZAL 71.95 ZAP 121.06 ETS 196.86 ZAE 150.23 ETE 234.71 ZAC 61.28 ETC 284.63 LVI 4.47

PLANETOCENTRIC CONIC

C3 15.431 VHL 3.928 DLA 26.55 RAL 17.35 RAD 6640.7 VEL 11.640 PTH 6.68 VHP 2.699 DPA -7.34 RAP 45.14 ECC 1.2538

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 33 31	3621.27	-47.45	139.56	254.82	93.95	10 33 53	2621.3	-40.39	107.20
60.00	9 37 29	3610.71	-40.24	138.75	254.96	87.60	10 37 40	2610.7	-36.80	108.18
70.00	9 44 29	3590.06	-33.33	136.30	254.18	82.05	10 44 19	2590.1	-33.15	107.56
80.00	10 0 36	3539.45	-27.28	131.20	252.91	77.36	10 59 36	2539.5	-29.84	104.06
90.00	10 51 10	3376.08	-24.29	118.39	252.09	75.05	11 47 26	2376.1	-28.17	92.05
100.00	12 43 28	3013.92	-27.28	92.56	252.91	77.36	13 33 42	2013.9	-29.84	65.43
110.00	14 43 56	2636.88	-33.33	65.22	254.18	82.05	15 27 52	1636.9	-33.15	36.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2675 TRA -.5467 TC3 .1157 BAU .5291 SGT 977.3 SGR 2030.6 SG3 1552.6 ST 23.7 SR 11.7 SS 70.4
RDE .1521 RRA .0901 RC3-2.5623 FAU .36399 RRT -.2019 RRF .9685 RTF -.1978 CRT -.8896 CRS -.9613 CST .8092
FDE 4.1264 FRA -.2852 FC-21.5440 BSP 3389 SGB 2253.5 R23 -.0537 R13 .9670 LSA 74.0 MSA 13.5 SSA 2.3
BDE .3077 BRA .5541 BC3 2.5649 FSP 2594 SG1 2042.8 SG2 951.4 THA 97.10 EL1 25.9 EL2 4.9 ALF 155.31

LAUNCH DATE AUG 8 1973 FLIGHT TIME 200.00 ARRIVAL DATE FEB 24 1974

HELIOCENTRIC CONIC DISTANCE 461.329 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.937 GAL 1.64 AZL 87.85 HCA 141.06 SMA 199.56 ECC .24150 INC 2.1549 V1 29.372
RP 237.31 LAP 1.35 LOP 96.39 VP 21.294 GAP 8.79 AZP 91.68 TAL 8.45 TAP 149.52 RCA 151.37 APO 247.76 V2 23.157
RC 204.040 GL 18.35 GP -23.83 ZAL 72.02 ZAP 119.45 ETS 196.43 ZAE 148.69 ETE 232.67 ZAC 60.68 ETC 284.79 LVI 5.03

PLANETOCENTRIC CONIC

C3 15.459 VHL 3.932 DLA 27.15 RAL 17.06 RAD 6640.7 VEL 11.641 PTH 6.68 VHP 2.669 DPA -8.24 RAP 44.84 ECC 1.2544

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 29 15	3635.19	-47.51	140.90	255.15	92.92	10 29 50	2635.2	-40.82	108.26
60.00	9 31 53	3628.15	-40.18	140.23	255.11	86.60	10 32 21	2628.1	-37.15	109.52
70.00	9 36 38	3614.12	-33.08	138.13	254.15	80.99	10 36 53	2614.1	-33.38	109.40
80.00	9 48 17	3577.56	-26.68	133.87	252.65	76.08	10 47 54	2577.6	-29.86	106.90
90.00	10 33 20	3431.93	-23.25	122.15	251.62	73.44	11 30 32	2431.9	-27.94	96.12
100.00	12 31 9	3052.03	-26.68	95.24	252.65	76.08	13 22 1	2052.0	-29.86	68.26
110.00	14 36 5	2660.94	-33.08	67.05	254.15	80.99	15 20 26	1660.9	-33.38	38.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2578 TRA -.5564 TC3 -.0349 BAU .5506 SGT 985.9 SGR 2118.9 SG3 1583.6 ST 23.2 SR 14.9 SS 73.8
RDE .1972 RRA .0852 RC3-2.6637 FAU .39007 RRT -.0850 RRF .9718 RTF -.0813 CRT -.8646 CRS -.9775 CST .7918
FDE 4.3743 FRA -.3037 FC-21.8441 BSP 3604 SGB 2337.0 R23 -.0240 R13 .9716 LSA 77.5 MSA 13.8 SSA 2.2
BDE .3245 BRA .5629 BC3 2.6639 FSP 2701 SG1 2121.0 SG2 981.4 THA 92.88 EL1 26.8 EL2 6.5 ALF 149.06

LAUNCH DATE AUG 8 1973 FLIGHT TIME 202.00 ARRIVAL DATE FEB 26 1974

HELIOCENTRIC CONIC DISTANCE 465.110 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.929 GAL 1.64 AZL 87.77 HCA 142.02 SMA 199.41 ECC .24092 INC 2.2349 V1 29.372
RP 237.65 LAP 1.38 LOP 97.35 VP 21.246 GAP 8.55 AZP 91.76 TAL 8.44 TAP 150.48 RCA 151.37 APO 247.45 V2 23.123
RC 207.005 GL 19.03 GP -24.59 ZAL 72.11 ZAP 117.83 ETS 195.98 ZAE 147.10 ETE 230.75 ZAC 60.08 ETC 284.95 LVI 5.60

PLANETOCENTRIC CONIC

C3 15.499 VHL 3.937 DLA 27.78 RAL 16.76 RAD 6640.8 VEL 11.642 PTH 6.68 VHP 2.643 DPA -9.16 RAP 44.53 ECC 1.2551

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 24 47	3649.88	-47.55	142.32	255.51	91.83	10 25 36	2649.9	-41.27	109.38
60.00	9 25 59	3646.67	-40.10	141.80	255.27	85.54	10 26 46	2646.7	-37.51	110.97
70.00	9 28 12	3640.12	-32.79	140.10	254.11	79.86	10 28 52	2640.1	-33.60	111.39
80.00	9 34 5	3621.62	-25.92	136.92	252.33	74.64	10 34 27	2621.6	-29.79	110.17
90.00	10 8 55	3509.00	-21.67	127.24	250.91	71.37	11 7 24	2509.0	-27.39	101.69
100.00	12 16 57	3096.09	-25.92	98.29	252.33	74.64	13 8 33	2096.1	-29.79	71.54
110.00	14 27 38	2686.94	-32.79	69.02	254.11	79.86	15 12 25	1686.9	-33.60	40.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2358 TRA -.5570 TC3 -.1651 BAU .5762 SGT 986.9 SGR 2217.0 SG3 1616.4 ST 22.0 SR 17.9 SS 76.5
RDE .2409 RRA .0754 RC3-2.7757 FAU .39711 RRT .0230 RRF .9750 RTF .0285 CRT -.8263 CRS -.9858 CST .7604
FDE 4.5891 FRA -.3634 FC-22.1816 BSP 3764 SGB 2426.7 R23 -.0006 R13 .9750 LSA 80.4 MSA 14.0 SSA 2.1
BDE .3371 BRA .5620 BC3 2.7806 FSP 2764 SG1 2217.1 SG2 986.6 THA 89.27 EL1 27.2 EL2 8.2 ALF 141.97

LAUNCH DATE AUG 8 1973 FLIGHT TIME 204.00 ARRIVAL DATE FEB 28 1974

HELIOCENTRIC CONIC DISTANCE 468.892 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.922 GAL 1.63 AZL 87.68 HCA 142.98 SMA 199.27 ECC .24037 INC 2.3183 V1 29.372
RP 237.98 LAP 1.40 LOP 98.31 VP 21.198 GAP 8.30 AZP 91.85 TAL 8.41 TAP 151.38 RCA 151.37 APO 247.17 V2 23.090
RC 209.965 GL 19.73 GP -25.36 ZAL 72.21 ZAP 116.20 ETS 195.50 ZAE 145.47 ETE 228.96 ZAC 59.46 ETC 285.13 LVI 6.19

PLANETOCENTRIC CONIC

C3 15.550 VHL 3.943 DLA 28.43 RAL 16.47 RAD 6640.8 VEL 11.645 PTH 6.68 VHP 2.619 DPA -10.10 RAP 44.22 ECC 1.2559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 20 6	3665.42	-47.57	143.82	255.91	90.67	10 21 12	2665.4	-41.73	110.59
60.00	9 19 45	3666.39	-39.98	143.46	255.46	84.42	10 20 51	2666.4	-37.86	112.52
70.00	9 19 4	3668.41	-32.43	142.23	254.06	78.65	10 20 12	2668.4	-33.80	113.58
80.00	9 17 2	3674.78	-24.91	140.55	251.90	72.99	10 18 17	2674.8	-29.60	114.11
86.99	8 55 42	3743.74	-18.12	143.00	249.30	67.72	9 58 6	2743.7	-25.73	116.53
100.00	11 59 54	3149.25	-24.91	101.92	251.90	72.99	12 52 23	2149.3	-29.60	75.48
110.00	14 18 30	2715.22	-32.43	71.15	254.06	78.65	15 3 45	1715.2	-33.80	42.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2105 TRA -.5582 TC3 -.2997 BAU .6037 SGT 999.9 SGR 2318.1 SG3 1646.0 ST 20.6 SR 21.1 SS 79.1
RDE .2861 RRA .0647 RC3-2.8885 FAU .40351 RRT .1349 RRF .9778 RTF .1420 CRT -.7777 CRS -.9906 CST .7175
FDE 4.7955 FRA -.4252 FC-22.4648 BSP 3938 SGB 2524.6 R23 .0194 R13 .9777 LSA 83.2 MSA 14.2 SSA 2.0
BDE .3552 BRA .5619 BC3 2.9040 FSP 2819 SG1 2322.9 SG2 988.7 THA 85.93 EL1 27.8 EL2 9.8 ALF 134.11

LAUNCH DATE AUG 8 1973 FLIGHT TIME 206.00 ARRIVAL DATE MAR 2 1974

HELIOCENTRIC CONIC DISTANCE 472.675 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.915 GAL 1.62 AZL 87.59 HCA 143.93 SMA 199.14 ECC .23988 INC 2.4051 V1 29.372
RP 238.30 LAP 1.42 LOP 99.27 VP 21.152 GAP 8.05 AZP 91.94 TAL 8.38 TAP 152.31 RCA 151.37 APO 246.91 V2 23.056
RC 212.919 GL 20.45 GP -26.15 ZAL 72.33 ZAP 114.58 ETS 195.00 ZAE 143.80 ETE 227.27 ZAC 58.83 ETC 285.31 LVI 6.79

PLANETOCENTRIC CONIC

C3 15.613 VHL 3.951 DLA 29.10 RAL 16.17 RAD 6640.8 VEL 11.647 PTH 6.69 VHP 2.599 DPA -11.06 RAP 43.91 ECC 1.2570

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 15 12	3681.87	-47.57	145.42	256.34	89.45	10 16 34	2681.9	-42.20	111.89
60.00	9 13 7	3687.43	-39.82	145.23	255.65	83.23	10 14 35	2687.4	-38.22	114.19
70.00	9 9 4	3699.41	-31.99	144.54	254.00	77.35	10 10 43	2699.4	-33.96	115.98
80.00	8 54 41	3744.67	-23.44	145.22	251.26	70.96	9 57 6	2744.7	-29.15	119.25
82.83	8 20 27	3854.63	-18.50	151.32	249.23	67.13	9 24 42	2854.6	-26.32	126.82
100.00	11 37 33	3219.14	-23.44	106.59	251.26	70.96	12 31 12	2219.1	-29.15	80.62
110.00	14 8 30	2746.23	-31.99	73.46	254.00	77.35	14 54 16	1746.2	-33.96	44.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1833 TRA -.5607 TC3 -.4391 BAU .6332 SGT 1028.1 SGR 2422.9 SG3 1673.0 ST 19.3 SR 24.6 SS 81.9
RDE .3352 RRA .0540 RC3-3.0015 FAU .40918 RRT .2451 RRF .9803 RTF .2530 CRT -.7166 CRS -.9936 CST .6611
FDE 5.0112 FRA -.4829 FC-22.6886 BSP 4127 SGB 2632.0 R23 .0365 R13 .9797 LSA 86.4 MSA 14.3 SSA 1.9
BDE .3820 BRA .5633 BC3 3.0334 FSP 2868 SG1 2438.6 SG2 990.3 THA 82.88 EL1 29.1 EL2 11.4 ALF 125.53

LAUNCH DATE AUG 8 1973 FLIGHT TIME 208.00 ARRIVAL DATE MAR 4 1974

HELIOCENTRIC CONIC DISTANCE 476.460 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.910 GAL 1.61 AZL 87.50 HCA 144.89 SMA 199.03 ECC .23942 INC 2.4957 V1 29.372
RP 238.63 LAP 1.44 LOP 100.22 VP 21.107 GAP 7.81 AZP 92.04 TAL 8.34 TAP 153.22 RCA 151.38 APO 246.68 V2 23.024
RC 215.868 GL 21.20 GP -26.96 ZAL 72.46 ZAP 112.95 ETS 194.47 ZAE 142.09 ETE 225.69 ZAC 58.19 ETC 285.49 LVI 7.41

PLANETOCENTRIC CONIC

C3 15.689 VHL 3.961 DLA 29.80 RAL 15.86 RAD 6640.9 VEL 11.651 PTH 6.69 VHP 2.582 DPA -12.04 RAP 43.60 ECC 1.2582

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 10 3	3699.29	-47.55	147.10	256.80	88.15	10 11 42	2699.3	-42.68	113.28
60.00	9 6 4	3709.91	-39.63	147.11	255.86	81.96	10 7 54	2709.9	-38.57	116.00
70.00	8 58 1	3733.70	-31.45	147.07	253.90	75.94	10 0 14	2733.7	-34.09	118.65
80.00	8 11 59	3879.14	-20.19	153.88	249.78	67.52	9 16 39	2879.1	-27.67	128.97
80.17	7 58 29	3922.32	-18.89	156.50	249.19	66.51	9 3 51	2922.3	-26.93	131.99
100.00	10 54 51	3353.61	-20.19	115.24	249.78	67.52	11 50 45	2353.6	-27.67	90.33
110.00	13 57 27	2780.51	-31.45	75.99	253.90	75.94	14 43 48	1780.5	-34.09	47.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1515 TRA -.5628 TC3 -.5796 BAU .6647 SGT 1067.2 SGR 2531.3 SG3 1696.7 ST 17.8 SR 28.1 SS 84.4
RDE .3853 RRA .0407 RC3-3.1158 FAU .41428 RRT .3508 RRF .9825 RTF .3595 CRT -.6315 CRS -.9955 CST .5800
FDE 5.2113 FRA -.5567 FC-22.8606 BSP 4327 SGB 2747.1 R23 .0500 R13 .9813 LSA 89.5 MSA 14.5 SSA 1.8
BDE .4140 BRA .5642 BC3 3.1692 FSP 2907 SG1 2563.8 SG2 986.7 THA 80.11 EL1 30.8 EL2 12.6 ALF 116.65

LAUNCH DATE AUG 8 1973 FLIGHT TIME 210.00 ARRIVAL DATE MAR 6 1974

HELIOCENTRIC CONIC DISTANCE 480.245 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.904 GAL 1.60 AZL 87.41 HCA 145.84 SMA 198.92 ECC .23900 INC 2.5906 V1 29.372
RP 238.95 LAP 1.45 LOP 101.17 VP 21.064 GAP 7.57 AZP 92.14 TAL 8.29 TAP 154.13 RCA 151.38 APO 246.47 V2 22.991
RC 218.810 GL 21.98 GP -27.78 ZAL 72.62 ZAP 111.33 ETS 193.91 ZAE 140.36 ETE 224.18 ZAC 57.54 ETC 285.68 LVI 8.05

PLANETOCENTRIC CONIC

C3 15.779 VHL 3.972 DLA 30.54 RAL 15.55 RAD 6640.9 VEL 11.654 PTH 6.69 VHP 2.569 DPA -13.04 RAP 43.29 ECC 1.2597

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	9 4 36	3717.74	-47.49	148.88	257.30	86.78	10 6 34	2717.7	-43.17	114.79
60.00	8 58 31	3733.99	-39.38	149.11	256.06	80.63	10 0 45	2734.0	-38.92	117.95
70.00	8 45 37	3772.10	-30.78	149.86	253.74	74.42	9 48 29	2772.1	-34.15	121.65
77.97	7 40 45	3976.10	-19.29	160.70	249.17	65.86	8 47 1	2976.1	-27.55	136.17
77.97	7 40 45	3976.10	-19.29	160.70	249.17	65.86	8 47 1	2976.1	-27.55	136.17
77.97	7 40 45	3976.10	-19.29	160.70	249.17	65.86	8 47 1	2976.1	-27.55	136.17
110.00	13 45 3	2818.92	-30.78	78.78	253.74	74.42	14 32 2	1818.9	-34.15	50.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1128 TRA -.5622 TC3 -.7142 BAU .6987 SGT 1111.2 SGR 2645.5 SG3 1718.3 ST 16.3 SR 31.7 SS 86.6
RDE .4358 RRA .0243 RC3-3.2343 FAU .41922 RRT .4481 RRF .9844 RTF .4181 CRT -.5050 CRS -.9968 CST .4571
FDE 5.3896 FRA -.6475 FC-23.0019 BSP 4498 SGB 2869.4 R23 .0582 R13 .9829 LSA 92.5 MSA 14.5 SSA 1.7
BDE .4502 BRA .5627 BC3 3.3122 FSP 2904 SG1 2699.2 SG2 973.6 THA 77.72 EL1 33.0 EL2 13.5 ALF 107.66

LAUNCH DATE AUG 8 1973 FLIGHT TIME 212.00 ARRIVAL DATE MAR 8 1974

HELIOCENTRIC CONIC DISTANCE 484.029 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.900 GAL 1.58 AZL 87.31 HCA 146.78 SMA 198.83 ECC .23862 INC 2.6898 V1 29.372
RP 239.26 LAP 1.47 LOP 102.12 VP 21.021 GAP 7.33 AZP 92.25 TAL 8.23 TAP 155.02 RCA 151.39 APO 246.28 V2 22.960
RC 221.744 GL 22.78 GP -28.62 ZAL 72.79 ZAP 109.72 ETS 193.33 ZAE 138.62 ETE 222.76 ZAC 56.88 ETC 285.88 LVI 8.71

PLANETOCENTRIC CONIC

C3 15.883 VHL 3.985 DLA 31.30 RAL 15.24 RAD 6640.9 VEL 11.659 PTH 6.70 VHP 2.559 DPA -14.05 RAP 43.00 ECC 1.2614

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 58 50	3737.36	-47.40	150.77	257.82	85.33	10 1 8	2737.4	-43.67	116.41
60.00	8 50 23	3759.94	-39.07	151.24	256.27	79.21	9 53 2	2759.9	-39.25	120.08
70.00	8 31 22	3816.12	-29.93	153.01	253.50	72.73	9 34 58	2816.1	-34.12	125.09
76.00	7 25 21	4022.30	-19.70	164.37	249.17	65.18	8 32 23	3022.3	-28.20	139.82
76.00	7 25 21	4022.30	-19.70	164.37	249.17	65.18	8 32 23	3022.3	-28.20	139.82
76.00	7 25 21	4022.30	-19.70	164.37	249.17	65.18	8 32 23	3022.3	-28.20	139.82
110.00	13 30 49	2862.94	-29.93	81.93	253.50	72.73	14 18 31	1862.9	-34.12	54.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0822 TRA -.5742 TC3 -.8826 BAU .7312 SGT 1201.0 SGR 2748.6 SG3 1728.1 ST 15.7 SR 36.1 SS 89.9
RDE .4991 RRA .0158 RC3-3.3286 FAU .42009 RRT .5319 RRF .9860 RTF .5400 CRT -.3773 CRS -.9977 CST .3326
FDE 5.6368 FRA -.6716 FC-22.8983 BSP 4790 SGB 2999.5 R23 .0730 R13 .9835 LSA 97.0 MSA 14.8 SSA 1.6
BDE .5059 BRA .5745 BC3 3.4436 FSP 2976 SG1 2832.5 SG2 986.8 THA 75.06 EL1 36.7 EL2 14.3 ALF 101.01

LAUNCH DATE AUG 8 1973 FLIGHT TIME 214.00 ARRIVAL DATE MAR 10 1974

HELIOCENTRIC CONIC DISTANCE 487.614 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.895 GAL 1.57 AZL 87.21 HCA 147.73 SMA 198.78 ECC .23628 INC 2.7939 V1 29.372
RP 239.57 LAP 1.49 LOP 103.07 VP 20.980 GAP 7.09 AZP 92.36 TAL 8.17 TAP 155.90 RCA 151.39 APO 246.11 V2 22.928
RC 224.672 GL 23.62 GP -29.47 ZAL 72.98 ZAP 108.12 ETS 192.71 ZAE 136.85 ETE 221.40 ZAC 56.21 ETC 286.08 LVI 9.38

PLANETOCENTRIC CONIC

C3 16.003 VHL 4.000 DLA 32.09 RAL 14.91 RAD 6641.0 VEL 11.664 PTH 6.70 VHP 2.552 DPA -15.08 RAP 42.71 ECC 1.2634

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 52 42	3758.18	-47.27	152.76	258.36	83.80	9 55 20	2758.2	-44.16	118.17
60.00	8 41 34	3787.92	-38.69	153.53	256.46	77.70	9 44 41	2787.9	-39.55	122.40
70.00	8 14 28	3868.06	-28.83	156.65	253.12	70.84	9 18 56	2868.1	-33.95	129.13
74.16	7 11 27	4063.45	-20.12	167.70	249.19	64.46	8 19 11	3063.5	-28.87	143.14
74.16	7 11 27	4063.45	-20.12	167.70	249.19	64.46	8 19 11	3063.5	-28.87	143.14
74.16	7 11 27	4063.45	-20.12	167.70	249.19	64.46	8 19 11	3063.5	-28.87	143.14
110.00	13 13 55	2914.88	-28.83	85.56	253.12	70.84	14 2 30	1914.9	-33.95	58.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0412 TRA -.5807 TC3-1.0340 BAU .7673 SGT 1285.1 SGR 2861.9 SG3 1738.0 ST 15.1 SR 40.2 SS 92.3
RDE .5591 RRA .0006 RC3-3.4342 FAU .42187 RRT .6049 RRF .9875 RTF .6128 CRT -.1868 CRS -.9983 CST .1461
FDE 5.8278 FRA -.7400 FC-22.8225 BSP 5031 SGB 3137.2 R23 .0806 R13 .9844 LSA 100.7 MSA 15.0 SSA 1.5
BDE .5606 BRA .5807 BC3 3.5865 FSP 2991 SG1 2979.2 SG2 983.0 THA 72.88 EL1 40.4 EL2 14.8 ALF 94.62

LAUNCH DATE AUG 8 1973 FLIGHT TIME 216.00 ARRIVAL DATE MAR 12 1974

HELIOCENTRIC CONIC DISTANCE 491.600 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.892 GAL 1.55 AZL 87.10 HCA 148.67 SMA 198.68 ECC .23797 INC 2.9033 V1 29.372
RP 239.88 LAP 1.51 LOP 104.01 VP 20.941 GAP 6.85 AZP 92.48 TAL 8.10 TAP 156.77 RCA 151.40 APO 245.96 V2 22.897
RC 227.591 GL 24.49 GP -30.34 ZAL 73.18 ZAP 106.53 ETS 192.07 ZAE 135.07 ETE 220.11 ZAC 55.52 ETC 286.29 LVI 10.07

PLANETOCENTRIC CONIC

C3 16.141 VHL 4.018 DLA 32.92 RAL 14.57 RAD 6641.1 VEL 11.670 PTH 6.71 VHP 2.549 DPA -16.12 RAP 42.43 ECC 1.2656

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 46 9	3780.34	-47.08	154.87	258.92	82.18	9 49 9	2780.3	-44.66	120.07
60.00	8 31 56	3818.29	-38.22	155.97	256.61	76.10	9 35 34	2818.3	-39.82	124.94
70.00	7 53 5	3933.39	-27.29	161.10	252.49	68.62	8 58 39	2933.4	-33.54	134.18
72.41	6 58 39	4100.99	-20.54	170.79	249.23	63.70	8 7 0	3101.0	-29.56	146.22
72.41	6 58 39	4100.99	-20.54	170.79	249.23	63.70	8 7 0	3101.0	-29.56	146.22
72.41	6 58 39	4100.99	-20.54	170.79	249.23	63.70	8 7 0	3101.0	-29.56	146.22
110.00	12 52 32	2980.21	-27.29	90.02	252.49	68.62	13 42 12	1980.2	-33.54	63.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0034 TRA -.5885 TC3-1.1881 BAU .8044 SGT 1382.4 SGR 2975.3 SG3 1742.2 ST 15.1 SR 44.7 SS 94.8
RDE .6236 RRA -.0146 RC3-3.5333 FAU .42217 RRT .6661 RRF .9869 RTF .6734 CRT .0334 CRS -.9987 CST -.0693
FDE 6.0199 FRA -.8009 FC-22.6437 BSP 5291 SGB 3280.7 R23 .0871 R13 .9852 LSA 104.8 MSA 15.1 SSA 1.4
BDE .6236 BRA .5887 BC3 3.7278 FSP 3001 SG1 3131.0 SG2 979.8 THA 70.86 EL1 44.7 EL2 15.1 ALF 89.27

LAUNCH DATE AUG 8 1973 FLIGHT TIME 218.00 ARRIVAL DATE MAR 14 1974

HELIOCENTRIC CONIC DISTANCE 495.385 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.888 GAL 1.54 AZL 86.98 HCA 149.61 SMA 198.61 ECC .23770 INC 3.0185 V1 29.372
RP 240.18 LAP 1.53 LOP 104.95 VP 20.902 GAP 6.61 AZP 92.60 TAL 8.02 TAP 157.63 RCA 151.40 APO 245.82 V2 22.866
RC 230.502 GL 25.39 GP -31.22 ZAL 73.41 ZAP 104.98 ETS 191.41 ZAE 133.28 ETE 218.86 ZAC 54.82 ETC 286.50 LVI 10.78

PLANETOCENTRIC CONIC

C3 16.298 VHL 4.037 DLA 33.78 RAL 14.22 RAD 6641.1 VEL 11.676 PTH 6.71 VHP 2.550 DPA -17.17 RAP 42.17 ECC 1.2682

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 39 6	3803.98	-46.84	157.11	259.49	80.48	9 42 30	2804.0	-45.15	122.13
60.00	8 21 20	3851.48	-37.64	158.60	256.73	74.40	9 25 31	2851.5	-40.05	127.73
70.00	7 20 40	4031.80	-24.68	167.56	251.23	65.60	8 27 52	3031.8	-32.48	141.66
70.71	6 46 35	4135.96	-20.96	173.72	249.28	62.89	7 55 31	3136.0	-30.27	149.15
70.71	6 46 35	4135.96	-20.96	173.72	249.28	62.89	7 55 31	3136.0	-30.27	149.15
70.71	6 46 35	4135.96	-20.96	173.72	249.28	62.89	7 55 31	3136.0	-30.27	149.15
110.00	12 20 6	3078.62	-24.68	96.47	251.23	65.60	13 11 25	2078.6	-32.48	70.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .0516 TRA -.5983 TC3-1.3436 BAU .8429 SGT 1491.9 SGR 3089.8 SG3 1741.3 ST 15.8 SR 49.3 SS 97.3
RDE .6923 RRA -.0306 RC3-3.6275 FAU .42128 RRT .7165 RRF .9900 RTF .[illegible]32 CRT .2549 CRS -.9990 CST -.2051
FDE 6.2061 FRA -.8597 FC-22.3765 BSP 5552 SGB 3431.1 R23 .0927 R13 .9859 LSA 109.2 MSA 15.3 SSA 1.3
BDE .6942 BRA .5991 BC3 3.8684 FSP 2996 SG1 3288.9 SG2 977.7 THA 68.97 EL1 49.5 EL2 15.3 ALF 84.83

LAUNCH DATE AUG 8 1973 FLIGHT TIME 220.00 ARRIVAL DATE MAR 16 1974

HELIOCENTRIC CONIC DISTANCE 499.170 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.885 GAL 1.52 AZL 86.86 HCA 150.54 SMA 198.56 ECC .23745 INC 3.1400 V1 29.372
RP 240.46 LAP 1.54 LOP 105.89 VP 20.865 GAP 6.38 AZP 92.73 TAL 7.94 TAP 158.48 RCA 151.41 APO 245.70 V2 22.836
RC 233.405 GL 26.33 GP -32.12 ZAL 73.65 ZAP 103.42 ETS 190.71 ZAE 131.49 ETE 217.66 ZAC 54.11 ETC 286.72 LVI 11.51

PLANETOCENTRIC CONIC

C3 16.477 VHL 4.059 DLA 34.67 RAL 13.85 RAD 6641.2 VEL 11.684 PTH 6.72 VHP 2.554 DPA -18.24 RAP 41.93 ECC 1.2712

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 31 31	3829.24	-46.53	159.47	260.05	78.68	9 35 21	2829.2	-45.63	124.38
60.00	8 9 31	3888.07	-36.94	161.45	256.77	72.58	9 14 19	2888.1	-40.22	130.83
69.05	6 35 11	4168.70	-21.40	176.52	249.36	62.04	7 44 39	3168.7	-31.01	151.96
69.05	6 35 11	4168.70	-21.40	176.52	249.36	62.04	7 44 39	3168.7	-31.01	151.96
69.05	6 35 11	4168.70	-21.40	176.52	249.36	62.04	7 44 39	3168.7	-31.01	151.96
69.05	6 35 11	4168.70	-21.40	176.52	249.36	62.04	7 44 39	3168.7	-31.01	151.96
69.05	6 35 11	4168.70	-21.40	176.52	249.36	62.04	7 44 39	3168.7	-31.01	151.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1043 TRA -.6092 TC3-1.4977 BAU .8828 SGT 1610.3 SGR 3205.9 SG3 1735.2 ST 17.4 SR 54.1 SS 99.6
RDE .7641 RRA -.0482 RC3-3.7173 FAU .41927 RRT .7583 RRF .9911 RTF .7644 CRT .4502 CRS -.9993 CST -.4746
FDE 6.3768 FRA -.9205 FC-22.0294 BSP 5841 SGB 3587.6 R23 .0970 R13 .9865 LSA 113.7 MSA 15.4 SSA 1.3
BDE .7712 BRA .6111 BC3 4.0077 FSP 2993 SG1 3452.6 SG2 974.8 THA 67.23 EL1 54.7 EL2 15.4 ALF 81.04

LAUNCH DATE AUG 8 1973 FLIGHT TIME 222.00 ARRIVAL DATE MAR 18 1974

DISTANCE 502.955

HELIOCENTRIC CONIC — EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.883	GAL	1.50	AZL	86.73	HCA	151.48	SMA	198.51	ECC	.23724	INC	3.2684	V1	29.372
RP	240.78	LAP	1.56	LOP	106.83	VP	20.828	GAP	6.14	AZP	92.87	TAL	7.85	TAP	159.33	RCA	151.42	APO	245.60	V2	22.807
RC	236.297	GL	27.32	GP	-33.04	ZAL	73.91	ZAP	101.90	ETS	189.98	ZAE	129.70	ETE	216.50	ZAC	53.38	ETC	286.95	LVI	12.27

PLANETOCENTRIC CONIC

C3	16.679	VHL	4.084	DLA	35.61	RAL	13.46	RAD	6641.3	VEL	11.693	PTH	6.73	VHP	2.562	DPA	-19.33	RAP	41.70	ECC	1.2748

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 23 18	3856.32	-46.14	161.96	260.60	76.80	9 27 35	2856.3	-46.08	126.83
60.00	7 56 9	3928.93	-36.06	164.56	256.70	70.63	9 1 38	2928.9	-40.30	134.30
67.40	6 24 13	4199.79	-21.83	179.23	249.45	61.15	7 34 13	3199.8	-31.76	154.68
67.40	6 24 13	4199.79	-21.83	179.23	249.45	61.15	7 34 13	3199.8	-31.76	154.68
67.40	6 24 13	4199.79	-21.83	179.23	249.45	61.15	7 34 13	3199.8	-31.76	154.68
67.40	6 24 13	4199.79	-21.83	179.23	249.45	61.15	7 34 13	3199.8	-31.76	154.68
67.40	6 24 13	4199.79	-21.83	179.23	249.45	61.15	7 34 13	3199.8	-31.76	154.68

DIFFERENTIAL CORRECTIONS

TDE	.1616	TRA	-.6213	TC3	-1.6499	BAU	.9236
RDE	.8406	RRA	-.0676	RC3	-3.7993	FAU	.41586
FDE	6.5387	FRA	-.9839	FC	-21.5850	BSP	6138
BDE	.8559	BRA	.6250	BC3	4.1421	FSP	2978

MID-COURSE EXECUTION ACCURACY

SGT	1737.0	SGR	3321.9	SG3	1723.4
RRT	.7928	RRF	.9920	RTF	.7983
SGB	3748.6	R23	.1004	R13	.9871
SG1	3620.6	SG2	971.3	THA	65.61

ORBIT DETERMINATION ACCURACY

ST	19.8	SR	59.2	SS	101.8
CRT	.6031	CRS	-.9994	CST	-.6221
LSA	118.4	MSA	15.5	SSA	1.2
EL1	60.4	EL2	15.4	ALF	77.79

LAUNCH DATE AUG 8 1973 FLIGHT TIME 224.00 ARRIVAL DATE MAR 20 1974

DISTANCE 506.740

HELIOCENTRIC CONIC — EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.881	GAL	1.48	AZL	86.60	HCA	152.41	SMA	198.47	ECC	.23705	INC	3.4044	V1	29.372
RP	241.07	LAP	1.58	LOP	107.76	VP	20.793	GAP	5.91	AZP	93.02	TAL	7.75	TAP	160.16	RCA	151.42	APO	245.52	V2	22.777
RC	239.179	GL	28.34	GP	-33.97	ZAL	74.18	ZAP	100.41	ETS	189.23	ZAE	127.91	ETE	215.38	ZAC	52.63	ETC	287.18	LVI	13.04

PLANETOCENTRIC CONIC

C3	16.909	VHL	4.112	DLA	36.58	RAL	13.04	RAD	6641.4	VEL	11.702	PTH	6.74	VHP	2.574	DPA	-20.42	RAP	41.51	ECC	1.2783

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 14 21	3885.45	-45.65	164.60	261.12	74.81	9 19 6	2885.4	-46.51	129.51
60.00	7 40 44	3975.42	-34.95	168.01	256.48	68.51	8 46 59	2975.4	-40.25	138.25
65.76	6 13 37	4229.50	-22.27	181.88	249.56	60.20	7 24 6	3229.5	-32.54	157.34
65.76	6 13 37	4229.50	-22.27	181.88	249.56	60.20	7 24 6	3229.5	-32.54	157.34
65.76	6 13 37	4229.50	-22.27	181.88	249.56	60.20	7 24 6	3229.5	-32.54	157.34
65.76	6 13 37	4229.50	-22.27	181.88	249.56	60.20	7 24 6	3229.5	-32.54	157.34
65.76	6 13 37	4229.50	-22.27	181.88	249.56	60.20	7 24 6	3229.5	-32.54	157.34

DIFFERENTIAL CORRECTIONS

TDE	.2237	TRA	-.6353	TC3	-1.7990	BAU	.9660
RDE	.9215	RRA	-.0875	RC3	-3.8761	FAU	.41143
FDE	6.6873	FRA	-1.0409	FC	-21.0657	BSP	6429
BDE	.9482	BRA	.6413	BC3	4.2733	FSP	2945

MID-COURSE EXECUTION ACCURACY

SGT	1871.2	SGR	3439.9	SG3	1706.8
RRT	.8209	RRF	.9928	RTF	.8259
SGB	3915.9	R23	.1031	R13	.9876
SG1	3794.2	SG2	968.9	THA	64.13

ORBIT DETERMINATION ACCURACY

ST	22.8	SR	64.4	SS	103.9
CRT	.7132	CRS	-.9996	CST	-.7278
LSA	123.4	MSA	15.7	SSA	1.1
EL1	66.6	EL2	15.5	ALF	74.98

LAUNCH DATE AUG 8 1973 FLIGHT TIME 226.00 ARRIVAL DATE MAR 22 1974

DISTANCE 510.524

HELIOCENTRIC CONIC — EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.879	GAL	1.46	AZL	86.45	HCA	153.34	SMA	198.44	ECC	.23690	INC	3.5488	V1	29.372
RP	241.36	LAP	1.59	LOP	108.69	VP	20.759	GAP	5.68	AZP	93.17	TAL	7.65	TAP	160.99	RCA	151.43	APO	245.45	V2	22.749
RC	242.049	GL	29.41	GP	-34.92	ZAL	74.48	ZAP	98.95	ETS	188.45	ZAE	126.13	ETE	214.29	ZAC	51.87	ETC	287.43	LVI	13.84

PLANETOCENTRIC CONIC

C3	17.168	VHL	4.143	DLA	37.60	RAL	12.59	RAD	6641.5	VEL	11.713	PTH	6.75	VHP	2.590	DPA	-21.53	RAP	41.33	ECC	1.2825

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	8 4 30	3916.92	-45.05	167.40	261.58	72.73	9 9 47	2916.9	-46.89	132.46
60.00	7 22 19	4029.97	-33.52	171.93	256.01	66.18	8 29 29	3030.0	-40.00	142.87
64.12	6 3 17	4258.13	-22.70	184.47	249.69	59.19	7 14 15	3258.1	-33.33	159.98
64.12	6 3 17	4258.13	-22.70	184.47	249.69	59.19	7 14 15	3258.1	-33.33	159.98
64.12	6 3 17	4258.13	-22.70	184.47	249.69	59.19	7 14 15	3258.1	-33.33	159.98
64.12	6 3 17	4258.13	-22.70	184.47	249.69	59.19	7 14 15	3258.1	-33.33	159.98
64.12	6 3 17	4258.13	-22.70	184.47	249.69	59.19	7 14 15	3258.1	-33.33	159.98

DIFFERENTIAL CORRECTIONS

TDE	.2910	TRA	-.6508	TC3	-1.9446	BAU	1.0086
RDE	1.0080	RRA	-.1101	RC3	-3.9407	FAU	.40528
FDE	6.8252	FRA	-1.1024	FC	-20.4374	BSP	6737
BDE	1.0492	BRA	.6601	BC3	4.3944	FSP	2909

MID-COURSE EXECUTION ACCURACY

SGT	2012.2	SGR	3555.8	SG3	1683.4
RRT	.8444	RRF	.9935	RTF	.8487
SGB	4085.7	R23	.1054	R13	.9881
SG1	3969.9	SG2	965.6	THA	62.71

ORBIT DETERMINATION ACCURACY

ST	26.5	SR	69.9	SS	105.9
CRT	.7903	CRS	-.9997	CST	-.8015
LSA	128.7	MSA	15.8	SSA	1.0
EL1	73.1	EL2	15.5	ALF	72.53

LAUNCH DATE AUG 8 1973 FLIGHT TIME 228.00 ARRIVAL DATE MAR 24 1974

DISTANCE 514.308

HELIOCENTRIC CONIC — EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.878	GAL	1.44	AZL	86.30	HCA	154.27	SMA	198.41	ECC	.23676	INC	3.7024	V1	29.372
RP	241.64	LAP	1.61	LOP	109.62	VP	20.726	GAP	5.45	AZP	93.34	TAL	7.54	TAP	161.80	RCA	151.44	APO	245.39	V2	22.720
RC	244.907	GL	30.53	GP	-35.90	ZAL	74.79	ZAP	97.52	ETS	187.64	ZAE	124.35	ETE	213.22	ZAC	51.08	ETC	287.69	LVI	14.67

PLANETOCENTRIC CONIC

C3	17.461	VHL	4.179	DLA	38.66	RAL	12.11	RAD	6641.7	VEL	11.726	PTH	6.76	VHP	2.610	DPA	-22.65	RAP	41.19	ECC	1.2874

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 53 37	3951.10	-44.32	170.36	261.96	70.54	8 59 28	2951.1	-47.21	135.70
60.00	6 58 59	4097.85	-31.56	176.61	255.12	63.51	8 7 16	3097.9	-39.42	148.55
62.47	5 53 9	4285.80	-23.14	187.04	249.83	58.13	7 4 35	3285.8	-34.15	162.59
62.47	5 53 9	4285.80	-23.14	187.04	249.83	58.13	7 4 35	3285.8	-34.15	162.59
62.47	5 53 9	4285.80	-23.14	187.04	249.83	58.13	7 4 35	3285.8	-34.15	162.59
62.47	5 53 9	4285.80	-23.14	187.04	249.83	58.13	7 4 35	3285.8	-34.15	162.59
62.47	5 53 9	4285.80	-23.14	187.04	249.83	58.13	7 4 35	3285.8	-34.15	162.59

DIFFERENTIAL CORRECTIONS

TDE	.3635	TRA	-.6684	TC3	-2.0838	BAU	1.0527
RDE	1.0987	RRA	-.1333	RC3	-3.9992	FAU	.39819
FDE	6.9410	FRA	-1.1563	FC	-19.7426	BSP	7047
BDE	1.1573	BRA	.6815	BC3	4.5095	FSP	2859

MID-COURSE EXECUTION ACCURACY

SGT	2158.4	SGR	3673.5	SG3	1655.0
RRT	.8635	RRF	.9942	RTF	.8674
SGB	4260.7	R23	.1072	R13	.9885
SG1	4150.3	SG2	963.7	THA	61.42

ORBIT DETERMINATION ACCURACY

ST	30.6	SR	75.6	SS	107.7
CRT	.8435	CRS	-.9997	CST	-.8522
LSA	134.1	MSA	15.9	SSA	1.0
EL1	80.1	EL2	15.5	ALF	70.36

LAUNCH DATE AUG 8 1973 FLIGHT TIME 230.00 ARRIVAL DATE MAR 26 1974

HELIOCENTRIC CONIC DISTANCE 518.091 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.877 GAL 1.42 AZL 86.13 HCA 155.19 SMA 198.40 ECC .23666 INC 3.8663 V1 29.372
RP 241.92 LAP 1.62 LOP 110.55 VP 20.694 GAP 5.22 AZP 93.51 TAL 7.42 TAP 162.61 RCA 151.44 APO 245.35 V2 22.692
RC 247.751 GL 31.70 GP -36.69 ZAL 75.12 ZAP 96.14 ETS 186.81 ZAE 122.59 ETE 212.18 ZAC 50.27 ETC 287.95 LVI 15.52

PLANETOCENTRIC CONIC

C3 17.793 VHL 4.218 DLA 39.76 RAL 11.58 RAD 6641.8 VEL 11.740 PTH 6.77 VHP 2.635 DPA -23.78 RAP 41.09 ECC 1.2928

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 41 27	3988.51	-43.42	173.51	262.21	68.25	8 47 55	2988.5	-47.45	139.28
60.00	6 24 0	4197.40	-28.35	183.09	253.24	60.06	7 33 58	3197.4	-38.02	156.64
60.80	5 43 10	4312.69	-23.56	189.58	249.99	57.00	6 55 3	3312.7	-34.98	165.21
60.80	5 43 10	4312.69	-23.56	189.58	249.99	57.00	6 55 3	3312.7	-34.98	165.21
60.80	5 43 10	4312.69	-23.56	189.58	249.99	57.00	6 55 3	3312.7	-34.98	165.21
60.80	5 43 10	4312.69	-23.56	189.58	249.99	57.00	6 55 3	3312.7	-34.98	165.21
60.80	5 43 10	4312.69	-23.56	189.58	249.99	57.00	6 55 3	3312.7	-34.98	165.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4416 TRA -.6879 TC3-2.2187 BAU 1.0972 SGT 2309.6 SGR 3789.2 SG3 1620.2 ST 35.2 SR 81.4 SS 109.2
RDE 1.1946 RRA -.1590 RC3-4.0451 FAU .38958 RRT .8795 RRF .9947 RTF .8829 CRT .8808 CRS -.9998 CST -.8874
FDE 7.0365 FRA-1.2112 FC-18.9552 BSP 7366 SGB 4437.6 R23 .1087 R13 .9869 LSA 139.7 MSA 16.0 SSA .9
BDE 1.2736 BRA .7061 BC3 4.6126 FSP 2802 SG1 4332.2 SG2 961.5 THA 60.19 EL1 87.3 EL2 15.5 ALF 60.43

LAUNCH DATE AUG 8 1973 FLIGHT TIME 232.00 ARRIVAL DATE MAR 28 1974

HELIOCENTRIC CONIC DISTANCE 521.873 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.877 GAL 1.39 AZL 85.96 HCA 156.11 SMA 198.39 ECC .23657 INC 4.0417 V1 29.372
RP 242.19 LAP 1.64 LOP 111.48 VP 20.663 GAP 4.99 AZP 93.70 TAL 7.30 TAP 163.41 RCA 151.45 APO 245.32 V2 22.665
RC 250.580 GL 32.92 GP -37.90 ZAL 75.46 ZAP 94.80 ETS 185.95 ZAE 120.85 ETE 211.16 ZAC 49.44 ETC 288.23 LVI 16.41

PLANETOCENTRIC CONIC

C3 18.170 VHL 4.263 DLA 40.92 RAL 11.01 RAD 6642.0 VEL 11.756 PTH 6.78 VHP 2.665 DPA -24.93 RAP 41.02 ECC 1.2990

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 27 40	4029.82	-42.33	176.88	262.29	65.85	8 34 50	3029.8	-47.57	143.27
59.10	5 33 15	4339.03	-23.98	192.13	250.15	55.80	6 45 34	3339.0	-35.83	167.84
59.10	5 33 15	4339.03	-23.98	192.13	250.15	55.80	6 45 34	3339.0	-35.83	167.84
59.10	5 33 15	4339.03	-23.98	192.13	250.15	55.80	6 45 34	3339.0	-35.83	167.84
59.10	5 33 15	4339.03	-23.98	192.13	250.15	55.80	6 45 34	3339.0	-35.83	167.84
59.10	5 33 15	4339.03	-23.98	192.13	250.15	55.80	6 45 34	3339.0	-35.83	167.84
59.10	5 33 15	4339.03	-23.98	192.13	250.15	55.80	6 45 34	3339.0	-35.83	167.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .5256 TRA -.7098 TC3-2.3407 BAU 1.1438 SGT 2464.8 SGR 3908.8 SG3 1581.5 ST 40.2 SR 87.4 SS 110.4
RDE 1.2955 RRA -.1694 RC3-4.0858 FAU .38033 RRT .8933 RRF .9953 RTF .8964 CRT .9076 CRS -.9998 CST -.9127
FDE 7.1070 FRA-1.2752 FC-18.1213 BSP 7687 SGB 4621.0 R23 .1093 R13 .9894 LSA 145.5 MSA 16.1 SSA .8
BDE 1.3980 BRA .7346 BC3 4.7088 FSP 2735 SG1 4520.6 SG2 957.8 THA 59.07 EL1 94.9 EL2 15.5 ALF 66.66

LAUNCH DATE AUG 8 1973 FLIGHT TIME 234.00 ARRIVAL DATE MAR 30 1974

HELIOCENTRIC CONIC DISTANCE 525.654 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.876 GAL 1.37 AZL 85.77 HCA 157.03 SMA 198.38 ECC .23651 INC 4.2299 V1 29.372
RP 242.46 LAP 1.65 LOP 112.40 VP 20.633 GAP 4.76 AZP 93.90 TAL 7.17 TAP 164.20 RCA 151.46 APO 245.30 V2 22.638
RC 253.394 GL 34.20 GP -38.94 ZAL 75.83 ZAP 93.51 ETS 185.06 ZAE 119.13 ETE 210.17 ZAC 48.59 ETC 288.53 LVI 17.32

PLANETOCENTRIC CONIC

C3 18.598 VHL 4.313 DLA 42.12 RAL 10.38 RAD 6642.2 VEL 11.774 PTH 6.80 VHP 2.700 DPA -26.09 RAP 40.99 ECC 1.3061

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	7 11 49	4076.09	-40.97	180.49	262.13	63.32	8 19 45	3076.1	-47.52	147.74
57.38	5 23 20	4364.92	-24.37	194.68	250.32	54.52	6 36 5	3364.9	-36.69	170.52
57.38	5 23 20	4364.92	-24.37	194.68	250.32	54.52	6 36 5	3364.9	-36.69	170.52
57.38	5 23 20	4364.92	-24.37	194.68	250.32	54.52	6 36 5	3364.9	-36.69	170.52
57.38	5 23 20	4364.92	-24.37	194.68	250.32	54.52	6 36 5	3364.9	-36.69	170.52
57.38	5 23 20	4364.92	-24.37	194.68	250.32	54.52	6 36 5	3364.9	-36.69	170.52
57.38	5 23 20	4364.92	-24.37	194.68	250.32	54.52	6 36 5	3364.9	-36.69	170.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .6168 TRA -.7332 TC3-2.4535 BAU 1.1895 SGT 2621.9 SGR 4023.2 SG3 1533.4 ST 45.6 SR 93.7 SS 111.5
RDE 1.4052 RRA -.2177 RC3-4.1071 FAU .36911 RRT .9042 RRF .9957 RTF .9069 CRT .9268 CRS -.9999 CST -.9308
FDE 7.1660 FRA-1.3149 FC-17.1822 BSP 8024 SGB 4802.1 R23 .1103 R13 .9897 LSA 151.7 MSA 16.2 SSA .8
BDE 1.5346 BRA .7648 BC3 4.7842 FSP 2660 SG1 4705.7 SG2 957.2 THA 58.01 EL1 103.0 EL2 15.6 ALF 65.12

LAUNCH DATE AUG 8 1973 FLIGHT TIME 236.00 ARRIVAL DATE APR 1 1974

HELIOCENTRIC CONIC DISTANCE 529.434 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 32.876 GAL 1.34 AZL 85.57 HCA 157.95 SMA 198.38 ECC .23648 INC 4.4325 V1 29.372
RP 242.73 LAP 1.66 LOP 113.32 VP 20.604 GAP 4.54 AZP 94.11 TAL 7.04 TAP 164.99 RCA 151.47 APO 245.29 V2 22.612
RC 256.191 GL 35.55 GP -40.01 ZAL 76.21 ZAP 92.27 ETS 184.16 ZAE 117.44 ETE 209.19 ZAC 47.70 ETC 288.84 LVI 18.26

PLANETOCENTRIC CONIC

C3 19.086 VHL 4.369 DLA 43.38 RAL 9.69 RAD 6642.4 VEL 11.794 PTH 6.82 VHP 2.741 DPA -27.26 RAP 41.01 ECC 1.3141

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 53 8	4128.99	-39.28	184.43	261.60	60.64	8 1 57	3129.0	-47.24	152.83
55.63	5 13 21	4390.49	-24.75	197.24	250.50	53.17	6 26 32	3390.5	-37.56	173.24
55.63	5 13 21	4390.49	-24.75	197.24	250.50	53.17	6 26 32	3390.5	-37.56	173.24
55.63	5 13 21	4390.49	-24.75	197.24	250.50	53.17	6 26 32	3390.5	-37.56	173.24
55.63	5 13 21	4390.49	-24.75	197.24	250.50	53.17	6 26 32	3390.5	-37.56	173.24
55.63	5 13 21	4390.49	-24.75	197.24	250.50	53.17	6 26 32	3390.5	-37.56	173.24
55.63	5 13 21	4390.49	-24.75	197.24	250.50	53.17	6 26 32	3390.5	-37.56	173.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .7136 TRA -.7602 TC3-2.5565 BAU 1.2373 SGT 2783.3 SGR 4140.9 SG3 1485.4 ST 51.2 SR 100.1 SS 112.2
RDE 1.5204 RRA -.2532 RC3-4.1206 FAU .35721 RRT .9141 RRF .9961 RTF .9163 CRT .9410 CRS -.9999 CST -.9441
FDE 7.1939 FRA-1.3713 FC-16.2035 BSP 8351 SGB 4989.4 R23 .1108 R13 .9900 LSA 158.0 MSA 16.3 SSA .7
BDE 1.6795 BRA .8013 BC3 4.8492 FSP 2573 SG1 4897.2 SG2 954.6 THA 57.02 EL1 111.3 EL2 15.6 ALF 63.73

LAUNCH DATE AUG 8 1973 FLIGHT TIME 238.00 ARRIVAL DATE APR 3 1974

HELIOCENTRIC CONIC DISTANCE 533.213 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.877	GAL	1.32	AZL	85.35	HCA	158.87	SMA	198.39	ECC	.23646	INC	4.6511
RP	242.99	LAP	1.68	LOP	114.24	VP	20.576	GAP	4.31	AZP	94.34	TAL	6.90	TAP	165.77	RCA	151.48	APO	245.30
RC	258.972	GL	36.97	GP	-41.10	ZAL	76.61	ZAP	91.09	ETS	183.22	ZAE	115.77	ETE	208.22	ZAC	46.79	ETC	289.17

V1	29.372																		
V2	22.586																		
LVI	19.24																		

PLANETOCENTRIC CONIC

C3	19.643	VHL	4.432	DLA	44.69	RAL	8.91	RAD	6642.7	VEL	11.818	PTH	6.84	VHP	2.788	DPA	-28.44	RAP	41.08

ECC	1.3233																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	6 30 13	4191.73	-37.09	188.83	260.52	57.75	7 40 5	3191.7	-46.59	158.75
53.83	5 3 16	4415.88	-25.10	199.84	250.67	51.73	6 16 51	3415.9	-38.43	176.03
53.83	5 3 16	4415.88	-25.10	199.84	250.67	51.73	6 16 51	3415.9	-38.43	176.03
53.83	5 3 16	4415.88	-25.10	199.84	250.67	51.73	6 16 51	3415.9	-38.43	176.03
53.83	5 3 16	4415.88	-25.10	199.84	250.67	51.73	6 16 51	3415.9	-38.43	176.03
53.83	5 3 16	4415.88	-25.10	199.84	250.67	51.73	6 16 51	3415.9	-38.43	176.03
53.83	5 3 16	4415.88	-25.10	199.84	250.67	51.73	6 16 51	3415.9	-38.43	176.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8172	TRA	-.7902	TC3	-2.6460	BAU	1.2854	SGT	2946.5	SGR	4255.9	SG3	1429.4	ST	57.2	SR	106.6	SS	112.5
RDE	1.6420	RRA	-.2925	RC3	-4.1180	FAU	.34397	RRT	.9225	RRF	.9965	RTF	.9244	CRT	.9517	CRS	-.9999	CST	-.9541
FDE	7.1904	FRA	-1.4252	FC	-15.1600	BSP	8679	SGB	5176.4	R23	.1110	R13	.9904	LSA	164.3	MSA	16.3	SSA	.7
BDE	1.8341	BRA	.8426	BC3	4.8948	FSP	2477	SG1	5088.2	SG2	951.3	THA	56.09	EL1	119.9	EL2	15.6	ALF	62.45

LAUNCH DATE AUG 8 1973 FLIGHT TIME 240.00 ARRIVAL DATE APR 5 1974

HELIOCENTRIC CONIC DISTANCE 536.991 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.877	GAL	1.29	AZL	85.11	HCA	159.78	SMA	198.40	ECC	.23646	INC	4.8882
RP	243.24	LAP	1.69	LOP	115.16	VP	20.549	GAP	4.09	AZP	94.59	TAL	6.76	TAP	166.54	RCA	151.49	APO	245.31
RC	261.736	GL	38.46	GP	-42.22	ZAL	77.03	ZAP	89.96	ETS	182.27	ZAE	114.14	ETE	207.27	ZAC	45.84	ETC	289.53

V1	29.372																		
V2	22.560																		
LVI	20.26																		

PLANETOCENTRIC CONIC

C3	20.282	VHL	4.504	DLA	46.06	RAL	8.05	RAD	6643.0	VEL	11.844	PTH	6.86	VHP	2.842	DPA	-29.64	RAP	41.21

ECC	1.3338																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	5 59 41	4272.23	-34.03	194.09	258.46	54.49	7 10 53	3272.2	-45.29	166.07
52.00	4 52 58	4441.23	-25.41	202.46	250.82	50.20	6 6 59	3441.2	-39.29	178.91
52.00	4 52 58	4441.23	-25.41	202.46	250.82	50.20	6 6 59	3441.2	-39.29	178.91
52.00	4 52 58	4441.23	-25.41	202.46	250.82	50.20	6 6 59	3441.2	-39.29	178.91
52.00	4 52 58	4441.23	-25.41	202.46	250.82	50.20	6 6 59	3441.2	-39.29	178.91
52.00	4 52 58	4441.23	-25.41	202.46	250.82	50.20	6 6 59	3441.2	-39.29	178.91
52.00	4 52 58	4441.23	-25.41	202.46	250.82	50.20	6 6 59	3441.2	-39.29	178.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9277	TRA	-.8235	TC3	-2.7208	BAU	1.3352	SGT	3111.0	SGR	4373.6	SG3	1369.4	ST	63.3	SR	113.3	SS	112.4
RDE	1.7726	RRA	-.3352	RC3	-4.1041	FAU	.32997	RRT	.9296	RRF	.9968	RTF	.9312	CRT	.9598	CRS	-.9999	CST	-.9616
FDE	7.1610	FRA	-1.4720	FC	-14.0843	BSP	8999	SGB	5367.2	R23	.1111	R13	.9907	LSA	170.9	MSA	16.4	SSA	.6
BDE	2.0007	BRA	.8691	BC3	4.9241	FSP	2369	SG1	5282.6	SG2	949.2	THA	55.24	EL1	128.8	EL2	15.6	ALF	61.32

LAUNCH DATE AUG 8 1973 FLIGHT TIME 242.00 ARRIVAL DATE APR 7 1974

HELIOCENTRIC CONIC DISTANCE 540.767 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.878	GAL	1.26	AZL	84.85	HCA	160.69	SMA	198.42	ECC	.23649	INC	5.1461
RP	243.50	LAP	1.70	LOP	116.08	VP	20.524	GAP	3.87	AZP	94.86	TAL	6.61	TAP	167.30	RCA	151.49	APO	245.34
RC	264.483	GL	40.02	GP	-43.38	ZAL	77.47	ZAP	88.90	ETS	181.30	ZAE	112.54	ETE	206.34	ZAC	44.86	ETC	289.91

V1	29.372																		
V2	22.535																		
LVI	21.31																		

PLANETOCENTRIC CONIC

C3	21.019	VHL	4.585	DLA	47.48	RAL	7.08	RAD	6643.3	VEL	11.875	PTH	6.89	VHP	2.904	DPA	-30.85	RAP	41.39

ECC	1.3459																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	5 0 30	4421.61	-27.77	202.81	252.97	49.68	6 14 11	3421.6	-41.62	178.53
50.12	4 42 23	4466.66	-25.67	205.13	250.94	48.58	5 56 50	3466.7	-40.14	181.90
50.12	4 42 23	4466.66	-25.67	205.13	250.94	48.58	5 56 50	3466.7	-40.14	181.90
50.12	4 42 23	4466.66	-25.67	205.13	250.94	48.58	5 56 50	3466.7	-40.14	181.90
50.12	4 42 23	4466.66	-25.67	205.13	250.94	48.58	5 56 50	3466.7	-40.14	181.90
50.12	4 42 23	4466.66	-25.67	205.13	250.94	48.58	5 56 50	3466.7	-40.14	181.90
50.12	4 42 23	4466.66	-25.67	205.13	250.94	48.58	5 56 50	3466.7	-40.14	181.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0458	TRA	-.8604	TC3	-2.7787	BAU	1.3839	SGT	3275.8	SGR	4485.0	SG3	1303.0	ST	69.7	SR	120.1	SS	112.0
RDE	1.9132	RRA	-.3821	RC3	-4.0660	FAU	.31419	RRT	.9357	RRF	.9971	RTF	.9569	CRT	.9660	CRS	-1.0000	CST	-.9674
FDE	7.1033	FRA	-1.5130	FC	-12.9409	BSP	9343	SGB	5554.0	R23	.1114	R13	.9909	LSA	177.6	MSA	16.5	SSA	.6
BDE	2.1804	BRA	.9414	BC3	4.9247	FSP	2260	SG1	5472.7	SG2	946.8	THA	54.42	EL1	138.0	EL2	15.7	ALF	60.32

LAUNCH DATE AUG 8 1973 FLIGHT TIME 244.00 ARRIVAL DATE APR 9 1974

HELIOCENTRIC CONIC DISTANCE 544.542 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.878	GAL	1.23	AZL	84.57	HCA	161.60	SMA	198.44	ECC	.23653	INC	5.4280
RP	243.74	LAP	1.71	LOP	116.99	VP	20.499	GAP	3.64	AZP	95.15	TAL	6.46	TAP	168.06	RCA	151.50	APO	245.38
RC	267.212	GL	41.67	GP	-44.56	ZAL	77.93	ZAP	87.91	ETS	180.32	ZAE	110.97	ETE	205.42	ZAC	43.84	ETC	290.33

V1	29.372																		
V2	22.511																		
LVI	22.41																		

PLANETOCENTRIC CONIC

C3	21.873	VHL	4.677	DLA	48.97	RAL	5.97	RAD	6643.7	VEL	11.911	PTH	6.92	VHP	2.975	DPA	-32.07	RAP	41.64

ECC	1.3600																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.20	4 31 27	4492.28	-25.87	207.85	251.02	46.86	5 46 20	3492.3	-40.96	185.00
48.20	4 31 27	4492.28	-25.87	207.85	251.02	46.86	5 46 20	3492.3	-40.96	185.00
48.20	4 31 27	4492.28	-25.87	207.85	251.02	46.86	5 46 20	3492.3	-40.96	185.00
48.20	4 31 27	4492.28	-25.87	207.85	251.02	46.86	5 46 20	3492.3	-40.96	185.00
48.20	4 31 27	4492.28	-25.87	207.85	251.02	46.86	5 46 20	3492.3	-40.96	185.00
48.20	4 31 27	4492.28	-25.87	207.85	251.02	46.86	5 46 20	3492.3	-40.96	185.00
48.20	4 31 27	4492.28	-25.87	207.85	251.02	46.86	5 46 20	3492.3	-40.96	185.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1706	TRA	-.9016	TC3	-2.8189	BAU	1.4355	SGT	3440.9	SGR	4601.4	SG3	1233.6	ST	76.1	SR	127.0	SS	110.9
RDE	2.0621	RRA	-.4348	RC3	-4.0190	FAU	.29814	RRT	.9411	RRF	.9973	RTF	.9420	CRT	.9708	CRS	-1.0000	CST	-.9719
FDE	7.0064	FRA	-1.5499	FC	-11.8003	BSP	9675	SGB	5745.6	R23	.1113	R13	.9912	LSA	184.3	MSA	16.6	SSA	.5
BDE	2.3712	BRA	1.0010	BC3	4.9091	FSP	2139	SG1	5667.5	SG2	944.6	THA	53.69	EL1	147.2	EL2	15.7	ALF	59.42

LAUNCH DATE AUG 6 1973 FLIGHT TIME 246.00 ARRIVAL DATE APR 11 1974

HELIOCENTRIC CONIC DISTANCE 548.315 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.881	GAL	1.20	AZL	84.26	HCA	162.51	SMA	198.47	ECC	.23659	INC	5.7374	V1	29.372
RP	243.98	LAP	1.72	LOP	117.90	VP	20.474	GAP	3.42	AZP	95.47	TAL	6.30	TAP	188.81	RCA	151.51	APO	245.42	V2	22.487
RC	269.924	GL	43.41	GP	-45.79	ZAL	78.41	ZAP	86.98	ETS	179.32	ZAE	109.45	ETE	204.51	ZAC	42.79	ETC	290.77	LVI	23.54

PLANETOCENTRIC CONIC

C3	22.867	VHL	4.782	DLA	50.51	RAL	4.72	RAD	6644.1	VEL	11.952	PTH	6.95	VHP	3.055	DPA	-33.31	RAP	41.96	ECC	1.3763

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.23	4 20 1	4518.33	-26.00	210.62	251.04	45.03	5 35 20	3518.3	-41.74	188.25
46.23	4 20 1	4518.33	-26.00	210.62	251.04	45.03	5 35 20	3518.3	-41.74	188.25
46.23	4 20 1	4518.33	-26.00	210.62	251.04	45.03	5 35 20	3518.3	-41.74	188.25
46.23	4 20 1	4518.33	-26.00	210.62	251.04	45.03	5 35 20	3518.3	-41.74	188.25
46.23	4 20 1	4518.33	-26.00	210.62	251.04	45.03	5 35 20	3518.3	-41.74	188.25
46.23	4 20 1	4518.33	-26.00	210.62	251.04	45.03	5 35 20	3518.3	-41.74	188.25
46.23	4 20 1	4518.33	-26.00	210.62	251.04	45.03	5 35 20	3518.3	-41.74	188.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.3015	TRA	-.9484	TC3	-2.8399	BAU	1.4872	SGT	3605.8	SGR	4714.8	SG3	1159.6	ST	82.5	SR	134.0	SS	109.4
RDE	2.2218	RRA	-.4961	RC3	-3.9497	FAU	.28079	RRT	.9459	RRF	.9975	RTF	.9464	CRT	.9746	CRS	-1.0000	CST	-.9753
FDE	6.8730	FRA	-1.5871	FC3	-10.6304	BSP	9983	SGB	5935.6	R23	.1113	R13	.9914	LSA	190.9	MSA	16.7	SSA	.5
BDE	2.5749	BRA	1.0703	BC3	4.8647	FSP	2007	SG1	5860.6	SG2	941.0	THA	53.00	EL1	156.6	EL2	15.8	ALF	58.66

LAUNCH DATE AUG 8 1973 FLIGHT TIME 248.00 ARRIVAL DATE APR 13 1974

HELIOCENTRIC CONIC DISTANCE 552.087 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.882	GAL	1.17	AZL	83.92	HCA	163.41	SMA	198.50	ECC	.23666	INC	6.0790	V1	29.372
RP	244.22	LAP	1.73	LOP	118.81	VP	20.451	GAP	3.20	AZP	95.83	TAL	6.14	TAP	169.55	RCA	151.52	APO	245.47	V2	22.464
RC	272.618	GL	45.25	GP	-47.05	ZAL	78.91	ZAP	86.13	ETS	178.31	ZAE	107.98	ETE	203.62	ZAC	41.69	ETC	291.26	LVI	24.73

PLANETOCENTRIC CONIC

C3	24.033	VHL	4.902	DLA	52.12	RAL	3.27	RAD	6644.6	VEL	12.000	PTH	6.99	VHP	3.147	DPA	-34.57	RAP	42.36	ECC	1.3955

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.21	4 8 0	4544.89	-26.03	213.44	250.95	43.11	5 23 45	3544.9	-42.45	191.65
44.21	4 8 0	4544.89	-26.03	213.44	250.95	43.11	5 23 45	3544.9	-42.45	191.65
44.21	4 8 0	4544.89	-26.03	213.44	250.95	43.11	5 23 45	3544.9	-42.45	191.65
44.21	4 8 0	4544.89	-26.03	213.44	250.95	43.11	5 23 45	3544.9	-42.45	191.65
44.21	4 8 0	4544.89	-26.03	213.44	250.95	43.11	5 23 45	3544.9	-42.45	191.65
44.21	4 8 0	4544.89	-26.03	213.44	250.95	43.11	5 23 45	3544.9	-42.45	191.65
44.21	4 8 0	4544.89	-26.03	213.44	250.95	43.11	5 23 45	3544.9	-42.45	191.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4402	TRA	-.9985	TC3	-2.8368	BAU	1.5387	SGT	3765.8	SGR	4825.4	SG3	1081.2	ST	89.0	SR	141.0	SS	107.3
RDE	2.3947	RRA	-.5610	RC3	-3.8584	FAU	.26237	RRT	.9500	RRF	.9977	RTF	.9500	CRT	.9775	CRS	-1.0000	CST	-.9780
FDE	6.7038	FRA	-1.6054	FC3	-9.4511	BSP	10350	SGB	6120.9	R23	.1114	R13	.9915	LSA	197.5	MSA	16.8	SSA	.4
BDE	2.7944	BRA	1.1453	BC3	4.7890	FSP	1880	SG1	6048.5	SG2	938.4	THA	52.39	EL1	165.9	EL2	15.9	ALF	58.00

LAUNCH DATE AUG 8 1973 FLIGHT TIME 250.00 ARRIVAL DATE APR 15 1974

HELIOCENTRIC CONIC DISTANCE 555.857 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.884	GAL	1.14	AZL	83.54	HCA	164.32	SMA	198.53	ECC	.23675	INC	6.4578	V1	29.372
RP	244.45	LAP	1.74	LOP	119.72	VP	20.429	GAP	2.98	AZP	96.22	TAL	5.97	TAP	170.29	RCA	151.53	APO	245.54	V2	22.441
RC	275.293	GL	47.19	GP	-48.35	ZAL	79.42	ZAP	85.37	ETS	177.30	ZAE	106.55	ETE	202.75	ZAC	40.55	ETC	291.80	LVI	25.95

PLANETOCENTRIC CONIC

C3	25.411	VHL	5.041	DLA	53.78	RAL	1.60	RAD	6645.2	VEL	12.057	PTH	7.04	VHP	3.252	DPA	-35.83	RAP	42.84	ECC	1.4182

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.14	3 55 13	4572.16	-25.95	216.31	250.73	41.09	5 11 25	3572.2	-43.08	195.21
42.14	3 55 13	4572.16	-25.95	216.31	250.73	41.09	5 11 25	3572.2	-43.08	195.21
42.14	3 55 13	4572.16	-25.95	216.31	250.73	41.09	5 11 25	3572.2	-43.08	195.21
42.14	3 55 13	4572.16	-25.95	216.31	250.73	41.09	5 11 25	3572.2	-43.08	195.21
42.14	3 55 13	4572.16	-25.95	216.31	250.73	41.09	5 11 25	3572.2	-43.08	195.21
42.14	3 55 13	4572.16	-25.95	216.31	250.73	41.09	5 11 25	3572.2	-43.08	195.21
42.14	3 55 13	4572.16	-25.95	216.31	250.73	41.09	5 11 25	3572.2	-43.08	195.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.5807	TRA	-1.0575	TC3	-2.8148	BAU	1.5941	SGT	3926.6	SGR	4941.9	SG3	1000.9	ST	95.0	SR	147.7	SS	104.4
RDE	2.5762	RRA	-.6412	RC3	-3.7545	FAU	.24369	RRT	.9539	RRF	.9979	RTF	.9535	CRT	.9797	CRS	-1.0000	CST	-.9800
FDE	6.4820	FRA	-1.6316	FC3	-8.3026	BSP	10667	SGB	6311.9	R23	.1110	R13	.9917	LSA	203.6	MSA	16.9	SSA	.4
BDE	3.0225	BRA	1.2367	BC3	4.6924	FSP	1739	SG1	6242.7	SG2	932.7	THA	51.84	EL1	174.8	EL2	16.1	ALF	57.48

LAUNCH DATE AUG 8 1973 FLIGHT TIME 252.00 ARRIVAL DATE APR 17 1974

HELIOCENTRIC CONIC DISTANCE 559.624 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.886	GAL	1.11	AZL	83.12	HCA	165.21	SMA	198.57	ECC	.23686	INC	6.8810	V1	29.372
RP	244.68	LAP	1.75	LOP	120.63	VP	20.408	GAP	2.76	AZP	96.66	TAL	5.80	TAP	171.02	RCA	151.54	APO	245.61	V2	22.418
RC	277.948	GL	49.24	GP	-49.69	ZAL	79.85	ZAP	84.69	ETS	176.30	ZAE	105.18	ETE	201.90	ZAC	39.36	ETC	292.39	LVI	27.23

PLANETOCENTRIC CONIC

C3	27.051	VHL	5.201	DLA	55.49	RAL	359.65	RAD	6645.8	VEL	12.125	PTH	7.10	VHP	3.373	DPA	-37.11	RAP	43.41	ECC	1.4452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.04	3 41 27	4600.44	-25.73	219.22	250.31	38.97	4 58 7	3600.4	-43.59	198.95
40.04	3 41 27	4600.44	-25.73	219.22	250.31	38.97	4 58 7	3600.4	-43.59	198.95
40.04	3 41 27	4600.44	-25.73	219.22	250.31	38.97	4 58 7	3600.4	-43.59	198.95
40.04	3 41 27	4600.44	-25.73	219.22	250.31	38.97	4 58 7	3600.4	-43.59	198.95
40.04	3 41 27	4600.44	-25.73	219.22	250.31	38.97	4 58 7	3600.4	-43.59	198.95
40.04	3 41 27	4600.44	-25.73	219.22	250.31	38.97	4 58 7	3600.4	-43.59	198.95
40.04	3 41 27	4600.44	-25.73	219.22	250.31	38.97	4 58 7	3600.4	-43.59	198.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.7236	TRA	-1.1227	TC3	-2.7675	BAU	1.6507	SGT	4081.6	SGR	5057.6	SG3	917.5	ST	100.5	SR	154.1	SS	100.7
RDE	2.7695	RRA	-.7303	RC3	-3.6296	FAU	.22427	RRT	.9573	RRF	.9980	RTF	.9565	CRT	.9814	CRS	-1.0000	CST	-.9814
FDE	6.2119	FRA	-1.6415	FC3	-7.1774	BSP	11008	SGB	6499.1	R23	.1106	R13	.9919	LSA	209.1	MSA	17.0	SSA	.4
BDE	3.2620	BRA	1.3393	BC3	4.5644	FSP	1597	SG1	6432.6	SG2	927.3	THA	51.36	EL1	183.3	EL2	16.2	ALF	57.09

LAUNCH DATE AUG 8 1973 FLIGHT TIME 254.00 ARRIVAL DATE APR 19 1974

HELIOCENTRIC CONIC DISTANCE 563.389 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.889	GAL	1.08	AZL	82.64	HCA	166.11	SMA	198.62	ECC	.23699	INC	7.3567
RP	244.90	LAP	1.76	LOP	121.53	VP	20.387	GAP	2.55	AZP	97.14	TAL	5.63	TAP	171.74	RCA	151.55	APO	245.69
RC	280.584	GL	51.40	GP	-51.07	ZAL	80.50	ZAP	84.09	ETS	175.31	ZAE	103.87	ETE	201.07	ZAC	38.13	ETC	293.05

V1	29.372	V2	22.397	LVI	28.55														

PLANETOCENTRIC CONIC

C3	29.024	VHL	5.387	DLA	57.25	RAL	357.36	RAD	6646.6	VEL	12.205	PTH	7.16	VHP	3.513	DPA	-38.40	RAP	44.08

ECC	1.4777																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.90	3 26 28	4629.91	-25.35	222.17	249.63	36.77	4 43 38	3629.9	-43.94	202.86
37.90	3 26 28	4629.91	-25.35	222.17	249.63	36.77	4 43 38	3629.9	-43.94	202.86
37.90	3 26 28	4629.91	-25.35	222.17	249.63	36.77	4 43 38	3629.9	-43.94	202.86
37.90	3 26 28	4629.91	-25.35	222.17	249.63	36.77	4 43 38	3629.9	-43.94	202.86
37.90	3 26 28	4629.91	-25.35	222.17	249.63	36.77	4 43 38	3629.9	-43.94	202.86
37.90	3 26 28	4629.91	-25.35	222.17	249.63	36.77	4 43 38	3629.9	-43.94	202.86
37.90	3 26 28	4629.91	-25.35	222.17	249.63	36.77	4 43 38	3629.9	-43.94	202.86

DIFFERENTIAL CORRECTIONS

TDE	1.8636	TRA	-1.1960	TC3	-2.6945	BAU	1.7076												
RDE	2.9739	RRA	-.8328	RC3	-3.4793	FAU	.20392												
FDE	5.8894	FRA	-1.6395	FC3	-6.0824	BSP	11358												
BDE	3.5096	BRA	1.4574	BC3	4.4006	FSP	1452												

MID-COURSE EXECUTION ACCURACY

SGT	4229.1	SGR	5170.9	SG3	631.3														
RRT	.9604	RRF	.9981	RTF	.9589														
SGB	6680.1	R23	.1106	R13	.9919														
SG1	6816.3	SG2	921.0	THA	50.95														

ORBIT DETERMINATION ACCURACY

ST	105.3	SR	160.1	SS	96.2														
CRT	.9824	CRS	-1.0000	CST	-.9822														
LSA	213.7	MSA	17.2	SSA	.3														
EL1	190.9	EL2	16.5	ALF	56.86														

LAUNCH DATE AUG 8 1973 FLIGHT TIME 256.00 ARRIVAL DATE APR 21 1974

HELIOCENTRIC CONIC DISTANCE 567.154 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.891	GAL	1.05	AZL	82.10	HCA	167.01	SMA	198.66	ECC	.23712	INC	7.8956
RP	245.11	LAP	1.77	LOP	122.44	VP	20.368	GAP	2.33	AZP	97.70	TAL	5.46	TAP	172.46	RCA	151.56	APO	245.77
RC	283.198	GL	53.69	GP	-52.49	ZAL	81.07	ZAP	83.60	ETS	174.34	ZAE	102.63	ETE	200.28	ZAC	36.85	ETC	293.78

V1	29.372	V2	22.375	LVI	29.92														

PLANETOCENTRIC CONIC

C3	31.423	VHL	5.606	DLA	59.04	RAL	354.64	RAD	6647.6	VEL	12.302	PTH	7.24	VHP	3.675	DPA	-39.69	RAP	44.85

ECC	1.5171																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.74	3 9 59	4660.79	-24.77	225.13	248.59	34.51	4 27 40	3660.8	-44.10	206.91
35.74	3 9 59	4660.79	-24.77	225.13	248.59	34.51	4 27 40	3660.8	-44.10	206.91
35.74	3 9 59	4660.79	-24.77	225.13	248.59	34.51	4 27 40	3660.8	-44.10	206.91
35.74	3 9 59	4660.79	-24.77	225.13	248.59	34.51	4 27 40	3660.8	-44.10	206.91
35.74	3 9 59	4660.79	-24.77	225.13	248.59	34.51	4 27 40	3660.8	-44.10	206.91
35.74	3 9 59	4660.79	-24.77	225.13	248.59	34.51	4 27 40	3660.8	-44.10	206.91
35.74	3 9 59	4660.79	-24.77	225.13	248.59	34.51	4 27 40	3660.8	-44.10	206.91

DIFFERENTIAL CORRECTIONS

TDE	1.9869	TRA	-1.2823	TC3	-2.5997	BAU	1.7769												
RDE	3.1650	RRA	-.9717	RC3	-3.3365	FAU	.18488												
FDE	5.4716	FRA	-1.6582	FC3	-5.0936	BSP	11501												
BDE	3.7370	BRA	1.6087	BC3	4.2297	FSP	1269												

MID-COURSE EXECUTION ACCURACY

SGT	4371.2	SGR	5308.9	SG3	747.0														
RRT	.9648	RRF	.9982	RTF	.9630														
SGB	6877.0	R23	.1066	R13	.9925														
SG1	6818.5	SG2	894.9	THA	50.73														

ORBIT DETERMINATION ACCURACY

ST	108.6	SR	164.4	SS	90.2														
CRT	.9834	CRS	-1.0000	CST	-.9829														
LSA	216.0	MSA	17.2	SSA	.3														
EL1	196.3	EL2	16.5	ALF	56.73														

LAUNCH DATE AUG 8 1973 FLIGHT TIME 258.00 ARRIVAL DATE APR 23 1974

HELIOCENTRIC CONIC DISTANCE 570.912 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.894	GAL	1.01	AZL	81.49	HCA	167.90	SMA	198.71	ECC	.23728	INC	8.5114
RP	245.32	LAP	1.78	LOP	123.34	VP	20.349	GAP	2.11	AZP	98.33	TAL	5.28	TAP	173.18	RCA	151.56	APO	245.86
RC	285.791	GL	56.12	GP	-53.94	ZAL	81.66	ZAP	83.20	ETS	173.42	ZAE	101.46	ETE	199.52	ZAC	35.53	ETC	294.59

V1	29.372	V2	22.354	LVI	31.33														

PLANETOCENTRIC CONIC

C3	34.376	VHL	5.863	DLA	60.85	RAL	351.39	RAD	6648.7	VEL	12.421	PTH	7.33	VHP	3.864	DPA	-40.98	RAP	45.74

ECC	1.5657																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.58	2 51 35	4693.49	-23.95	228.08	247.06	32.21	4 9 48	3693.5	-44.00	211.08
33.58	2 51 35	4693.49	-23.95	228.08	247.06	32.21	4 9 48	3693.5	-44.00	211.08
33.58	2 51 35	4693.49	-23.95	228.08	247.06	32.21	4 9 48	3693.5	-44.00	211.08
33.58	2 51 35	4693.49	-23.95	228.08	247.06	32.21	4 9 48	3693.5	-44.00	211.08
33.58	2 51 35	4693.49	-23.95	228.08	247.06	32.21	4 9 48	3693.5	-44.00	211.08
33.58	2 51 35	4693.49	-23.95	228.08	247.06	32.21	4 9 48	3693.5	-44.00	211.08
33.58	2 51 35	4693.49	-23.95	228.08	247.06	32.21	4 9 48	3693.5	-44.00	211.08

DIFFERENTIAL CORRECTIONS

TDE	2.0874	TRA	-1.3806	TC3	-2.4807	BAU	1.8418												
RDE	3.3757	RRA	-1.1157	RC3	-3.1476	FAU	.16373												
FDE	5.0258	FRA	-1.6273	FC3	-4.1235	BSP	11829												
BDE	3.9689	BRA	1.7751	BC3	4.0076	FSP	1122												

MID-COURSE EXECUTION ACCURACY

SGT	4504.8	SGR	5432.7	SG3	858.9														
RRT	.9669	RRF	.9982	RTF	.9642														
SGB	7057.4	R23	.1079	R13	.9923														
SG1	7000.9	SG2	891.3	THA	50.51														

ORBIT DETERMINATION ACCURACY

ST	110.2	SR	168.4	SS	83.6														
CRT	.9828	CRS	-1.0000	CST	-.9820														
LSA	217.2	MSA	17.7	SSA	.3														
EL1	200.5	EL2	17.1	ALF	56.98														

LAUNCH DATE AUG 8 1973 FLIGHT TIME 260.00 ARRIVAL DATE APR 25 1974

HELIOCENTRIC CONIC DISTANCE 574.667 EARTH TO MARS

RL	151.69	LAL	.00	LOL	315.31	VL	32.898	GAL	.98	AZL	80.78	HCA	168.79	SMA	198.77	ECC	.23744	INC	9.2224
RP	245.53	LAP	1.79	LOP	124.24	VP	20.331	GAP	1.90	AZP	99.05	TAL	5.10	TAP	173.89	RCA	151.57	APO	245.97
RC	288.361	GL	58.70	GP	-55.43	ZAL	82.25	ZAP	82.91	ETS	172.55	ZAE	100.38	ETE	198.63	ZAC	34.16	ETC	295.50

V1	29.372	V2	22.334	LVI	32.78														

PLANETOCENTRIC CONIC

C3	38.063	VHL	6.169	DLA	62.64	RAL	347.48	RAD	6650.0	VEL	12.568	PTH	7.44	VHP	4.087	DPA	-42.26	RAP	46.75

ECC	1.6264																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.46	2 30 47	4728.28	-22.87	230.97	244.89	29.92	3 49 36	3728.3	-43.60	215.30
31.46	2 30 47	4728.28	-22.87	230.97	244.89	29.92	3 49 36	3728.3	-43.60	215.30
31.46	2 30 47	4728.28	-22.87	230.97	244.89	29.92	3 49 36	3728.3	-43.60	215.30
31.46	2 30 47	4728.28	-22.87	230.97	244.89	29.92	3 49 36	3728.3	-43.60	215.30
31.46	2 30 47	4728.28	-22.87	230.97	244.89	29.92	3 49 36	3728.3	-43.60	215.30
31.46	2 30 47	4728.28	-22.87	230.97	244.89	29.92	3 49 36	3728.3	-43.60	215.30
31.46	2 30 47	4728.28	-22.87	230.97	244.89	29.92	3 49 36	3728.3	-43.60	215.30

DIFFERENTIAL CORRECTIONS

TDE	2.1456	TRA	-1.4897	TC3	-2.3339	BAU	1.9088												
RDE	3.5770	RRA	-1.2819	RC3	-2.9367	FAU	.14219												
FDE	4.5121	FRA	-1.5706	FC3	-3.2342	BSP	12215												
BDE	4.1712	BRA	1.9653	BC3	3.7512	FSP	978												

MID-COURSE EXECUTION ACCURACY

SGT	4617.9	SGR	5556.4	SG3	570.2														
RRT	.9685	RRF	.9981	RTF	.9645														
SGB	7224.9	R23	.1105	R13	.9920														
SG1	7169.7	SG2	890.9	THA	50.44														

ORBIT DETERMINATION ACCURACY

ST	109.5	SR	170.7	SS	75.9														
CRT	.9809	CRS	-1.0000	CST	-.9796														
LSA	215.7	MSA	18.5	SSA	.3														
EL1	202.0	EL2	18.0	ALF	57.53														

LAUNCH DATE AUG 8 1973 FLIGHT TIME 310.00 ARRIVAL DATE JUN 14 1974

HELIOCENTRIC CONIC DISTANCE 669.240 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.002 GAL -.29 AZL 99.48 HCA 191.22 SMA 200.86 ECC .24487 INC 9.4795 V1 29.372
RP 248.88 LAP 1.84 LOP 146.38 VP 20.143 GAP -3.12 AZP 80.70 TAL 358.52 TAP 189.74 RCA 151.68 APO 250.05 V2 22.006
RC 344.074 GL -59.66 GP 51.87 ZAL 89.07 ZAP 69.81 ETS 210.55 ZAE 83.10 ETE 190.75 ZAC 137.70 ETC 291.24 LVI -71.38

PLANETOCENTRIC CONIC

C3 39.665 VHL 6.298 DLA -40.81 RAL 61.03 RAD 6650.5 VEL 12.631 PTH 7.48 VHP 4.232 DPA 53.14 RAP 349.58 ECC 1.6528

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 43 57	2388.87	-1.83	61.74	294.80	137.55	18 23 46	1388.9	16.42	45.70
59.26	20 51 22	1885.95	16.17	33.46	311.39	127.99	21 22 48	886.0	30.15	12.06
59.26	20 51 22	1885.95	16.17	33.46	311.39	127.99	21 22 48	886.0	30.15	12.06
59.26	20 51 22	1885.95	16.17	33.46	311.39	127.99	21 22 48	886.0	30.15	12.06
59.26	20 51 22	1885.95	16.17	33.46	311.39	127.99	21 22 48	886.0	30.15	12.06
59.26	20 51 22	1885.95	16.17	33.46	311.39	127.99	21 22 48	886.0	30.15	12.06
59.26	20 51 22	1885.95	16.17	33.46	311.39	127.99	21 22 48	886.0	30.15	12.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-6.2206 TRA 2.9531 TC3-4.3501 BAU 2.5917 SGT 8639.9 SGR 4711.9 SG3 497.3 ST 288.0 SR 139.2 SS 55.0
RDE 2.9277 RRA-2.8380 RC3 2.2277 FAU .15306 RRT -.9824 RRF -.9961 RTF .9694 CRT -.9942 CRS .9965 CST -.9867
FDE-3.1056 FRA 2.8535 FC3-2.9041 BSP 17265 SGB 9841.2 R23 .1929 R13 -.9785 LSA 324.2 MSA 15.6 SSA .3
BDE 6.8751 BRA 3.7053 BC3 4.8873 FSP 844 SG1 9810.7 SG2 774.7 THA 151.63 EL1 319.6 EL2 13.5 ALF 154.29

LAUNCH DATE AUG 8 1973 FLIGHT TIME 312.00 ARRIVAL DATE JUN 16 1974

HELIOCENTRIC CONIC DISTANCE 672.973 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.007 GAL -.34 AZL 98.79 HCA 192.08 SMA 200.97 ECC .24528 INC 8.7874 V1 29.372
RP 248.94 LAP 1.83 LOP 147.25 VP 20.145 GAP -3.32 AZP 81.40 TAL 358.26 TAP 190.34 RCA 151.67 APO 250.26 V2 22.000
RC 345.920 GL -57.20 GP 49.98 ZAL 89.31 ZAP 68.29 ETS 210.82 ZAE 81.88 ETE 191.56 ZAC 135.95 ETC 290.53 LVI -69.82

PLANETOCENTRIC CONIC

C3 35.982 VHL 5.999 DLA -38.42 RAL 60.20 RAD 6649.2 VEL 12.485 PTH 7.38 VHP 4.040 DPA 51.58 RAP 351.38 ECC 1.5922

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	17 18 10	2437.00	-4.25	63.76	290.55	137.43	17 58 47	1437.0	14.08	47.87
60.00	19 28 44	2088.43	6.96	43.12	301.19	129.80	20 3 32	1088.4	22.23	23.84
62.83	21 4 41	1814.20	16.33	27.54	308.51	125.27	21 34 55	814.2	29.27	5.49
62.83	21 4 41	1814.20	16.33	27.54	308.51	125.27	21 34 55	814.2	29.27	5.49
62.83	21 4 41	1814.20	16.33	27.54	308.51	125.27	21 34 55	814.2	29.27	5.49
62.83	21 4 41	1814.20	16.33	27.54	308.51	125.27	21 34 55	814.2	29.27	5.49
62.83	21 4 41	1814.20	16.33	27.54	308.51	125.27	21 34 55	814.2	29.27	5.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-5.9091 TRA 2.8862 TC3-4.8192 BAU 2.5705 SGT 8812.8 SGR 4517.4 SG3 564.5 ST 287.2 SR 130.6 SS 58.1
RDE 2.6131 RRA-2.0927 RC3 2.3083 FAU .14788 RRT -.9815 RRF -.9961 RTF .9691 CRT -.9937 CRS .9984 CST -.9858
FDE-3.2681 FRA 3.1474 FC3-3.5579 BSP 17400 SGB 9903.1 R23 .1964 R13 -.9776 LSA 320.4 MSA 15.8 SSA .3
BDE 6.4610 BRA 3.5651 BC3 5.3435 FSP 961 SG1 9873.0 SG2 771.8 THA 153.11 EL1 315.2 EL2 13.4 ALF 155.64

LAUNCH DATE AUG 8 1973 FLIGHT TIME 314.00 ARRIVAL DATE JUN 18 1974

HELIOCENTRIC CONIC DISTANCE 676.707 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.012 GAL -.40 AZL 98.19 HCA 192.93 SMA 201.07 ECC .24569 INC 8.1868 V1 29.372
RP 249.00 LAP 1.83 LOP 148.13 VP 20.148 GAP -3.51 AZP 82.02 TAL 357.99 TAP 190.93 RCA 151.67 APO 250.47 V2 21.995
RC 347.734 GL -54.89 GP 48.13 ZAL 89.59 ZAP 66.80 ETS 210.99 ZAE 80.65 ETE 192.25 ZAC 134.22 ETC 289.89 LVI -68.23

PLANETOCENTRIC CONIC

C3 33.018 VHL 5.746 DLA -36.15 RAL 59.53 RAD 6648.2 VEL 12.367 PTH 7.29 VHP 3.881 DPA 50.07 RAP 353.06 ECC 1.5434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 57 15	2478.23	-6.31	65.50	287.22	137.26	17 38 33	1478.2	12.06	49.69
60.00	18 47 1	2185.78	2.70	47.81	295.82	130.23	19 23 26	1185.8	18.38	29.18
66.48	21 20 48	1737.40	16.28	21.26	305.95	122.73	21 49 45	737.4	28.26	358.71
66.48	21 20 48	1737.40	16.28	21.26	305.95	122.73	21 49 45	737.4	28.26	358.71
66.48	21 20 48	1737.40	16.28	21.26	305.95	122.73	21 49 45	737.4	28.26	358.71
66.48	21 20 48	1737.40	16.28	21.26	305.95	122.73	21 49 45	737.4	28.26	358.71
66.48	21 20 48	1737.40	16.28	21.26	305.95	122.73	21 49 45	737.4	28.26	358.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-5.6211 TRA 2.8326 TC3-5.2882 BAU 2.5588 SGT 8976.9 SGR 4329.8 SG3 627.8 ST 285.3 SR 122.0 SS 60.1
RDE 2.3345 RRA-1.9644 RC3 2.3741 FAU .16184 RRT -.9806 RRF -.9960 RTF .9685 CRT -.9931 CRS .9983 CST -.9846
FDE-3.3618 FRA 3.4150 FC3-4.2434 BSP 17520 SGB 9966.5 R23 .2006 R13 -.9765 LSA 315.6 MSA 16.1 SSA .3
BDE 6.0866 BRA 3.4471 BC3 5.7967 FSP 1069 SG1 9937.0 SG2 767.0 THA 154.53 EL1 310.0 EL2 13.2 ALF 156.94

LAUNCH DATE AUG 8 1973 FLIGHT TIME 316.00 ARRIVAL DATE JUN 20 1974

HELIOCENTRIC CONIC DISTANCE 680.443 EARTH TO MARS

RL 151.69 LAL .00 LOL 315.31 VL 33.017 GAL -.45 AZL 97.66 HCA 193.81 SMA 201.17 ECC .24611 INC 7.6604 V1 29.372
RP 249.05 LAP 1.82 LOP 149.00 VP 20.152 GAP -3.71 AZP 82.56 TAL 357.71 TAP 191.52 RCA 151.66 APO 250.68 V2 21.990
RC 349.515 GL -52.71 GP 46.35 ZAL 89.90 ZAP 65.37 ETS 211.07 ZAE 79.44 ETE 192.85 ZAC 132.54 ETC 289.33 LVI -66.64

PLANETOCENTRIC CONIC

C3 30.600 VHL 5.532 DLA -33.99 RAL 58.98 RAD 6647.2 VEL 12.269 PTH 7.21 VHP 3.749 DPA 48.61 RAP 354.65 ECC 1.5036

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.00	16 39 44	2515.12	-8.15	67.06	284.55	137.04	17 21 40	1515.1	10.23	51.30
60.00	18 17 39	2254.44	-.32	51.09	292.03	130.30	18 55 14	1254.4	15.56	32.79
70.00	21 13 46	1733.87	13.46	19.14	302.05	121.69	21 42 40	733.9	25.27	356.96
70.30	21 40 32	1652.16	16.07	14.39	303.68	120.37	22 8 5	652.2	27.14	351.46
70.30	21 40 32	1652.16	16.07	14.39	303.68	120.37	22 8 5	652.2	27.14	351.46
70.30	21 40 32	1652.16	16.07	14.39	303.68	120.37	22 8 5	652.2	27.14	351.46
110.00	2 17 8	6068.72	13.46	285.96	302.05	121.69	3 58 17	5068.7	25.27	263.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-5.3628 TRA 2.7862 TC3-5.7605 BAU 2.5579 SGT 9142.5 SGR 4156.9 SG3 688.2 ST 282.8 SR 114.1 SS 61.5
RDE 2.0975 RRA-1.8468 RC3 2.4317 FAU .17537 RRT -.9800 RRF -.9959 RTF .9682 CRT -.9925 CRS .9981 CST -.9833
FDE-3.4160 FRA 3.6503 FC3-4.9617 BSP 17608 SGB10043.2 R23 .2033 R13 -.9757 LSA 310.6 MSA 16.3 SSA .4
BDE 5.7584 BRA 3.3427 BC3 6.2527 FSP 1166 SG110014.7 SG2 755.9 THA 155.84 EL1 304.6 EL2 12.9 ALF 158.14